ISO New England Manual for

Registration and Performance Auditing

Manual M-RPA

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Prepared by ISO New England Inc.

ISO New England Manual for

Registration and Performance Auditing

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Introduction

Welcome to the ISO New England Manual for Registration and Performance Auditing.

The *ISO New England Manual for Registration and Performance Auditing* is one of a series of manuals concerning the wholesale electricity markets administered by ISO New England (ISO). This manual details the process of registration and auditing of assets and resources that participate in the ISO-administered markets.

This manual assumes that the reader has reviewed Market Rule 1 before or in conjunction with using the manual. Terms that are capitalized in this manual may be defined in Section I of the ISO Tariff or ISO New England Manual M-35.

The reader is referred first to Market Rule 1 for an explanation and information regarding that aspect of the operation of the markets. This manual provides additional implementation or other detail for those provisions of Market Rule 1 that require the Market Participant to take an action.

The *ISO New England Manual for Registration and Performance Auditing* consists of three Sections. The Sections are as follows:

Section 1: Asset and Resource Registration

Section 2: Capacity Resource Transfers

Section 3: Dispatchable Asset Related Demand Auditing

Section 1: Asset and Resource Registration

In this Section, you will find a description of the procedure that Market Participants must follow to register an asset or resource. This manual explains the registration process for Load Assets, Asset Related Demands (ARD), Generator Assets, Tie-Line Assets, Demand Assets, and Alternative Technology Regulation Resources (ATRR).

The purpose of registration is to identify assets, their location and characteristics, so that assets can participate in the ISO-administered markets.

1.1 Asset Registration Requirements

Demand Asset registration is submitted directly in the Customer and Asset Management System (CAMS) while initial asset registration for all other asset types begins on the ISO website. A Market Participant submits a single registration for a Continuous Storage Facility and, except where noted, follows the rules applicable to its component asset types. Additional registration requirements are defined in this and other ISO New England Manuals, Operating Procedures, Planning Procedures or the Tariff and must be met prior to an asset being registered with the ISO.

The ISO will only accept a request to register a new or retire an existing Generator Asset or Load Asset that has been reviewed and signed by the Host Participant for the Metering Domain. Any changes to the composition of an existing ARD require the Host Participant's signature.

1.1.1 Authorized Signatures

The ISO will only accept signatures on asset registrations from individuals that have been authorized by their respective company to submit asset registrations. A security administrator will authorize such designations in CAMS. Initial registration of an asset requires the signature or system approval of each of the following parties:

- (1) Lead Market Participant (Generator Asset, ARD, ATRR, and Demand Asset)
- (2) Lead Load Asset Owner (Load Asset)
- (3) Asset owners (Generator Asset, Load Asset)
- (4) Host Participant (Generator Assets, Tie-Line Asset, Load Asset, and discrete ATRR)
- (5) Assigned Meter Reader (Generator Asset, Tie-line Asset, and Load Asset)

1.1.2 Roles and Responsibilities

(1) Lead Market Participant

The Lead Market Participant is the Market Participant that registers new Generator Assets, ATRRs, and Demand Assets. An Electric Storage Facility must have a single Lead Market Participant. The current Lead Market Participant is also responsible for notifying the ISO of changes or updates to asset registration data including Ownership Share and transfers to new Lead Market Participants. In the case of a transfer request, approval is required from the new Lead Market Participant before the transfer will be completed. The Lead Market Participant is ultimately responsible for compliance with all applicable ISO asset requirements and obligations, and submitting all asset data in eMKT if applicable.

The Lead Market Participant for an asset is also responsible for assigning a Meter Reader if needed, assigning a Demand Designated Entity (DDE) for a Demand Response Resource (DRR), and assigning a Designated Entity (DE) for a Generator Asset, ARD, or Alternative Technology Regulation Resource. The Lead Market Participant may designate itself as the DE/DDE, subject to the registration requirements detailed in this manual. The Lead Market Participant for Demand Assets is responsible for assigning these assets to an On-Peak Demand Resource, Seasonal Peak Demand Resource or DRR. The Lead Market Participant for a DRR is responsible for mapping the DRR to an Active Demand Capacity Resource, when appropriate. For Demand Response Assets (DRAs) with maximum interruptible capability of one MW or greater, the Lead Market Participant is also responsible for getting confirmation from the local Distribution Company of the P-Node that serves the DRA's load.

The Lead Market Participant will remain responsible for actions and requirements assigned to the DE/DDE under the ISO New England Manuals, Operating Procedures or the Tariff.

(2) Generator Asset Owner

A Generator Asset owner is a Market Participant possessing an Ownership Share of a Generator Asset. If there is not a Market Participant owner for a Generator Asset, the Lead Market Participant will be considered the owner.

(3) Designated Entity/Demand Designated Entity

All assets and resources that receive Dispatch Instructions are required to have a DE/DDE with a registered physical location (dispatch location) to receive Dispatch Instructions from the ISO for the asset or resource. Each such asset or resource must be represented by a single dispatch location; however, more than one such asset or resource may be registered to the same dispatch location. An Electric Storage Facility must have a single dispatch location. A DE/DDE may register more than one dispatch location. Each DE/DDE must provide its dispatch services for a particular asset or resource from a single dispatch location and each dispatch location is the single point of contact to receive, acknowledge receipt, and implement ISO Dispatch Instructions for any given asset that it represents as the DE/DDE. The DE/DDE and Lead Market Participant are responsible

for the installation and maintenance of the remote terminal unit (RTU) in accordance with ISO New England Operating Procedure No. 18, Metering and Telemetering Criteria. Each dispatch location must have its own telephone. The Demand Designated Entity is also responsible for mapping the DRR to an RTU.

(4) Lead Load Asset Owner

Lead Load Asset Owner is the Market Participant that registers new Load Assets. Only the Lead Load Asset Owner can retire a Load Asset. The Lead Load Asset Owner is also the Load Asset Owner with 100% Ownership Share unless Ownership Share is transferred to one or more other Market Participants. Transfers of Ownership Share are effective at the start of an Operating Day.

The Lead Load Asset Owner is the Market Participant who has responsibility for:

- (a) Kilowatt-hours provided by the Market Participant to its retail customers for consumption.
- (b) Kilowatt-hours used by the Market Participant for its own purposes and station service, provided such energy is not provided through retail service and reflected in the retail kilowatt-hours of another Market Participant.
- (c) Kilowatt-hours of non-PTF electrical losses allocated to the Market Participant.
- (d) Kilowatt-hours of unaccounted-for use allocated to the Market Participant which is not reflected in the retail kilowatt-hours of another Market Participant.
- (e) Dispatchable ARDs.
- (f) Kilowatt-hours delivered to Non-Market Participants on a wholesale basis within the New England Control Area.
- (g) Station service load that is modeled as a Load Asset.

(5) Load Asset owner

A Load Asset owner is a Market Participant with an Ownership Share in a registered Load Asset. Ownership Share transfers are effective at the start of an Operating Day and are specified in percent.

(6) Host Participant

Host Participant is defined in Section I of the Tariff. To the extent that the Host Participant is required to perform the Assigned Meter Reader function for Load, Tie-Line, or Generator Assets, the Host Participant may request a written agreement from the asset owner(s) to provide these functions.

(7) Assigned Meter Reader

Assigned Meter Reader is defined in Section I of the Tariff. Pursuant to all registration requirements being met, the Assigned Meter Reader shall start reporting meter data from the effective date that was specified on the registration until the last day prior to the asset termination date. This meter data is used for settlement as described in the *ISO New England Manual for Market Rule 1 Accounting, M-28*. The Assigned Meter Reader may designate an agent to help fulfill its Assigned Meter Reader responsibilities; however, the Assigned Meter Reader remains functionally responsible to the ISO.

- (a) Generator Assets: The Assigned Meter Reader for Generator Assets will be designated by the Lead Market Participant to the ISO during asset registration.
- (b) Tie-Line Assets: The Assigned Meter Reader for Tie-Line Assets is the Transmission Owner or Host Participant designated to the ISO during asset registration, or the ISO.
- (c) Load Assets: The Assigned Meter Reader for Load Assets will be the Host Participant except:
 - (1) The Lead Load Asset Owner of a Load Asset equipped with ISO New England Operating Procedure No. 18 compliant settlement metering for that Load Asset, and submitting the meter readings for that Load Asset as of December 1, 1999 may elect to continue submitting that specific Load Asset data as the Assigned Meter Reader.
 - (2) The Assigned Meter Reader for a Storage DARD will be designated by the Lead Market Participant to the ISO during asset registration.
- (d) Alternative Technology Regulation Resource: The Lead Market Participant is responsible for providing real-time telemetering for ATRRs.
- (e) Demand Assets: For DRAs, interval meter data corrections may be submitted to the ISO by the Lead Market Participant or the Demand Designated Entity. For Demand Assets consisting of Energy Efficiency measures, the Lead Market Participant is responsible for submitting measure data into the Energy Efficiency Measure Database and submitting monthly performance data through CAMS. For Demand Assets that are components of On-Peak or Seasonal Peak Demand Resources that do not consist of Energy Efficiency measures, the Assigned Meter Reader is designated to the ISO during asset registration and is responsible for submitting required hourly performance data and any other required hourly meter data to the ISO via the Settlement Market System.
- (f) Co-Located Assets: Where two or more Directly Metered Assets register behind a single point of interconnection with the Host Participant, a single Assigned Meter Reader shall be designated for all of the co-located Assets.

1.1.3 Sub-hourly Metering

A request to submit five-minute revenue quality metering requires approval from the Host Participant and Assigned Meter Reader and must allow for five Business Days for the ISO to review and make applicable changes to the settlement power system model. A Market Participant choosing to submit five-minute revenue quality metering for an asset may not revert to submitting hourly revenue quality metering.

1.2 Load Asset (other than Asset Related Demand) Registration Requirements

The Lead Load Asset Owner is responsible for registering its Load Assets with the ISO. A non-Market Participant load located within the New England Control Area cannot be registered as a Load Asset when supplied by a non-Market Participant and will be registered as a Tie-Line Asset. A Market Participant with a registered Load Asset may request from the ISO the demand response enrollment information specified in Market Rule 1 Section III.8.1.1 for end use customers served by contacting ISO Customer Support.

1.2.1 Initial Registration

A desired effective date for new Load Assets (other than Asset Related Demand) must allow for five Business Days for the ISO and the Host Participant to review the Load Asset registration and accurately model the Load Asset (other than Asset Related Demand). The five Business Days timeframe commences upon receipt of a completed registration by the ISO and the Host Participant. The Lead Load Asset Owner is responsible for completing and submitting the registration for the load.

The Host Participant determines which end-use customers shall be included within Load Assets (other than Asset Related Demand) based in part on the following guidelines:

(1) Load Zones - Inter-State Border Arrangements

Customers of one Distribution Company may be served electrically by facilities owned and operated by another Distribution Company in a neighboring State/Reliability Region. In these circumstances, Intra Market Participant Tie-Line Assets or Tie-Line Assets have and will be established to account for the transfer of energy between the companies. These customers will be mapped to the appropriate Load Zone within the state where the Distribution Company of record (i.e., the distribution company responsible for billing the customer for distribution service) operates.

(2) Load Zones – Intra-State Border Arrangements

Customers of a single Distribution Company may be served electrically from facilities located in different Reliability Regions. In these circumstances, Tie-Line Assets have or will be established to account for the transfer of energy between the Reliability Regions/ Load Zones. Each individual customer served by the Distribution Company will be designated to the appropriate Load Zone based on the normal supply facility (substation, feeder and transformer) designation listed in the Distribution Companies' operational and/or customer information systems. These customers will be mapped electrically to the appropriate Load Zone.

(3) Mapping Customers to Load Zones

Mapping individual customers to Load Zones and reporting aggregated Load Zone quantities for settlement is the responsibility of the Host Participant.

1.2.2 Updated Registration

(1) Timing Requirements

A desired effective date for Load Asset (other than Asset Related Demand) updates must allow for two Business Days (commencing upon receipt of a completed request) for the ISO to review and make applicable changes to the settlement power system model. A request to submit five-minute revenue quality metering must allow for five Business Days for the ISO to complete its review.

(2) Ownership Share changes

Ownership Share changes must be initiated by the Lead Load Asset Owner of the Load Asset (other than Asset Related Demand). When transferring Lead Load Asset Ownership status or Load Asset Ownership Share both the receiving and relinquishing Market Participants of a Load Asset (other than Asset Related Demand) must sign or approve the request.

1.2.3 Retirement

Unless otherwise defined in the Financial Assurance Policy, a desired effective date to retire an asset must be submitted at least two Business Days in advance of the requested asset retirement date, which commences upon receipt of the completed request. The Host Participant must have signed off on the retirement request prior to submittal to the ISO.

1.3 Asset Related Demand Registration Requirements

The Lead Load Asset Owner is responsible for the registration of each ARD. Each ARD that qualifies subject to the requirements in Market Rule 1 for registration will be assigned a unique asset identifier by the ISO.

1.3.1 Initial Registration and Changes to Composition

When registering a new Storage DARD, the Lead Load Asset Owner must provide the ISO and the Host Participant with at least five Business Days' notice in advance of the requested effective date. When registering a new ARD other than a Storage DARD or making changes to the composition of an existing ARD other than a Storage DARD, the Lead Load Asset Owner must provide the ISO and the Host Participant with at least 120 calendar days' notice prior to the desired implementation date indicated on the registration.

The Lead Load Asset Owner of a DARD must provide advance notification to the ISO, in its registration request, of the date when the new asset will be subject to central dispatch by the ISO (this refers to the date on which the asset may begin testing). Notification will not be accepted prior to verification of telemetering and telecommunication as required by ISO New England Operating Procedures. The Lead Load Asset Owner must also provide advance notification to the ISO of the date when a new asset will be declared commercial (this refers to the date by which all testing is completed and on which date the asset may participate in the Energy Market).

Additional timing requirements may be defined in ISO New England Operating Procedure No. 14.

The Lead Load Asset Owner must complete a registration for new assets and for existing ARD that have been active for a minimum of 12 months to which end-use metered customers are to be enrolled or removed.

The Lead Load Asset Owner must send a revised registration to both the ISO and the Host Participant.

- (1) Host Participant responsibilities for ARDs other than Storage DARDs:
 - (a) The Host Participant, in a minimum of 20 Business Days, will provide the following information to the ISO and Lead Load Asset Owner:
 - (i) Determine which P-Nodes are electrically serving the end-use metered customers seeking ARD treatment.
 - (ii) Provide the list of P-Nodes that serve the end-use metered customers identified in the registration. One to three P-Nodes will be provided for loop fed accounts and one single P-Node will be provided for radial served end-use metered

ISO New England Inc. Revision 20, Effective Date: August 6, 2020 customers. This information will be added to the registration by the Host Participant.

- (iii) Verify, for each end-use metered customer listed on the registration, the enduse metered customer's annual usage from the 12 months preceding registration using either interval or retail-billed quantity data.
- (iv) Determine, for settlement modeling and reporting purposes, if the ARD is a Profiled Load Asset or a Directly Metered Asset.
- (v) The enrolling participant serving Asset Related Demand loads must meet the individual state requirements for serving load in the states with retail access. State rules for enrollment and subsequent transactions relating to the Asset Related Demand loads will be utilized.

(2) ISO responsibilities:

Once the ISO receives the completed registration containing the required information from the Host Participant, the ISO will determine compliance with ARD eligibility criteria, including, as applicable, the following:

- (a) The ARD must consist of either:
 - (i) One or more individual end-use metered customers with an aggregate average hourly load of one MW or greater during the 12 months preceding the date the registration is submitted by the Lead Load Asset Owner and as verified by the Host Participant; or
 - (ii) One or more storage devices located behind the same point of interconnection with an aggregate consumption capability of 0.1 MW or greater.
- (b) Upon the activation date of an approved ARD, the asset must remain active and enduse metered customer enrollment must remain unchanged for a minimum of 12 months. The ISO will monitor new Asset Related Demand registrations to ensure enduse metered customers previously, but not currently, associated with one Asset Related Demand do not register as a part of another Asset Related Demand for a minimum of 12 months.
- (c) Aggregation of end-use metered customer demand is permissible provided the following conditions are met (this subsection (c) is not applicable to Storage DARDs):
 - (i) All end-use metered customers associated with an ARD must have an interval meter capable of providing integrated hourly data to be used in settlement reporting. Meters must satisfy the Host Utility's metering requirements and be compliant with ISO New England Operating Procedure No. 18.

- (ii) Aggregated demand from end-use metered customers must be represented as a single SCADA or equivalent real-time meter and submitted as a single value to the ISO. The single aggregated SCADA data value must reflect the sum of the interval metered data of the end-use metered customers associated with the ARD.
- (iii) End-use metered customers aggregated as a part of a single ARD must be mapped to the same Metering Domain and receive electrical service in the same proportions from the same point or points of supply. (Illustration of permissible configuration in Fig. 1.1 and prohibited configuration in Figure 1.2.)

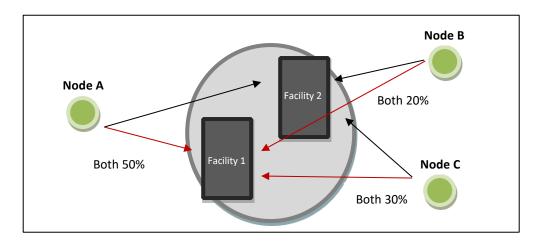


Figure 1.1: Permissible Aggregation Configuration for Asset Related Demand

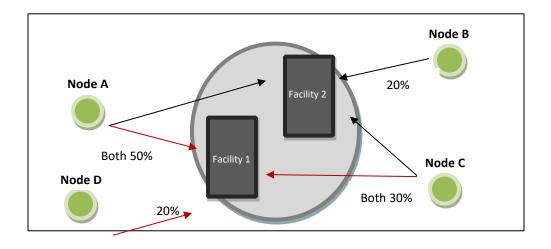


Figure 1.2: Prohibited Aggregation Configuration for Asset Related Demand

(3) Lead Load Asset Owner responsibilities:

- (a) Working with the ISO, determine if the required SCADA metering and communication systems (or some other comparable metering and communication) have been installed and testing has been successfully completed to satisfy real-time metering requirements.
- (b) Demonstrate that a single SCADA measurement point will stay synchronized with end-use metered customer enrollment changes.
- (c) Enroll end-use metered customers identified in the registration following established, state-approved requirements, including electronic data interchange (EDI) and any applicable Host Participant procedures or requirements.
- (d) Notify the ISO and the Host Participant by e-mail of any changes to end-use metered customers enrolled under an ARD that impact asset registration.

Based on the information included on the registration, the ISO will determine if the ARD satisfies eligibility criteria and has in place proper metering and communication as specified above. If the ARD does not meet the above criteria, the ISO will deny the application and return the registration to the Lead Load Asset Owner, indicating that the criteria were not met.

If eligibility criteria and infrastructure requirements have been met, the ISO will notify the Host Participant of the Load Asset's approval. The Host Participant will then sign the registration and return it to the ISO.

The ISO will model the ARD in the EMS and notify the Lead Load Asset Owner and Host Participant. Asset Related Demand loads served electrically from more than one Metering Domain or Load Zone will be modeled in the EMS based on the Metering Domain where the end-use metered customers are mapped. The ISO will use the P-Node data included in the registration to develop an AP-Node for each unique ARD.

Upon implementation, the Host Participant will be responsible for providing the ISO with hourly ARD values pursuant to the ISO's standard settlement protocols.

(4) Annual Review

Once a year, if applicable, the ISO may initiate a review of P-Node assignments. The ISO will provide the Host Participant with the registration for the ARD containing the list of PNode assignments provided upon initial registration. The Host Participant will assess whether the individual end-use metered customers remain electrically connected to the P-Nodes per the registration. Periodically, the AP-Node assignments may require updates, as the EMS network model releases result in changes to existing P-Nodes. In some cases, P-Nodes may be retired and it may be appropriate to reassign the AP-Node to new or existing P-Nodes.

Upon receipt of the applicable registration, the Host Participant will have at least 20 Business Days to:

- (a) Review the P-Node assignments to determine if changes to the P-Nodes are necessary for any of the end-use metered customers listed in the registration.
- (b) Provide the ISO and Lead Load Asset Owner with an updated P-Node assignment. If applicable, the ISO will update the registration and send the revision out to the Lead Load Asset Owner and the Host Participant.

If this review indicates that one or more end-use metered customers are not electrically connected to the P-Nodes identified at registration, the Lead Load Asset Owner must remove that end-use metered customer from the registered asset following state-approved enrollment/drop procedures. If removal of that end-use metered customer renders an ARD ineligible, the Lead Load Asset Owner is responsible for retiring the ARD as specified in Section 1.3.3 of this manual, following state-approved enroll/drop procedures for all end-use metered customers associated with the asset. The Lead Load Asset Owner must coordinate with the ISO and the Host Participant regarding end-use metered customer changes as specified in Section 1.3 of this manual.

Periodically, the Lead Load Asset Owners may, by written notice to the Host Participant, request a review of the P-Node assignment if they believe that a change has taken place which may result in a different set of P-Nodes being capable of serving the ARD end-use metered customers. If a different set of P-Nodes are identified as serving the load associated with the ARD asset, then the Host Participant will notify the Lead Load Asset Owner and the ISO. The ISO will update the registration and send the revision out to the Lead Load Asset Owner and the Host Participant.

1.3.2 Updated Registration

- (1) Timing Requirements:
 - (a) A desired effective date for asset updates (not including changes related to end-use metered customer enrollment) must allow for two Business Days for the ISO to review the registration/change request and make applicable changes to the settlement power system model. A request to submit five-minute revenue quality metering must allow for five Business Days for the ISO to complete its review.
- (2) Ownership changes
 - (a) When changing Ownership Shares, both the receiving and relinquishing Load Asset owners must indicate agreement.

1.3.3 Retirement

A requested effective date for an ARD retirement must allow for five Business Days once a completed request is received for the ISO and the Host Participant to review and remove the asset from the settlement power system model. This review notification is in addition to applicable advance notice periods prescribed in other ISO Planning Procedures, ISO Operating Procedures, or the ISO Tariff. The ISO will not accept a retirement request for an active Load Asset unless the request is signed by the Host Participant.

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1.4 Generator Asset Registration Requirements

1.4.1 Initial Registration

When registering a new Generator Asset, the Lead Market Participant must provide the ISO and the Host Participant with at least five Business Days' notice in advance of the requested effective date.

If the Generator Asset is represented in the ISO power system model as a biddable Generator Asset, i.e., it is not settlement only, then the Lead Market Participant must provide advance notification to the ISO, in its registration request, of the date when a new asset will be subject to central dispatch by the ISO (this refers to the date on which the asset may begin generating test power). Notification will not be accepted prior to verification of telemetering and telecommunication as required by ISO New England Operating Procedures. The Lead Market Participant must also provide advance notification to the ISO of the date when a new asset will be declared commercial (this refers to the date by which all test power activities are completed and on which date the asset may participate in the Energy Market).

Additional timing requirements may be defined in Section I.3.9 of the Tariff and in ISO New England Operating Procedure No. 14.

1.4.2 Updated Registration

A requested effective date for Generator Asset update must allow two Business Days for the ISO to review the registration request and make any applicable changes to the settlement power system model. A request to submit five-minute revenue quality metering must allow for five Business Days for the ISO to complete its review. When changing Asset Ownership Shares, both the receiving and relinquishing asset owners must indicate agreement. The Lead Market Participant for the Generator Asset shall provide a copy of the revised registration to the Massachusetts Municipal Wholesale Electric Company in the event that the transferor is a municipal entity designated on a restricted transfer list to be provided to the Lead Market Participant by the Massachusetts Municipal Wholesale Electric Company from time to time. The revised registration shall include a statement indicating the fact that the prior owner is relinquishing ownership rights to the Generator Asset.

1.4.3 Retirement

A requested effective date for Generator Asset retirement must allow for five Business Days once a completed request is received for the ISO and the Host Participant to review and remove the asset from the settlement power system model. This review notification is in addition to applicable advance notice periods prescribed in other ISO New England Planning Procedures, ISO New England Operating Procedures or the Tariff.

1.5 Tie-Line Asset Registration Requirements

1.5.1 Initial Registration

A desired effective date for new Tie-Line Assets must allow for five Business Days for the ISO to review the Tie-Line Asset registration and add to the settlement power system model. The five Business Day timeframe commences upon receipt by the ISO of a completed registration that indicates the approval of the Host Participants responsible for the monitor Metering Domain and receiver Metering Domain. The asset registration shall be submitted by the Host Participant responsible for either the monitor Metering Domain or the receiver Metering Domain. In addition to general registration data, the ISO may request additional information that may include, but is not limited to the physical transfer point(s) represented by the Tie-Line Asset and the metering point(s) for the determination of PTF losses allocation, as applicable.

1.5.2 Updated Registration

A desired effective date for a Tie-Line Asset update must allow for two Business Days for the ISO to review the request and implement the update. The two Business Day timeframe commences upon receipt of all necessary approvals. A request to submit five-minute revenue quality metering must allow for five Business Days for the ISO to complete its review and must include agreement of both Host Participants

1.5.3 Retirement

A requested effective date for a Tie-Line Asset retirement must allow for five Business Days once a completed request is received for the ISO to review and remove the asset from the settlement power system model. This review notification is in addition to any applicable advance notice periods prescribed in other ISO New England Planning Procedures, ISO New England Operating Procedures or the ISO Tariff.

1.6 Demand Asset Registration and Mapping Requirements

A Demand Asset is a component of an On-Peak Demand Resource, Seasonal Peak Demand Resource or Demand Response Resource. A Demand Asset of a Demand Response Resource is also known as a Demand Response Asset. This section of the manual explains the process for registering Demand Assets, mapping DRAs to DRRs, mapping DRRs to Active Demand Capacity Resources, and mapping On-Peak and Seasonal Peak assets to On-Peak and Seasonal Peak Demand Resources. The registration and mapping process is managed in CAMS. The CAMS user guide provides more detailed information on how to complete each step.

1.6.1 Initial Registration Process

A desired effective date for new Demand Assets must be the first day of a future month. In addition to general registration data, the ISO may request additional information necessary to approve the asset registration. The initial registration of a DRA must be complete prior to the ISO finalizing the monthly communications model for the requested effective date. If the DRA is not approved prior to finalizing the monthly communications model for the requested effective date, the DRA will not be included in the model and cannot be operational for the month.

1.6.1.1 Registration Requirements

Demand Response Assets cannot be composed of the customers of Host Participants whose service territories are closed to registration. The status of territories can be found on the ISONE website.

The completion of the registration process for a DRA requires providing information on the location and capability of the asset and the details of any generation behind the Retail Delivery Point. The registration of a DRA cannot be approved until it has been mapped to a DRR. If the Lead Market Participant does not have a current DRR in the same DRR Aggregation Zone as the new DRA, or the Lead Market Participant meets the requirements specified in the Market Rule and so chooses, a new DRR may be created in the DRR Aggregation Zone for the DRA during the registration process.

The completion of the registration process for an asset associated with an On-Peak or Seasonal Peak Demand Resource requires providing specific information on the measures used to provide demand reduction and may require specific information on the facilities where those measures are located. An asset associated with an On-Peak or Seasonal Peak Demand Resource may consist of Load Management, Distributed Generation or Energy Efficiency. A single asset cannot include more than one load reduction method. The registration of an asset associated with an On-Peak or Seasonal Peak Demand Resource cannot be approved until it has been mapped to a Demand Capacity Resource. An asset may not be registered as Load Management, Distributed Generation, or Energy Efficiency if the asset's in-service date is

prior to the Existing Capacity Qualification Deadline for the current Capacity Commitment Period.

1.6.1.2 Submittal of Facility Information in the Registration Process

A facility is a physical service location that represents a metered end-use customer and a single Retail Delivery Point. In most cases, a facility is identified by a single local Distribution Company account number and one or more meter numbers. Lead Market Participants are required to provide facility information for all Demand Assets except for certain energy efficiency programs that register at the Load Zone level. Required facility information includes, but is not limited to the local Distribution Company, retail account number, meter number(s), physical address, estimated maximum load, maximum Net Supply allowed, and a copy of a recent retail electricity bill or equivalent statement from the local Distribution Company.

Information provided about the facility is used by the ISO to determine the facility's location (latitude and longitude), and closest geographical P-Node from which the ISO determines the corresponding Load Zone and DRR Aggregation Zone. The Lead Market Participant is responsible for reviewing the determinations of the ISO and communicating to the ISO any discrepancies between the ISO determination and the facility's actual latitude and longitude, closest P-Node, Load Zone, and DRR Aggregation Zone. For end-use customers with maximum interruptible capability of one MW or greater, the Lead Market Participant is also required to provide confirmation from the local Distribution Company of the P-Node that serves the end-use customer's load.

When registering a facility that includes Distributed Generation, additional information is required that describes the size and operating characteristics of the generator(s). This information may include: generator unit size, whether the unit is controllable, whether the generation is capable of synchronous operation to the grid and the breaker status during operation, as appropriate. The ISO may request additional facility information to verify the registered values submitted by the Lead Market Participant.

1.6.1.3 Additional Requirements for Demand Response Assets to Become

In order for a DRA to be operational for a given day, all of the following conditions must be met prior to the beginning of the day:

- (1) The DRA is in the monthly communications front end (CFE) model
- (2) The DRA has a baseline built for the day type
- (3) The DRA is providing accurate real-time telemetering

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- (4) The DRA does not have a scheduled curtailment or a known forced curtailment on the day A DRA must meet the following requirements prior to the ISO finalizing the monthly communications model in order to be included in the monthly CFE model for the month:
- (a) The DRA must be approved by the ISO
- (b) The Lead Market Participant must confirm that the necessary telemetering is installed and operational
- (c) The DRA must be mapped to a DRR that is mapped to a DDE and RTU prior to the ISO finalizing the monthly communications model

The ISO finalizes the monthly model that supports the Communications Front End (CFE)/RTU for the coming month seven calendar days prior to the end of the current month.

Demand Response Assets that are not included in the monthly CFE model will not be operational during that month.

1.6.2 Updated Registration Process

The requested effective date for a change to the registration characteristics of a Demand Asset is subject to the following requirements:

- (1) Requested changes that impact the monthly CFE model must occur on a monthly boundary and be requested and approved prior to the day the ISO finalizes the monthly model that supports the CFE/RTU for the requested month; otherwise, the requested change will be delayed to the first of the next month. Such changes include:
 - a. DRA to DRR mapping
 - b. Notification of one-minute telemetry availability
 - c. Notification of the presence of controllable generation
 - d. Transfers of a DRA or DRR to a new Lead Market Participant
 (Note that a transfer of a DRR to a new Lead Market Participant will include all
 DRAs mapped to the DRR at the time of the transfer.)
 - e. DRR to DDE or RTU mapping
- (2) Certain changes that may impact automated data quality checks may be requested, subject to approval by the ISO, to be effective for a past date for settlement months where the Data Reconciliation Process Bill has not yet been finalized. Such changes include:
 - a. Maximum Load
 - b. Maximum Generation
 - c. Maximum Net Supply

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(3) All other data changes may be requested with any future date. Changes requiring ISO approval will be effective on the day following approval or on the requested effective date, whichever is later.

1.6.3 Retirement

The requested effective date of a Demand Response Asset retirement must be the first day of a future month. In addition, DRA retirements must be requested prior to the day the ISO finalizes the monthly model that supports the CFE/RTU for the requested month; otherwise, the requested retirement will be delayed to the first of the next month. A DRR may only be retired for an effective date if there are no pending or active DRAs mapped to the DRR as of that date.

1.7 Alternative Technology Regulation Resource Registration Procedure

1.7.1 Initial Registration

When registering a new ATRR, the Lead Market Participant must provide the ISO and the Host Participant with at least five Business Days' notice in advance of the requested effective date.

Additional timing requirements may be defined in Section I.3.9 of the Tariff and in ISO New England Operating Procedure No. 14.

1.7.2 Updated Registration

A requested effective date for an ATRR update must allow two Business Days for the ISO to review the request and make applicable changes to the settlement power system model. The advance notice period commences upon the ISO's receipt of a completed registration.

In the case of a transfer of the entire ownership rights of an ATRR from one Market Participant to another Market Participant, the prior owner shall sign the registration indicating that the prior owner is relinquishing its rights to the ATRR.

In the case of a transfer of a portion of the ownership rights of an ATRR from one Market Participant to another Market Participant, the prior owner and the new owner of the transferred portion of the ATRR shall sign the request.

Lead Market Participants may request changes to an ATRR's dispatch methodology in accordance with Market Rule 1 Section III.14.6, Section 1.6 of the ISO New England Manual for Regulation and Section III of ISO New England Operating Procedure No. 14.

1.7.3 Retirement

A requested effective date for an ATRR retirement must allow for five Business Days once a completed request is received for the ISO and the Host Participant to review and remove the asset from the settlement power system model. This review notification is in addition to applicable advance notice periods prescribed in other ISO New England Planning Procedures, ISO New England Operating Procedures or the ISO Tariff.

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1.8 Designated Entity and Demand Designated Entity Registration of Dispatch Location

A dispatch location is a single physical location within the continental United States where the DE and/or DDE receive dispatch instructions and related communications from the ISO. These instructions apply to modeled Generator Assets, DRRs, DARDs, and ATRRs registered in accordance with the ISO New England Operating Procedures and Manuals. The DE/DDE for a defined asset or resource is responsible for identifying the dispatch location, and must either 1) assign the defined asset to an existing, registered dispatch location or 2) identify a new dispatch location in order to receive dispatch instructions and related communications from ISO-NE. The ISO will not authorize a dispatch location as active until ISO-NE determines that the dispatch location meets the technical and registration requirements specified in the ISO-NE Operating Procedures and Manuals.

- A dispatch location cannot be connected to ISO-NE via RTU, SCADA, ICCP, ARD, dedicated voice communication circuits, routers, etc. unless there is at least one modeled Generator, DRR, DARD, ATRR assigned to it.
- Separate ISO connected CFE/RTUs are required if the dispatch location is dispatching DRRs and any other type of asset.
- All Assets operating behind a single point of interconnection that require coordinated control and are required to provide telemetry shall be assigned to a single dispatch location.

1.8.1 Initial Registration

Registering a new dispatch location for the DE/DDE has advance notification requirements. Registration of a new dispatch location requires 90-days advance notice. The DE/DDE registering the new dispatch location shall appoint Operations Management, Technical, and Training contacts. The Operations Management contact or designee will submit information to the ISO that details, at a minimum, the contact information, dedicated bell line (telephone number), and dispatch center address.

The identified Operations Manager shall also complete and submit the dispatch location *Responsibility Checklist* that affirms the DE/DDE's capability to meet the requirements stipulated in the ISO New England Operating Procedures.

- Contact information refers to persons, telephone numbers and email addresses associated with a role identified during registration (*e.g.*, Operations Manager, Operations Technical, and Operations Training).
- Communication elements refers to infrastructure that supports communication between the ISO and the dispatch location. As applicable, this includes the dedicated bell line (DBL), alternative phone numbers, auto ring down circuit, and relevant ISO CFE/RTUs.

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• Dispatch location refers to the physical location that the ISO will contact via electronic dispatch and/or through a validated voice communication line (auto ring down, DBL).

1.8.1.1 Registration Review and Approval

Upon receipt of all the required registration information, the ISO will determine if the proposed dispatch location meets the technical requirements specified in the ISO New England Operating Procedures. The ISO will coordinate (communication testing, confirm contact information, etc.) with the dispatch location to ensure that the information provided during registration and the *Responsibility Checklist* are accurate and in good order.

1.8.1.2 Dispatch Location Activation

Upon successful registration, the ISO will coordinate with the dispatch location, and other parties as appropriate, to facilitate the effective date for the dispatch location to receive dispatch instructions and related communications from the ISO as applicable.

1.8.2 Updated Registration

A registered dispatch location can be modified to change contact information, communication elements, address (which may be determined to be a new dispatch location), or defined assets (add/remove), assigned to the dispatch location. The ISO will review the submitted change request to determine if the dispatch location is appropriately aligned with the requirements as defined in the ISO New England Operating Procedures. Based on the change request, the Operations Management contact may need to complete and (re)submit the *Responsibility Checklist* to reaffirm that the dispatch location is able to meet the requirements stipulated in the ISO New England Operating Procedures.

1.8.2.1 Contact Information, Communication Circuits, Dispatch Location

Only the Operations Manager or an authorized representative (Operations Technical, Operations Training, or an administrative contact provided by the Operations Manager) may submit requests to change contact information, communication elements, or the dispatch location.

There may be circumstances in which a dispatch location receives dispatch instructions for multiple assets that are managed by a different Lead Market Participant.

1.8.2.1.1 Assigning an Asset or Resource to an Existing Designated Entity/Demand Designated Entity

The Lead Market Participant may assign a new asset or resource to a registered DE/DDE, or may re-assign an existing asset or resource from one DE/DDE to another. All Assets operating behind a single point of interconnection that require coordinated control and are required to provide telemetry shall be assigned to a single DE. If a Lead Market Participant assigns an asset or resource to an existing DE/DDE, then ISO will evaluate the technical requirements and existing capabilities of the dispatch location to which the DE/DDE assigns the asset or

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resource and determine steps needed for approval and activation. If the addition of the asset or resource to a dispatch location changes the technical requirements, the Operations Manager may be required to submit a new dispatch location requirements checklist.

1.8.2.1.2 Retiring Dispatch Locations

If there are no assets or resources assigned to an existing dispatch location, the ISO will deem it as inactive and discontinue dispatch communications.

1.8.2.1.3 Registration Review and Approval

Change requests identified in this manual should allow for a minimum of five business days for the ISO to review the request. This review notification is in addition to the advance notification requirements stated in the ISO New England Operating Procedures.

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Section 2: Capacity Resource Transfers

2.1 Introduction

Subject to ISO approval, New and Existing Capacity Resources may be transferred to a new Lead Market Participant.

When a resource is transferred from one Lead Market Participant to another, both the receiving and relinquishing Lead Market Participant must indicate approval.

2.2 Generating Capacity Resources

A transfer of a Generating Capacity Resource to a new Lead Market Participant will not include the Generator Assets mapped to the Generating Capacity Resource as the time of the transfer. If the intent is to transfer the Generator Asset(s) to a new Lead Market Participant, a separate request for the asset transfer must be submitted by the Lead Market Participant for the asset(s). The Lead Market Participant for a Generating Capacity Resource may be different from the Lead Market Participant for Generator Assets mapped to the Generating Capacity Resource.

2.3 Active Demand Capacity Resources

A transfer of an Active Demand Capacity Resource to a new Lead Market Participant will include all DRRs (including its DRAs) assigned to the Active Demand Capacity Resource at the time of the transfer.

2.4 On-Peak and Seasonal Peak Demand Resources

A transfer of an On-Peak or Seasonal Peak Demand Resource to a new Lead Market Participant will include all associated Demand Assets at the time of the transfer.

Section 3: Dispatchable Asset Related Demand NCL Auditing for DARDs Other than Storage DARDs

3.1 Introduction

This section discusses the requirements that must be met by DARDs other than Storage DARDs to establish and audit the Nominated Consumption Limit ("NCL") values. Storage DARDs neither establish nor audit Nominated Consumption Limits; therefore, no part of this Section 3, "Dispatchable Asset Related Demand Auditing," applies to Storage DARDs.

All communication between the ISO and Market Participants regarding rating and auditing of DARDs must be conducted through the Designated Entity and the dispatch location for the applicable DARD.

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3.2 Claimed NCL Periods

There are two Claimed Capability Demonstration Periods for DARD; the Summer Capability Period and the Winter Capability Period.

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3.3 Claimed NCL Demonstration Periods

The Claimed Capability Demonstration Periods are defined subsets of the respective Summer and Winter Capability Periods. Claimed NCL Ratings for a DARD must be demonstrated in each of the two Claimed Capability Demonstration Periods. The summer demonstration period begins on June 1 and ends on September 15. The winter demonstration period begins on November 1 and ends on April 15. All Claimed NCL Audits (CNAs), other than a CNASeasonal, must occur between 0800 and 2300, Monday through Friday, excluding weekday NERC Holidays. A CNA-Seasonal may be demonstrated at any time during the Claimed Capability Demonstration Period. Designated Entity requests for CNA-Establish and CNASeasonal audits must be timed to occur during periods of normal operation for the DARD (i.e. not a two-week summer shutdown, extended maintenance, or other unusual activity that would reduce consumption levels).

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3.4 NCL Claimed Capability

Nominated Consumption Limits (NCL) for DARDs, including both the Summer (NCL-S) and Winter (NCL-W) Limits, are analogous to the Seasonal Claimed Capability of Generator Assets. Claimed NCL Ratings are the minimum level to which a DARD can reduce its consumption.

All DARDs other than Storage DARDs must have Claimed NCL Ratings for both the Summer Capability Period and the Winter Capability Period.

Pursuant to ISO New England Operating Procedure No. 14, the Lead Market Participant for a DARD must provide information pertaining to its DARD on an *NX-12 Form*. In order for the Claimed NCL Ratings of any DARD to be established or changed, all applicable *NX-12 Forms* must be submitted in accordance with ISO New England Operating Procedure No. 14. NCL must be established and reported in MW, rounded to three decimal places.

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3.5 NCL Capability Audits

The ISO may conduct audits for the purpose of establishing, restoring or verifying the Claimed Nominated Consumption Limit of all DARDs other than Storage DARDs. An ISO initiated audit is called a Claimed NCL Audit (CNA). CNA results are based on the physical performance of the DARD at the time the ISO initiates the audit relative to the NCL in effect when the audit is performed.

There are three types of CNAs associated with a DARD:

- (1) CNA-Establish. A CNA-Establish is conducted by the ISO, upon request by the Designated Entity, for the purpose of either establishing, reducing or restoring NCL on a DARD for a given Capability Period to a level that is less than a NCL that was claimed during the past two similar Capability Periods.
- (2) CNA-Seasonal. A CNA-Seasonal is conducted by the ISO upon the request by the Designated Entity for the DARD, and must be requested at least once per Capability Period for each DARD. The primary purpose of the CNA-Seasonal is to demonstrate that the DARD remains capable of following Dispatch Instructions to reduce consumption to its NCL.
- (3) CNA-Extra. A CNA-Extra may be conducted by the ISO, in selected cases, according to ISO discretion, regardless of whether a DARD has successfully passed a CNA during that Capability Period, in order to verify that the DARD remains able to meet its NCL.

All requests for CNAs must be communicated to the ISO via e-mail to opacca@iso-ne.com. The Lead Market Participant, through the Designated Entity, is obligated at least once each Capability Demonstration Period to conduct a CNA-Seasonal for each of its DARDs subject to a CNA. While a CNA-Establish and CNA-Seasonal may be requested pursuant to the requirements of this Section by the Designated Entity, the precise date and time when such CNA will be conducted is established by the ISO. The ISO will initiate this type of CNA within seven Business Days for CNA-Establish and CNA-Seasonal, provided that, the precise date and time is determined by the ISO without advance notice, and further provided that the ISO may delay a CNA for reliability reasons.

If a CNA is delayed for reliability reasons, the ISO will work with the affected Governance Participant to schedule the CNA at another time. The Designated Entity will be notified by the ISO immediately prior to the initiation of a CNA that a CNA is being conducted.

The ISO will normally initiate a CNA at a time when the DARD is being dispatched to its NCL in normal economic merit order. The ISO will make a good faith effort to conduct a CNA at a time when the Locational Marginal Price is above or not significantly less than the Demand Bid price for the applicable DARD at its NCL.

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The ISO initiates audits by ordering a DARD's consumption to be reduced from its current consumption level (if that level is above NCL) to its NCL. The audit begins in the first full clock hour after sufficient time has been allowed for the DARD to ramp, based on its submitted ramp rate, from its current consumption point to its NCL.

The required duration for a CNA is two hours. Audits may be witnessed on-site by ISO staff accompanied by applicable Governance Participant personnel. In order to pass a CNA, the DARD must demonstrate it can achieve average consumption less than or equal to its NCL.

Average hourly consumption data substantiating audit results will be derived from hourly revenue metering data reported by the Host Participant to the ISO, in accordance with ISO New England Manual for Market Rule 1 Accounting, M-28.

The results of any CNA will be communicated to the Designated Entity via telephone or email within seven Business Days of the completion of the audit.

For all DARDs, in order to establish, reduce or restore Claimed NCL, a CNA-Establish must be conducted that supports the Claimed NCL value. In order for a requested establishment of, or change to, the NCL of a DARD to be effective by the requested date, the Designated Entity should request the CNA-Establish with sufficient advance notice to allow time for testing and processing. Assuming the appropriate CNA has been conducted, the results support the claimed rating and the required forms have been provided and accepted by the ISO, the establishment or reduction in NCL will become effective as follows:

3.5.1 Establishing Capability for New Dispatchable Asset Related Demands

- (a) A Governance Participant with a new DARD that is claiming an NCL for the first time must establish the initial capability based on a CNA-Establish for a two-hour duration. The Claimed NCL ratings must be supported by the results of the CNA.
- (b) Newly identified DARDs may establish ratings and participate in the markets following the submission by the Market Participant of all necessary applications and all necessary data to the ISO. For DARDs, required applications and data include: (1) Asset Registration Process; and (2) technical data (initial *NX-12 Form*).
- (c) A Governance Participant (via the Designated Entity) must provide advance written notification (including e-mail and fax) to the ISO generation coordinator as to when a new DARD will be declared operational). A DARD that has been declared operational, but for which a CNA-Establish has not been conducted may participate in the markets using the preliminary NCL ratings and other characteristics from the initial *NX-12 Forms*.

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- (d) The ISO will conduct a CNA-Establish within seven Business Days after the DARD has been declared operational (no explicit request by the Governance Participant for the ISO to conduct a CNA-Establish is necessary, in this instance). The ISO will notify the Designated Entity when it is about to initiate the CNA-Establish. Within seven Business Days after the CNA-Establish is conducted, the ISO will notify the Designated Entity of the results of the CNA-Establish.
- (e) Claimed NCL Ratings are officially established based on the results of a CNAEstablish. If the NCL demonstrated in the CNA-Establish is higher than the data in the initial *NX-12 Form* provided to the ISO, the ISO will revise the *NX-12 Form* to reflect the results of the CNA-Establish. If the NCL demonstrated in the CNAEstablish is less than the NCL stated on the initial *NX-12 Form* on file with the ISO, then the Lead Market Participant may, at its discretion, file a new *NX-12 Form* to reduce the NCL to a level supported by the results of the CNA-Establish. The effective date, for Forward Capacity Market purposes only, will be retroactive to the date that the DARD was declared operational.
- (f) The CNA-Establish for a new DARD is used to determine its rating during the seasonal Capability Period in which the CNA-Establish was conducted. The initial NCL rating for the DARD in a different season cannot exceed the initial NCL rating established for the Capability Period for which the CNA-Establish was conducted.

3.5.2 Reducing NCL for Existing Dispatchable Asset Related Demands

- (a) In order to reduce the NCL of a DARD with an established NCL, a Designated Entity must request a CNA-Establish. For a DARD with established capability, if a decrease in the NCL-S (NCL-W) is desired to a level that is less than the highest level of NCL that had been claimed for NCL-S (NCL-W) over the two most recent Summer (Winter) Capability Periods, then the Designated Entity must request a CNAEstablish.
- (b) For a DARD with an established NCL that has been redeclared upward by the ISO, if a reduction in the NCL-S (NCL-W) is desired back to the level in effect prior to the ISO redeclaration, then the Designated Entity must request a CNA-Establish.
- (c) A CNA conducted for the purpose of reducing the NCL-W of a DARD may be conducted at any time of the year. A CNA conducted for the purpose of reducing the NCL-S of a DARD must be conducted during the Summer Demonstration Period.
- (d) Prior to the beginning of the Summer Capability Period, a reduction in NCL-S can be based on a CNA-Establish that was conducted during the most recent Summer Demonstration Period. Prior to the beginning of the Winter Capability Period, a

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reduction in NCL-W can be based on a CNA-Establish that was conducted during the most recent Winter or Summer Capability Period. Once a Winter Capability Period has begun, a reduction to NCL-W for that Capability Period can only be based on a CNA-Establish conducted in that Winter Capability Period. Once a Summer Capability Period has begun, a reduction to NCL-S for that Capability Period can only be based on a CNA-Establish conducted in the Summer Demonstration Period within that Summer Capability Period.

- (e) The ISO will conduct a CNA-Establish within seven Business Days after the request to conduct the CNA-Establish is received. Within seven Business Days after the CNA-Establish is conducted, the ISO will notify the Designated Entity of the results.
- (f) If a request for a CNA-Establish for the purpose of reducing or restoring the NCL-S of a DARD is received by the ISO less than seven Business Days prior to the end of the Summer Demonstration Period for a CNA-Establish, then that the seven day period or fourteen day period will be extended into the next Summer Demonstration Period.
- (g) Changes in the ratings of active DARDs will be effective no sooner than seven Business Days following receipt by the ISO of a completed *NX-12 Form*, in accordance with ISO New England Operating Procedure No. 14.

3.5.3 Detailed descriptions of the various types of CNAs applicable to DARDs

(a) CNA-Establish

In order for Claimed NCL Ratings to be established or reduced (below the highest NCL level that had previously been claimed over the past two similar Capability Periods), a CNA-Establish must be conducted that supports such a change.

In order for a new DARD to establish its NCL rating for Claimed NCL Ratings purposes, the Designated Entity must notify the ISO that the DARD is available for dispatch. The ISO will conduct a CNA-Establish within seven Business Days after the DARD is declared commercial.

In order to reduce NCL for an existing DARD, the Designated Entity may request a CNA-Establish and the ISO will conduct a CNA-Establish within seven Business Days after the request to conduct the CNA-Establish is received provided that the

DARD is expected to be operating "normally" (for example, not during a two-week summer shutdown) and consuming at a level above its NCL for at least four Business Days within this seven day window. If the DARD is not expected to be consuming above its NCL on at least four Business Days within the seven day window, the ISO

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may cancel the audit request and require the Designated Entity to request another CNA-Establish.

Within seven Business Days after the CNA-Establish is conducted, the ISO will notify the Designated Entity of the results.

(b) CNA-Seasonal

A CNA-Seasonal of a DARD must be conducted once each seasonal Capability Demonstration Period. The Designated Entity initiates a CNA-Seasonal by submitting a request to the ISO. The ISO will conduct the CNA-Seasonal within seven Business Days after receiving a request, provided that the DARD is expected to be operating "normally" (for example, not in the midst of a two-week summer shutdown) and consuming at a level above its NCL for at least four Business Days within this seven day window. If the DARD is not expected to be consuming above its NCL on at least four Business Days within the seven day window, the ISO may cancel the audit request and require the Designated Entity to submit a new request for a CNA-Seasonal.

(c) CNA-Extra

The ISO may conduct an additional CNA test (CNA-Extra) during a Capability Period, in addition to other CNA tests conducted. The ISO's decision to conduct a CNA-Extra will be based on objective criteria that suggest that a DARD's claimed NCL is less than the level to which it is able to reduce consumption. The objective criteria used by the ISO may include, but are not limited to: (1) a consistent pattern of declaring a Minimum Consumption Limit that is greater than the NCL; and (2) repeated failures to achieve NCL during CNAs.

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Revision 19, Effective Date: December 3, 2019

3.6 NCL Re-ratings due to Failed Audits

- (1) Claimed NCL Ratings will be increased due to a failure of a DARD to demonstrate Claimed NCL Ratings during certain types of CNAs. An increase in NCL Rating is referred to as a CNA Re-rating and results in an increase to the NCL for that DARD (via a *NX-12 Form* revision), as described below.
 - (a) A DARD that fails its CNA-Seasonal during a Seasonal Claimed Capability Period will be re-rated to the NCL level demonstrated during the CNA-Seasonal. This CNA Re-rating will become effective seven Business Days following the notification by the ISO to the Designated Entity of the CNA-Seasonal failure.
 - (b) A DARD that fails its CNA-Extra during a Seasonal Claimed Capability Period will be re-rated to the NCL level demonstrated during the CNA-Extra. This CNA Rerating will become effective seven Business Days following the notification by the ISO to the Designated Entity of the CNA-Extra failure.
 - (c) A CNA Re-rating for a DARD will require a change to the *NX-12 Form*. The revised *NX-12 Form* will be developed by the ISO. Notification of the re-rate will be provided to the Lead Market Participant.
- (2) If the ISO does not conduct a CNA-Establish within fourteen Business Days and the DARD was available to be tested during that entire period, the DARD will be considered to have passed the CNA-Establish.
- (3) The NCL of a DARD that has been increased due to a CNA re-rating can be reduced if:
 - (a) A CNA-Establish is requested and the DARD successfully demonstrates NCL during the CNA-Establish (or other CNA), according to the provisions of this Section; and
 - (b) The *NX-12 Form* has been submitted by the Lead Market Participant by the required deadline.

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3.7 Compensation for Claimed NCL Audits

For all types of CNAs, a DARD will pay for Energy consumed at Locational Marginal Price at the Node at which the DARD is located.

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Revision 19, Effective Date: December 3, 2019

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Revision History

Approval

Approval Date: May 7, 2010

Effective Date: June 1, 2010

Revision History

Revision: 1 - Approval Date: November 18, 2010

Section No. Revision Summary

Section 5......Adds a new Section 5 titled "CLAIM10 and CLAIM30 Auditing and Testing".

Revision: 2 - Approval Date: April 1, 2011

Section No. Revision Summary

1.2......Adds language describing the availability and purpose of the *Demand Response Customer Information Request Form*.

1.7.1(2)......... Adds requirement for Host Participants to submit information to the ISO for each Local Distribution Company's service territory.

1.7.2.....Adds sentence on registration restrictions pertaining to a relevant electric retail regulatory authority's policies.

1.7.5.....Adds information on retirement and makes minor grammatical changes.

Revision: 3 - Approval Date: May 6, 2011

Section No. Revision Summary

Table A.1.....Revises the Summer Claimed Capability Audit Duration for the Steam Turbine unit type from 8 hours to 4 hours. Revises the Summer Claimed Capability Audit Duration and the Winter Claimed Capability Audit Duration for the Combustion Gas Turbine and Internal Combustion Engine unit types from 2 hours to 1 hour.

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Revision 17, Effective Date: October 4, 2018

Revision: 4 -	Approval Date: January 20, 2012
Section No.	Revision Summary
1.1	Makes minor clarifying changes.
1.3	Updates registration process, eligibility criteria and annual review of node assignments to reflect changes to Asset Related Demand size and aggregation.
1.7.3.1	Revises the numbering of Figure 1.1 to be Figure 1.3.

Revision: 5 - App	proval Date: June 1, 2012
Section No. Re	evision Summary
	lds meter number and end-use metering point and clarifies that the Lead Market rticipant must provide facility information to the ISO.
1.7.2.2 De	eletes "hourly" and adds a reference to the metering point.
	lds a reference to Market Rule 1 section for mapping and unmapping of DR sets to DR Resources.
1.7.7 De	eletes subsection (3).
3.2 Rej	places audit provisions with Market Rule 1 references.
3.3 Re	evises section to reflect new audit process.
3.4 Rej	places audit provisions with a reference to Market Rule 1.
3.4.1 De	eletes section.
3.4.2 De	eletes section.
3.4.3 De	eletes first paragraph and first sentence of the second paragraph.
3.4.4 Ad	lds new language on audit requests to reflect the new audit process.

3.4.5	Adds reference to Market Rule 1 and ISO New England Manual and deletes reference to forms.
3.4.6	Adds reference to the section of Market Rule 1 that covers this section's subject.
3.4.6.1	Deletes first sentence. Adds defined term Average Hourly Load Reduction. Deletes reference to engineering estimates. Replaces description of baseline adjustments with a reference to Market Rule 1.

Revision: 6 - Approval Date: October 3, 2012

Section No. Revision Summary

2.4.1.2...... Replaces the Market Participant obligation to conduct a CCA-Seasonal at least once each Capability Demonstration Period with a summer and winter CCASeasonal. Adds two new subsections (1) and (2) stating the criteria the summer and winter CCA-Seasonal are based on. Replaces "second" with "seventh" in the third sentence of the second paragraph.

Revision: 7 - Approval Date: March 1, 2013

Section No. Revision Summary

2.4.1.2(2)..... Replaces the "September 1, 2011" date with "September 1, 2010".

Revision: 8 - Approval Date: June 7, 2013

Section No. Revision Summary

- 3.2(4).......... Adds new subsection titled "New Demand Response New Asset Audits".
- 3.4..... Adds reference regarding auditing requirements for New Demand Response Assets.
- 3.4.4.....Replaces the ISO web site form process with the ISO Demand Response Audit and Testing Tool.
- 3.4.6.2......Replaces the two hour audit period requirement with the one hour audit period requirement.

3.4.7, 3.4.8,

3.4.9, 3.4.10

& 3.4.10.1.....Adds 5 new subsections regarding the auditing subject for New Demand Response Assets.

Section 5......Deletes Section 5 titled "CLAIM10 and CLAIM30 Auditing and Testing".

Revision: 9 - Approval Date: November 2, 2012

Section No. Revision Summary

1.7.1(1)...... Deletes "Enrolling Participant" in the subsection heading.

Revision: 10 - Approval Date: August 2, 2013

Section No. Revision Summary

Deletes the following Section and Appendices (relocated to Operating Procedure 23 – Generating Resource Auditing):

Section 2

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G

Appendix H

Revision: 12 - Approval Date: November 7, 2014

Section No. Revision Summary

3.4.6.2......Replaces "notification period" with "Demand Resource Notification Time".

Revision: 13 - Approval Date: May 2, 2014 and January 9, 2015

Section No. Revision Summary

This set of revisions was approved on May 2, 2014

1.1.1(1)........ Adds "and Alternative Technology Regulation Resources".

1.1.2(6)....... Adds a new subsection (6) Alternative Technology Regulation Resource Asset Owner.

1.9....... Adds a new section 1.9 Alternative Technology Regulation Resource (ATRR) Registration Procedure.

1.9.1....... Adds a new subsection 1.9.1 Initial Registration.

1.9.2........ Adds a new subsection 1.9.2 Updated Registration.

1.9.3....... Adds a new subsection 1.9.3 Retirement.

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ı	This set of revisions	was annroved	on Ianiiary 9	7015
ı		was approved	on sundary s,	2013

- 1.1.1(4)......... Replaces "all assets" with "Generator, Asset Related Demand, Load, Tie-Line, and discrete Alternative Technology Regulation Resource".
- 1.1.1(5)......... Revises this subsection to reflect all assets if not already the responsibility of the Host Participant Assigned Meter Reader, or Lead Participant.
- 1.1.2(5)(d)..... Adds a new subsection (d) Alternative Technology Regulation Resource.
- 1.9.1..... Adds a second paragraph regarding other definition locations within the ISO New England System Rules for additional timing requirements.
- 1.9.2...... Replaces "SOG" with "ATRR" in the third paragraph and adds a fourth paragraph regarding ATRR dispatch methodology change request locations within the ISO New England System Rules.

Revision: 14 - Approval Date: August 7, 2015

Section No. Revision Summary

- 1, 1.3.1(4), 3.4 Adds phrase "of this manual".
- 1.1.2(1)....... Adds a new subsection (1) Lead Market Participant.
- 1.1.2(2)...... Replaces "share" with "Share".
- 1.1.2(2) & (3). Replaces the phrase "on the first day of the month" with "at the start of an Operating Day".
- 1.1.2(5)........ Adds a new subsection (5) Lead Asset Owner.
- 1.1.2(7)......... Replaces "Market Participant" with "Host Participant" and deletes the phrase "by the Tie Line Asset Owner(s)".

- 1.2.1, 1.2.2(1), 1.2.3, 1.3.1, 1.3.1(1)(a), 1.3.1(4), 1.3.2(1)(a), 1.3.3, 1.4.1, 1.4.2, 1.4.3, 1.5.1, 1.5.2, 1.5.3, 1.6.1, 1.7.4, 1.9.2, 1.9.3, 3.3, 3.4.4, 3.4.5, 3.4.8, 3.4.9, 4.5, 4.5.1(1)(d), 4.5.1(2)(e),

(f) & (g), 4.5.1(3)(a) & (b), 4.6(1)(a) & (b), 4.6(2)	

Revision: 15 - Approval Date: October 2, 2015

Section No. Revision Summary

3.4.6.2.........Adds a fourth paragraph regarding the simultaneous auditing rules for Real-Time Demand Response Resources and Real-Time Emergency Generation Resources.

Section No. Revision Summary

1.1.2(3).......Deletes subsection (3) Tie Line Asset Owner and replaces with "Reserved".

1.1.2(7)......Deletes "hourly and monthly" in first paragraph.

1.1.3......Adds new section "Sub-hourly Metering" for submittals of five-minute revenue quality metering.

1.2.2, 1.4.2,

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Revision: 16 - Approval Date: May 5, 2017

1.5.2 & 1.6.2.. Adds to these sections "A request to submit five-minute revenue quality metering must allow for five Business Days for the ISO to complete its review". 1.3.2, 1.3.3, 1.4.2, 1.4.3, 1.5.2, 1.5.3, 1.6.1, 1.9.2 & 1.9.3......Replaces "Settlement Power System Model" with "settlement power system model" 1.3.2(1)(a).....Adds to subsection (1)(a) the timing requirements for five-minute revenue quality metering. 1.3.2(2)(a)(b)...Deletes language in subsection (a) and is replaced with subsection (b) language, and replaces "sign the ARD Asset Registration Form" with "indicate agreement". 1.4.1......Deletes "Asset Registration Form" and "NX-12". 1.4.2..........Removes language relating to the use of the Asset Registration Form for updating registration for Generator Asset and is replaced with "When changing Asset Ownership Shares, both the receiving and relinquishing Asset owner must indicate agreement". 1.5.2.....Removes language relating to the use of the Asset Registration Form for updating registration for SOGs and is replaced with "When changing Asset Ownership Shares, both the receiving and relinquishing Asset owner must indicate agreement". 1.6.1.........Deletes "and Host Participant Assigned Meter Reader" from first sentence. Adds clarifying language the five business days commences upon receipt by the ISO of a completed Asset Registration Form which shall be submitted by the Host Participant Assigned Meter Reader responsible for the either the monitor or the receiver Metering Domain. Deletes existing language in subsections (1) and (2) and adds to the last sentence "The physical transfer point(s) represented by the Tie-Line Asset including metering point(s) for the determination of PTF losses allocation, as applicable". 1.6.2......Revises first sentence to "A desired effective date for a Tie-Line Asset update must allow for two Business Days for the ISO to review the request and

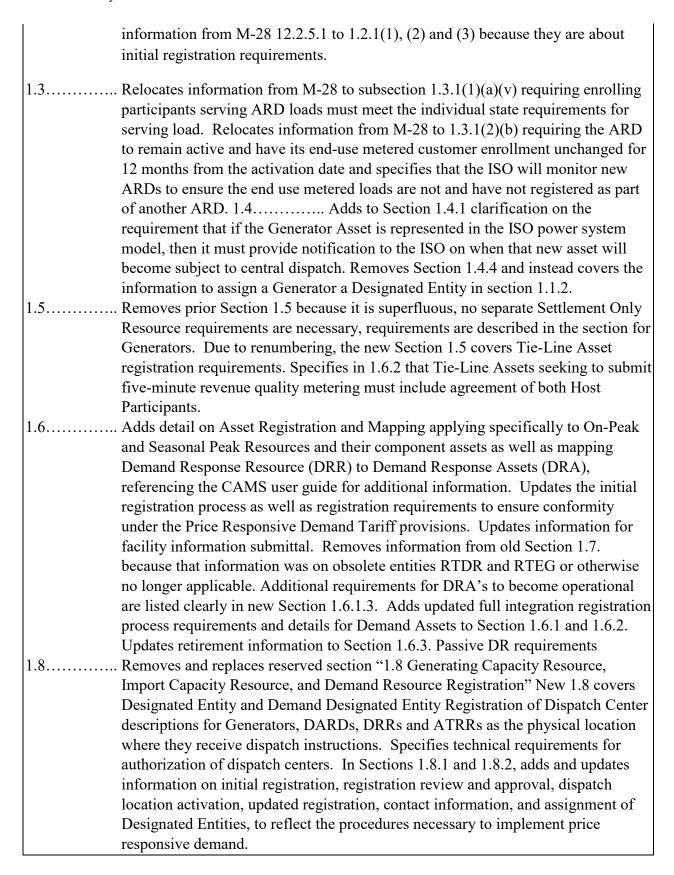
implement the update" and clarifies the two Business Days timeframe commences upon receipt of all necessary approvals.

Revision: 17 - Approval Date: October 4, 2018

Section No. Revision Summary

This manual has been updated to reflect the full integration of Price Responsive Demand. In addition to substantive changes, clean-up and clarifying changes have been made throughout the manual to improve phrasing, correct capitalization, remove redundant or obsolete provisions and improve the formatting of the manual.

- 1.1............. Indicates that demand asset registration submission is done through the Customer and Asset Management System (CAMS) and all other types through asset registration forms found on the website. System approval initial registration signature requirement updated. Adds detail on Lead Market Participant and Designated Entity/ Demand Designated Entity responsibilities. Removes detail from Host Participant definition and replaces with reference to the Tariff. Clarifies that Generator Assets will have Assigned Meter Readers designated during the asset registration. Adds sub section (e) detailing Demand Response Asset data submission. Removes subsection on ATRR from 1.1.2(8) because ATRR are settled at the Lead Market Participant level and there is no settlement of ownership shares. Adds to subsection 1.1.2, explaining detail such as; the Lead Market Participant for Demand Assets is responsible for assigning these assets to an On Peak Demand Resource, Seasonal-Peak Demand Resource or Demand Response Resource (DRR). The Lead Market Participant for a DRR is responsible for mapping the DRR to an Active Demand Capacity Resources, when appropriate. Broadens information on DARDs in subsection 1.1.2(e) and removes (f), Capitalizes "Demand Asset" which has been added to Manual M-35 as part of this manual update project. Simplifies "Host Participant Meter Reader" to "Host Participant", removes unnecessary reference to OP 18. Simplifies instruction for Generator Asset meter reader designation. Adds subsection 1.1.2 (7) (e) to detail applicable requirements for Demand Assets

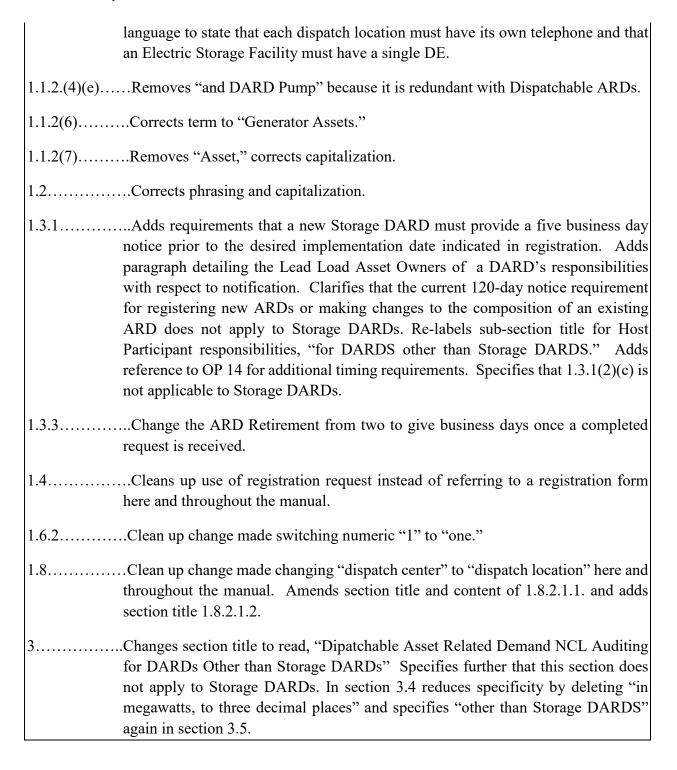


3	Changes this section from previously "Reserved" to "Capacity Resource Transfers" detailing how New and Existing Capacity Resources may be transferred to a new Lead Market Participant. Adds sub sections describing the transfer of: New or Existing Generating Capacity Resources, Active Demand Capacity Resources and On-Peak or Seasonal Peak Resources. Removes because Auditing of DRRs is in Tariff section 1.5.1 and OP-23, passives auditing is covered in M-MVDR and renumbers following Section. Passive Demand Resources auditing is covered in M-MVDR. Reorganizes and updates section on Passive Demand Resource auditing. Removes provisions relating to RTDR and RTEG. Deletes formerly reserved section 5.
	RTDR and RTEG. Deletes formerly reserved section 5.

Revision: 18 – Approval Date: October 4, 2019

Section No Revision Summary

- 1.1............Adds "A Market Participant submits a single registration for a Continuous Storage Facility and, except where noted, follows the rules applicable to its component asset types." Clarifying phrasing changes were made.
- 1.1.1.....Cleans up phrasing
- 1.1.2(1)Replaces "registration form" with "registration" here, and throughout the manual. Adds sentence to say that "An Electric Storage Facility" must have a single Lead Market Participant to address that an ESF consists of three asset types. Adds acronyms (DDE) and (DE) for consistency and ease of reference throughout the manual. Replaces third paragraph with the following additional sentences, "The Lead Market Participant may designate itself as the DE/DDE, subject to the registration requirements detailed in this manual" and "The Lead Market Participant will remain responsible for actions and requirements assigned to the DE/DDE under the ISO New England Manuals, Operating Procedures or the Tariff."
- 1.1.2(3).......Several changes were made to clarify the responsibilities of the DE/DDE. Clarifies assets and resources that "receive Dispatch Instructions." Clarifies that all assets and resources that receive Dispatch Instructions are required to have a DE/DDE with a registered physical location, and that a DE/DDE may register more than one dispatch location, and each dispatch location is a single point of contact to receive, acknowledge receipt and implement, the ISO Dispatch Instruction for any given assets that it represents. Adds "Lead Market Participant" to list of responsible parties for installation and maintenance of the RTU. Clarifies that more than one dispatch location can be associated with the same RTU. Adds



Revision 19 – Approval Date October 4, 2019 Effective Date: December 3, 2019

This revision was made to comply with FERC Order 841.

Section No. Revision Summary

1.3.1.(2)(a)....Adds subsection (a) "The ARD must consist of either:" and adds new section (ii) "One or more storage devices located behind the same point of interconnection with an aggregate consumption capability of 0.1MW or greater."

Revision 20 – Approval Date August 6, 2020 Effective Date August 6, 2020

These revisions were made to conform with changes made to OP-18 for DC coupled assets.

Section No. Revision Summary

- 1.1.2(7)..........Adds subection (f) "Where two or more Directly Metered market assets register behind a single interconnection with the Host Participant, a single Assigned Meter Reader shall be designated for all of the co-located Assets."
- 1.1.2(7)(c).....Adds subitem (2) "The Assigned Meter Reader for a Storage DARD will be designated by the Lead Market Participant to the ISO during asset registration."
- 1.8......Adds bullet "All Assets operating behind a single point of interconnection that require coordinated control and are required to provide telemetry shall be assigned to a single dispatch location."
- 1.8.2.1.1......Adds item "All Assets operating behind a single point of interconnection that require coordinated control and are required to provide telemetry shall be assigned to a single DE."