

ISO-NE Customer Service Requirements for New Generators

To model a new Generator in the New England system(s), including the Satellite database, requires a significant effort by the ISO personnel, as well as some third-party involvement. Although it may not appear significant based on the documented list below, requesting parties should allow for extremely long lead-times (typically more than a month) when providing this information to the ISO.

Activation in NEPOOL Markets requires all steps/information/data, as outlined below, be complete, accurate and filed with the ISO Customer Service department. All forms referenced herein are available on the ISO web site (www.iso-ne.com). Further, there is a requirement that the ISO have at least five business days notice, once these requirements have been met, that a Generator wishes to be active in the ISO Systems, per ISO-New England Manual 20.

Precursor steps

Interconnection Requirements:

1. As specified in Section I.3.9 and Schedules 22 & 23 of the ISO New England Inc. Open Access Transmission Tariff
2. Kick-off meeting scheduled at least one year before first fire, project scope / construction schedule to be delivered and discussed at length in this meeting. The project scope and construction schedule should be provided to Marc Lyons, Market Support Services, mlyons@iso-ne.com

Requirements for participation in the Forward Capacity Market:

1. Submission of Show of Interest Form
2. Submission of Qualification Package
3. Provide deposit for Financial Assurance
4. If capacity is accepted in the auction:
 - Follow further Financial Assurance requirements
 - Submit milestones until project becomes commercial

Reference Material

1. ISO-New England Manual 20
2. ISO-New England Operating Procedure No. 14 (OP 14)
3. ISO-New England Operating Procedure No. 16 (OP 16)
4. ISO-New England Operating Procedure No. 18 (OP 18)

REQUIREMENTS:

Market Modeling

1. Pool Transmission Facility (PTF) interconnected Generators require new Price Nodes (PNodes)
2. Asset IDs for all new Asset related to the Generator via an Asset Registration Letter (Manual 28)
 - If multiple modeled Generators, multiple IDs¹ are required
 - Network Node IDs, if applicable

¹ All required metering, as indicated in the following three bullets, must be available for each Generator, as defined in OP14. If a multiple Generator configuration is envisioned or desired, please be aware that the metering configuration must support this request.

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- If new Network Node, need Tie Lines modeled for interconnecting to the PTF Node; this requires an ID as well
3. NX-12 data (OP 14)
- Test Power – Data Revision No. = zero; Classification = non-Dispatchable; Market Status = active in Energy only; Summer and Winter SCC = Emergency Min = zero.
 - Commercial Operation – Data Revision = one; Classification may = Normal (depending on ability to participate in Electronic Dispatch); if Classification = Normal, Market Status = active in Energy, Summer and Winter SCC = as submitted, pending audit (Manual 20 Attachment D), Emergency Minimum Capability = physical low limit
 - Regulation activity – May be activated following commercial operation and Manual 20 (Attachment D) audit by the ISO. Notice of intent should be given to the ISO at least 30 days prior to test power operation. Regulation Range should be discussed with the ISO. Testing of Regulation must be completed between the Generator and the Local Control Center prior to activation in the ISO systems. The ISO will confirm with Local Control Center personnel that this step has been completed.

Energy Management System (EMS - unit commitment) Modeling

1. All information listed in the *Market Modeling* section of this document.
2. One-line Diagrams (OP 14) with nomenclature and interconnection information.
3. NX-9 B data (OP 16) for Generator Step-Up Transformers (GSU) and other NX-9 data as required for interconnection of this new Generator. Customer must contact the NX-9 Administrator, via email, at nx9admin@iso-ne.com, for an electronic copy of your company's portion of the NX-9 database.

Communications (also required for EMS Modeling)

1. Electronic Dispatch requirements, for availability to set the Market Clearing Price; installation of a Remote Intelligent Gateway (RIG) at the DE location². Contact Customer Service for additional details and information regarding RIG ordering and installation.
2. Automatic Ring-Down (ARD) line for DEs of Generators greater than 50 MW. This is a dedicated telephone circuit that goes directly from the ISO Control Room to the Designated Entity (DE) location. Contact Customer Service for additional details and information regarding RIG ordering and installation. Note: the Local Control Center may also require an ARD, it is the Participants responsibility to coordinate these requirements.²
3. Back-up phone line, dedicated to use by the ISO Control Room, in the event of RIG and ARD failure. This, again, is only required for Generators greater than 50 MW.

² These requirements need not be met for test power operation. However, for commercial operation, an ARD is required. Further, for a Generator to be able to set the Market Clearing Price or participate in the ancillary Markets, Electronic Dispatch requirements must also be met. Note that, per OP 14, Electronic Dispatch requires a 90 day lead-time for implementation.

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4. For units less than 50 MW, a dedicated landline for use by the ISO only (similar to the Back-up phone line for units > 50 MW) is required.
5. Metering³
 - Instantaneous Metering, required for units of 1 MW or greater, that are to be dispatched in real-time (OP 18). A point-to-point test, from the ISO to the Generator, must be completed upon notice from Satellite personnel that the testing from the Satellite/SCADA center has been completed and successful. Upon successful completion of the point-to-point test, a Meter Certification must be sent from the Lead Participant to ISO Customer Service.
 - Telemetry, required for units of 1MW or greater, that are to be dispatched in real-time (OP 18). A point-to-point test, from the ISO to the Generator, must be completed upon notice from Local Control Center personnel that the testing from the Local Control Center/SCADA center has been completed and successful. Upon successful completion of the point-to-point test, a Meter Certification must be sent from the Lead Participant to ISO Customer Service, required for all units, as defined in OP 18.

Default Offer Data

1. PRIOR to activation of a Generator in any of the ISO Systems listed above, new Generator information must be provided to the ISO Customer Service department.

Hot Start Up Costs - The cost incurred from the time the generator synchronizes to the system to the time the generator is released for dispatch to the ISO. Three different Start Up Times (Hot, Intermediate, and Cold) can be submitted to allow the Participant to reflect the difference in the length of time and costs for each condition. Note that, initially, the ISO-New England will input resource characteristic cost data, which can then be overwritten by any individual with offer authority.

 - Intermediate Start Up Costs – See above
 - Cold Start Up Costs – See above
 - No Load Costs – Representative of costs incurred independent of output level for O&M and fuel component varying with asset service hours
 - Ramp Rates – MW/per minute
 - Regulation Status – Yes/No

³ Refer to footnote 1