



NERC Standard: FAC-008-1

NERC Standard: FAC-009-1

Acceptable Corroborating Evidence:

“Determinants for Assessing Compliance with FAC-008-1, ‘Facility Ratings Methodology’ and FAC-009-1, ‘Establish and Communicate Facility Ratings’ When Auditing Transmission Owners and Generator Owners operating within the New England Balancing Area.”

ISO New England Inc.

Reliability & Operations Compliance

Corroborating Evidence Interpretation No. 7, Revision 0

Effective Date – April 15, 2010

Background:

ISO New England Inc. (“ISO-NE”) is the 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 the North American Electric Reliability Corporation (“NERC”) as a Reliability Coordinator, Balancing Authority, Interchange Authority, Transmission Operator, Transmission Service Provider, Planning Authority, Resource Planner, and Transmission Planner.

The Northeast Power Coordinating Council (“NPCC”) is NERC’s delegated authority for the administration of the NERC Compliance Monitoring and Enforcement Program (CMEP) within NPCC’s boundaries of Eastern North America.

NPCC, in its role of administering the CMEP, performs periodic audits of registered entities that are users, owners, or operators of the New England Bulk Power System. In the conduct of such audits the NPCC auditors have frequently sought corroborating evidence 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 sought by NPCC is used to determine that the entity undergoing the audit has complied with certain requirements of the NERC Reliability Standards that specify a required action on the part of the New England based entity relative to the rules and procedures emanating from ISO-NE’s FERC approved Transmission Tariff (“ISO Tariff”).

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” in order to satisfy the requirements of applicable NERC Reliability Standards. These interpretations do not preclude other evidence that may be introduced by the registered entity and accepted by the NPCC auditing body. In addition, these interpretations may not be construed as modifying or contradicting any part of any ISO Procedure or any part of the ISO’s Tariff. In the event that a Participant believes that any part of these Interpretations does conflict with the ISO’s Procedures or Tariff, the ISO urges the Participant to bring that matter to its attention immediately.”

Document Control:

As a minimum, all Corroborating Evidence Interpretations will be reviewed on an annual basis. Any required updates, annual or otherwise, will be processed in accordance with the following:

The Corroborating Evidence Interpretations shall be given a Revision Number and an Effective Date. The current Revision will remain in effect until such time as ISO-NE and NPCC agree to updates of these documents. At the time of the update a new Revision Number and Effective Date will be assigned.

Relevant NERC Standards:

NERC Standard: FAC-008-1 –Facility Ratings Methodology

R1. The Transmission Owner and Generator Owner shall each document its current methodology used for developing Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities. The Methodology shall include all of the following: (See R1.1. through R1.3.5)

R2. The Transmission Owner and Generator Owner shall each make its Facility Ratings Methodology available for inspection and technical reviews by those Reliability Coordinators, Transmission Operators, Transmission Planners, and Planning Authorities that have responsibility for the area in which the associated Facilities are located, within 15 business days of receipt.

R3. If a Reliability Coordinator, Transmission Operator, Transmission Planner, or Planning Authority provides written comments on its technical review of a Transmission Owner's or Generator Owner' Facility Ratings Methodology, the Transmission Owner or Generator Owner shall provide a written response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings Methodology and, if no change will be made to that Facility Ratings Methodology, the reason why.

Explanation of How a Transmission Owner or Generator Owner Can Provide Evidence of Compliance with the Requirements of FAC-008-1

R1. - ISO-NE Planning Procedure PP7, "Procedures for Determining and Implementing Transmission Facility Ratings in New England", was established to reinforce guidelines representative of "best ratings practices" and to initiate improvements in individual owners' rating methodologies.

No single methodology is universally accepted for determining the thermal capability of each component of the transmission system. However, guidelines for rating transmission equipment were developed by NEPOOL in 1970 for use by individual equipment owners. There continues a general consistency in methods, although there are also some differences. PP7 was established to reintroduce guidelines representative of "best ratings practices" and to initiate improvements in individual owners' rating methodologies, where appropriate, to gain consistency of application and to maximize transmission system capability while maintaining acceptable levels of risk to equipment and maintaining reliability.

Market Participants must provide rating methodologies in accordance with ISO-NE Planning Procedure PP7. The methodologies governed by PP7 are used to develop ratings for (a) transmission equipment connected at 69kV and above on the electric power system in New England and (b) all generator step up transformers attached to generators of 1 MW or greater that participate in the Energy Market. Methodologies shall be developed and maintained consistent with the requirements of PP7 recognizing the previous NEPOOL rating guidelines, individual Market Participant practices, currently applicable equipment standards, equipment manufacturer recommendations and good utility practice.

The Market Participants and ISO-NE are responsible for collaborating in **both the development of rating procedures** (methodologies) and **establishment of ratings**. ISO New England Operating Procedure No. 16, Transmission System Data (OP 16), requires Market Participants to determine equipment ratings and provide them to ISO-NE. Ratings for new facilities and changes to ratings of

existing facilities shall be determined in a manner consistent with the collaboratively developed ratings methodologies of PP7.

R2. – ISO-NE serves as the Reliability Coordinator, Transmission Operator, Transmission Planner and Planning Authority for the New England Area. ISO-NE Planning Procedure PP7, "Procedures for Determining and Implementing Transmission Facility Ratings in New England", Section 2.5, requires Market Participants to provide ISO-NE with fully documented copies of the current methodologies used to rate each applicable equipment type specified within PP7 within 15 business days of receipt of a request. Such documentation will include reference to standards employed and will allow determination of how ratings for each condition in Section 2.3 are computed. It will identify differences from the "Best Rating Practices", including, as appropriate, the wind velocities, ambient temperatures, equipment temperatures and other pertinent assumptions used. Software deemed proprietary and not provided will be made available for on-site inspection/testing. Whenever a Market Participant modifies their rating methodologies, this same information shall be provided to ISO-NE, as is pertinent to the change, before any rating using such methodology is submitted in accordance with OP16.

If a Market Participant fails to respond to an ISO-NE request for that Market Participant to provide its current methodologies within the required 15 business days of the request, the ISO-NE *System Planning Department* shall notify the ISO-NE *Reliability & Compliance Group* within 10 working days of the deadline date by which the Market Participant should have responded. This notification shall be by email to **ROC@iso-ne.com** and shall identify the Market Participant that did not provide the requested methodologies by the required deadline.

The ISO-NE *Reliability & Operations Compliance Group* shall notify, by email, NPCC's Manager, Compliance Audit Program of any failures to respond to requests for current methodologies within 10 working days of receiving notice of such failures from the ISO-NE *System Planning Department*. Each notification shall identify the Market Participant that did not provide the requested methodologies by the required deadline.

R3. – ISO-NE Planning Procedure PP7, "Procedures for Determining and Implementing Transmission Facility Ratings in New England", requires any differences in a Market Participant's methodologies from those of the "Best Rating Practices" to be accompanied with either a statement of intent and schedule for introducing modifications to adhere to the "Best Rating Practices" or written justification for that Market Participant's continuing the non-conforming practice.

As stated in PP7, ISO-NE will provide written comments regarding the conformance of a Market Participant's practices to the Market Participant. Those written comments will include:

- Those differences deemed justifiable will be formalized by letter and recorded in Attachment 1 to PP7 as an "Accepted Alternative Rating Practice" specific to that Market Participant.
- Those differences determined to be unjustified will be identified and accompanied with a request they be modified to conform.

As required by PP7, Market Participants shall provide a written response to the ISO **within 45 days**, indicating:

- Acknowledgement that an "Accepted Alternative Rating Practice" will be included in Attachment 1 of PP7, or

- Acceptance of a request to modify the rating practice and a scope and schedule for introducing such modifications, or
- No change to that methodology will be forthcoming and why. This response may initiate a disagreement between ISO-NE and the Market Participant. Should there be disagreement between ISO-NE and any Market Participant regarding Sections 2.5 or 3.2, the language of Section 3.06 (a) (v) of the Transmission Operating Agreement shall govern the disagreement.

If a Market Participant fails to provide a written response to ISO-NE's written comments on ISO-NE's technical review of that Market Participant's Facility Rating Methodology within 45 calendar days of receipt of those comments, the ISO-NE *System Planning Department* shall notify the ISO-NE *Reliability & Compliance Group* within 10 working days of the deadline date by which the Market Participant should have responded. This notification shall be by email to **ROC@iso-ne.com** and shall identify the Market Participant that did not provide the written response to ISO-NE's written comments by the required deadline.

The ISO-NE *Reliability & Operations Compliance Group* shall notify, by email, NPCC's Manager, Compliance Audit Program of any failures to respond to ISO-NE's written comments within 10 working days of receiving notice of such failures from the ISO-NE *System Planning Department*. Each notification shall identify the Market Participant that did not provide the written response to ISO-NE's written comments by the required deadline.

NERC Standard: FAC-009-1 – Establish & Communicate Facility Ratings

R1. The Transmission Owner and Generator Owner shall each establish Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology.

R2. The Transmission Owner and Generator Owner shall each provide Facility Ratings for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities to its associated Reliability Coordinator(s), Planning Authority(ies) Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.

Explanation of How a Transmission Owner or Generator Owner Can Provide Evidence of Compliance with the Requirements of FAC-009-1

R1. - ISO New England Operating Procedure No. 16, Transmission System Data (OP 16), requires Market Participants to determine equipment ratings (establish Facility Ratings) and provide them to ISO-NE. Ratings for new facilities and changes to ratings of existing facilities shall be determined in a manner consistent with the collaboratively developed ratings methodologies described in Section 2 of ISO-NE Planning Procedure PP7, "Procedures for Determining and Implementing Transmission Facility Ratings in New England and, as required, shall be collaboratively reviewed in accordance with Section 3 of PP7. OP 16 stipulates that a facility rating shall equal the rating of the most limiting individual equipment that comprises the facility.

R2. - ISO-NE serves as the Reliability Coordinator, Transmission Operator, Transmission Planner and Planning Authority for the New England Area. OP 16 requires that Market Participants supply ratings that are representative of all elements, including Generator Step-Up

Transformers (GSUs) as applicable, of the New England transmission network. OP 16 also requires that, prior to implementation, ISO-NE review all such data to verify that it is complete, reasonable and consistent with related data and reasons for the change. Note that ratings data may be subjected to a more rigorous review as the need is determined by ISO-NE. During the period of such a review, the new rating data will be granted provisional approval and data resolution and implementation will proceed as described in Section 3 of PP7.

In accordance with ISO-NE Operating Procedure No. 16, "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, reconductored, and reconfigured New England Transmission System equipment to ISO-NE. Each year, the ISO-NE *Power System Model Management Department* initiates an NX9 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 transformers and auxiliary transformers, is accurately represented on the appropriate NX9 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 NX9 certification process by sending a current copy of the Market Participant NX9 database and a *Certification of ISO New England Transmission Equipment Rating, Characteristic, and Operational Data* form to the Market Participant NX9 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:

- Self certify to ISO-NE that the NX9 data is accurate and complete and that no changes to the NX9 database are necessary; or
- Update and submit to ISO-NE the necessary changes to the NX9 data to make the data accurate and complete.

If a Market Participant fails to respond to this ISO-NE request within the timeframe described above, the ISO-NE *Power System Model Management Department* shall notify the ISO-NE *Reliability & Operations Compliance* Group within 10 working days of the deadline date by which the Market Participant should have responded. This notification shall be by email to **ROC@iso-ne.com** and shall identify the Market Participant that did not provide the self-certification by the required deadline.

The ISO-NE *Reliability & Operations Compliance* Group shall notify, by email, NPCC's Manager, Compliance Audit Program of any failures to respond to requests for self-certifications within 10 working days of receiving notice of such failures from the ISO-NE *Power System Model Management Department*. Each notification shall identify the Market Participant that did not provide the self-certification by the required deadline.