

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards



## Background

### **Northeast Power Coordinating Council**

The Northeast Power Coordinating Council, Inc. (NPCC) is one of eight Regional Entities that have executed a Regional Delegation Agreement (RDA) with North American Electric Reliability Corporation (NERC). This RDA gives NPCC the responsibility and authority to implement a Compliance Monitoring and Enforcement Program (CMEP) for the NERC Reliability Standards and Regional Reliability Standards within its Region.

### **Compliance Monitoring and Enforcement Program**

An integral part of the CMEP involves Compliance Audits of NERC Reliability Standards and Requirements that are applicable to the function(s) for which an entity has registered. NERC, with input from the Regional entities, stakeholders, and regulators, annually selects a subset of the NERC Reliability Standards and Requirements to be actively monitored and audited in the annual NERC CMEP Implementation Plan. Compliance is required with all NERC Reliability Standards whether or not they are included in the subset of Reliability Standards and Requirements designated to be actively monitored and audited in the annual NERC CMEP Implementation Plan. There are three types of Compliance Audits: on-site, off-site, and Spot Check:

- The objective of an on-site Compliance Audit is to review a Registered Entity's compliance with the requirements of the Reliability Standards that are applicable to the entity based on the entity's registered functions. An on-site compliance audit may also include recommendations to a Registered Entity. Recommendations would provide suggestions on improving actual compliance and or the entity's documentation of compliance.
- The objective of an off-site Compliance Audit is the same as an on-site audit (to review a Registered Entity's compliance with the requirements of the Reliability Standards). However, the audit requires evidence of compliance via transmitted data (electronic, hard-copy, etc.) and not an on-site visit.
- Spot Check is a process in which NPCC requests a Registered Entity to provide detailed information to support the Registered Entity's earlier self-certification, self report, or periodic data submittal used to demonstrate whether or not a Registered Entity complies with NERC Reliability Standards. A Spot Check will be random or initiated in response to events as described in the Reliability Standards, or by operating problems or system events. A Spot Check has minimum prior notice and is usually performed off-site.

### **New England Independent System Operator**

The New England Independent System Operator, ISO New England Inc. (ISO-NE), is a not-for-profit corporation responsible for the reliable operation of New England's bulk power generation and transmission system. It also administers the region's wholesale electricity markets and manages the comprehensive planning of the regional bulk power system. ISO-NE is an organization that has registered with NERC as a Reliability Coordinator, Balancing Authority, Transmission Operator, Transmission Service Provider, Planning Authority [*Note: Planning Authority is currently referred to as Planning Coordinator*], Resource Planner, Reserve Sharing Group and Transmission Planner.

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## Purpose of this Document

NPCC, in its role of administering the CMEP, performs periodic audits of Registered Entities that are users, owners, or operators of the Bulk Electric System within the ISO-NE Reliability Coordinator Area (RCA). In the conduct of such audits, the NPCC auditors and/or audited Registered Entities have frequently sought corroborating evidence, compliance guidance, or other information from ISO-NE, based on ISO-NE's substantial authorities and responsibilities as both a Regional Transmission Organization (RTO) and as defined by its aforementioned registrations with NERC. The corroborating evidence and guidance provided in this document is used by NPCC auditors to determine the applicability of the requirement(s) of certain NERC Standards to a given Registered Entity and, for applicable requirements, to help NPCC auditors assess the compliance of that Registered Entity with those requirements. This assessment takes into account the rules and procedures emanating from the ISO New England Inc. Transmission, Markets and Services Tariff ([ISO Tariff](#)), which is approved by the Federal Energy Regulatory Commission (FERC; the Commission).

Given the repetitive nature of many of these requests, NPCC and ISO-NE have joined to provide an agreed to set of "Corroborating Evidence Interpretations and Compliance Guidance" (CEICG) narratives containing corroborating evidence and/or compliance guidance to facilitate NPCC assessments of compliance with the requirements of applicable NERC Reliability Standards. The information contained in the CEICG document does not preclude other evidence that may be introduced by the Registered Entity and accepted by the NPCC auditing body. In addition, the information contained in the CEICG document may not be construed as modifying or contradicting any part of any ISO-NE Procedure or any part of the [ISO Tariff](#). In the event that a Registered Entity believes that any part of the CEICG document conflicts with ISO-NE's Procedures or ISO Tariff, ISO-NE urges that Registered Entity to bring the matter to ISO-NE's attention immediately.

## Document Revision and Control

The CEICG document will be reviewed on an annual basis, or more often, as necessary. Any updates to the CEICG document will be processed in accordance with the following:

- For the CEICG document to become effective, both ISO-NE and NPCC must review and approve the document
- Each revision to the CEICG document shall be assigned a Revision Number and a Revision Date

This CEICG document is posted on the ISO-NE [website](#)

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## Index of Standards Addressed by CEICGs in this Document

*[Note: a more detailed Index is provided in Appendix A of this document. A companion spreadsheet version of this Index (where the information can be filtered or sorted) is also provided on the ISO-NE public website.]*

NERC Standard (Requirement(s))	Page #	CEICG Title (CEICG #)
<b>BAL-003-0.1b</b> Frequency Response and Bias (R4)	8-9	Standards pertaining to Dynamic Transfers do not apply within the ISO-NE RCA at this time (CEICG-02)
<b>BAL-005-0.2b</b> Automatic Generation Control (R10, R12.3) (R1)	8-9  10	Standards pertaining to Dynamic Transfers do not apply within the ISO-NE RCA at this time (CEICG-02)  How GOPs and TOPs can provide evidence of inclusion in the metered boundaries of the ISO-NE BAA (CEICG-05)
<b>COM-001-2.1</b> Communications (R3 – R5, R7, R8, R10, R11)	11-13	Interpersonal Communication capabilities in New England (CEICG-29)
<b>COM-002-4</b> Operating Personnel Communications Protocols (R5, R6, R7)	14-16	ISO-NE notifications to entities regarding its identification of time periods when an emergency condition has existed on the Bulk Electric System in New England (CEICG-32)
<b>CIP-002-5.1</b> Cyber Security — BES Cyber System Categorization (R1 - item iv, Part 1.2, with associated Attachment 1 Impact Rating Criteria 2.3, 2.6, 2.7, 2.9 and 3.4)	17-21	ISO-NE notifications to entities regarding its identification of assets within certain categories of facilities identified in the CIP Standards as impactive to reliability (CEICG-30)
<b>EOP-003-2</b> Load Shedding Plans (R2, R7)	22-23	As UVLS programs existing within the ISO-NE RCA are intended to provide local protection only, Standards pertaining to UVLS programs do not apply within the ISO-NE RCA at this time (CEICG-06)
<b>EOP-005-2</b> System Restoration from Blackstart Resources (R12, R18)	24-25	Identification of TOPs and GOPs requested to participate in ISO-NE's system restoration exercises (CEICG-21)
<b>FAC-002-2</b> Facility Interconnection Studies (R2, R3, R4, R5)	26-27	How GOs, TOs and DP's can provide evidence of coordination and cooperation with TP and PA on assessments for integration of new facilities (CEICG-13)

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NERC Standard (Requirement(s))	Page #	CEICG Title (CEICG #)
<b>FAC-003-3</b> Transmission Vegetation Management (all)	28-29	ISO-NE notifies Transmission Owners if any of their transmission lines operated below 200 kV are identified by ISO-NE as an element of an IROL under NERC Standard FAC-014 (CEICG-31)
<b>INT-004-3.1</b> Dynamic Transfers (R3)	8-9	Standards pertaining to Dynamic Transfers do not apply within the ISO-NE RCA at this time (CEICG-02)
<b>IRO-001-1.1</b> Reliability Coordination – Responsibilities and Authorities (R8) <b>IRO-004-2</b> Reliability Coordination – Operations Planning (R1)	30-32	TSPs within the ISO-NE RCA are not issued operating instructions or directives by ISO-NE or an LCC (CEICG-01)
<b>IRO-005-3.1a</b> Reliability Coordination – Current Day Operations (R10)	33	How Market Participants and TOPs comply with Standards pertaining to operating within the most limiting parameter (CEICG-10)
<b>IRO-010-1a</b> Reliability Coordinator Data Specification and Collection (R3)	34-35	Adherence by Market Participants and TOs to ISO-NE requirements to provide information to and coordinate with ISO-NE is evidence of compliance with certain comparable requirements of NERC Standards (CEICG-20)
<b>MOD-020-0</b> (R1)	36-37	ISO-NE builds a load forecast based on Settlements data already provided by Transmission Owners and Market Participants and does not need to request additional information from TPs, DPs or other entities to develop a load forecast. (CEICG-19)
<b>MOD-025-2</b> Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability (R1, R2, R3)	38-40	Describes the process for GOs and TOs to submit an outage request to ISO-NE for conducting a verification of real or reactive power capability to meet MOD-025-2 requirements and to submit the results of such verifications to ISO-NE. ISO-NE serves as the “Lead” TP within the ISO-NE RCA (and the sole TP to receive such results) (CEICG-33)

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NERC Standard (Requirement(s))	Page #	CEICG Title (CEICG #)
<p><b>MOD-026-1</b> Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions (all)</p> <p><b>MOD-027-1</b> Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions (all)</p>	41	ISO-NE serves as the “Lead” TP within the ISO-NE RCA and is the sole TP within the ISO-NE RCA responsible for maintaining models in accordance with MOD-026-1 and MOD-027-1. GOP interactions with the TP pertaining to these standards should always be with ISO-NE. (CEICG-23)
<p><b>MOD-027-1</b> Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions (R2)</p>	42-43	ISO-NE requires governor model validation from any nuclear unit that provides under-frequency response and allows exemptions for those that don’t (CEICG-35)
<p><b>MOD-031-0</b> (R1, Parts 1.4 &amp; 1.5, R2 &amp; R4)</p>	36-37	ISO-NE builds a load forecast based on Settlements data already provided by Transmission Owners and Market Participants and does not need additional information from TPs, DPs or other entities to develop a load forecast. (CEICG-19)
<p><b>NUC-001-3</b> Nuclear Plant Interface Coordination (R2)</p>	44-49	The nature of Agreements pertaining to NUC-001-3 compliance within the ISO-NE RCA (CEICG-22)
<p><b>NUC-001-3</b> Nuclear Plant Interface Coordination (R9.3.7)</p>	22-23	As UVLS programs existing within the ISO-NE RCA are intended to provide local protection only, Standards pertaining to UVLS programs do not apply within the ISO-NE RCA at this time (CEICG-06)
<p><b>PRC-002-2</b> Disturbance Monitoring (R5, R8)</p>	50-51	Based on the DDR capability requirements that ISO-NE has established and specified for the ISO-NE RCA, ISO-NE has notified certain TOs that certain of their BES elements require DDR data. (CEICG-24)
<p><b>PRC-006-2</b> Automatic Underfrequency Load Shedding (R10)</p>	52	The ISO-NE UFLS program does not require a need for TOs to provide automatic switching of its existing capacitor banks, transmission lines, and reactors to control over-voltage as a result of underfrequency load shedding (CEICG-26)

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NERC Standard (Requirement(s))	Page #	CEICG Title (CEICG #)
Various Protection and Control Stds. ( <i>all Reqs.</i> ): <b>PRC-010-0</b> <b>PRC-011-0</b> <b>PRC-021-1</b> <b>PRC-022-1</b>	22-23	As UVLS programs existing within the ISO-NE RCA are intended to provide local protection only, Standards pertaining to UVLS programs do not apply within the ISO-NE RCA at this time ( <i>CEICG-06</i> )
<b>PRC-023-3</b> Transmission Relay Loadability (R3, R4)	53-54	How TOs, GOs and DPs within the ISO-NE RCA can comply with the requirement to obtain agreement of the PC, TOP and RC regarding the calculated circuit capability in the setting of protective relays, such that they do not limit transmission system loadability ( <i>CEICG-18</i> )
<b>PRC-023-3</b> Transmission Relay Loadability (R6)	55-56	ISO-NE has identified circuits in its PC area for which TOs, GOs, and DPs must comply with PRC-023-3 Requirements R1 through R5 and provides the list of these circuits to the respective owners of those facilities and to NPCC ( <i>CEICG-27</i> )
<b>PRC-024-2</b> Generator Frequency and Voltage Protective Relay Settings (R3, R4)	57-58	Identifies ISO-NE as the “Lead” Transmission Planner for and instructs GOs required by PRC-024-2 requirement R3, Part 3.1 and requirement R4 to send information to their Transmission Planner to send that information to ISO-NE (and not to other TPs in New England) ( <i>CEICG-34</i> ).
<b>TOP-001-1a</b> Reliability Responsibilities and Authorities (R3, R4)  (R6)  (R7, R7.1)	30-32  59  60-62	TSPs within the ISO-NE RCA are not issued operating instructions or directives by ISO-NE or an LCC ( <i>CEICG-01</i> )  How BAs, TOPs and GOPs within the ISO-NE RCA can comply with Standards pertaining to rendering emergency assistance ( <i>CEICG-14</i> )  GOP adherence to ISO-NE OP-5 outage coordination procedures facilitates compliance with certain TOP Standards ( <i>CEICG-17</i> )
<b>TOP-002-2.1.b</b> Normal Operations Planning (R3)  (R3, R14, R15)  (R3, R15)	30-32  34-35  60-62	TSPs within the ISO-NE RCA are not issued operating instructions or directives by ISO-NE or an LCC ( <i>CEICG-01</i> )  Adherence by Market Participants and TOs to ISO-NE requirements to provide information to and coordinate with ISO-NE is evidence of compliance with certain comparable requirements of NERC Standards ( <i>CEICG-20</i> )  GOP adherence to ISO-NE OP-5 outage coordination procedures facilitates compliance with certain TOP Standards ( <i>CEICG-17</i> )
<b>TOP-003-1</b> Planned Outage Coordination (R1, R1.1)	60-62	GOP adherence to ISO-NE OP-5 outage coordination procedures facilitates compliance with certain TOP Standards ( <i>CEICG-17</i> )
<b>TOP-006-2</b> Monitoring System Conditions (R1.1)	34-35	Adherence by Market Participants and TOs to ISO-NE requirements to provide information to and coordinate with ISO-NE is evidence of compliance with certain comparable requirements of NERC Standards ( <i>CEICG-20</i> )

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NERC Standard (Requirement(s))	Page #	CEICG Title (CEICG #)
<b>TPL-001-4</b> Transmission System Planning Performance Requirements (R1)	63	ISO-NE serves as the PC and “Lead” TP within the ISO-NE PC Area and maintains models for all TPs within the ISO-NE PC Area (CEICG-28)
<b>VAR-001-4.1</b> Voltage and Reactive Control (R6)	64-65	ISO-NE operations and planning processes do not result in ISO-NE identifying and requesting changes to GSU transformer tap settings (CEICG-16)
<b>VAR-002-4</b> Generator Operation for Maintaining Network Voltage Schedules (R5)  (R6)	66-67  64-65	ISO-NE provides email notification to NPCC/Auditors if a GO does not provide Generator Step Up and Auxiliary Transformer information to ISO-NE within 30 calendar days of a request for such data (CEICG-08)  ISO-NE provides email notification to NPCC Auditors if a GO fails to comply with any ISO-NE requirement to modify a Generator Step Up Transformer tap position (CEICG-16)

Retired CEICGs	Retirement Date	Notes
CEICG-3	7/1/2013	Requirement this CEICG addresses (VAR-001-2, R5) is one of the Paragraph 81 requirements proposed for retirement
CEICG-7	7/1/2014	Applicable requirements retired
CEICG-9	7/1/2015	FERC Order on Risk Based Registration resulted in deactivation of the PSE function, which removed PSE obligations retroactive to March 19, 2015, so this CEICG item is no longer needed.
CEICG-11	8/9/2012	CEICG-11 pertaining to EOP-003 R4 & R7 determined to no longer be necessary
CEICG-12	7/1/2013	New version of Standard (EOP-008-1) no longer includes the requirement that CEICG-12 addressed
CEICG-15	7/1/2014	Integrated into CEICG-1
CEICG-25	7/1/2015	Not needed by NPCC auditors. Information in this CEICG has been incorporated into a Compliance Bulletin posted on ISO-NE’s public website for use by New England UFLS entities.
CEICG-04	7/1/2016	No longer needed because it applies solely to an LSE. LSE remains a function but it will have no compliance responsibilities. LSE, PSE & IA functions have been deactivated in NPCC CDAA. CEICG items do not apply to the LSE, PSE & IA functions.

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## CEICG Narratives

<b>CEICG-02</b>	<b><i>Standards pertaining to Dynamic Transfers do not apply within the ISO-NE RCA at this time</i></b>
<b>NERC Standard</b>	<b>BAL-003-0.1b Frequency Response and Bias</b>
<b>Applicable Requirement(s)</b>	<b>R4.</b> Balancing Authorities that use Dynamic Scheduling or Pseudo-Ties for jointly owned units shall reflect their respective share of the unit governor droop response in their respective Frequency Bias Setting.
<b>NERC Standard</b>	<b>BAL-005-0.2b Automatic Generation Control</b>
<b>Applicable Requirement(s)</b>	<b>R10.</b> The Balancing Authority shall include all Dynamic Schedules in the calculation of Net Scheduled Interchange for the ACE equation.  <b>R12.3.</b> Balancing Authorities shall install common metering equipment where Dynamic Schedules or Pseudo-Ties are implemented between two or more Balancing Authorities to deliver the output of Jointly Owned Units or to serve remote load.
<b>NERC Standard</b>	<b>INT-004-3.1 Dynamic Transfers</b>
<b>Applicable Requirement(s)</b>	<b>R3.</b> Each Balancing Authority shall only implement or operate a Pseudo-Tie that is included in the NAESB Electric Industry Registry publication in order to support congestion management procedures.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Balancing Authority
<b>ISO-NE Disposition: BAL-003-0.1b, R4 BAL-005-0.2b, R10, R12.3 INT-004-3.1, R3</b>	<u>Explanation of why these requirements of these Standards do not apply within the ISO-NE Balancing Authority Area (BAA) at this time</u>  BAL-003-0.1b R4 pertains to Balancing Authorities (BAs) that use Dynamic Scheduling <sup>1</sup> or Pseudo-Ties <sup>2</sup> when calculating the Frequency Bias component of Area Control Error (ACE). BAL-005-0.2b, R10 and R12.3 each pertain to the BA incorporating Dynamic Scheduling or Pseudo-Ties considerations into the calculation of ACE. INT-004-3.1 R3 requires that the BA only implement or operate a Pseudo-Tie that is included in the NAESB Electric Industry Registry publication in order to support congestion management procedures. ISO-NE currently only dispatches generation within the ISO-NE BAA operational jurisdiction footprint and, therefore, per the NERC definitions, there are no Dynamic Schedules or Pseudo-Ties within the ISO-NE BAA. Therefore, these requirements are not applicable to entities in the ISO-NE BAA.



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	<p>Neither ISO-NE nor any of its neighboring BAs implement Dynamic Interchange at this time. As a general matter, ISO-NE modifies e-Tags, as appropriate, when schedules are modified via ISO-NE’s external transaction scheduling software. ISO-NE also communicates the release of the limit to both the Sink and Source BA. Any initiating or reloading (i.e., restoring) of a curtailment of an interchange transaction within the ISO-NE BAA would be done by ISO-NE and implemented through its external transaction scheduling software in an automated fashion and there would be no need for any Market Participant to respond.</p> <p>We would note that in the ISO Tariff, Market Rule 1 (<a href="#">MR1</a>) (III.1.10.5) dynamic scheduling and dispatch capability for External Resources is contemplated and procedures for implementation are provided. According to Market Rule 1 (III.1.12), dynamic scheduling “can be requested.” If such a request is made, technical requirements must be specified, hardware and software must be installed, and allocation of costs associated with dynamic scheduling must be determined and filed with the Commission.<sup>3</sup> However, up to the present time, there has been no request for dynamic scheduling within the ISO-NE BAA and ISO-NE has made no filings with the Commission regarding the implementation or the allocation of costs for dynamic scheduling.</p> <p>As a result, as stated above, at this time there are no Dynamic Schedules or Transfers within the ISO-NE BAA. However, should Dynamic Scheduling be instituted within the ISO-NE BAA in the future ISO-NE will provide advance notice to NPCC’s Manager, Compliance Audit Program (NPCCCI@npcc.org).</p> <p><sup>1</sup> In the NERC <i>Glossary of Terms</i> a Dynamic Interchange Schedule or Dynamic Schedule is defined as a “telemetered reading or value that is updated in real time and used as a schedule in the AGC/ACE equation and the integrated value of which is treated as a schedule for interchange accounting purposes. Commonly used for scheduling jointly owned generation to or from another Balancing Authority Area.” A Dynamic Transfer is defined by NERC as “the provision of the real-time monitoring, telemetering, computer software, hardware, communications, engineering, energy accounting (including inadvertent interchange), and administration required to electronically move all or a portion of the real energy services associated with a generator or load out of one Balancing Authority Area into another.”</p> <p><sup>2</sup> In the NERC <i>Glossary of Terms</i> a Pseudo-Tie is a “time-varying energy transfer that is updated in Real-time and included in the Actual Net Interchange term (NIA) in the same manner as a Tie Line in the affected Balancing Authorities’ control ACE equations (or alternate control processes).”</p> <p><sup>3</sup> <a href="#">Market Rule 1</a>, Section III.1.12(c) states: “Allocation of costs associated with dynamic scheduling shall be determined and filed with the Commission following the first request.”</p>
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<b>CEICG-05</b>	<b><i>How GOPs and TOPs can provide evidence of inclusion in the metered boundaries of the ISO-NE BAA</i></b>
<b>NERC Standard</b>	<b>BAL-005-0.2b Automatic Generation Control</b>
<b>Applicable Requirement(s)</b>	<b>R1.</b> All generation, transmission, and load operating within an Interconnection must be included within the metered boundaries of a Balancing Authority Area.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Balancing Authority, Generator Operator, Transmission Operator
<b>ISO-NE Disposition: BAL-005-0.2b, R1</b>	<p><u>Explanation of how a Generator Operator (GOP) or Transmission Operator (TOP) can provide evidence of inclusion within the metered boundaries of ISO-NE's Balancing Authority Area (BAA)</u></p> <p>For <u>generation</u> within an Interconnection, ISO-NE maintains on its website a <a href="#">listing of generation resources</a> within the ISO-NE BAA, along with other information including their capability and their dispatch status (i.e., EMS = real-time dispatch and metered; SO = no real-time dispatch and no real-time metering). GOPs can use this information to demonstrate that the Generation facilities they operate are within the ISO-NE BAA. Note: In accordance with the provisions of <a href="#">ISO New England Operating Procedure No. 14</a>, Technical Requirements for Generators, Demand Resources, Asset Related Demands and Alternative Technology Regulation Resources, Market Participants are required to submit any technical data with respect to a Generator that ISO-NE determines to be necessary for ISO-NE to carry out its responsibility of reliably and efficiently operating the power system. Detailed requirements related to Generator metering are covered in <a href="#">ISO New England Operating Procedure No. 18</a>, Metering and Telemetry Criteria.</p> <p>For <u>transmission</u> within an interconnection, ISO-NE posts listings of the Category A Facilities and Category B Facilities of each TO in New England, in accordance with Section 2.01 of the Transmission Operating Agreement (TOA). These listings are posted on the <a href="#">OASIS section of the ISO-NE website</a>. All of the facilities on these lists are within the metered boundary of the ISO-NE BAA. TOPs can use this information to demonstrate that the transmission facilities they operate are within the ISO-NE BAA.</p>

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<b>CEICG-29</b>	<b><i>Interpersonal Communication capabilities in New England</i></b>
<b>NERC Standard</b>	<b>COM-001-2.1 Communications</b>
<b>Applicable Requirement(s)</b>	<p><b>R3.</b> Each Transmission Operator shall have Interpersonal Communication capability with the following entities (unless the Transmission Operator detects a failure of its Interpersonal Communication capability in which case Requirement R10 shall apply):</p> <p>...<b>3.3.</b> Each Distribution Provider within its Transmission Operator Area.</p> <p><b>3.4.</b> Each Generator Operator within its Transmission Operator Area.</p> <p><b>3.5.</b> Each adjacent Transmission Operator synchronously connected.</p> <p><b>R4.</b> Each Transmission Operator shall designate an Alternative Interpersonal Communication capability with the following entities:</p> <p>...<b>4.3.</b> Each adjacent Transmission Operator synchronously connected.</p> <p><b>R5.</b> Each Balancing Authority shall have Interpersonal Communication capability with the following entities (unless the Balancing Authority detects a failure of its Interpersonal Communication capability in which case Requirement R10 shall apply):</p> <p>...<b>5.3.</b> Each Distribution Provider within its Balancing Authority Area.</p> <p><b>R7.</b> Each Distribution Provider shall have Interpersonal Communication capability with the following entities (unless the Distribution Provider detects a failure of its Interpersonal Communication capability in which case Requirement R11 shall apply):</p> <p><b>7.1.</b> Its Balancing Authority.</p> <p><b>7.2.</b> Its Transmission Operator.</p> <p><b>R8.</b> Each Generator Operator shall have Interpersonal Communication capability with the following entities (unless the Generator Operator detects a failure of its Interpersonal Communication capability in which case Requirement R11 shall apply):</p> <p>...<b>8.2.</b> Its Transmission Operator.</p> <p><b>R10.</b> Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall notify entities as identified in Requirements R1, R3, and R5, respectively within 60 minutes of the detection of a failure of its Interpersonal Communication capability that lasts 30 minutes or longer.</p> <p><b>R11.</b> Each Distribution Provider and Generator Operator that detects a failure of its Interpersonal Communication capability shall consult each entity affected by the failure, as identified in Requirement R7 for a Distribution Provider or</p>

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	Requirement R8 for a Generator Operator, to determine a mutually agreeable action for the restoration of its Interpersonal Communication capability.																							
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Balancing Authority, Distribution Provider, Generator Operator, Transmission Operator																							
<b>ISO-NE Disposition: COM-001-2.1, R3, R4, R5, R7, R8, R10, R11</b>	<p><u>Explanation of Interpersonal Communication capabilities in New England</u></p> <p>COM-001-2.1 requires the establishment of Interpersonal Communication capabilities to interact, consult, or exchange information, as necessary, to maintain reliability. In New England, ISO-NE and the LCCs comply with applicable NERC Standards in accordance with established, FERC-approved documents, such as the Transmission Operating Agreement (See Section 3.06) and ISO-NE <a href="#">Operating Procedures</a>. In accordance with such documents, Operating Instructions or directives may be issued:</p> <ul style="list-style-type: none"> <li>To a Generator Operator (GOP) by <u>either</u> ISO-NE (which is the typical situation) or, in some cases, by a Local Control Center (LCC)</li> <li>To a Distribution Provider (DP) by an LCC (<b>not</b> by ISO-NE).</li> </ul> <p>The following table clarifies and summarizes how certain requirements of COM-001-2.1 are met with respect to Interpersonal Communications capabilities (ICC) in New England.</p>																							
	<table border="1"> <thead> <tr> <th>Req.</th> <th>Part(s)</th> <th>ICC</th> <th>ISO-NE</th> <th>LCC</th> <th>Notes</th> </tr> </thead> <tbody> <tr> <td>R3 R7 R10 R11</td> <td>3.3 7.2</td> <td>TOP-DP</td> <td>No</td> <td>Yes</td> <td>DPs communicate with their LCC (<b>not</b> with ISO-NE)</td> </tr> <tr> <td>R3 R8 R10 R11</td> <td>3.4 8.2</td> <td>TOP-GOP</td> <td>Yes</td> <td>Yes</td> <td>GOPs communicate with <u>both</u> ISO-NE and their LCC</td> </tr> <tr> <td>R3 R4 R10</td> <td>3.5 &amp; 3.6 4.3 &amp; 4.4</td> <td>TOP-adjacent TOP</td> <td>Yes</td> <td>Yes</td> <td>ISO-NE and each LCC communicate with all of their respective adjacent TOPs, with <u>one exception</u>: ISO-NE only communicates with TOPs in adjacent areas that are also RCs/BAs (e.g., ISO-NE does <b>not</b> communicate with NIMO, a registered TOP in NY)</td> </tr> </tbody> </table>	Req.	Part(s)	ICC	ISO-NE	LCC	Notes	R3 R7 R10 R11	3.3 7.2	TOP-DP	No	Yes	DPs communicate with their LCC ( <b>not</b> with ISO-NE)	R3 R8 R10 R11	3.4 8.2	TOP-GOP	Yes	Yes	GOPs communicate with <u>both</u> ISO-NE and their LCC	R3 R4 R10	3.5 & 3.6 4.3 & 4.4	TOP-adjacent TOP	Yes	Yes
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	R5 R7 R10 R11	5.3 7.1	BA-DP	No	No	In New England, there are no communications between ISO-NE (as the BA or as any other function for which ISO-NE has registered) and a DP. Communications to a DP are pertinent to the TOP function, and such communications are always between the DP and that DP's LCC (see <i>TOP-DP ICC described above</i> ).

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-32</b>	<i>ISO-NE notifications to entities regarding its identification of time periods when an emergency condition has existed on the Bulk Electric System in New England</i>
<b>NERC Standard</b>	<b>COM-002-4 Operating Personnel Communications Protocols</b>
<b>Applicable Requirement(s)</b>	<p><b>R5.</b> Each Balancing Authority, Reliability Coordinator, and Transmission Operator that issues an oral two-party, person-to-person Operating Instruction during an Emergency, excluding written or oral single-party to multiple-party burst Operating Instructions, shall either:</p> <ul style="list-style-type: none"> <li>• Confirm the receiver’s response if the repeated information is correct (in accordance with Requirement R6).</li> <li>• Reissue the Operating Instruction if the repeated information is incorrect or if requested by the receiver, or</li> <li>• Take an alternative action if a response is not received or if the Operating Instruction was not understood by the receiver.</li> </ul>
	<p><b>R6.</b> Each Balancing Authority, Distribution Provider, Generator Operator, and Transmission Operator that receives an oral two-party, person-to-person Operating Instruction during an Emergency, excluding written or oral single-party to multiple-party burst Operating Instructions, shall either:</p> <ul style="list-style-type: none"> <li>• Repeat, not necessarily verbatim, the Operating Instruction and receive confirmation from the issuer that the response was correct, or</li> <li>• Request that the issuer reissue the Operating Instruction.</li> </ul>
	<p><b>R7.</b> Each Balancing Authority, Reliability Coordinator, and Transmission Operator that issues a written or oral single-party to multiple-party burst Operating Instruction during an Emergency shall confirm or verify that the Operating Instruction was received by at least one receiver of the Operating Instruction.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Balancing Authority, Distribution Provider, Generator Operator, Reliability Coordinator, Transmission Operator

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<p><b>ISO-NE Disposition: COM-002-4, R5, R6, R7</b></p>	<p><u>Explanation of ISO-NE identification of time periods when an emergency condition has existed on the Bulk Electric System (BES) in New England and how, after the emergency has ended, ISO-NE notifies any entity that received an operating instruction to mitigate the emergency to confirm that the operating instruction was issued while an emergency condition existed on the New England BES.</u></p> <p>To reduce the possibility of miscommunication that could lead to action or inaction harmful to BES reliability, COM-002-4 requires that entities follow specified communications protocols when operating instructions are issued or received during an emergency. In New England, an operating instruction may be issued:</p> <ul style="list-style-type: none"> <li>• By ISO-NE to Transmission Operator (TOP), which in New England, would be one of the Local Control Center (LCC) TOPs,</li> <li>• By ISO-NE (the typical situation) or an LCC (much less typical) to a Generator Operator (GOP)</li> <li>• By an LCC to a Distribution Provider (DP)</li> </ul> <p>ISO-NE makes email notifications to entities that received an operation instruction during a period when an emergency condition existed on the BES in New England. Such notifications will confirm that the entity received an operating instruction during the period when the emergency condition existed for the purpose of mitigating the emergency and it will identify the time period when the emergency condition existed. NPCC will be copied on each of these notifications (NPCCCI@npcc.org). Note: ISO-NE will not make such notifications regarding operating instructions for load shedding, as it should be readily apparent to entities that receive a load shed operating instruction that it is being issued during an emergency condition.</p> <p>Note: ISO-NE considers “operating instructions issued during an emergency condition” to be limited to operating instructions issued expressly to mitigate the emergency. Other operating instructions issued during the period when the emergency condition exists that are not related to or issued to address the emergency are not pertinent to COM-002-4 Requirements R5, R6 or R7, so ISO-NE does <b>not</b> make such notifications regarding such operating instructions.</p> <p>In Master/Local Control Center Procedure No. 13, ISO and LCC Communication Practices (M/LCC 13), ISO-NE and the LCCs have established criteria identifying when an emergency condition is considered to exist on the New England BES. The following table summarizes these criteria and indicates how ISO-NE, after the emergency has ended, notifies any entity that received an operating instruction to mitigate the emergency, that the operating instruction was issued while an emergency condition existed on the New England BES.</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

ISO-NE / LCC Criteria that Define When an Emergency Condition Exists On the New England Bulk Electric System (as per M/LCC 13)	How Emergency Condition Periods and Applicable Entities Are Identified by ISO-NE	How and When ISO-NE Provides Information (After the Fact) to Parties that Received An Operating Instruction During an Emergency to Help Mitigate the Emergency
<p><u>Begins:</u> When an IROL has been exceeded (pre- or post-contingency) for a period of greater than 20 minutes from when first identified</p> <p><u>Ends:</u> when the IROL exceedance has ended</p>	<p>A Reliability &amp; Operations Compliance (ROC) Analyst will review available information (including System Operator logs), consulting with other ISO-NE or LCC personnel, as necessary, to identify: (1) the time period when the emergency condition existed; and (2) the entities that received a verbal operating instruction during that period.</p>	<p>As soon as possible after an emergency condition has ended and the event has been reviewed, an ROC Analyst will notify (via email) the Compliance Contact of each entity that received a verbal operating instruction during the period when the emergency condition existed, informing them of the date(s) and time(s) that the operating instruction(s) was (were) issued. NPCC will be copied on each such notification.</p>
<p><u>Begins:</u> When OP-4 Action 6 or greater is implemented <sup>1</sup></p> <p><u>Ends:</u> When the last of the implemented OP-4 Actions 6 or greater are cancelled</p>		
<p><u>Begins:</u> When a load shed operating instruction is issued</p> <p><u>Ends:</u> When load shed (and/or other action) has mitigated the transmission, capacity or energy issue that prompted the issuance of the load shed directive</p>	<p>It should be readily apparent to entities that receive a load shed operating instruction that it is being issued during an emergency condition (for the purpose of mitigating the emergency condition), so there is no need to identify applicable entities or make notifications.</p>	
<p><sup>1</sup> If OP-4 Action 10 or 11 is implemented at a time prior to when an <i>actual</i> capacity deficiency or transmission reliability issue exists, ISO-NE or the applicable LCC is not considered to be in an emergency condition until the time that the <i>actual</i> capacity deficiency or transmission reliability issue occurs (which will be the point at which the emergency condition begins). ISO-NE will remain in the emergency condition until the last of the implemented OP-4 Actions 6 or greater are cancelled (which will be the point at which the emergency condition ends).</p>		



# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-30</b>	<b><i>ISO-NE notifications to entities regarding its identification of assets within certain categories of facilities identified in the CIP Standards as impactive to reliability</i></b>
<b>NERC Standard</b>	<b>CIP-002-5.1 Cyber Security — BES Cyber System Categorization</b>
<b>Applicable Requirement(s)</b>	<p><b>R1.</b> Each Responsible Entity shall implement a process that considers each of the following assets for purposes of parts 1.1 through 1.3:</p> <ul style="list-style-type: none"> <li>i. Control Centers and backup Control Centers;</li> <li>ii. Transmission stations and substations;</li> <li>iii. Generation resources;</li> <li>iv. Systems and facilities critical to system restoration, including Blackstart Resources and Cranking Paths and initial switching requirements;</li> <li>v. Special Protection Systems that support the reliable operation of the Bulk Electric System; and</li> <li>vi. For Distribution Providers, Protection Systems specified in Applicability section 4.2.1 above.</li> </ul> <p>...<b>1.2.</b> Identify each of the medium impact BES Cyber Systems according to Attachment 1, Section 2, if any, at each asset; and</p> <p><b>1.3.</b> Identify each asset that contains a low impact BES Cyber System according to Attachment 1, Section 3, if any (a discrete list of low impact BES Cyber Systems is not required).</p> <p>CIP-002-5.1 - Attachment 1 - Impact Rating Criteria</p> <p>... 2. Medium Impact Rating (M)</p> <p>... 2.3. Each generation Facility that its Planning Coordinator or Transmission Planner designates, and informs the Generator Owner or Generator Operator, as necessary to avoid an Adverse Reliability Impact in the planning horizon of more than one year.</p> <p>... 2.6. Generation at a single plant location or Transmission Facilities at a single station or substation location that are identified by its Reliability Coordinator, Planning Coordinator, or Transmission Planner as critical to the derivation of Interconnection Reliability Operating Limits (IROLs) and their associated contingencies.</p> <p>2.7. Transmission Facilities identified as essential to meeting Nuclear Plant Interface Requirements.</p> <p>... 2.9. Each Special Protection System (SPS), Remedial Action Scheme (RAS), or automated switching System that operates BES Elements, that, if destroyed, degraded, misused or otherwise rendered unavailable, would cause one or more Interconnection Reliability Operating Limits (IROLs) violations for failure to operate as designed or cause a reduction in one or more IROLs if destroyed, degraded, misused, or otherwise rendered unavailable.</p> <p>... 3. Low Impact Rating (L)</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	... 3.4. Systems and facilities critical to system restoration, including Blackstart Resources and Cranking Paths and initial switching requirements.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Various Functional Entities, as specified in the “Applicability” section of the Standard
<b>ISO-NE Disposition: CIP-002-5.1, R1</b>	<p><u>Explanation of how ISO-NE identifies assets within certain categories of facilities identified in the CIP Standards as impactful to reliability and notifies entities of the assets identified.</u></p> <p>Entities need certain information for them to identify and categorize BES Cyber Systems and their associated BES Cyber Assets in accordance with CIP-002-5.1 R1. ISO-NE identifies assets within certain categories of facilities identified in CIP-002-5.1 - Attachment 1 - Impact Rating Criteria as impactful to reliability and notifies entities of the assets identified. The following information is provided below:</p> <ul style="list-style-type: none"> <li>• Identification of the types of facilities and systems that ISO-NE has identified that meet certain criteria in CIP-002-5.1 - Attachment 1 - Impact Rating Criteria</li> <li>• Descriptions of how ISO-NE identifies assets that meet these criteria</li> <li>• Lists of the names of the Lead Market Participants (for generation) or owners (for transmission) that are responsible for the assets and that received notifications from ISO-NE of which asset(s) ISO-NE identified as meeting one or more of the criteria in CIP-002-5.1 - Attachment 1 - Impact Rating Criteria.</li> </ul> <p><u><b>Criterion 2.3</b> – Facilities necessary to avoid an Adverse Reliability Impact in the planning horizon of more than one year</u></p> <p><u><b>Criterion 2.6</b> – Facilities critical to the derivation of IROLs <i>and</i></u></p> <p><u><b>Criterion 2.9</b> – A Special Protection System (SPS), Remedial Action Scheme (RAS), or automated switching System that operates BES Elements, that, if destroyed, degraded, misused or otherwise rendered unavailable, would cause one or more IROL violations for failure to operate as designed or cause a reduction in one or more IROLs if destroyed, degraded, misused, or otherwise rendered unavailable.</u></p> <p>ISO-NE identifies IROLs, in accordance with applicable NERC Standards. As part of this effort, ISO-NE identifies which facilities or systems are considered critical to the derivation of IROLs and their associated contingencies.</p> <p>ISO-NE has developed a methodology and criteria for identifying IROLs in accordance with FAC-010-2.1 — System Operating Limits Methodology for the Planning Horizon and FAC-011-2 — System Operating Limits Methodology for</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

the Operations Horizon. As part of this effort, ISO-NE designated the facilities or systems that were considered critical to the derivation of IROLs and their associated contingencies. CIP list, developed under standard CIP-002-5.1, includes Attachment 1, which lists Impact Rating Criteria. The Medium Impact Rating Criteria includes the two criteria that were the basis for ISO-NE's list of facilities:

- Applying Criterion 2.6 led to the inclusion of not only the IROL transmission elements themselves, but also the limiting contingencies that ISO-NE monitors in real time for thermal or voltage (or as otherwise noted in ISO-NE's Transmission Operating Guides).
- Applying Criterion 2.9 led to the inclusion of a small number of substations based upon ISO-NE's Type 1 SPS list.

ISO-NE has notified the owners (for transmission) or Lead Market Participants (for generation) of facilities or systems that meet one or more of the criteria 2.3, 2.6 and 2.9 to inform them of which facilities or systems meet one or more of the criteria. If ISO-NE determines that a facility that once met the criteria no longer meets the criteria, ISO-NE notifies that entity within 30 days of that determination and reflects the revised list of entities below in the next update of this CEICG document, as necessary. An entity listed below would be expected to provide notification(s) received from ISO-NE as evidence supporting their compliance with CIP Standards during an NPCC audit. The following is a list of entities that have received notifications from ISO-NE that one or more of their facilities or systems meets one or more of the criteria 2.3, 2.6 and 2.9:

- Transmission facilities:
  - Central Maine Power Company
  - Connecticut Light and Power Company [Eversource Energy]
  - Connecticut Transmission Municipal Electric Energy Cooperative
  - Cross-Sound Cable Company, LLC
  - Emera Maine, Inc.
  - National Grid USA
  - New Hampshire Transmission, LLC
  - NSTAR Electric Company [Eversource Energy]
  - Public Service Company of New Hampshire [Eversource Energy]
  - United Illuminating Company
  - Vermont Transco LLC
- Generation facilities:
  - Bear Swamp Power Company LLC
  - Brayton Point Energy, LLC
  - Calpine Energy Services, LP
  - Dominion Energy Marketing, Inc.
  - Dynegy Marketing and Trade, LLC

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

- Essential Power Newington, LLC
- Exelon Generation Company, LLC
- GDF SUEZ Energy Marketing NA Inc.
- GenConn Energy LLC
- NextEra Energy Power Marketing
- NRG Power Marketing LLC
- PSEG Energy Resources & Trade
- PSEG New Haven, LLC
- Public Service Company of New Hampshire [Eversource Energy]
- Verso Maine Energy LLC

## Criterion 2.7 – Transmission Facilities identified as essential to meeting Nuclear Plant Interface Requirements

The Transmission Facilities essential to meeting Nuclear Plant Interface Requirements (NPIRs) in New England are the transmission lines serving the offsite power sources to the nuclear power stations in New England. These transmission lines serving the offsite power sources are identified in the following confidential documents:

- Master/LCC Procedure No. 1 - Nuclear Plant Transmission Operations, Attachment A - Pilgrim Nuclear Power Station
- Master/LCC Procedure No. 1 - Nuclear Plant Transmission Operations, Attachment C - Millstone Nuclear Power Station
- Master/LCC Procedure No. 1 - Nuclear Plant Transmission Operations, Attachment D - Seabrook Nuclear Power Station

The following entities own one or more transmission lines serving the offsite power sources to the nuclear power stations in New England:

- The Connecticut Light and Power Company [Eversource Energy]
- New Hampshire Transmission, LLC
- NSTAR Electric Company [Eversource Energy]
- Public Service Company of New Hampshire [Eversource Energy]

These entities review and approve the M/LCC 1 documents listed above that contain the NPIRs applicable to them and that list the transmission lines serving the offsite power sources. These entities would be expected to provide the applicable M/LCC 1 Attachment listed above as evidence supporting their compliance with CIP Standards during an NPCC audit.

## Criterion 3.4 – Facilities critical to system restoration

Lead Market Participant or owners of facilities identified in the New England system restoration plan may use information provided by ISO-NE to identify and categorize BES Cyber Systems and their associated BES Cyber Assets. ISO-NE, in

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p>collaboration with the Local Controls Centers, has developed a system restoration plan in accordance with EOP-005-2 — System Restoration from Blackstart Resources and EOP-006-2 — System Restoration Coordination. As part of the development of the plan (and in accordance with M/LCC 11 - Maintenance and Verification of New England System Restoration Plan), ISO-NE develops and maintains a list of facilities in the restoration plan. Also, in accordance with EOP-005-2 R2, ISO-NE provides the Lead Market Participants or owners of plan facilities with a description of any changes to their roles and specific tasks. These notifications include a list of their facilities identified in the Plan and the classifications of the facilities (such as Designated Blackstart Resource, Initial Cranking Path Facility, etc.). Entities will use this information to make the appropriate designations of “critical” facilities for their CIP evaluations. These notifications occur in the 4<sup>th</sup> quarter of each year (or more often if plan changes warrant). Also, whenever ISO-NE updates its list of restoration plan facilities, ISO-NE sends a copy of the list to NPCC (to email address NPCCCI@npcc.org).</p> <p>[Note: the information in this CEICG, including the lists of entities, is current as of 7/1/2016, but is subject to change. If there are changes to the information on which this CEICG is based, the appropriate entities will be notified and this CEICG will be updated at the next opportunity (typically this document is updated at least annually). If entities have questions about this CEICG, they may contact ISO-NE Customer Service.]</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-06</b>	<i>As UVLS programs existing within the ISO-NE RCA are intended to provide local protection only, Standards pertaining to UVLS programs do not apply within the ISO-NE RCA at this time</i>
<b>NERC Standard</b>	<b>EOP-003-2 Under-Voltage Load Shedding Program Performance</b>
<b>Applicable Requirement(s)</b>	<p><b>R2.</b> Each <b>Transmission Operator</b> shall establish plans for automatic load shedding for undervoltage conditions if the Transmission Operator or its associated Transmission Planner(s) or Planning Coordinator(s) determine that an under-voltage load shedding scheme is required.</p> <p><b>R7.</b> The <b>Transmission Operator</b> shall coordinate automatic undervoltage load shedding throughout their areas with tripping of shunt capacitors, and other automatic actions that will occur under abnormal voltage, or power flow conditions.</p>
<b>NERC Standard</b>	<b>NUC-001-3 Nuclear Plant Interface Coordination</b>
<b>Applicable Requirement(s)</b>	<p><b>R9.</b> The <b>Nuclear Plant Generator Operator</b> and the applicable <b>Transmission Entities</b> shall include, as a minimum, the following elements within the agreement(s) identified in R2:</p> <p><b>R9.3.</b> Operations and maintenance coordination:</p> <p><b>R9.3.7.</b> Coordination of the NPIRs with transmission system Special Protection Systems and underfrequency <b>and undervoltage load shedding programs.</b></p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Any of the following that own or operate a UVLS System or program: Transmission Owner, Distribution Provider, Transmission Operator <i>and</i> any Transmission Operator <i>and</i> any “Transmission Entity” (as pertains to certain elements of NUC-001-3 R9.3.7 )
<b>NERC Standard</b>	<b>PRC-010-0 Assessment of the Design and Effectiveness of Undervoltage Load Shedding Program</b>
<b>NERC Standard</b>	<b>PRC-011-0 Under-Voltage Load Shedding System Maintenance and Testing</b>
<b>NERC Standard</b>	<b>PRC-021-1 Under-Voltage Load Shedding Program Data</b>
<b>NERC Standard</b>	<b>PRC-022-1 Under-Voltage Load Shedding Program Performance</b>
<b>Applicable Requirement(s)</b>	<p>CEICG pertains to <i>all</i> Requirements of these Standards:  <u>PRC-010-0/PRC-011-0 Purpose:</u> Provide System preservation measures in an attempt to prevent system voltage collapse or voltage instability by implementing an Undervoltage Load Shedding (UVLS) program. [<i>Applicable to certain entities that own or operate a UVLS program – TO, TOP, DP</i>]  <u>PRC-021-1 Purpose:</u> Ensure data is provided to support the Regional database maintained for UVLS programs that were implemented to mitigate the risk of voltage collapse or voltage instability in the Bulk Electric System (BES).</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p>[Applicable to certain entities that own or operate a UVLS program – TO, DP]  <u>PRC-022-1 Purpose:</u> Ensure that UVLS programs perform as intended to mitigate the risk of voltage collapse or voltage instability in the BES.          [Applicable to certain entities that own or operate a UVLS program – TOP, DP]</p>
<p><b>ISO-NE Disposition:</b>  <b>EOP-003-2, R2, R7</b>  <b>NUC-001-3, R9.3.7</b>  <b>PRC-010-0, All</b>  <b>PRC-011-0, All</b>  <b>PRC-021-1, All</b>  <b>PRC-022-1, All</b></p>	<p><u>Explanation of why these Standards or identified Requirements do not apply to Transmission Owners (TOs), Distribution Providers (DPs), Transmission Operators (TOPs) or Transmission Entities (TEs – as defined in NUC-001-3) in within the ISO-NE Reliability Coordinator Area (RCA)</u></p> <p>Although there are Under-Voltage Load Shedding (UVLS) programs provided by Market Participants operating within the ISO-NE RCA, none are intended to mitigate the risk of voltage collapse or voltage instability of the Bulk Electric System (BES). Those UVLS programs existing within the ISO-NE RCA are intended to provide local protection only.</p> <p>A “NPCC Assessment of Under-Voltage Load Shedding (UVLS)” report was published on November 29, 2005. This report provided conclusions and recommendations based on limited steady-state analysis conducted by the <i>SS-37 Working Group</i>. The SS-37 report did not recommend general use of, and drew no conclusion about, the practicality of UVLS schemes. The report left it to individual Areas to assess the benefits against the costs and risks of deployment of UVLS schemes in specific situations.</p> <p>Further, the SS-37 report concluded that UVLS schemes cannot be universally and unconditionally applied as a means to limit cascading outages, as they can potentially have a counterproductive effect. In addition, the final conclusion of the SS-37 report stated, “If UVLS schemes are found to be potentially beneficial, more detailed steady state and transient stability studies will be required to thoroughly assess if a UVLS scheme should be pursued.”</p> <p>On 1/31/07 the NPCC <i>Task Force on System Studies</i> (TFSS) recommended not to pursue further generic studies of UVLS, stating that further action should only be taken if a member system in the Eastern Interconnection proposes a specific UVLS application, which can then be studied in more detail.<sup>1</sup></p> <p>For NUC-001-3, R9.3.7, the Agreements between the Nuclear Plant Generator Operator and the Transmission Entity required by NUC-001-3 R2 do not need to include provisions pertaining to coordination of the Nuclear Plant Interface Requirements (NPIRs) with transmission system UVLS programs (because there are no such programs).</p> <p><sup>1</sup> Letter, David Conroy, Chair-TFSS to Guy Zito, Assist. V.P. Standards, Re- UVLS Study Recommendations.</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-21</b>	<b><i>Identification of TOPs and GOPs requested to participate in ISO-NE's system restoration exercises</i></b>
<b>NERC Standard</b>	<b>EOP-005-2 System Restoration from Blackstart Resources</b>
<b>Applicable Requirement(s)</b>	<b>R12.</b> Each <b>Transmission Operator</b> shall participate in its Reliability Coordinator's restoration drills, exercises, or simulations as requested by its Reliability Coordinator. <b>R18.</b> Each <b>Generator Operator</b> shall participate in the Reliability Coordinator's restoration drills, exercises, or simulations as requested by the Reliability Coordinator.
<b>Functional Entities to which Requirement and CEI Apply</b>	Transmission Operator, Generator Operator
<b>ISO-NE Disposition: EOP-005-2, R12, R18</b>	<p><u>Explanation of the determination of Generator Operator (GOP) and Transmission Operator (TOP) applicability for the requirements to participate in system restoration exercises of the Reliability Coordinator (RC)</u></p> <p>Applicability and compliance determinations by NPCC regarding EOP-005-2, R12 (applicable to TOPs) and R18 (applicable to GOPs), both of which pertain to participation in the RC's restoration drills, exercises, or simulations, depend, in part, on the specifics of the requests for participation in ISO-NE's System restoration exercises sent to the TOPs and GOPs. As the RC, ISO-NE conducts System restoration exercises and requests TOPs and GOPs to participate in them, in accordance with EOP-006-2 R10 and R10.1:</p> <p style="padding-left: 40px;">R10. Each Reliability Coordinator shall conduct two System restoration drills, exercises, or simulations per calendar year, which shall include the Transmission Operators and Generator Operators as dictated by the particular scope of the drill, exercise, or simulation that is being conducted.</p> <p style="padding-left: 40px;">R10.1. Each Reliability Coordinator shall request each Transmission Operator identified in its restoration plan and each Generator Operator identified in the Transmission Operators' restoration plans to participate in a drill, exercise, or simulation at least every two calendar years.</p> <p>In the requests for participation in ISO-NE's System restoration exercises, ISO-NE provides specifics regarding the types and numbers of individuals from each TOP or GOP that ISO-NE expects to participate. ISO-NE includes NPCC as a "cc" on the emailed invitations (sending them to email address NPCCCI@npcc.org) and maintains records of such requests. NPCC uses this information to determine applicability of EOP-005-2 R12 and</p>



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	R18 to TOPs and GOPs, respectively and to assess the compliance of TOPs and GOPs with these Requirements.
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<b>CEICG-13</b>	<i>How GOs, TOs and DPs can provide evidence of coordination and cooperation with TP and PA on assessments for integration of new facilities</i>
<b>NERC Standard</b>	<b>FAC-002-2 Facility Interconnection Studies</b>
<b>Applicable Requirement(s)</b>	<p><b>R2.</b> Each <b>Generator Owner</b> seeking to interconnect new generation Facilities, or to materially modify existing interconnections of generation Facilities, shall coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator, including but not limited to the provision of data as described in R1, Parts 1.1-1.4.</p> <p><b>R3.</b> Each <b>Transmission Owner</b>, each <b>Distribution Provider</b>, and each Load-Serving Entity seeking to interconnect new transmission Facilities or electricity end-user Facilities, or to materially modify existing interconnections of transmission Facilities or electricity end-user Facilities, shall coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator, including but not limited to the provision of data as described in R1, Parts 1.1-1.4.</p> <p><b>R4.</b> Each <b>Transmission Owner</b> shall coordinate and cooperate with its Transmission Planner or Planning Coordinator on studies regarding requested new or materially modified interconnections to its Facilities, including but not limited to the provision of data as described in R1, Parts 1.1-1.4.</p> <p><b>R5.</b> Each applicable <b>Generator Owner</b> shall coordinate and cooperate with its Transmission Planner or Planning Coordinator on studies regarding requested interconnections to its Facilities, including but not limited to the provision of data as described in R1, Parts 1.1-1.4.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Owner, Transmission Owner, Distribution Provider
<b>ISO-NE Disposition: FAC-002-2, R2, R3, R4, R5</b>	<p><u>Explanation of how Generator Owners (GOs), Transmission Owners (TOs) and Distribution Providers (DPs) can provide evidence of coordination and cooperation with the Transmission Planner (TP) and Planning Authority (PA) on assessments for integration of new facilities</u></p> <p>A GO, TO or DP can provide evidence of its coordination and cooperation with the TP and PA on assessments for integration of new facilities</p>

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	<p>through their participation in the Proposed Plan Application process, as established in Section I.3.9 of the <a href="#">ISO Tariff</a>. This process, which may involve studies and discussions by ISO-NE and NEPOOL stakeholders, is documented on the ISO-NE public website.</p> <p>In accordance with Section I.3.9 of the <a href="#">ISO Tariff</a>, “Each Market Participant and Transmission Owner shall submit to the ISO, in such form, manner and detail as the ISO may reasonably prescribe, (i) any new or materially changed plan for additions to or changes to any generating and demand resources or transmission facilities rated 69 kV or above subject to control of such Market Participant or Transmission Owner, and (ii) any new or materially changed plan for any other action to be taken by the Market Participant or Transmission Owner, except for retirements of or reductions in the capacity of a generating resource or a demand resource unless otherwise provided in Section I.3.11, which may have a significant effect on the stability, reliability or operating characteristics of the Transmission Owner’s transmission facilities, the transmission facilities of another Transmission Owner, or the system of a Market Participant.”<sup>1</sup> <a href="#">Schedule 22</a> of Section II of the ISO Tariff also contains details for Interconnecting Large Generating Facilities (i.e., a Generating Facility having a maximum gross capability at or above zero degrees F. of more than 20 MW).</p> <p><sup>1</sup> Section I.3.9 provides, in full, that: “No significant action (other than preliminary engineering action) leading toward implementation of any such new or changed plan shall be taken earlier than sixty days (or ninety days, if the ISO determines that it requires additional time to consider the plan and so notifies the Market Participant in writing within the sixty days) after the plan has been submitted to the ISO. Unless prior to the expiration of the sixty or ninety days, whichever is applicable, the ISO notifies the Market Participant or Transmission Owner in writing that it has determined that implementation of the plan will have a significant adverse effect upon the reliability or operating characteristics of the Transmission Owner’s transmission facilities, the transmission facilities of another Transmission Owner, or the system of a Market Participant, the Market Participant or Transmission Owner shall be free to proceed. The ISO shall maintain on its website a list of such applications that are currently under review and the status of each such application. The ISO shall provide notice of any action taken with respect to any such applications, including an explanation of its reasons for such action, to each Market Participant or Transmission Owner as soon as reasonably practicable after such action is taken. The time limits provided by this section may be changed with respect to any such submission by agreement between the ISO and the Market Participant or Transmission Owner.”</p>

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<b>CEICG-31</b>	<b><i>ISO-NE notifies Transmission Owners if any of their transmission lines operated below 200 kV are identified by ISO-NE as an element of an IROL under NERC Standard FAC-014</i></b>
<b>NERC Standard</b>	<b>FAC-003-3 Transmission Vegetation Management</b>
<b>Applicable Requirement(s)</b>	CEICG pertains to <i>all</i> Requirements of Standard FAC-003-3 <u>Purpose</u> : To maintain a reliable electric transmission system by using a defense-in-depth strategy to manage vegetation located on transmission rights of way (ROW) and minimize encroachments from vegetation located adjacent to the ROW, thus preventing the risk of those vegetation-related outages that could lead to Cascading.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	<p>Transmission Owner            Note: Applicability of FAC-003-3 - Transmission Facilities include (4.2.2) each overhead transmission line operated below 200 kV identified as an element of an IROL under NERC Standard FAC-014 by the Planning Coordinator.</p> <p>Generator Owner            Note: Applicability of FAC-003-3 - Generation Facilities include (4.3.1.2) Generation Facilities operated below 200kV identified as an element of an IROL under NERC Standard FAC-014 by the Planning Coordinator</p>
<b>ISO-NE Disposition: FAC-003-3</b>	<p><u>Explanation of ISO-NE’s process of identifying generation facilities and transmission lines operated below 200 kV that are an element of an IROL under NERC Standard FAC-014 and notifications to the owners of such facilities.</u></p> <p>ISO-NE establishes IROLs in accordance with NERC Standard FAC-014-2, ISO-NE Planning Procedure 3 and the ISO New England Methodology Document for the Assessment of Transfer Capability. The list of facilities developed by ISO-NE for purposes of FAC-0003-3 Applicability includes all 115 kV, 230 kV and 345 kV elements for all of the New England IROL interfaces monitored by ISO-NE. The FAC-003-3 standard does not speak to any other type of element to consider (for example, limiting contingencies), and as a consequence, ISO-NE did not include any other facilities (which explains why this list of facilities differs from the list of facilities developed for CIP-002-5.1 and why the associated list of transmission owners listed in this CEICG-31 differs from the list of transmission owners listed in CEICG-29). If any transmission line or generation facility operated below 200 kV is identified by ISO-NE as an element of an IROL (based on FAC-003-3 criteria), ISO-NE notifies the owner (for transmission) or Lead Market Participant (for generation) of the facility by email.</p> <ul style="list-style-type: none"> <li>• ISO-NE has <b>not</b> identified any <u>generation facilities</u> operated below</li> </ul>

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	<p>200 kV that are an element of an IROL</p> <ul style="list-style-type: none"> <li>• ISO-NE has identified certain <u>transmission lines</u> operated below 200 kV that are an element of an IROL and has notified the following transmission owners of this:             <ul style="list-style-type: none"> <li>○ Central Maine Power Company</li> <li>○ Connecticut Light and Power Company [Eversource Energy]</li> <li>○ Emera Maine, Inc.</li> <li>○ National Grid USA</li> <li>○ NSTAR Electric Company [Eversource Energy]</li> <li>○ Public Service Company of New Hampshire [Eversource Energy]</li> <li>○ United Illuminating Company</li> <li>○ Vermont Transco LLC</li> </ul> </li> </ul> <p>[Note: this list is current as of 7/1/2016, but is subject to change. If additional entities are notified that one or more of their facilities or systems are either being added or removed from this list, this list will be updated at the next opportunity (typically this document is updated at least annually). An entity listed above would be expected to provide the notification received from ISO-NE as evidence supporting their compliance with FAC-003-3 during an NPCC audit. If entities have questions about this list, they may contact ISO-NE Customer Service.]</p>

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<b>CEICG-01</b>	<i>TSPs within the ISO-NE RCA are not issued operating instructions or directives by ISO-NE or an LCC</i>
<b>NERC Standard</b>	<b>IRO-001-1.1</b> <b>Reliability Coordination – Responsibilities and Authorities</b>
<b>Applicable Requirement(s)</b>	<b>R8.</b> Transmission Operators, Balancing Authorities, Generator Operators, <b>Transmission Service Providers</b> , Load-Serving Entities, and Purchasing-Selling Entities shall comply with Reliability Coordinator directives unless such actions would violate safety, equipment, or regulatory or statutory requirements. Under these circumstances, the Transmission Operator, Balancing Authority, Generator Operator, <b>Transmission Service Provider</b> , Load-Serving Entity, or Purchasing-Selling Entity shall immediately inform the Reliability Coordinator of the inability to perform the directive so that the Reliability Coordinator may implement alternative remedial actions.
<b>NERC Standard</b>	<b>IRO-004-2</b> <b>Reliability Coordination – Operations Planning</b>
<b>Applicable Requirement(s)</b>	<b>R1.</b> Each Transmission Operator, Balancing Authority, and <b>Transmission Service Provider</b> shall comply with the directives of its Reliability Coordinator based on the next day assessments in the same manner in which it would comply during real time operating events.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Transmission Service Provider
<b>ISO-NE Disposition:</b> <b>IRO-001-1.1, R8</b> <b>IRO-004-2, R1</b> <b>TOP-001-1a, R3, R4</b> <b>TOP-002-2.1b, R3</b>	<p><u>Explanation of why Transmission Service Providers (TSPs) within the ISO-NE Reliability Coordinator Area (RCA) are not issued operating instructions or directives by ISO-NE or a Local Control Center (LCC)</u></p> <p>ISO-NE, as a Reliability Coordinator (RC), Balancing Authority (BA) and Transmission Operator (TOP), does not directly contact TSPs to take real-time operations actions. As a general rule, ISO-NE only issues operating instructions or directives to its LCCs (each of which is a TOP) or to Generator Operators (GOPs).<sup>1</sup></p> <p>Per the ISO-NE documents (such documents include, but may not be limited to, the Market Participant Service Agreement, Transmission Operating Agreement, <a href="#">ISO Tariff</a> (including <a href="#">Market Rule 1</a>), ISO-NE Manuals, and ISO-NE <a href="#">Operating Procedures</a>), generally, all Participants and members must comply with all operating instructions from ISO-NE personnel in all operating timeframes; this includes short-term, outage coordination, day-ahead and real-time.</p> <ul style="list-style-type: none"> <li>Certain Market Participants (TOPs and GOPs) must follow operating instructions or directives to take real-time operations actions from</li> </ul>

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	<p>ISO-NE (as the RC). Note: in some situations it may be necessary for an LCC to issue an operating instruction to a GOP to take real-time operations action, which GOPs must also follow.</p> <ul style="list-style-type: none"> <li>• Certain Market Participants [Distribution Providers (DPs)] must follow operating instructions or directives to take real-time operations actions by the LCCs. DPs would receive operating instructions or directives from their LCC, who would be performing TOP functions under the operational structure established between ISO-NE and the LCCs. ISO-NE would not normally issue operating instructions or directives to DPs.</li> </ul> <p>However, based on ISO-NE Market structure and Market Rules, certain Market Participants that are TSPs:</p> <ul style="list-style-type: none"> <li>• <u>are not</u> issued operating instructions or directives to take real-time operations actions by either ISO-NE (as the RC) or by an LCC (as a TOP); and</li> <li>• <u>do not</u> coordinate operations with ISO-NE or the LCCs.</li> </ul> <p>For the purposes of addressing these Standards it should be noted that ISO-NE is registered with NERC and acts as the sole RC and BA within the New England Area. In addition, ISO-NE is registered as a TOP and a TSP and provides transmission service over the regional network, high-voltage transmission facilities of the TOs within the ISO-NE RCA (i.e., the Pool Transmission Facilities (PTF), which also includes non-Bulk facilities 69 kV and above) in the form of what is known as Network Service (RNS). RNS is the service over the PTF provided by ISO-NE to Network Customers to serve their Regional Network Load. RNS does not use advanced reservations, does not distinguish between “firm” and “non-firm” service, and does not have any unauthorized use penalties associated with it.</p> <p>Access to certain other Transmission facilities that interconnect the ISO-NE RCA with other RCAs that are not defined as part of the PTF in New England [Merchant Transmission Facilities (MTF) Service (provided under Schedule 18 for the Cross Sound Cable) and Other Transmission Facilities (OTF) Service (provided under Schedule 20A for the Hydro-Quebec Phase II tie)] is available to allow the transmission customer to utilize those transmission facilities to serve their load from Network Resources or allow power from the Network Resources to be delivered to the PTF and load.</p> <p>The transmission services offered under the Commission-approved <a href="#">ISO Tariff</a> contain terms and conditions which differ from the transmission services in the <i>pro forma</i> <a href="#">OATT</a>.<sup>2</sup> ISO-NE’s business model and regional transmission services differ from the business model and transmission services described</p>
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	<p>in the <i>pro forma</i> <a href="#">OATT</a>. ISO-NE schedules and curtails External Transactions on the PTF, MTF and OTF using a Commission-approved security-constrained, economic merit order system.</p> <p><sup>1</sup> <a href="#">ISO New England Operating Procedure No. 1</a> - Central Dispatch Operating Responsibility and Authority of ISO New England, the Local Control Centers and Market Participants states that “the responsibilities and authorities assigned to ISO extends to include decisions, instructions, and orders issued to an LCC, TO or MP facility electronically, verbally or in writing, as required for day-to-day, minute-to-minute operation...”</p> <p><sup>2</sup> See generally <a href="#">Order No. 890</a> Preventing Undue Discrimination and Preference in Transmission Service Compliance Filing, at pp. 17-20.</p>



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<b>CEICG-10</b>	<b><i>How Market Participants and TOPs comply with Standards pertaining to operating within the most limiting parameter</i></b>
<b>NERC Standard</b>	<b>IRO-005-3.1a Reliability Coordination – Current Day Operations</b>
<b>Applicable Requirement(s)</b>	<b>R10.</b> In instances where there is a difference in derived limits, the <b>Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, and Purchasing-Selling Entities</b> shall always operate the Bulk Electric System to the most limiting parameter.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Balancing Authority, Transmission Operator, Transmission Service Provider, Generator Operator
<b>ISO-NE Disposition: IRO-005-3.1a, R10</b>	<p><u>Explanation of how Market Participants and Transmission Operators (TOPs) comply with Standards pertaining to operating within the most limiting parameter</u></p> <p>ISO-NE, as Balancing Authority (BA), and its TOPs (i.e., the Local Control Centers (LCCs), adhere to this requirement through Master/LCC Procedure # 4, <i>Emergency Load Reduction Plans For Mitigating IROL Violations</i>. M/LCC # 4 states: “In instances where there is a difference in derived operating limits, ISO and LCC shall always operate the Bulk Electric System to the most limiting parameter.”</p> <p>Because ISO-NE and the LCCs are each responsible for monitoring and operating to limits, and because the ISO-NE and the LCCs each issue operating instructions to Market Participants (e.g., Generator Operators), all Market Participants should remain compliant with this requirement absent failure to follow such operating instructions.<sup>1</sup> In such cases, there would be non-compliance with the <a href="#">ISO Tariff</a> and/or other associated NERC Standard Requirements.</p> <p><sup>1</sup> Note: the CEICG-01 for IRO-001-1.1, R8 describes why TSPs do not receive operating instructions from ISO-NE or an LCC.</p>

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<b>CEICG-20</b>	<b><i>Adherence by Market Participants and TOs to ISO-NE requirements to provide information to and coordinate with ISO-NE is evidence of compliance with certain comparable requirements of NERC Standards</i></b>
<b>NERC Standard</b>	<b>IRO-010-1a Reliability Coordinator Data Specification and Collection</b>
<b>Applicable Requirement(s)</b>	<b>R3.</b> Each Balancing Authority, <b>Generator Owner, Generator Operator, Interchange Authority, Load-Serving Entity, Reliability Coordinator, Transmission Operator, and Transmission Owner</b> shall provide data and information, as specified, to the Reliability Coordinator(s) with which it has a reliability relationship.
<b>NERC Standard</b>	<b>TOP-002-2.1.b Normal Operations Planning</b>
<b>Applicable Requirement(s)</b>	<b>R3.</b> Each Load Serving Entity and <b>Generator Operator</b> shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. Each Balancing Authority and Transmission Service Provider shall coordinate its current-day, next-day, and seasonal operations with its Transmission Operator.  <b>R14. Generator Operators</b> shall, without any intentional time delay, notify their Balancing Authority and Transmission Operator of changes in capabilities and characteristics including but not limited to: R14.1: Changes in real output capabilities.  <b>R15. Generator Operators</b> shall, at the request of the Balancing Authority or Transmission Operator, provide a forecast of expected real power output to assist in operations planning (e.g., a seven-day forecast of real output).
<b>NERC Standard</b>	<b>TOP-006-2 Monitoring System Conditions</b>
<b>Applicable Requirement(s)</b>	<b>R1.1.</b> Each <b>Generator Operator</b> shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Operator, Generator Owner, Transmission Operator, Transmission Owner
<b>ISO-NE Disposition:</b>	<u>Explanation of how adherence by Market Participants and Transmission Owners (TOs) to ISO-NE requirements to provide information to and coordinate with ISO-NE is evidence of compliance with certain comparable requirements of NERC Standards.</u>

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<p><b>IRO-010-1a, R3 TOP-002-2.1.b, R3, R14, R15 TOP-006-2, R1.1</b></p>	<p>ISO-NE performs reliability functions for the New England Area (Reliability Coordinator (RC), Balancing Authority (BA) and Transmission Operator (TOP), as defined by NERC). To perform these functions, ISO-NE relies on resource performance in response to operating instructions that is consistent with submitted operational characteristics. Accurate and complete data is critical to the creation of the database models used by ISO-NE in real-time reliability operations, market operations, operations planning and to the computer applications that operate on those models. ISO-NE therefore relies on asset owners’ submitting accurate operating characteristics in order to issue operating instructions to respond to real-time system events to fulfill various reliability functions (RC, BA and/or TOP). Under various system conditions, issuing operating instructions that rely on inaccurate operating characteristics may contribute to ISO-NE violating obligations under NERC Standards Requirements, and in extreme cases may lead to instability, cascading, or uncontrolled separation.</p> <p>For the Generator resources within the ISO-NE Reliability Coordinator Area (RCA), operational characteristics are submitted to ISO-NE through various means:</p> <ul style="list-style-type: none"> <li>• Market System (unit offer data such as maximum output, etc.) ramp rate, response rate,</li> <li>• NX-12 and NX-12 D data (resource capability, blackstart ability, voltage/reactive capability, etc.)</li> <li>• ISO-NE Outage Scheduling software</li> <li>• Redclarations (real-time changes in capability)</li> </ul> <p>For the Transmission resources within the ISO-NE RCA, operational characteristics are submitted to ISO-NE through:</p> <ul style="list-style-type: none"> <li>• NX-9 transmission system data Application for submittal of physical characteristics, ratings, and operational data of transmission system equipment</li> <li>• ISO-NE Outage Scheduling software</li> </ul> <p>If a Market Participant (MP) or Transmission Owner (TO) fails to respond to an ISO-NE request for generator or transmission data, or fails to coordinate with ISO-NE, or fails to notify ISO-NE of changes in equipment capabilities and characteristics within the requirements and timeframes described in ISO-NE <a href="#">Operating Procedures</a>, the applicable ISO-NE business unit notifies the ISO-NE Reliability &amp; Operations Compliance (ROC) group. The ISO-NE ROC group researches incidents of failures to provide Generator or transmission data and evaluates such failures with respect to compliance with the applicable Standards, <a href="#">ISO Tariff</a> and/or relevant ISO-NE Procedures. ROC personnel will make referrals to NPCC to report such failures, as necessary and appropriate.</p>
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<b>CEICG-19</b>	<i>ISO-NE builds a load forecast based on Settlements data already provided by Transmission Owners and Market Participants and does not need additional information from TPs, DPs or other entities to develop a load forecast</i>
<b>NERC Standard</b>	<b>MOD-020-0</b> <b>Providing Interruptible Demands and DCLM Data</b>
<b>Applicable Requirement(s)</b>	<b>R1.</b> The Load-Serving Entity, <b>Transmission Planner</b> , and Resource Planner shall each make known its amount of interruptible demands and Direct Control Load Management (DCLM) to Transmission Operators, Balancing Authorities, and Reliability Coordinators on request within 30 calendar days.
<b>NERC Standard</b>	<b>MOD-031-1</b> <b>Providing Interruptible Demands and DCLM Data</b>
<b>Applicable Requirement(s)</b>	<b>R1.</b> Each Planning Coordinator or Balancing Authority that identifies a need for the collection of Total Internal Demand, Net Energy for Load, and Demand Side Management data shall develop and issue a data request to the applicable entities in its area. The data request shall include: <b>1.1.</b> A list of <b>Transmission Planners</b> , Balancing Authorities, Load Serving Entities, and <b>Distribution Providers</b> that are required to provide the data (“Applicable Entities”). ... (see Standard for details)
	<b>R2.</b> Each Applicable Entity identified in a data request shall provide the data requested by its Planning Coordinator or Balancing Authority in accordance with the data request issued pursuant to Requirement R1.
	<b>R4.</b> Any Applicable Entity shall, in response to a written request for the data included in parts 1.3-1.5 of Requirement R1 from a Planning Coordinator, Balancing Authority, Transmission Planner or Resource Planner with a demonstrated need for such data in order to conduct reliability assessments of the Bulk Electric System, provide or otherwise make available that data to the requesting entity... (see Standard for details)
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Transmission Planner, Distribution Provider
<b>ISO-NE Disposition: MOD-020-0, R1 MOD-031-1, R1, R2, R4</b>	<p><u>Explanation of why these Requirements do not apply to Transmission Owners (TOs) Registered as Transmission Planners (TPs) or to Distribution Providers (DPs) within the ISO-NE Planning Coordinator Area (PCA)</u></p> <p>For the purposes of addressing these standards it should be noted that ISO-NE is registered with NERC as a Planning Coordinator (PC) and is the sole PC within the ISO-NE PCA.</p> <p>ISO-NE obtains demand, energy and related data to develop load forecasts that support reliability studies and assessments from ISO-NE Settlements data already</p>

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	<p>provided to ISO-NE, without reliance on TPs, DPs or any other entities to provide additional data. Accordingly, ISO-NE does not specify requirements for provision of data pertaining to actual or forecasted data on interruptible demands, Direct Control Load Management (DCLM), Total Internal Demand, Net Energy for Load or Demand Side Management, nor does it request that TPs, DPs or any other entities provide such information.</p> <p>ISO-NE develops a regional load forecast based on revenue quality hourly meter readings from ISO-NE Settlements. ISO-NE posts meter requirements in <a href="#">ISO New England Operating Procedure No. 18</a> - Metering and Telemetry Criteria (OP-18). ISO-NE obtains hourly meter data directly; it does not rely on TPs to provide or verify customer data for use in the load forecast.</p> <p>ISO-NE prepares the load forecast for New England on a regional basis as opposed to summing individual load forecast prepared by individual entities. This provides a uniform assumption practice across the region and prevents individual special interests from influencing the load forecast. The ISO-NE Forecast Report of Capacity, Energy, Loads, and Transmission (CELT) Report contains the regional load forecast.</p> <p>Demand Response is administered as a resource procured through the ISO-NE Forward Capacity Market for ISO-NE administered programs. FERC Order No. 1000 Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, issued July 2011, reaffirms Order No. 890's requirement for public utility transmission providers to consider all types of resources, including demand response and energy efficiency, on a comparable basis in transmission planning. Demand Response is then included in the ISO-NE Regional Load Forecast as detailed in the CELT Report.</p> <p>As the Planning Coordinator and Balancing Authority in New England, in accordance with MOD-031-1 Requirement R3, upon request from NPCC, ISO-NE would provide demand, energy and related data it has developed to support reliability studies and assessments to NPCC.</p>
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<b>CEICG-33</b>	<i>Describes the process for GOs and TOs to submit an outage request to ISO-NE for conducting a verification of real or reactive power capability to meet MOD-025-2 requirements and to submit the results of such verifications to ISO-NE. ISO-NE serves as the “Lead” TP within the ISO-NE RCA (and the sole TP to receive such results). (CEICG-33).</i>
<b>NERC Standard</b>	<b>MOD-025-2 Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability</b>
<b>Applicable Requirement(s)</b>	<b>R1.</b> Each Generator Owner shall provide its Transmission Planner with verification of the Real Power capability of its applicable Facilities as follows: <b>1.1.</b> Verify the Real Power capability of its generating units in accordance with Attachment 1. <b>1.2.</b> Submit a completed Attachment 2 (or a form containing the same information as identified in Attachment 2) to its Transmission Planner within 90 calendar days of either (i) the date the data is recorded for a staged test; or (ii) the date the data is selected for verification using historical operational data.
	<b>R2.</b> Each Generator Owner shall provide its Transmission Planner with verification of the Reactive Power capability of its applicable Facilities as follows: <b>2.1.</b> Verify, in accordance with Attachment 1, (i) the Reactive Power capability of its generating units and (ii) the Reactive Power capability of its synchronous condenser units. <b>2.2.</b> Submit a completed Attachment 2 (or a form containing the same information as identified in Attachment 2) to its Transmission Planner within 90 calendar days of either (i) the date the data is recorded for a staged test; or (ii) the date the data is selected for verification using historical operational data.
	<b>R3.</b> Each Transmission Owner shall provide its Transmission Planner with verification of the Reactive Power capability of its applicable Facilities as follows: <b>3.1.</b> Verify, in accordance with Attachment 1, the Reactive Power capability of its synchronous condenser units. <b>3.2.</b> Submit a completed Attachment 2 (or a form containing the same information as identified in Attachment 2) to its Transmission Planner within 90 calendar days of either (i) the date the data is recorded for a staged test; or (ii) the date the data is selected for verification using historical operational data.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Owner, Transmission Owner

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<p><b>ISO-NE Disposition: MOD-025-2, All</b></p>	<p><u>Explanation of how Generator Owners (GOs) and Transmission Owners (TOs) submit an outage request to ISO-NE for conducting a verification of real or reactive power capability to meet MOD-025-2 requirements and submit the results of such verifications to ISO-NE. ISO-NE serves as the “Lead” Transmission Planner (TP) within the ISO-NE Planning Coordinator Area (PCA) (and the sole TP to receive such results).</u></p> <p>NERC Standard MOD-025-2 requires GOs and TOs to verify generator real and reactive power capability and synchronous condenser reactive power capability and to report results of such verifications to its Transmission Planner. While ISO-NE and seven other entities within the ISO-NE PCA are each registered as a TP, ISO-NE serves as the “Lead” TP for New England. Accordingly, all GOs and TOs in the New England PCA submit the results of their MOD-025-2 verifications of generator real and reactive power capability and synchronous condenser reactive power capability, as applicable, to ISO-NE. ISO-NE has forms and procedures for scheduling outages to conduct these verifications and for reporting the results to ISO-NE that can serve to facilitate GO and TO compliance with MOD-025-2 requirements.</p> <p>GOs and TOs should note that the information contained in this CEICG <u>pertains solely to compliance with MOD-025-2 requirements</u> and does <b>not</b> pertain to the separate ISO-NE requirements for verification of real and reactive power capability contained in <a href="#">ISO New England Operating Procedure No. 23</a> - Generator Resource Auditing. While information provided in this CEICG is intended to facilitate GO or TO compliance with MOD-025-2, ultimately, the responsibility for meeting and documenting compliance with the MOD-025-2 Standard lies with the GO or applicable TO.</p> <p><i>Scheduling outages to conduct verifications to meet MOD-025-2 requirements:</i></p> <p>GOs or TOs that wish their facility to operate at a predefined schedule for purposes of verifying real or reactive power capability must submit an outage request to ISO-NE in accordance with one of the following procedures, as applicable:</p> <ul style="list-style-type: none"> <li>• <i>For generators:</i> <a href="#">ISO New England Operating Procedure No. 5</a> - Generator, Dispatchable Asset Related Demand and Alternative Technology Regulation Resource Maintenance and Outage Scheduling (see “Owner Test Request”)</li> <li>• <i>For synchronous condensers:</i> <a href="#">ISO New England Operating Procedure No. 3</a> - Transmission Outage Scheduling</li> </ul> <p>For reactive capability verifications, a GO or TO must also complete the <a href="#">ISO</a></p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p><a href="#">New England Operating Procedure No. 23</a> - Generator Resource Auditing - Appendix H - Reactive Capability Audit Request Form posted on the ISO-NE public website, under <a href="#">ISO Operating Procedures</a>. This form must then be attached to an outage request in the outage scheduling software at least five (5) business days prior to the date of the verification.</p> <p><i>Submitting results of verifications to meet MOD-025-2 requirements to ISO-NE:</i></p> <p>MOD-025-2 Attachment 2 is a form listing the verification information required to be documented and submitted. Verification information may be submitted using the Attachment 2 form or other form containing equivalent information. ISO-NE has posted a spreadsheet <a href="#">Compliance Bulletin for MOD-025 Spreadsheet Form</a> on its public website that could be used as an alternative to the Attachment 2 form for all information except the one-line diagrams, which must be submitted separately.</p> <p>The MOD-025-2 Standard requires submittal of verification information within 90 calendar days of the date when the verification was performed. All MOD-025-2 verification information, regardless of the form utilized, must be emailed to ISO-NE to the following address: MOD25@iso-ne.com.</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-23</b>	<i>ISO-NE serves as the “Lead” TP within the ISO-NE RCA and is the sole TP within the ISO-NE RCA responsible for maintaining models in accordance with MOD-026-1 and MOD-027-1. GOP interactions with the TP pertaining to these standards should always be with ISO-NE.</i>
<b>NERC Standard</b>	<b>MOD-026-1</b> <b>Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions</b>
<b>Applicable Requirement(s)</b>	CEICG pertains to <i>all</i> Requirements of Standard <u>MOD-026-1 Purpose</u> : To verify that the generator excitation control system or plant volt/var control function model (including the power system stabilizer model and the impedance compensator model) and the model parameters used in dynamic simulations accurately represent the generator excitation control system or plant volt/var control function behavior when assessing Bulk Electric System (BES) reliability. [ <i>Applicable to GO, TP</i> ]
<b>NERC Standard</b>	<b>MOD-027-1</b> <b>Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions</b>
<b>Applicable Requirement(s)</b>	CEICG pertains to <i>all</i> Requirements of Standard <u>MOD-027-1 Purpose</u> : To verify that the turbine/governor and load control or active power/frequency control model and the model parameters, used in dynamic simulations that assess Bulk Electric System (BES) reliability, accurately represent generator unit real power response to system frequency variations. [ <i>Applicable to GO, TP</i> ]
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Owner, Transmission Planner
<b>ISO-NE Disposition: MOD-026-1, All MOD-027-1, All</b>	<p><u>Explanation of how ISO-NE is the Transmission Planner (TP) within the ISO-NE Planning Coordinator Area (PCA) with which Generator Owners (GOs) should interact</u></p> <p>While ISO-NE and seven other entities within the ISO-NE PCA are each registered as a TP, ISO-NE serves as the “Lead” TP for New England and maintains models in accordance with MOD-026. ISO-NE is the sole TP in New England responsible for meeting all TP requirements of MOD-026-1, including maintaining models to assess New England Bulk Electric System (BES) reliability and providing information to GOs.</p> <p>For matters pertaining to MOD-026-2 requiring interaction with a TP, GOs should contact ISO-NE and/or provide information to ISO-NE. GOs can contact ISO-NE Customer Service for instructions on how to obtain and/or provide model information. ISO-NE Customer Service <a href="#">contact information</a> is posted on the ISO-NE public website.</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-35</b>	<i>ISO-NE requires governor model validation from any nuclear unit that provides under-frequency response and allows exemptions for those that don't</i>
<b>NERC Standard</b>	<b>MOD-027-1</b> <b>Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions</b>
<b>Applicable Requirement(s)</b>	<b>R2.</b> Each Generator Owner shall provide, for each applicable unit, a verified turbine/governor and load control or active power/frequency control model, including documentation and data (as specified in Part 2.1) to its Transmission Planner in accordance with the periodicity specified in MOD-027 Attachment 1.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Owner
<b>ISO-NE Disposition: MOD-027-1, R2</b>	<p><u>Explanation of why ISO-NE requires governor model validation from any nuclear unit that provides under-frequency response and allows exemptions for those that don't.</u></p> <p>In New England, ISO-NE has determined that the reliability need regarding generator unit real power response to system frequency variations pertains only to under-frequency excursion events (and not over-frequency excursion events). Accordingly, ISO-NE allows units that are only capable of responding to over-frequency (and not capable of responding to under-frequency) to get the same exemption from the MOD-027-1 R2 model verification requirements that the Standard allows for units that are not responsive to <i>both</i> over- and under-frequency excursion events.</p> <p>According to MOD-027 Attachment 1, Row 7, if an applicable unit is not responsive to <u>both</u> over- and under-frequency excursion events, then Requirement R2 is met with a written statement to that effect transmitted to the Transmission Planner.</p> <p>As mentioned above, ISO-NE has no reliability need for governor model validation from nuclear units that do not provide under-frequency response (even if they do provide over-frequency response). Therefore, In New England, nuclear plants may meet Requirement R2 by providing a written statement to ISO-NE, as applicable, stating that their generating unit is either:</p> <ul style="list-style-type: none"> <li>• not responsive to both over- and under-frequency excursion events;</li> <li>or</li> </ul>

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	<ul style="list-style-type: none"><li>• not responsive to under-frequency excursion events.</li></ul> <p>Nuclear units that are responsive to under-frequency excursion events must meet MOD-027-1 R2 model verification requirements, as must all other types of generators.</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-22</b>	<i>The nature of Agreements pertaining to NUC-001-3 compliance within the ISO-NE RCA</i>
<b>NERC Standard</b>	<b>NUC-001-3 Nuclear Plant Interface Coordination</b>
<b>Applicable Requirement(s)</b>	<p><b>R2.</b> The Nuclear Plant Generator Operator and the applicable <b>Transmission Entities</b> shall have in effect one or more Agreements<sup>1</sup> that include mutually agreed to NPIRs and document how the Nuclear Plant Generator Operator and the applicable Transmission Entities shall address and implement these NPIRs.</p> <p><small>1 Agreements may include mutually agreed upon procedures or protocols in effect between entities or between departments of a vertically integrated system.</small></p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Each New England Nuclear Plant Generator Operator (NPGOP) has agreed upon certain Nuclear Plant Interface Requirements (NPIRs) with certain “Transmission Entities” (TEs) (as per NUC-001-3). In New England, these TEs include certain Transmission Operators (TOPs), Transmission Planner (TPs) and Transmission Owners (TOs). As a result, these NPGOPs and TEs are therefore subject to NUC-001-3 Requirements.
<b>ISO-NE Disposition: NUC-001-3, R2</b>	<p><u>Explanation of the nature of the agreements between NPGOPs and TEs pertaining to NPIRs and how the NPIRs are addressed and implemented, as well as a description of the process by which these NPIRs are agreed upon</u></p> <p><b>Scope:</b></p> <p>This document pertains to the NPIRs that have been agreed upon by New England NPGOPs and TEs, in accordance with NERC Standard NUC-001-3, R2. This narrative includes the following:</p> <ol style="list-style-type: none"> <li>1. Table listing of the NPGOPs and TEs to which one or more NPIRs apply</li> <li>2. Description of the nature of the agreements between the NPGOPs and TEs that contain the NPIRs and that describe how NPIRs are addressed and implemented</li> <li>3. A description of the process by which the NPIRs are agreed upon</li> </ol>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

List of New England Entities to which NPIRs Apply					
[For each nuclear power plant in New England, the Table specifies the TEs and NPGOPs to which one or more NPIRs apply, with specification of the reliability function type(s) (e.g., TOP, TP, GOP, TO or DP) for each entity involved in meeting one or more NPIRs]					
Nuclear Power Station:		<b>Pilgrim</b>	<b>Vermont Yankee *</b>	<b>Millstone</b>	<b>Seabrook</b>
Name of Registered Entity	→	<b>Entergy Nuclear Generation Company</b>	<b>Entergy Nuclear Vermont Yankee, LLC *</b>	<b>Dominion Nuclear Connecticut, Inc.</b>	<b>NextEra Energy Resources, LLC</b>
↓		GOP	GOP *	GOP	GOP
<b>ISO-NE</b>		TOP, TP	TOP, TP *	TOP, TP	TOP, TP
<b>Northeast Utilities Service Company [CONVEX]</b>				TOP	
<b>The Connecticut Light and Power Company [CL&amp;P]</b>				TO	
<b>Public Service Company of New Hampshire [New Hampshire]</b>					TOP
<b>NSTAR Electric Company [NSTAR]</b>		<i>TOP (DP currently being negotiated)</i>			
<b>Vermont Transco LLC [VELCO]</b>			TOP *		
<b>New England Power Company [REMVEC/NGRID]</b>			TOP *		
<i>Note: NPIR applicable for the period <u>4/1/10</u> through <u>2/25/14</u> ONLY</i>					
<b>New Hampshire Transmission, LLC</b>					TO

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

[NH Transmission]					
<i>* Note: Effective upon the 12/29/2014 retirement of Vermont Yankee Power Station, there were no longer any NPIRs applicable to the Vermont Yankee Power Station.</i>					
<p><b>Agreements (procedures) that contain the NPIRs:</b></p> <p>Master/Local Control Center Procedure No. 1 (M/LCC 1) - Nuclear Plant Transmission Operations contains an Attachment for each nuclear power station in New England. Each of these M/LCC 1 Attachments A through D contains a table that contains a list of all NPIRs pertinent to that station applicable to the NPGOP and to the TEs that perform the TOP, TP or TO functions (in Table 1, Section 9).</p> <p><b>NOTE:</b> The M/LCC 1 and Attachment documents are operating procedures that pertain to the operation of the Bulk Electric System. For this reason, <u>NPIRs that apply to the DP function (if any) are not contained in M/LCC 1 Attachments.</u> Any NPIR applicable to the DP function would be contained and addressed in other document(s) that have been mutually agreed upon between the NPGOP and DP through a process that is separate and distinct from the M/LCC 1 approval process described herein.</p> <p><i>Structure and Content of the NPIR Table 1 in the M/LCC 1 Attachments:</i></p> <p>The first column of the NPIR Table in each of the M/LCC 1 Attachments A through D contains the text of the NPIR. Each of the other columns of the NPIR table contains information regarding the TEs that have agreed to one or more of these NPIRs, including:</p> <ul style="list-style-type: none"> <li>• Name of the TE</li> <li>• Name of the TE (as referenced in the M/LCC 1 Attachment)</li> <li>• Reliability function type(s) that pertain to how NPIR is met (for example, TOP, TP, TO, etc.)</li> </ul>					

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	<p><b>Agreements (procedures) that describe how the NPGOP and applicable TEs address and implement these NPIRs and NUC-001-3 Requirements:</b></p> <p>In accordance with NUC-001-3, agreements for meeting Requirement 2 can include mutually-agreed-upon procedures in effect between the NPGOP and TE. In New England, such documents could include any mutually-agreed-upon procedure or any procedure/document that both the NPGOP and TE are obligated to follow. Such procedures/documents include those vetted through the NEPOOL stakeholder process (such as the <a href="#">ISO Tariff</a> and ISO-NE Operating and Planning Procedures, etc.) and any other mutually-agreed-upon procedure/document.</p> <p>NPIRs are met by the NPGOPs and TEs through their respective implementation of and adherence to various mutually-agreed upon operating and planning procedures. Documents that contain provisions pertaining to how the NPGOP and applicable TEs address and implement the NPIRs agreed to through the M/LCC 1 approval process are posted on the ISO-NE website and include, but are not limited to:</p> <ul style="list-style-type: none"><li>• <a href="#">M/LCC 1</a> – Master/Local Control Center Procedure No. 1 - Nuclear Plant Transmission Operations (and Attachments, some of which are confidential)</li><li>• <a href="#">OP-1A</a> – ISO New England Operating Procedure No. 1 - Central Dispatch Operating Responsibilities and Authority - Appendix A - Assignment of Responsibilities</li><li>• <a href="#">PP3</a> – ISO New England Planning Procedure No. 3 - Reliability Standards for the New England Area Bulk Power Supply System</li><li>• <a href="#">PP5-3</a> – ISO New England Planning Procedure 5-3 - Guidelines for Conducting and Evaluating Proposed Plan Application Analyses</li><li>• <a href="#">ISO Tariff</a> – ISO New England Inc. Transmission, Markets, and Services Tariff</li></ul> <p>NUC-001-3 R9 requires the NPGOP and TEs to include a variety of elements within the agreement(s) (procedures) identified by the NPGOPs and TEs in accordance with R2 that show how the NPIRs are addressed and implemented. Such elements pertain to administrative matters, technical requirements and analysis, coordination of operations and maintenance, communications and</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p>training. There is at least one mutually-agreed upon procedure (and often there are more) that includes each element specified in R9. However, not every element called for in R9 is contained every mutually-agreed upon procedure identified by the NPGOPs and TEs as one that demonstrates how NPIRs are addressed and implemented.</p> <p>Each TE and NPGOP maintains an internal “mapping” document that summarizes how each requirement of NUC-001-3 is met (referencing applicable agreed-upon procedures, etc.). Although the NPGOP and TEs are not required to formally agree on such documents, collaboration on their development and maintenance is desirable. M/LCC 1 requires the NPGOP and TEs to participate in Nuclear Plant Interface Meetings (NPIMs), as requested by the ISO-NE Principal Nuclear and System Reliability Coordinator. In accordance with NUC-001-3 and as required by M/LCC 1, at least once every three years, ISO-NE, each applicable LCC and the applicable NPGOP are required to review all relevant agreements and procedures that:</p> <ul style="list-style-type: none"><li>• include mutually agreed to NPIRs (M/LCC 1 Attachments A through D); and</li><li>• document how ISO-NE, each applicable LCC and each applicable NPGOP address and implement these NPIRs (various mutually-agreed-upon procedures)</li></ul> <p>Finally, in accordance with agreed-upon procedures, NPGOPs and TEs take appropriate actions to meet NPIRs. If system conditions or other factors impact the ability to meet the NPIRs, the NPGOPs and TEs have procedures that can be implemented for communications to be made and corrective actions to be taken to address the inability to meet the NPIRs.</p> <p><b>Agreements (procedures) that document how NPIRs are reviewed and approved:</b></p> <p>The NPIRs in Section 9, Table 1 of M/LCC 1 Attachments A through D are those that have been agreed upon between NPGOPs and TOPs, TOs or TPs through a review and approval process at NPIMs, as described in M/LCC 1 and M/LCC 1 Attachment E – Nuclear Plant Interface Meetings (See especially Section F – M/LCC 1 Approval NPIMs). Documentation of such approval is contained in the</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p>minutes of such NPIMs and in the Revision History section of the respective M/LCC 1 Attachments A through D documents.</p> <p>The highlights of this process are as follows:</p> <ul style="list-style-type: none"> <li>• ISO-NE, each LCC and each NPGOP is responsible for facilitating their respective reviews of the applicable NPIR(s) within the respective corporate organizational structures of which they are a part.</li> <li>• When ISO-NE, an LCC or an NPGOP participates in an NPIM to review and approve an M/LCC 1 Attachment that includes one or more NPIRs applicable to them for a GOP, TOP, TO or TP function(s) performed within the corporate organizational structure of which they are a part, they are agreeing to such NPIR(s) on behalf of all such TE(s) or function(s) within their corporate organizational structure.</li> <li>• NPIR approval is documented through the M/LCC 1 Attachment Revision History and in the minutes of the NPIM where the M/LCC Attachment is approved.</li> </ul>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-24</b>	<i>Based on the DDR capability requirements that ISO-NE has established and specified for the ISO-NE RCA, ISO-NE has notified certain TOs that certain of their BES elements require DDR data.</i>
<b>NERC Standard</b>	<b>PRC-002-2 Disturbance Monitoring and Reporting Requirements</b>
<b>Applicable Requirement(s)</b>	<p><b>R5.</b> Each Responsible Entity [Eastern Interconnection – Planning Coordinator: ISO-NE] shall:</p> <p><b>5.1</b> Identify BES Elements for which dynamic Disturbance recording (DDR) data is required, including the following: ... [See Standard for details]</p> <p><b>5.2</b> Identify a minimum DDR coverage, inclusive of those BES Elements identified in Part 5.1 ... [See Standard for details]</p> <p><b>5.3</b> Notify all owners of identified BES Elements, within 90-calendar days of completion of Part 5.1, that their respective BES Elements require DDR data when requested.</p> <p><b>5.4</b> Re-evaluate all BES Elements at least once every five calendar years in accordance with Parts 5.1 and 5.2, and notify owners in accordance with Part 5.3 to implement the re-evaluated list of BES Elements as per the Implementation Plan.</p>
	<p><b>R8.</b> Each Transmission Owner and Generator Owner responsible for DDR data for the BES Elements identified in Requirement R5 shall have continuous data recording and storage. If the equipment was installed prior to the effective date of this standard and is not capable of continuous recording, triggered records must meet the following... [see Standard for further details]</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Planning Coordinator, Transmission Owner, Generator Owner
<b>ISO-NE Disposition: PRC-002-2, R13</b>	<p><u>Identification of the entities that ISO-NE has requested to install DDR equipment.</u></p> <p>ISO-NE, as the Planning Coordinator in New England, has identified Bulk Electric System (BES) elements for which Dynamic Disturbance Recording (DDR) data are required, in accordance with PRC-002-2 R5. The entities for which ISO-NE has specified DDR capability requirements are all Transmission Owners (TOs). ISO-NE’s DDR capability requirements do not include any Generator Operators or other registered entities. ISO-NE has notified applicable TOs of identified BES elements, of which BES elements require DDR data. Note: in accordance with the “Rationale” for PRC-002-2 R5, for an interconnection between a TO and a GO, ISO-NE has determined that the TOs will provide the data.</p> <p>The following is the list of TOs for which ISO-NE has specified DDR capability</p>

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	<p>requirements and that have been notified:</p> <ul style="list-style-type: none"> <li>• Central Maine Power Company</li> <li>• Connecticut Light &amp; Power Company [Eversource Energy]</li> <li>• Emera, Maine</li> <li>• Entergy Nuclear Generation Company</li> <li>• National Grid USA</li> <li>• New Hampshire Transmission, LLC</li> <li>• NSTAR Electric Company [Eversource Energy]</li> <li>• Public Service Company of New Hampshire [Eversource Energy]</li> <li>• United Illuminating Company</li> <li>• Vermont Transco LLC</li> <li>• Western Massachusetts Electric Company [Eversource Energy]</li> </ul> <p>These TOs are the only entities within the ISO-NE Planning Coordinator Area (PCA) for which ISO-NE has specified DDR capability requirements and they are the only entities within the ISO-NE RCA that must comply with PRC-002-2 R8 and other applicable PRC-002-2 requirements.</p> <p>If there are any changes to ISO-NE’s DDR capability requirements, ISO-NE would notify the applicable entities and update this list, as necessary.</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-26</b>	<i>The ISO-NE UFLS program does not require a need for TOs to provide automatic switching of its existing capacitor banks, transmission lines, and reactors to control over-voltage as a result of underfrequency load shedding</i>
<b>NERC Standard</b>	<b>PRC-006-2</b> <b>Automatic Underfrequency Load Shedding</b>
<b>Applicable Requirement(s)</b>	<b>R10.</b> Each <b>Transmission Owner</b> shall provide automatic switching of its existing capacitor banks, Transmission Lines, and reactors to control over-voltage as a result of underfrequency load shedding if required by the UFLS program and schedule for application determined by the Planning Coordinator(s) in each Planning Coordinator area in which the <b>Transmission Owner</b> owns transmission.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Transmission Owner
<b>ISO-NE Disposition: PRC-006-2, R10</b>	<p><u>Explanation of how ISO-NEs UFLS program does not require a need for Transmission Owners (TOs) to provide automatic switching of any of its equipment.</u></p> <p>As the Planning Coordinator in New England, ISO-NE has developed an underfrequency load shedding (UFLS) program in accordance with the requirements of NERC Reliability Standard PRC-006-2 and NPCC Regional Reliability Reference Directory #12 - Underfrequency Load Shedding Program Requirements. The ISO-NE UFLS program is described in <a href="#">ISO New England Operating Procedure No. 13</a>, Standards for Voltage Reduction and Load Shedding Capability (OP-13) and OP-13 Appendices. As part of ISO-NE's UFLS program, ISO-NE provides notification of and a schedule for the implementation by UFLS entities within its area in the following documents:</p> <ul style="list-style-type: none"> <li>• ISO New England Operating Procedure No. 13 - Standards for Voltage Reduction and Load Shedding Capability Appendix B - Underfrequency Load Shedding Program Requirements (OP-13B)</li> </ul> <p>As explained in OP-13B, the ISO-NE UFLS program does not require a need for any TOs to provide automatic switching of their existing capacitor banks, transmission lines, and reactors to control over-voltage as a result of underfrequency load shedding. Therefore, TOs within the ISO-NE Reliability Coordinator Area (RCA) do not need to provide automatic switching for such equipment.</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-18</b>	<i>How TOs, GOs and DPs within the ISO-NE RCA can comply with the requirement to obtain agreement of the PC, TOP and RC regarding the calculated circuit capability in the setting of protective relays, such that they do not limit transmission system loadability and, for entities that use PRC-023-3 R1 criterion 2 as the basis for verifying transmission line relay loadability, how to comply with the requirement to annually provide an updated list of circuits associated with those transmission line relays to their PC, TOP and RC</i>
<b>NERC Standard</b>	<b>PRC-023-3 Transmission Relay Loadability</b>
<b>Applicable Requirement(s)</b>	<p><b>R3:</b> Each <b>Transmission Owner, Generator Owner, and Distribution Provider</b> that uses a circuit capability with the practical limitations described in Requirement R1, criterion 6, 7, 8, 9, 12, or 13 shall use the calculated circuit capability as the Facility Rating of the circuit and shall obtain the agreement of the Planning Coordinator, Transmission Operator, and Reliability Coordinator with the calculated circuit capability.</p> <p><b>R4.</b> Each <b>Transmission Owner, Generator Owner, and Distribution Provider</b> that chooses to use Requirement R1 criterion 2 as the basis for verifying transmission line relay loadability shall provide its Planning Coordinator, Transmission Operator, and Reliability Coordinator with an updated list of circuits associated with those transmission line relays at least once each calendar year, with no more than 15 months between reports.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Transmission Owner, Generator Owner, Distribution Provider
<b>ISO-NE Disposition PRC-023-3</b>	<p><u>Explanation of how Transmission Owners (TOs), Generator Owners (GOs) and Distribution Providers (DPs) provide information to ISO-NE to comply with PRC-023-3 R3 and R4</u></p> <p>In accordance with PRC-023-3 R6, ISO-NE determines the circuits in its Planning Coordinator Area (PCA) for which certain Registered Entities must comply with Requirements R1 through R5. ISO-NE CEICG-27 lists the TOs, GOs and DPs that own the applicable terminals of these circuits and that must comply with PRC-023-3 R1 through R5.</p> <p>To meet PRC-023-3 R3 and R4, identified TOs, GOs and DPs must provide information to ISO-NE (and, for R3, must also obtain agreement from ISO-NE).</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p>To meet <u>PRC-023-3 R3</u>, each identified TO, GO and DP that owns the applicable terminal of these circuits with transmission relays set according to PRC-023-3 R1, criterion 6, 7, 8, 9, 12, or 13 must use the calculated circuit capability as the Facility Rating of the circuit and obtain agreement from ISO-NE on the resulting Facility Rating. To obtain such agreement from ISO-NE, each identified TO, GO and DP must send the pertinent Facility Ratings calculations (e.g., Facility Rating spreadsheets or Facility Rating database) to ISO-NE <i>Operations Support Services</i> group at the following ISO-NE Email address: <a href="mailto:prc_setting@iso-ne.com">prc_setting@iso-ne.com</a>. ISO-NE’s review of and agreement to the Facility Ratings submitted in accordance with PRC-023-3 would be limited to the line rating change and the selection of the method used for the calculation of the line rating. ISO-NE will provide an email response indicating whether it agrees or disagrees with the Facility Ratings proposed by a TO, GO or DP.</p> <p>To meet <u>PRC-023-3 R4</u>, each identified TO, GO and DP that owns the applicable terminal of these circuits and that chooses to use PRC-023-3 R1, criterion 2 as the basis for verifying transmission line relay loadability must provide ISO-NE with an updated list of circuits associated with those transmission line relays (if any) at least once each calendar year, with no more than 15 months between provision of updates (the updated list may either be a full list, a list of incremental changes to the previous list, or a statement that there are no changes to the previous list). ISO-NE has established a <b>target date of April 15</b> for all annual transmittals from a TO, GO or DP pertaining to PRC-023-3 R4 requirements. These annual transmittals should be sent to ISO-NE <i>Operations Support Services</i> group at the following ISO-NE Email address: <a href="mailto:prc_setting@iso-ne.com">prc_setting@iso-ne.com</a>.</p> <p>Note: each TO, GO and DP maintains their own records of these email transmittals, for audit purposes.</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-27</b>	<i>ISO-NE has identified circuits in its PC area for which TOs, GOs, and DPs must comply with PRC-023-3 Requirements R1 through R5 and provides the list of these circuits to the respective owners of those facilities and to NPCC.</i>
<b>NERC Standard</b>	<b>PRC-023-3 Transmission Relay Loadability</b>
<b>Applicable Requirement(s)</b>	<p><b>R6.</b> Each <b>Planning Coordinator</b> shall conduct an assessment at least once each calendar year, with no more than 15 months between assessments, by applying the criteria in PRC-023-3, Attachment B to determine the circuits in its Planning Coordinator area for which Transmission Owners, Generator Owners, and Distribution Providers must comply with Requirements R1 through R5. The Planning Coordinator shall:</p> <p><b>6.1.</b> Maintain a list of circuits subject to PRC-023-3 per application of Attachment B, including identification of the first calendar year in which any criterion in PRC-023-3, Attachment B applies.</p> <p><b>6.2.</b> Provide the list of circuits to all Regional Entities, Reliability Coordinators, Transmission Owners, Generator Owners, and Distribution Providers within its Planning Coordinator area within 30 calendar days of the establishment of the initial list and within 30 calendar days of any changes to that list.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Planning Coordinator
<b>ISO-NE Disposition: PRC-023-3, R6</b>	<p><u>Explanation of how ISO-NE has identified circuits in its Planning Coordinator (PC) area for which Transmission Owners (TOs), Generator Owners (GOs), and Distribution Providers (DPs) must comply with PRC-023-3 Requirements R1 through R5 and provides the list of these circuits to the respective owners of those facilities and to NPCC.</u></p> <p>As required by required by PRC-023-3 R6, ISO-NE conducts an annual assessment to determine the circuits in its Planning Coordinator Area (PCA) for which TOs, GOs and DPs must comply with PRC-023-3 <u>R1 through R5</u> with respect to circuit terminals to prevent phase protective relay settings from limiting transmission system loadability while maintaining reliable protection of the Bulk Electric System (BES) for all fault conditions. As required by PRC-023-3 R6, Part 6.1, ISO-NE maintains a list of these identified circuits. An assigned ISO-NE <i>Reliability &amp; Operations Compliance Analyst</i> provides this list of circuits to NPCC (NPCCCI@npcc.org) and to the respective TOs, GOs and DPs that own circuits on that list, in accordance with PRC-023-3 R6, Part 6.2.</p> <p>The latest list of circuits developed by ISO-NE (as of October 14, 2014) and sent to TOs, GOs, DPs and NPCC includes the following TOs, GOs and DPs that own the applicable terminals of these circuits and that must comply with PRC-023-3 R1</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	<p>through R5:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">TOs, GOs and DPs that Received Notifications from ISO-NE and that Must Comply with PRC-023-3 R1-R5</th> <th style="text-align: center;">Date of ISO-NE Notification to Owner</th> </tr> </thead> <tbody> <tr><td>Central Maine Power Company (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Connecticut Transmission Municipal Electric Energy Cooperative (TO) <sup>1</sup></td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Connecticut Light and Power Company [Eversource Energy] (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Emera Maine, Inc. (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Energy Nuclear Generation Company (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Fitchburg Gas &amp; Electric Light Company (DP)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Granite Ridge Energy, LLC (GO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Massachusetts Municipal Wholesale Electric Company (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Milford Power (GO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>New England Power Company [National Grid] (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>New Hampshire Transmission, LLC (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>NSTAR Electric Company [Eversource Energy] (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Pittsfield Generating Company LP (GO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Public Service Company of New Hampshire [Eversource Energy] (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Town of Reading Municipal Light Department (DP)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Town of Wallingford CT Dept of Public Utilities Electric Division (DP)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td><del>TransCanada Power Marketing Ltd. (GO) <sup>2</sup></del></td><td style="text-align: center;">4/28/15</td></tr> <tr><td>United Illuminating Company (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Vermont Transco LLC (TO)</td><td style="text-align: center;">12/15/15</td></tr> <tr><td>Western Massachusetts Electric Company [Eversource Energy] (TO)</td><td style="text-align: center;">12/15/15</td></tr> </tbody> </table> <p><sup>1</sup> Connecticut Transmission Municipal Electric Energy Cooperative, which represents several Connecticut municipal utilities, is the entity that ISO-NE notifies regarding all matters pertaining to its members. The circuit terminals that ISO-NE has identified for PRC-023-3 are owned by one of those members, <b>Mohegan Tribal Utility Authority</b>, which is registered as a DP.</p> <p><sup>2</sup> On 4/28/15 ISO-NE notified TransCanada that they were being removed from the list and that they should not have been on the list in the first place.</p> <p>If and when this list changes, ISO-NE would notify NPCC and the applicable TOs, GOs or DPs within 30 days and would reflect these changes in the next revision of this CEICG.</p>	TOs, GOs and DPs that Received Notifications from ISO-NE and that Must Comply with PRC-023-3 R1-R5	Date of ISO-NE Notification to Owner	Central Maine Power Company (TO)	12/15/15	Connecticut Transmission Municipal Electric Energy Cooperative (TO) <sup>1</sup>	12/15/15	Connecticut Light and Power Company [Eversource Energy] (TO)	12/15/15	Emera Maine, Inc. (TO)	12/15/15	Energy Nuclear Generation Company (TO)	12/15/15	Fitchburg Gas & Electric Light Company (DP)	12/15/15	Granite Ridge Energy, LLC (GO)	12/15/15	Massachusetts Municipal Wholesale Electric Company (TO)	12/15/15	Milford Power (GO)	12/15/15	New England Power Company [National Grid] (TO)	12/15/15	New Hampshire Transmission, LLC (TO)	12/15/15	NSTAR Electric Company [Eversource Energy] (TO)	12/15/15	Pittsfield Generating Company LP (GO)	12/15/15	Public Service Company of New Hampshire [Eversource Energy] (TO)	12/15/15	Town of Reading Municipal Light Department (DP)	12/15/15	Town of Wallingford CT Dept of Public Utilities Electric Division (DP)	12/15/15	<del>TransCanada Power Marketing Ltd. (GO) <sup>2</sup></del>	4/28/15	United Illuminating Company (TO)	12/15/15	Vermont Transco LLC (TO)	12/15/15	Western Massachusetts Electric Company [Eversource Energy] (TO)	12/15/15
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-34</b>	<i>Identifies ISO-NE as the “Lead” Transmission Planner for and instructs GOs required by PRC-024-2 requirement R3, Part 3.1 and requirement R4 to send information to their Transmission Planner to send that information to ISO-NE (and not to other TPs in New England) (CEICG-34).</i>
<b>NERC Standard</b>	<b>PRC-024-2 Generator Frequency and Voltage Protective Relay Settings</b>
<b>Applicable Requirement(s)</b>	<p><b>R3.</b> Each Generator Owner shall document each known regulatory or equipment limitation<sup>5</sup> that prevents an applicable generating unit with generator frequency or voltage protective relays from meeting the relay setting criteria in Requirements R1 or R2 including (but not limited to) study results, experience from an actual event, or manufacturer’s advice.</p> <p><b>3.1.</b> The Generator Owner shall communicate the documented regulatory or equipment limitation, or the removal of a previously documented regulatory or equipment limitation, to its Planning Coordinator and Transmission Planner within 30 calendar days of any of the following:</p> <ul style="list-style-type: none"> <li>• Identification of a regulatory or equipment limitation.</li> <li>• Repair of the equipment causing the limitation that removes the limitation.</li> <li>• Replacement of the equipment causing the limitation with equipment that removes the limitation.</li> <li>• Creation or adjustment of an equipment limitation caused by consumption of the cumulative turbine life-time frequency excursion allowance.</li> </ul>
	<p><b>R4.</b> Each Generator Owner shall provide its applicable generator protection trip settings associated with Requirements R1 and R2 to the Planning Coordinator or Transmission Planner that models the associated unit within 60 calendar days of receipt of a written request for the data and within 60 calendar days of any change to those previously requested trip settings unless directed by the requesting Planning Coordinator or Transmission Planner that the reporting of relay setting changes is not required.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Owner

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<p><b>ISO-NE Disposition: PRC-024-2, R3, Part 3.1 &amp; R4</b></p>	<p><u>Explanation of how Generator Owners (GOs) required by PRC-024-2 requirement R3, Part 3.1 and requirement R4 to send information to their Transmission Planner (TP) should send that information to ISO-NE only.</u></p> <p>PRC-024-2 requires that GOs send certain information pertaining to generator protective relays to their TP according to certain criteria and within specific timeframes specified in the Standard. This includes information pertaining to:</p> <ul style="list-style-type: none"> <li>• Limitations that prevent a generating unit with generator frequency or voltage protective relays from meeting the relay setting criteria [as per R3, Part 3.1]</li> <li>• Generator protection trip settings [as per R4]</li> </ul> <p>Such information should be sent to ISO-NE (and only to ISO-NE) at email address PRC_Settings@iso-ne.com. While ISO-NE and seven other entities within the ISO-NE Planning Coordinator Area (PCA) are each registered as a TP, ISO-NE serves as the “Lead” TP for the New England PCA, so all such information should be sent only to ISO-NE.</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-14</b>	<i>How BAs, TOPs and GOPs within the ISO-NE RCA can comply with Standards pertaining to rendering emergency assistance</i>
<b>NERC Standard</b>	<b>TOP-001-1a Reliability Responsibilities and Authorities</b>
<b>Applicable Requirement(s)</b>	<b>R6:</b> Each <b>Transmission Operator, Balancing Authority, and Generator Operator</b> shall render all available emergency assistance to others as requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Balancing Authority, Transmission Operator, Generator Operator
<b>ISO-NE Disposition: TOP-001-1a, R6</b>	<p><u>Explanation of how Balancing Authorities (BAs), Transmission Operators (TOPs) and Generator Operators (GOPs) within the ISO-NE Reliability Coordinator Area (RCA) can comply with Standards pertaining to rendering emergency assistance</u></p> <p>Within the ISO-NE RCA, emergency assistance is provided between and among the Areas by ISO-NE in accordance with NPCC Directory #2, Emergency Operations, ISO-NE Operating Procedures and ISO-NE Coordination Agreements with neighboring BAs.</p> <p>Additionally, since the other applicable entities (Generator Operators) respond to operating instructions from either ISO-NE or a Local Control Center (LCC) in order to provide such assistance when necessary, Generator Operators are considered to be compliant with TOP-001-1a R6, absent failure to follow operating instructions from ISO-NE or an LCC. In this case, there could be non-compliance with the <a href="#">ISO Tariff</a> and/or other associated NERC Standard Requirements.</p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-17</b>	<b><i>GOP adherence to ISO-NE OP-5 outage coordination procedures facilitates compliance with certain TOP Standards</i></b>
<b>NERC Standard</b>	<b>TOP-001-1a Reliability Responsibilities and Authorities</b>
<b>Applicable Requirement(s)</b>	<p><b>R7.</b> Each Transmission Operator and <b>Generator Operator</b> shall not remove Bulk Electric system facilities from service if removing those facilities would burden neighboring systems unless:</p> <p><b>R7.1.</b> For a generator outage, the <b>Generator Operator</b> shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the Reliability Coordinator and other affected Transmission Operators and coordinate the impact of removing the Bulk Electric System facility.</p>
<b>NERC Standard</b>	<b>TOP-002-2.1.b Normal Operations Planning</b>
<b>Applicable Requirement(s)</b>	<p><b>R3.</b> Each Load Serving Entity and <b>Generator Operator</b> shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. Each Balancing Authority and Transmission Service Provider shall coordinate its current-day, next-day, and seasonal operations with its Transmission Operator.</p> <p><b>R15.</b> <b>Generation Operators</b> shall, at the request of the Balancing Authority or Transmission Operator, provide a forecast of expected real power output to assist in operations planning (e.g., a seven-day forecast of real output).</p>
<b>NERC Standard</b>	<b>TOP-003-1 Planned Outage Coordination</b>
<b>Applicable Requirement(s)</b>	<p><b>R1.</b> <b>Generator Operators</b> and Transmission Operators shall provide planned outage information, and:</p> <p><b>R1.1.</b> Each <b>Generator Operator</b> shall provide outage information daily to its Transmission Operator for scheduled generator outages planned for the next day (any foreseen outage of a generator greater than 50 MW). The Transmission Operators shall establish the outage reporting requirements.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Operator
	<p><u>Explanation of how Generator Operator (GOP) adherence to ISO-NE OP-5 outage coordination procedures facilitates compliance with certain TOP Standards.</u></p> <p>Per the Market Participant Service Agreement (which is Attachment A of the <a href="#">ISO</a></p>

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<p><b>ISO-NE Disposition:</b>  <b>TOP-001-1a, R7, R7.1</b>  <b>TOP-002-2.1.b, R3, R15</b>  <b>TOP-003-1, R1, R1.1</b></p>	<p><u>Tariff</u>), ISO-NE Market Participants (including GOPs) are obligated to follow, among other things, ISO-NE Operating Procedures. <u>ISO New England Operating Procedure No. 5</u> - Generator, Dispatchable Asset Related Demand and Alternative Technology Regulation Resource Maintenance and Outage Scheduling (OP-5) generally establishes that:</p> <p style="padding-left: 40px;">All Generator Planned and Maintenance Outages are to be scheduled according to OP-5. Generators should not be taken out of service for maintenance without ISO approval, unless there is a danger to personnel or a risk of equipment damage. See OP-5 at Part I, p1.</p> <p>Specifically, OP-5 defines the process for Market Participants to request, and for ISO-NE to evaluate and approve or deny outages. It specifies three (3) outage-scheduling processes:</p> <ul style="list-style-type: none"> <li>• The First Future Year - Annual Maintenance Schedule</li> <li>• The Current Year - Annual Maintenance Schedule</li> <li>• The Maintenance Outage Request and Evaluation Process</li> </ul> <p>The scheduling requirements noted above are designed to allow:</p> <p>(a) each Market Participant to incorporate future maintenance in its budget forecasts</p> <p>(b) sufficient time for Market Participants to respond to market signals, <i>and</i></p> <p>(c) sufficient time for ISO and its Local Control Centers (LCCs) to assess the impact of each Generator and DARD (Dispatchable Asset Related Demand) outage request on the New England Reliability Coordinator Area/Balancing Authority Area (RCA/BAA) bulk power system reliability.</p> <p>See OP-5 Part I at p. 4, and Part III, Section I.A.2.</p> <p>GOP adherence to OP-5 provisions is one of the ways in which Market Participants doing business within the ISO-NE RCA coordinate “current-day, next-day, and seasonal operation” with ISO-NE (which is registered as a Balancing Authority and Transmission Service Provider). The OP-5 provisions also support a larger set of ISO-NE rules which serve as a “standing request” for a “forecast of expected real power output” (as required by TOP-002-2.1.b Requirement R15).</p> <p>OP-5 establishes ISO-NE outage reporting requirements. The importance of GOPs and Transmission Operators adhering to ISO-NE’s outage reporting requirements is that those requirements ensure that ISO-NE has the necessary information regarding facilities within its footprint (regardless of the MW size) to effectively coordinate with other potentially impacted operating entities (e.g., other Transmission Operators/Balancing Authorities). Because a GOP would not necessarily be aware of whether removing its facilities would burden neighboring systems, a GOP is required to seek approval for its outage request per OP-5.</p>
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# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

	Failure to provide notifications and coordinate outages, as specified in OP-5, would appear to constitute a violation of one or more of the TOP requirements referenced in this CEICG.

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-28</b>	<i>ISO-NE serves as the PC and “Lead” TP for the ISO-NE PC Area and maintains models for all TPs within the ISO-NE PC Area</i>
<b>NERC Standard</b>	<b>TPL-001-4 Transmission System Planning Performance Requirements</b>
<b>Applicable Requirement(s)</b>	<b>R1.</b> Each <b>Transmission Planner</b> and <b>Planning Coordinator</b> shall maintain System models within its respective area for performing the studies needed to complete its Planning Assessment. The models shall use data consistent with that provided in accordance with the MOD-010 and MOD-012 standards, supplemented by other sources as needed, including items represented in the Corrective Action Plan, and shall represent projected System conditions...
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Planning Coordinator, Transmission Planner
<b>ISO-NE Disposition: TPL-001-4, R1</b>	<u>Explanation of how ISO-NE maintains the System models used by all Transmission Planners (TPs) within the ISO-NE Planning Coordinator Area (PCA) to conduct Planning Assessments</u>  ISO-NE serves as the Planning Coordinator (PC) and “Lead” TP for the ISO-NE PCA. As the “Lead” TP, ISO-NE maintains the System models for the ISO-NE transmission system, in accordance with TPL-001-4 R1. ISO-NE and all other TPs within the ISO-NE PCA use these System models for performing the studies needed to complete their respective Planning Assessments.

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

<b>CEICG-16</b>	<b><i>ISO-NE operations and planning processes do not result in ISO-NE identifying and requesting changes to GSU transformer tap settings</i></b>
<b>NERC Standard</b>	<b>VAR-001-4.1 Voltage and Reactive Control</b>
<b>Applicable Requirement(s)</b>	<b>R6.</b> After consultation with the Generator Owner regarding necessary step-up transformer tap changes and the implementation schedule, the <b>Transmission Operator</b> shall provide documentation to the Generator Owner specifying the required tap changes, a timeframe for making the changes, and technical justification for these changes.
<b>NERC Standard</b>	<b>VAR-002-4 Generator Operation for Maintaining Network Voltage Schedules</b>
<b>Applicable Requirement(s)</b>	<b>R6.</b> After consultation with the Transmission Operator regarding necessary step-up transformer tap changes, the <b>Generator Owner</b> shall ensure that transformer tap positions are changed according to the specifications provided by the Transmission Operator, unless such action would violate safety, an equipment rating, a regulatory requirement, or a statutory requirement. <b>6.1.</b> If the Generator Owner cannot comply with the Transmission Operator’s specifications, the Generator Owner shall notify the Transmission Operator and shall provide the technical justification.
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Transmission Operator, Generator Owner
<b>ISO-NE Disposition: VAR-001-4.1, R6 VAR-002-4, R6</b>	<p><u>Explanation of how ISO-NE operations and planning processes do not result in ISO-NE identifying and requesting changes to generator step-up (GSU) transformer tap settings</u></p> <p>In New England, VAR-001-4.1 R6 and VAR-002-4 R6 do not apply because the Transmission Operators [ISO-NE and the Local Control Centers (LCCs)] do not specify or request changes to GSU transformer tap settings. Generator Owners (GOs) determine GSU transformer tap settings that are appropriate for their generators and inform ISO-NE of the settings they are proposing to use. Any change to a GSU transformer tap setting could be considered a material change to the system and would be processed through the ISO-NE planning process in accordance with Section I.3.9 of the <a href="#">ISO Tariff</a>. In accordance with ISO-NE Planning Procedure 5-1, “Procedure for Review of Governance Participant’s Proposed Plans (Section I.3.9 Applications: Requirements, Procedures and Forms)” (Section 2.2), all transmission changes that change the topology or characteristics of the transmission system or that change the thermal capability of a portion of the system by replacement of transmission facilities require a</p>



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	<p>Proposed Plan Application (PPA) under Section I.3.9 of the <a href="#">ISO Tariff</a>. This requirement applies to generator leads and associated equipment, such as GSU transformers.</p> <p>Also, in real time, ISO-NE does not specifically review and request GSU transformer tap changes for voltage/reactive control. Generators are required to maintain a specified voltage schedule within a tolerance band. If ISO-NE or an LCC identifies a voltage issue, a study would likely be conducted and the results of such a study could lead to recommendations for particular solutions, which may (or may not) include changes to GSU transformer tap settings. ISO-NE would then inform the generator Lead Market Participant (LMP) of the voltage issue and, in some cases, recommend solution(s). The LMP may (or may not) choose to address the issue through a modification to a generator tap setting, but that would be their determination (not ISO-NE's or an LCC's). If the generator LMP opts to resolve the voltage issue through a change to a GSU transformer tap setting, it would be processed through the ISO-NE planning process described above.</p>
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<b>CEICG-08</b>	<b><i>ISO-NE provides email notification to NPCC/Auditors if a GO does not provide Generator Step Up and Auxiliary Transformer information to ISO-NE within 30 calendar days of a request for such data</i></b>
<b>NERC Standard</b>	<b>VAR-002-4 Generator Operation for Maintaining Network Voltage Schedules</b>
<b>Applicable Requirement(s)</b>	<p><b>R5.</b> The <b>Generator Owner</b> shall provide the following to its associated Transmission Operator and Transmission Planner within 30 calendar days of a request.</p> <p><b>5.1.</b> For generator step-up transformers and auxiliary transformers with primary voltages equal to or greater than the generator terminal voltage:</p> <p><b>5.1.1.</b> Tap settings.</p> <p><b>5.1.2.</b> Available fixed tap ranges.</p> <p><b>5.1.3.</b> Impedance data.</p>
<b>Functional Entities to which Requirement(s) and CEICG Apply</b>	Generator Owner
<b>ISO-NE Disposition: VAR-002-4, R5</b>	<p><u>Explanation of how ISO-NE will keep NPCC informed about Generator Owner (GO) failures to provide data referenced in this Requirement by the required deadline</u></p> <p>NPCC has requested that ISO-NE corroborate evidence provided by the GO to NPCC that the GO provided its associated Transmission Operator (TOP) and Transmission Planner (TP) with information on its step-up transformers and auxiliary transformers as required in NERC Standard VAR-002-4, Requirement R5. ISO-NE and NPCC have agreed that such corroborating evidence provided by ISO-NE will be by exception, i.e., in the event that any GO fails to provide data referenced in this Requirement within 30 calendar days of an ISO-NE request for such data, ISO-NE will notify NPCC by email.</p> <p><u>Process and Responsibilities</u></p> <p>In accordance with <a href="#">ISO-NE Operating Procedure No. 16</a> - Transmission System Data, it is the responsibility of the Market Participants to submit required data on the physical characteristics, ratings, and other operational data of all new, reconducted, and reconfigured New England Transmission System equipment to ISO-NE. Each year, the ISO-NE <i>Power System Model Management</i> group initiates an NX-9 certification process to verify that such data are accurate and complete. This process requires the Market Participant to certify that all transmission equipment identified in OP-16, including generator step-up</p>

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	<p>transformers and auxiliary transformers, is accurately represented on the appropriate NX-9 form and that the data is accurate, complete and reflects the actual physical characteristics, ratings, and operational limits of the equipment. ISO-NE initiates the NX-9 certification process by sending a current copy of the Market Participant NX-9 database and a <i>Certification of ISO New England Transmission Equipment Rating, Characteristic, and Operational Data</i> form to the Market Participant NX-9 contact (this occurs on what is identified as the “certification initiation date”). To be in compliance with this ISO-NE request, the Market Participant must, within 30 calendar days of the certification initiation date, either:</p> <ul style="list-style-type: none"> <li>• Self certify to ISO-NE that the NX-9 data is accurate and complete and that no changes to the NX-9 database are necessary; or</li> <li>• Update and submit to ISO-NE the necessary changes to the NX-9 data to make the data accurate and complete.</li> </ul> <p>As described in <a href="#">OP-16 - Appendix E</a> - Annual Certification of ISO New England Transmission Equipment Rating, Characteristic, and Operational Data, if a Market Participant fails to respond to this ISO-NE request within the timeframe described above, the ISO-NE <i>Power System Model Management</i> group shall notify the ISO-NE <i>Reliability &amp; Operations Compliance</i> group within 10 working days of the deadline date by which the Market Participant should have responded. This notification shall be sent by email to ROC@iso-ne.com and shall identify the Market Participant that did not provide the self-certification by the required deadline.</p> <p>The ISO-NE <i>Reliability &amp; Operations Compliance</i> group shall notify, by email, NPCC’s Manager, Compliance Audit Program (NPCCCI@npcc.org) of any failures to respond to requests for self-certifications within 10 working days of receiving notice of such failures from the ISO-NE <i>Power System Model Management</i> group. Each notification shall identify the Market Participant that did not provide the self-certification by the required deadline.</p>

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Appendix A - ISO-NE Corroborating Evidence Interpretations and Compliance Guidance (CEICG) Document Index (Rev. 5, July 1, 2016)														
NERC Standard	Req.	CEICG	Page #	Functional Entities to which Requirement and CEICG Apply										
				BA	DP	GO	PA/PC	RC	TO	TOP	TP	TSP		
BAL-003-0.1b	R4	CEICG-02	8-9	x										
BAL-005-0.2b	R10, R12.3	CEICG-02	8-9	x										
BAL-005-0.2b	R1	CEICG-05	10	x			x					x		
COM-001-2.1	R3-R5, R7, R8, R10, R11	CEICG-29	11-13	x	x		x					x		
COM-002-4	R5, R6, R7	CEICG-32	14-16	x	x		x		x			x		
CIP-002-5.1	R1	CEICG-30	17-21	x	x	x	x		x	x	x			
EOP-003-2	R2, R7	CEICG-06	22-23									x		
EOP-005-2	R12, R18	CEICG-21	24-25				x					x		
FAC-002-2	R2, R3, R4, R5	CEICG-13	26-27		x	x					x			
FAC-003-3	A//	CEICG-31	28-29			x					x			
INT-004-3.1	R3	CEICG-02	8-9	x										
IRO-001-1.1	R8	CEICG-01	30-32											x
IRO-004-2	R1	CEICG-01	30-32											x
IRO-005-3.1a	R10	CEICG-10	33	x			x					x		x
IRO-010-1a	R3	CEICG-20	34-35			x	x							
MOD-020-0	A//	CEICG-19	36-37										x	
MOD-025-2	R1, R2, R3	CEICG-33	38-40										x	
MOD-026-1	A//	CEICG-23	41			x							x	
MOD-027-1	A//	CEICG-23	41			x							x	
MOD-027-1	R2	CEICG-35	42-43			x								
MOD-031-0	R1, R2, R4	CEICG-19	36-37		x									x
NUC-001-3	R2	CEICG-22	44-49		x		x				x	x	x	
NUC-001-3	R9.3.7	CEICG-06	22-23		x		x				x	x	x	
PRC-002-2	R5, R8	CEICG-24	50-51			x					x			
PRC-006-2	R10	CEICG-26	52								x			
PRC-010-0	A//	CEICG-06	22-23		x						x	x		
PRC-011-0	A//	CEICG-06	22-23		x						x	x		
PRC-021-1	A//	CEICG-06	22-23		x						x	x		
PRC-022-1	A//	CEICG-06	22-23		x						x			
PRC-023-3	R3, R4	CEICG-18	53-54		x	x					x			
PRC-023-3	R6	CEICG-27	55-56					x						
PRC-024-2	R3, R4	CEICG-34	57-58			x								
TOP-001-1a	R3, R4	CEICG-01	30-32		x									
TOP-001-1a	R6	CEICG-14	59	x			x					x		
TOP-001-1a	R7, R7.1	CEICG-17	60-62				x							
TOP-002-2.1b	R3	CEICG-01	30-32											
TOP-002-2.1b	R3, R14, R15	CEICG-20	34-35				x							
TOP-002-2.1b	R3, R15	CEICG-17	60-62				x							
TOP-003-1	R1, R1.1	CEICG-17	60-62				x							
TOP-006-2	R1.1	CEICG-20	34-35				x							
TPL-001-4	R1	CEICG-28	63					x					x	
VAR-001-4.1	R6	CEICG-16	64-65									x		
VAR-002-4	R5	CEICG-08	66-67			x								
VAR-002-4	R6	CEICG-16	64-65			x								

# ISO-NE Corroborating Evidence Interpretations and Compliance Guidance for NPCC Compliance Audits of NERC Reliability Standards

## Document History

Rev. No.	Date	Reason
Rev 0	2009 – 2012	Separate Corroborating Evidence Interpretation (CEI) documents were developed and updated as necessary by ISO-NE during the period January 2009 through August 2012. These documents were approved by NPCC and posted on the ISO-NE public Web site throughout that period. There were various revisions to these documents throughout the period, but for the intent and purpose of moving forward with a consolidated document, all such revision shall be considered "Rev 0" to the initial version of the consolidated CEICG document (Rev 1).
Rev 1	08/09/12	Consolidated all CEIs into a single Compliance Evidence Interpretations and Compliance Guidance (CEICG) document and made other miscellaneous editorial and formatting changes.
Rev 1a	12/13/12	Updated to reference the latest versions of NERC Standards and to make a few other non-material editorial changes. Added columns for page numbers to both the Index on page 3 and to the more detailed Appendix A Index and populated them with page numbers. The only substantive change made was to expand CEICG-1/CEICG15 to include TOP-002-2.1.b, R3, to address the fact that, per ISO-NE Tariff and Market Rules, a Load Serving Entity does not coordinate operations with ISO.
Rev 2	07/01/13	Revised "Index of Standards Addressed by CEICGs in this Document: (1) added applicable Requirement #s; (2) replaced Title of Standard with Title of CEICG; (3) deleted CEICGs if revision to or elimination of Standard made the CEICG unnecessary; (4) consolidated Standards into a single row if they all were addressed by the same CEICG. Added CEICGs for: (1) EOP-005-2 (CEICG-21); and (2) NUC-001-2 (CEICG-22). Retired CEICG-12 because new version of Standard (EOP-008-1) no longer includes the requirement that CEICG-12 addressed. Retired CEICG-3 because the requirement this CEICG addresses (VAR-001-2, R5) is one of the Paragraph 81 requirements proposed for retirement. Revised titles of some CEICGs to make them more descriptive of their purpose/intent. Made other editorial changes; used acronyms in titles to shorten them, where possible.

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Rev 3	07/01/14	<ol style="list-style-type: none"> <li>1. Incorporated new CEICGs: <ul style="list-style-type: none"> <li>• CEICG 23, for MOD-026 &amp; -027</li> <li>• CEICG 24, for PRC-002-NPCC R13</li> <li>• CEICG 25, for PRC-006 R2, R9</li> <li>• CEICG 26, for PRC-006 R10</li> <li>• CEICG 27, for PRC-023 R6</li> <li>• CEICG 28, for TPL-001 R1</li> </ul> </li> <li>2. Deleted CEICG-7 because FAC-008-3 no longer includes two of the three requirements that were referenced and the requirement that remained did not justify keeping the CEICG)</li> <li>3. Modified CEICG-22 to reflect fact that New England Power Company no longer has a NPIR applicable to it (as of 2/25/14)</li> <li>4. Changed CEICG-1/CEICG-15 (combined) to be just CEICG-1 (retired CEICG-15 because its scope is effectively covered in CEICG-1)</li> <li>5. Added two Standards to CEICG-6 because each of them contains a requirement that is not applicable due to the fact that UVLS programs are for local protection only <ul style="list-style-type: none"> <li>• EOP-003-2 R2, R7</li> <li>• NUC-001-2. R9.3.7</li> </ul> </li> <li>6. Revised certain CEICGs to sharpen their focus and eliminate redundant or unnecessary text (including rewording of several of the CEICG “Purpose” statements)</li> <li>7. Added Requirement #s to the Standard listings in for each “ISO-NE Disposition” cell</li> <li>8. Updated Standard references to reflect current versions</li> <li>9. Updated ISO-NE procedure titles and updated quoted text to reflect procedure changes, as necessary</li> <li>10. Clarified, as applicable, that certain CEICGs have a dual purpose (to determine applicability and assess compliance)</li> <li>11. Changed most references to “in New England” to “within the ISO-NE RCA” (to account for the fact that MPS, in Maine is not within the ISO-NE footprint)</li> <li>12. Revised to make structure, content and terminology more consistent throughout the document</li> <li>13. Added table below Index table to document retired CEICGs</li> <li>14. Made all fonts Calibri</li> </ol>
Rev 3a	08/01/2014	<p>Non-material change to CEICG-27 (Page 45) to correct an error in the list of registered entities that own the applicable terminals of these circuits - deleted the UNITIL entry and replaced it with the UNITIL operating company that actually owns the equipment and that is registered separately (Fitchburg Gas and Electric Light Company (DP)).</p>
Rev 3b	11/05/2014	<p>By way of an email from Garth Arnott sent to ISO-NE on November 5, 2014, NPCC signed off on the following non-material changes:</p> <ol style="list-style-type: none"> <li>(1) for CEICG-27, added two entities to the list of those that own the applicable terminals of circuits subject to PRC-023-3 and that must comply with PRC-023-23 R1 through R5;</li> <li>(2) updated to reflect revised versions of Standards that became effective 10/1/14 (for PRC-023-3, updated CEICG-18 &amp; CEICG-27 and for VAR-002-3, updated CEICG 8 &amp; CEICG 16);</li> <li>(3) added non-material clarifications to CEICG 8 and CEICG 16</li> </ol>

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Rev 4	07/01/2015	<ol style="list-style-type: none"> <li>1. Changed CEICG numbering format to improve sorting capabilities in companion spreadsheet, adding leading zeroes to CEICG-1 through CEICG-9 (e.g., CEICG-1 becomes CEICG-01).</li> <li>2. Modified text for certain CEICG Titles in the Index of Standards at the beginning of the document to align them with the CEICG Titles within the body of the document.</li> <li>3. Deleted references to INT-001 Standard, which in now inactive.</li> <li>4. Changed references of the email address to which ISO sends information from Ben Eng to a more generic NPCC auditors email address.</li> <li>5. Deleted all references to NCR #s.</li> <li>6. Added note to CEICG-01 to indicate that in some situations it may be necessary for an LCC to issue an operating instruction to a GOP to take real-time operations action, which GOPs must also follow.</li> <li>7. Modified CEICG-02 to add BAL-003-0.1b R2 (which also applies to dynamic scheduling), reflect new version of INT-004, add footnote explaining "Pseudo-Tie" and to slightly rearrange the narrative.</li> <li>8. Deleted CEICG-9 due to FERC Order on Risk Based Registration resulted in deactivation of the PSE function, which removed PSE obligations retroactive to March 19, 2015. Also removed other references to PSE throughout the document.</li> <li>9. In CEICG-20, deleted reference to old memo (from 2011) and added language from current ISO-NE procedures that addresses topics covered in the memo.</li> <li>10. Modified CEICG-22 to add a note to the NPIR table to indicate that, effective upon the 12/29/2014 retirement of Vermont Yankee Power Station, there were no longer any NPIRs applicable to the Vermont Yankee Power Station.</li> <li>11. For CEICG-24, modified names of entities to more exactly reflect names of the entities as listed in ISO-NE records.</li> <li>12. Deleted CEICG-25 because it is not needed by NPCC auditors. [Note: Information in this CEICG has been incorporated into a Compliance Bulletin posted on ISO-NE's public website for use by New England UFLS entities.]</li> <li>13. Revised CEICG-27 to add the list of entities that that own the applicable terminals of circuits and that must comply with PRC-023-3 R1 through R5. Also, revised names of entities to more exactly reflect names of the entities as listed in ISO-NE records.</li> <li>14. Added CEICG-29 regarding COM-001-2 to explain certain Interpersonal Communication capabilities in New England.</li> <li>15. Added CEICG-30 regarding CIP-002-5.1 to explain ISO-NE identification of assets critical to: (a) system restoration; and (b) the derivation of IROLs and their associated contingencies.</li> <li>16. Added CEICG-31 regarding FAC-003-3 applicability as pertains to facilities operated below 200 kV identified as an element of an IROL by ISO-NE, as the Planning Coordinator.</li> <li>17. Checked all website links and updated, as necessary.</li> <li>18. Other miscellaneous editorial changes.</li> </ol>
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Rev 5	7/1/2016	<p>Removed references to LSE (LSE remains a function but it will have no compliance responsibilities; LSE, PSE &amp; IA functions have been deactivated in NPCC CDAA). Deleted CEICG-04 entirely (it only applied to LSEs).</p> <p>Updated references to Standards and text of Requirements, as needed, to reflect versions as of 7/1/16.</p> <p>Updated references to ISO-NE Procedures and other documents, as needed.</p> <p>Converted web URLs to hyperlinks.</p> <p>COM-002-4 – created <b>new</b> CEICG-32 for ISO-NE notifications to entities (with Cc to NPCC) regarding its identification of time periods when an emergency condition has existed on the BES in N.E.</p> <p>CIP-002-5.1 – revised CEICG-30 to delete TransCanada Power Marketing, LLC from list of owners of generation facilities that meet one or more of the criteria 2.3, 2.6 or 2.9.</p> <p>MOD-016 through MOD-021 – revised CEICG-19 to delete references to MOD-016 – MOD-021 except MOD-020 and add reference to MOD-031-1 (enforceable 7/1/2016), which will supersede those MOD Standards (except for MOD-020). Also, modified narrative to describe how ISO-NE builds a load forecast based on Settlements data and does not need information from TPs, DPs or other entities to develop a load forecast.</p> <p>MOD-025-2 – created <b>new</b> CEICG-33 for MOD-025-2 (enforceable 7/1/2016) incorporating information from ISO-NE Compliance Bulletin for MOD-025, stating that ISO-NE is a TP and the PC for N.E. and, as such, collects all data for MOD-025-2.</p> <p>PRC-002-2 – revised CEICG-24 to update list of GOS and TOs designated with DDR under PRC-002-2. Changed PRC-002-NPCC references to PRC-002-2 (PRC-002-NPCC to be retired 7/1/16).</p> <p>PRC-006-2 – revised CEICG-26 to eliminate material that is now contained in OP-13B; simply noted in CEICG-26 that the information is contained in OP-13B.</p> <p>PRC-023-3 – modified CEICG-18 to specify target month of April for annual submittals to ISO-NE by TO, GO or DP and made other clarifying edits. Also, modified CEICG-27 to note that on 4/28/15 ISO-NE notified TransCanada that they were being removed from the list and should not have been on the list in the first place.</p> <p>PRC-024-2 – created <b>new</b> CEICG-34 to identify ISO-NE as the “Lead” TP for Part 3.1 of R3 and note that ISO-NE (and only ISO-NE) receives all information that the Standard requires to be sent to the TP.</p> <p>VAR-002-4 R6 – revised CEICG-16 to indicate that ISO-NE operations and planning processes do not ever result in ISO-NE identifying and requesting changes to generator step-up (GSU) transformer tap settings (so VAR-002-4 R6 does not apply in N.E.).</p>
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