

ISO New England Manual for  
**Registration and Performance Auditing**  
Manual M-RPA

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**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 generally are defined in Section I of the ISO Tariff.

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 four Sections. The Sections are as follows:

Section 1: Asset and Resource Registration

Section 2: Reserved

Section 3: Demand Resource Auditing

Section 4: 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. Sections 1.1 through 1.6 of this manual explain the registration process for Load, Asset Related Demand, Generator, Settlement Only Generator and Tie-Line assets. Section 1.7 of this manual explains the registration process for Demand Assets. Section 1.8 of this manual discusses the registration process for resources.

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**

A Market Participant must submit a completed Asset Registration Form in order to register an asset. The Asset Registration Form can be found on the ISO website. Additional registration requirements are defined in this and other ISO New England Manuals, Operating Procedures, Planning Procedures or the ISO Tariff and must be met prior to an asset being registered with the ISO.

The ISO will only accept a new asset registration, request to re-activate, or request to retire an existing asset that has been reviewed and signed by the Host Participant Assigned Meter Reader. Any changes to the composition of an existing Asset Related Demand or Dispatchable Asset Related Demand require the Host Participant Assigned Meter Reader's signature.

#### **1.1.1 Authorized Signatures**

The ISO will only accept signatures on the Asset Registration Form by individuals that have been authorized by their respective company to submit Asset Registration Forms. Such authorization shall be designated in the Customer and Asset Management System (CAMS) by a Security Administrator.

Initial registration of an asset requires the signatures of each of the following parties:

- (1) Lead Participant (Generator, Asset Related Demand Assets, and Alternative Technology Regulation Resources)
- (2) Lead Load Asset Owner (Load Assets, including Asset Related Demand and Dispatchable Asset Related Demand)
- (3) Asset Owners (All assets)
- (4) Host Participant Assigned Meter Reader (Generator, Asset Related Demand, Load, Tie-Line, and discrete Alternative Technology Regulation Resource)
- (5) Assigned Meter Reader (all assets if not already the responsibility of the Host Participant Assigned Meter Reader, or Lead Participant)

#### **1.1.2 Roles and Responsibilities**

- (1) Lead Market Participant

The Lead Market Participant is the Market Participant that registers new Generator Assets. The Lead Market Participant is ultimately responsible for compliance with all

applicable ISO asset requirements and obligations, and submitting all asset data in eMKT.

(2) Generator Asset Owner

A Generator Asset Owner is the Market Participant or Market Participants possessing a share of a Generator and registered hereunder as owner of the Generator Asset. If there is not a Market Participant owner for a Generator, the Lead Market Participant will be considered the owner. Ownership Share transfers are effective at the start of an Operating Day and are specified in percent.

(3) Reserved

(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 terminate 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 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 Asset Related Demands including the pumping portion of pumped storage hydroelectric generating facilities that are registered as Dispatchable Asset Related Demands.
- (f) The pumping portion of pumped storage hydroelectric generating facilities that are registered as Non-Dispatchable Asset Related Demands.
- (g) Kilowatt-hours delivered to Non-Market Participants on a wholesale basis within the New England Control Area.
- (h) 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 Assigned Meter Reader

Host Participant Assigned Meter Reader is a transmission or distribution provider that reconciles the loads within the Metering Domain with ISO New England Operating



Procedure No. 18 compliant metering. To the extent that Host Participant Assigned Meter Readers are required to perform the Assigned Meter Reader function for Load, Tie Line, or Generation Assets, the Host Participant Assigned Meter Readers 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 ISO 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 Asset Registration Form 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: The Assigned Meter Reader for Generator Assets will be the Host Participant Assigned Meter Reader unless the Lead Market Participant submits a registration request to be the Assigned Meter Reader.
- (b) Tie-Line Assets: The Assigned Meter Reader for Tie-Line Assets is the Transmission Owner or Host Participant designated to the ISO, or the ISO.
- (c) Load Assets: The Assigned Meter Reader for Load Assets will be the Host Participant Assigned Meter Reader except that 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.
- (d) Alternative Technology Regulation Resource: The Lead Participant is responsible for providing real-time telemetering for Alternative Technology Regulation Resources.

(8) Alternative Technology Regulation Resource Asset Owner

An Alternative Technology Regulation Resource Asset Owner is a Market Participant with a registered ownership share of an ATRR.

### 1.1.3 Sub-hourly Metering

A request to submit five-minute revenue quality metering requires approval from the Host Participant Assigned Meter Reader 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.

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## **1.2 Load Asset 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. If such a Load Asset is responsive to Desired Dispatch Points or Dispatch Instructions its registration shall include registration of a Designated Entity on the same basis as if it were a Generator 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.13.1.4.10 for end use customers served by contacting ISO-NE Customer Service by telephone or e-mail.

### **1.2.1 Initial Registration**

A desired effective date for new Load Assets must allow for five Business Days for the ISO and the Host Participant Assigned Meter Reader to review the Load Asset registration forms and accurately model the asset. The five Business Days timeframe commences upon receipt of a completed Asset Registration Form by the ISO and the Host Participant Assigned Meter Reader. The Lead Load Asset Owner is responsible for completing and submitting the Asset Registration Form for the load.

### **1.2.2 Updated Registration**

#### **(1) Timing Requirements**

A desired effective date for asset 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 changes**

Ownership changes may be submitted by either the Lead Load Asset Owner or a Market Participant with an ownership share in the Asset. When transferring Lead Load Asset Ownership status or Load Asset Ownership share both the receiving and relinquishing Market Participants of a Load Asset must sign 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 Assigned Meter Reader must have signed off on the retirement request prior to submittal to the ISO.

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## 1.3 Asset Related Demand and Dispatchable Asset Related Demand Registration Requirements

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

### 1.3.1 Initial Registration and Changes to Composition

When registering a new Asset Related Demand or making changes to the composition of an existing Asset Related Demand, the Lead Load Asset Owner must provide the ISO and the Host Participant Assigned Meter Reader with at least 120 Business Days' notice prior to the desired implementation date indicated on the *ARD Asset Registration Form*.

The Lead Load Asset Owner must complete the *ARD Asset Registration Form* and Attachment A to the *ARD Asset Registration Form* for new asset registrations and for existing Asset Related Demand that have been active for a minimum of 12 months to which end-use metered customers are to be enrolled or removed.

Upon the completion of or revisions to the *ARD Asset Registration Form* including Attachment A, the Lead Load Asset Owner must send the form to both the ISO and the Host Participant Assigned Meter Reader.

Additional timing requirements are identified in Section I.3.9 of the Tariff, and in ISO-NE Operating Procedure No. 14.

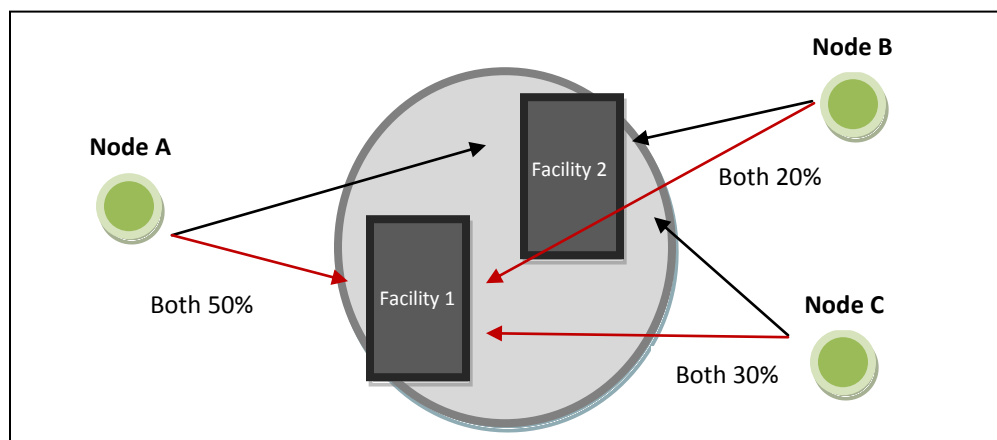
(1) Host Participant Assigned Meter Reader responsibilities:

- (a) The Host Participant Assigned Meter Reader, in a minimum of 20 Business Days, will provide the following information to the ISO and Lead Load Asset Owner by updating or confirming the applicable fields in Attachment A:
  - (i) Determine which P-Nodes are electrically serving the end-use metered customers seeking Asset Related Demand treatment.
  - (ii) Provide the list of P-Nodes that serve the end-use metered customers identified in the *ARD Asset Registration Form* and Attachment A. 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 customers. This information will be added to the *ARD Asset Registration Form* by the Host Participant Assigned Meter Reader.
  - (iii) Verify, for each end-use metered customer listed on the *ARD Asset Registration Form's* Attachment A, the end-use metered customers' 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 Asset Related Demand is a Profiled Load Asset or a Directly Metered Asset.

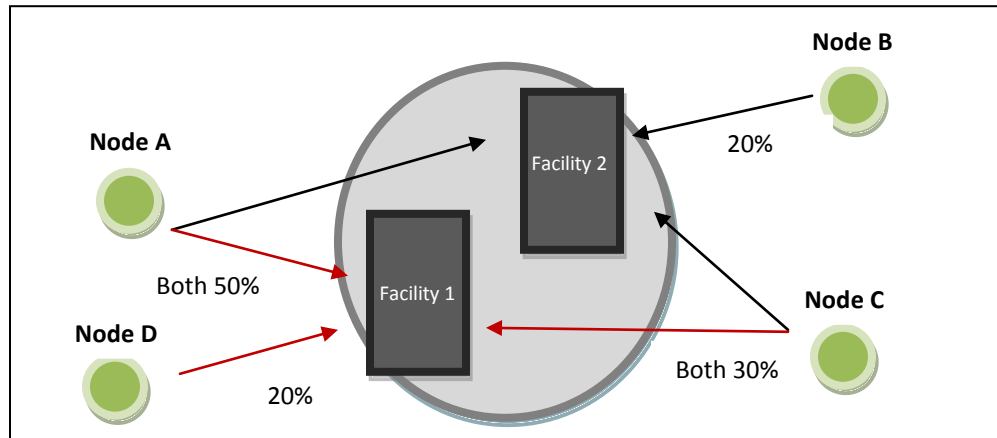
(2) ISO responsibilities:

Once the ISO receives the completed *ARD Asset Registration Form* and Attachment A containing the required information from the Host Participant Assigned Meter Reader, the ISO will determine compliance with Asset Related Demand eligibility criteria, including the following:

- (a) One or more individual end-use metered customers with an aggregate average hourly load of one megawatt or greater during the 12 months preceding the date the *ARD Asset Registration Form* is submitted by the Lead Load Asset Owner and as verified by the Host Participant Assigned Meter Reader.
- (b) Aggregation of end-use metered customer demand is permissible provided the following conditions are met:
  - (i) All end-use metered customers associated with an Asset Related Demand 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 Asset Related Demand.
  - (iii) End-use metered customers aggregated as a part of a single Asset Related Demand 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 below.)



**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) has been installed and testing has been successfully completed to satisfy real-time metering requirements.
- (b) Demonstrate that a single SCADA measurement point will stay in synch with end-use metered customer enrollment changes.
- (c) Enroll end-use metered customers identified in Attachment A following established, state-approved requirements, including electronic data interchange (EDI) and any applicable Host Participant Assigned Meter Reader procedures or requirements.
- (d) Notify the ISO and the Host Participant Assigned Meter Reader by e-mail of any changes to end-use metered customers enrolled under an Asset Related Demand that impact asset registration.

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

If eligibility criteria and infrastructure requirements have been met, the ISO will notify the Host Participant Assigned Meter Reader of the Load Asset's approval. The Host Participant Assigned Meter Reader will then sign the *ARD Asset Registration Form* and return the signed form to the ISO.

The ISO will model the Asset Related Demand in the Energy Management System and notify the Lead Load Asset Owner and Host Participant Assigned Meter Reader. Asset Related Demand loads served electrically from more than one Metering Domain or Load Zone will be modeled in the Energy Management System based on the Metering Domain where the end-use metered customers are mapped. The ISO will use the P-Node data included in the form's Attachment A to develop an AP-Node for each unique Asset Related Demand.

Upon implementation, the Host Participant Assigned Meter Reader will be responsible for providing the ISO with hourly Load Asset 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 Assigned Meter Reader with the Attachment A for Asset Related Demand containing the list of P-Node assignments provided upon initial registration. The Host Participant Assigned Meter Reader will assess whether the individual end-use metered customers represented on Attachment A remain electrically connected to the P-Nodes per the asset registration form. Periodically, the AP-Node assignments may require updates as the Energy Management System 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 Attachment A, the Host Participant Assigned Meter Reader 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 on Attachment A to the *ARD Asset Registration Form*.
- (b) Provide the ISO and Lead Load Asset Owner with an updated P-Node assignment using Attachment A. If applicable, the ISO will update the *ARD Asset Registration Form* and send the revision out to the Lead Load Asset Owner and the Host Participant Assigned Meter Reader.

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 Asset Related Demand ineligible, the Lead Load Asset Owner is responsible for retiring the Asset Related Demand 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 Assigned Meter Reader 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 Assigned Meter Reader, request a review of the AP-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 Asset Related Demand end-use metered customers. If a different set of P-Nodes is identified as serving the load associated with the Asset Related Demand asset then the Host Participant Assigned Meter Reader will notify the Lead Load Asset Owner and the ISO. The ISO will update the *ARD Asset Registration Form* and send the revision out to the Lead Load Asset Owner and the Host Participant Assigned Meter Reader.

### 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 *ARD Asset Registration Form* registration/change forms 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 Load Asset Ownership Shares, both the receiving and relinquishing Load Asset Owners must indicate agreement.

### 1.3.3 Retirement

A requested effective date for an Asset Related Demand retirement must allow for two Business Days for the ISO and the Host Participant Assigned Meter Reader to review the *ARD Asset Registration Form* 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 Assigned Meter Reader.

## **1.4 Generator Assets 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 Assigned Meter Reader with at least five Business Days notice in advance of the requested effective date.

The Lead Market Participant must provide advance notification to the ISO, using the required Asset Registration Form, 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 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 ISO markets).

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 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 Asset Registration Form 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 Assigned Meter Reader 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.



## **1.5 Settlement Only Generator (SOG) Registration Requirements**

### **1.5.1 Initial Registration**

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

### **1.5.2 Updated Registration**

A requested effective date for a SOG Asset update must allow two Business Days for the ISO to review the request and make applicable changes to the settlement power system model. To change data for an existing generating unit electing Settlement Only Resources treatment, a minimum of five Business Days advance notice to the ISO is required. 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.

### **1.5.3 Retirement**

A requested effective date for an SOG Asset retirement must allow for five Business Days once a completed request is received for the ISO and the Host Participant Assigned Meter Reader 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.

## **1.6 Tie-Line Assets Registration Requirements**

### **1.6.1 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 form and add to the settlement power system model. The five Business Days timeframe commences upon receipt by the ISO of a completed Asset Registration Form that indicates the approval of the Host Participant Assigned Meter Readers responsible for the monitor Metering Domain and receiver Metering Domain. The asset registration form shall be submitted by the Host Participant Assigned Meter Reader responsible for either the monitor Metering Domain or the receiver Metering Domain. In addition to general registration data, the ISO may request all information reasonably required by the ISO that may include, but is not limited to:

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 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 Days 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.

### **1.6.3 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 Planning Procedures, ISO Operating Procedures or the ISO Tariff.

## **1.7 Demand Asset Registration and Mapping Requirements**

This section of the manual explains the process for registering a Demand Asset and mapping Demand Assets to Demand Resources. The registration and mapping process is managed in the Customer and Asset Management System. The CAMS user guide provides more detailed information on how each of these steps is completed.

### **1.7.1 Registration and Mapping Roles and Responsibilities**

#### **(1) Lead Market Participant**

The Lead Market Participant is responsible for registering a Demand Asset, mapping a Demand Asset to a Demand Resource, designating a Meter Reader, designating a Demand Designated Entity and mapping the Demand Designated Entity to an RTU when required.

The Lead Market Participant is responsible for contracting the services of a Demand Designated Entity or designating itself as the Demand Designated Entity if one is required. Notwithstanding the foregoing, the Lead Market Participant will remain responsible for actions and requirements assigned to the Demand Designated Entity under the ISO Manuals, Operating Procedures or the ISO Tariff.

#### **(2) Host Participant**

The Host Participant is responsible for reviewing and verifying facility information for Demand Assets within the Host Participant's metering domain upon the request of the ISO. For end-use customers with maximum interruptible capability of one MW or greater, the Host Participant is also responsible for assisting the ISO in identifying the P-Node that serves the end-use customer's load.

Host Participants must submit the following information to the ISO for each Local Distribution Company's service territory:

- (a) Changes in a Local Distribution Company's distribution size at the conclusion of each fiscal year if the distribution size increased to exceed four million MWh or has decreased to four million MWh or less.
- (b) Changes to or adoption of policies by the relevant electric retail regulatory authority, as they occur, that permit or prohibit the Host Participant's customers from bidding demand response into the ISO-administered markets or programs.

Based on the above information submitted by Host Participants, the ISO will maintain and publish a list of Local Distribution Company service territories indicating which areas are open or closed to Demand Asset enrollment.

#### **(3) Local Distribution Company**

When the Host Participant is not the Local Distribution Company for a Demand Asset, then the Local Distribution Company is responsible for reviewing and verifying facility information for Demand Assets within the Local Distribution Company's operating territory upon the request of the ISO.

#### **(4) Demand Designated Entity**

The Demand Designated Entity is responsible for the registration and monthly updating of its RTU(s) in accordance with Appendix G of ISO New England Operating Procedure No. 18, Metering and Telemetering Criteria. After a Real-Time Demand Response or Real-Time Emergency Generation Asset is “ready to respond” and is incorporated into the monthly model, the DDE must submit real time interval data via the Communication Front End/RTU and may submit interval data corrections via the Demand Resource Market User Interface.

(5) Meter Reader

For On-Peak and Seasonal Peak Resources, the Meter Reader is responsible for submitting any required hourly performance data for directly metered Distributed Generation to the ISO via the Meter Reader interface for the Settlements Market System.

## **1.7.2 Demand Asset Registration Requirements**

Demand Asset registration restrictions pertaining to a relevant electric retail regulatory authority’s policies are set forth in Market Rule 1, Section III.13.1.4.9.

A Demand Asset is comprised of one or more measures of the same Demand Resource type and metering configuration. The completion of the registration process for a Demand Asset requires providing specific information on measures and the facilities where those measures are located.

A Demand Asset which is measured at a retail delivery point may consist of an aggregation of Distributed Generation measures or Distributed Generation and non-Distributed Generation measures where the measures are located behind the same retail delivery point.

Where a Measurement and Verification Plan using statistical sampling or other alternative methodologies for establishing performance has been approved for a Real-Time Demand Response Resource, the registration of the associated facilities, measures and Demand Assets will be performed by the Lead Market Participant in coordination with the ISO. The ISO will work with the Lead Market Participant to establish the registration requirements that take appropriate account of the Measurement and Verification Plan methodologies for the associated Real-Time Demand Response Resource.

### **1.7.2.1 Submittal of Facility Information in the Registration Process**

A facility is a physical service location that represents a metered end-use customer. In most cases a facility is identified by a single Local Distribution Company account number, meter number(s), and end-use metering point. Lead Participants are required to provide facility information for all Demand Assets except for certain Demand Assets mapped to On-Peak or Seasonal Peak Demand Resources that do not include Distributed Generation. Required information includes but is not limited to the Local Distribution Company, retail account number, meter number(s), physical address, estimated maximum load, and a copy of a recent retail electricity bill.

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 we determine the corresponding Metering Domain, Load Zone, and Dispatch 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, Metering Domain, Load Zone, and Dispatch Zone. If the ISO is unable to determine the latitude and longitude based upon the information provided by the Lead Market Participant, the Lead Market Participant shall enter the coordinates during the initial registration.

### **1.7.2.2 Submittal of Measure Information in the Registration Process**

A measure is the underlying installed product, equipment, system, service, practice and/or strategy that is used to obtain reductions in end-use demand for a Demand Asset.

#### **1.7.2.2.1 Special Provisions for Facilities that have Distributed Generation**

If a second measure is added to a facility, and one of the measures is a Distributed Generation measure, the metering configuration of the non-Distributed Generation measure will need to be changed to “Load Reduction only with Distributed Generation.”

- (1) Except as provided in subsection (2) below, if the non- Distributed Generation measure to Demand Asset relationship is not one-to-one, a new Demand Asset will be created for the existing measure so that each measure at facilities with Distributed Generation is modeled as a distinct Demand Asset. The ISO shall consult with the Lead Market Participant throughout the execution of this remapping process. Measures consisting of Distributed Generation are not allowed to be aggregated to a Demand Asset.
- (2) If a Real-Time Demand Response Asset has an approved “Baseline Basis Code Change” form on file with the ISO, all real-time demand response measures behind the same retail delivery point must be aggregated to a single asset measured at the retail delivery point.
- (3) Asset information must be submitted prior to the ISO’s review of a Demand Asset in order to support the Demand Reduction Value calculation defined in Market Rule 1, Section III.13.7.1.5.3.

#### **1.7.2.2.2 Special Provisions for Distributed Generation Measures**

When registering a Distributed Generation measure, additional information is required that describes the size and operating characteristics of the generator(s). This information includes but is not limited to: generator unit size, whether unit operation is air permit restricted, whether the Distributed Generation is capable of synchronous operation to the grid and the breaker status across the Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours, as appropriate. Based on the generator and facility characteristics, provided, if it is determined that the facility may have hourly output that exceeds the end-use customer hourly load across the Demand Resource On-Peak Hours, Demand Resource Seasonal Peak Hours, Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours, as appropriate, the facility metered load data at the metering point in accordance with Market Rule 1 must be submitted in compliance with *ISO New England Manual for Market Rule 1 Accounting, M-28*, and the *ISO New England Manual for Measurement and Verification of Demand Reduction Value from Demand Resources, M-MVDR*. The ISO may request additional facility information to verify the registered values submitted by the Lead Market Participant.

### **1.7.2.2.3 Special Provisions for Initial Monthly Performance Values for On-Peak and Seasonal Peak Measures**

Initial monthly performance values shall be required for On-Peak and Seasonal Peak measures. These initial performance values must be determined in a manner consistent with the methodology described in the Demand Resource's Measurement and Verification Plan.

## **1.7.3 Initial Registration Process**

### **1.7.3.1 Registration Process Overview**

Completion of the Demand Asset registration information requirements in CAMS places the registered asset in a "received" state and results in notification to the Host Participant and the Lead Market Participant that the initial registration requirements have been completed. The "review in progress" state commences once the ISO begins its review of the submitted data, and results in notification to the Lead Market Participant that the review has commenced. While the ISO's review is in progress, the Lead Market Participant is not allowed to make any changes to the registration information submitted for the Demand Asset. If additional information is required from the Lead Market Participant for the approval of the registration, the Demand Asset will be designated as "pending customer action". The registration will remain in "pending customer action" until additional information is provided and the asset is returned to a "received" status by the Lead Market Participant. The ISO will once again designate the asset as "review in progress" when the review of the revised registration information begins. The ISO will complete its review of all registrations (along with any required additional information) received prior to the registration deadlines specified in the monthly memorandum sent by the ISO to all Lead Market Participants with Demand Resources in time for the next monthly model. Upon final review of all registration characteristics and supporting documentation, the ISO will reject or approve the registration and will send a rejection or approval notification to the Lead Market Participant, Host Participant, and the Demand Designated Entity.

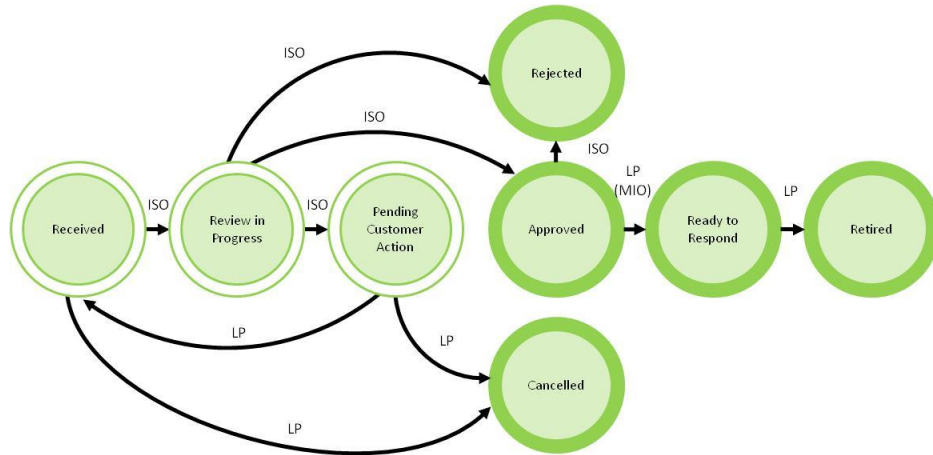
The Lead Market Participant can perform the following actions during each state

- (1) **Received:** The Lead Market Participant may update any of the attributes originally submitted except for the DR Category, Type, and Sub Type. If changes are needed to the DR Category, Type, and Sub Type, or a change to the facility address results in a new Node location, the Lead Market Participant should cancel the registration or request the ISO to reject the registration, and then resubmit a new registration.
- (2) **Review in Progress:** Once the ISO triggers the review process, the Lead Market Participant is restricted from making any updates except for mapping the asset to a resource.
- (3) **Pending Customer Action:** The Lead Market Participant can provide information on the facility, measure and Demand Asset. The Lead Market Participant may cancel the registration request, specify that the meter is installed and operational, and map the asset to a resource
- (4) **Approved:** The Lead Market Participant can update information on the facility, measure and Demand Asset (subject to ISO approval) and specify that the meter is installed and operational.

- (5) Ready to Respond: The Lead Market Participant can update information on the facility, measure and Demand Asset, update resource mappings, or retire the measures mapped to the Demand Asset.

An overview of the state flow process for registration of Demand Assets is shown in Figure 1.3.

**Figure 1.3: Demand Asset Registration State Flow**



### 1.7.3.2 Demand Assets Reaching the Ready to Respond State

A Demand Asset must meet the following requirements in order to achieve the “ready to respond” state:

- (1) The measure(s) mapped to the Demand Asset must be approved by the ISO.
- (2) The measure’s meters must be installed and operational.
- (3) For Demand Assets that require a baseline calculation for determining performance, the baseline must be established.<sup>1</sup>

#### 1.7.3.2.1 Additional Requirements for Real-Time Demand Response Assets and Real-Time Emergency Generation Assets

For Real-Time Demand Response and Real-Time Emergency Generation Assets to be included in the monthly model that supports the Communication Front End/RTU, the following conditions must be satisfied:

- (1) The Demand Asset must satisfy the requirements to be “ready to respond” as defined above.
- (2) The Demand Asset must be mapped to a Demand Resource.
- (3) A Demand Designated Entity must be mapped to the Demand Resource.

<sup>1</sup> The Demand Asset will be available in the Baseline and Telemetry System (“BLTS”) once it reaches the “received” state in CAMS. The baseline will be established ten calendar days prior to the Asset submittal date pursuant to Market Rule 1 Section III.8A.

- (4) The Demand Resource must be mapped to an RTU.

The monthly model that supports the Communication Front End/RTU is established seven calendar days prior to the end of the current month. If the Real-Time Demand Response or Real-Time Emergency Generation Asset meets the requirements to become “ready to respond” with insufficient time to be included in the model for the upcoming month, then the effective “ready to respond” date will be set to the first day of the subsequent month.

### **1.7.4 Updated Registration Process**

Registration characteristics of a Demand Asset may be changed by the Lead Market Participant at any time after reaching the “ready to respond” state. For information that requires ISO review, a change to the field containing that information will prompt notification to the ISO of the proposed change, and the ISO will have seven Business Days to complete its approval or denial of the change. Should the ISO determine during its review that it does not have information sufficient to complete its review, it will notify the Lead Market Participant that the requested change will remain pending until additional information is provided. Upon receipt of all additional required information, the ISO will have seven Business Days to complete its review and accept or reject the change based on the requirements applicable to the field.

### **1.7.5 Demand Asset Retirement**

Approved measures that are no longer contributing to the performance of a Demand Asset shall be retired by the Lead Market Participant. Measure retirement shall be effective on monthly boundaries. Real-Time Demand Response and Real-Time Emergency Generator measure retirements shall be requested at least seven calendar days prior to the requested effective date. A Demand Asset will be retired when the last measure mapped to the Demand Asset is retired.

### **1.7.6 Demand Resource Mapping and Designation**

All Demand Resource mappings and designations must comply with the timing constraints described in this manual.

#### **1.7.6.1 Mapping a Demand Asset to a Demand Resource**

Market Rule 1 Section III.13.1.4.11 governs the mapping and unmapping of Demand Assets to Demand Resources. The Lead Market Participant completes the mapping of a Demand Asset to a Demand Resource in CAMS and will be subject to the following restrictions:

- (1) Demand Assets must be mapped to Demand Resources of the same DR type.
- (2) Real-Time Demand Response Resources and Real-Time Demand Response Assets must comply with the location mapping requirements defined in Market Rule 1 Section III.13.1.4.5.1.
- (3) Real-Time Emergency Generation Resources and Real-Time Emergency Generation Assets must comply with the location mapping requirements defined in Market Rule 1 Section III.13.1.4.5.2.
- (4) On-Peak Demand Response Assets and Seasonal Peak Demand Response Assets must be mapped to Demand Resources in the same Load Zone.



### **1.7.6.2 Designating a Demand Designated Entity for Demand Resource**

The Lead Market Participant must designate a Demand Designated Entity for Real-Time Demand Response and Real-Time Emergency Generation Resources. Real-Time Demand Response and Real-Time Emergency Generation Resources without a Demand Designated Entity cannot be included in the model that supports the Communication Front End/RTU, and will consequently have no performance until a Demand Designated Entity designation is made. Lead Market Participants may be their own Demand Designated Entities.

### **1.7.6.3 Mapping a RTU to a Demand Resource**

The Lead Market Participant may map a Demand Resource to an RTU any time after a Demand Designated Entity has been designated for the Demand Resource. The Demand Resource must be mapped to an RTU in time for inclusion in the model that supports the Communication Front End/RTU as discussed in Section 1.7.3.2.1 of this manual.

## **1.7.7 Measure Aggregation**

During the Demand Asset registration process, a new Demand Asset will be created for each new measure. After the measure has been approved, the Lead Market Participant may request that the new measure be aggregated with other measures under a single Demand Asset. Distributed Generation measures located at multiple facilities are not eligible for aggregation. To be eligible for aggregation:

- (1) Real-Time Demand Response measures must have the same Node and metering configuration.
- (2) On-Peak and Seasonal Peak measures must be in the same Load Zone, must have the same metering configuration, and must be of the same Demand Resource Type.

The ISO can disaggregate measures from Demand Assets if, as a result of changes at the facility or to system topology, the measure no longer meets the aggregation eligibility requirements.

## **1.8 Generating Capacity Resource, Import Capacity Resource, and Demand Resource Registration**

Reserved for future use.

## **1.9 Alternative Technology Regulation Resource (ATRR) Registration Procedure**

### **1.9.1 Initial Registration**

When registering a new ATRR Asset, the Lead Market Participant must provide the ISO and the Host Participant Assigned Meter Reader 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.

### **1.9.2 Updated Registration**

A requested effective date for an ATRR Asset 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 Asset Registration Form.

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

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

### **1.9.3 Retirement**

A requested effective date for an ATRR Asset retirement must allow for five Business Days once a completed request is received for the ISO and the Host Participant Assigned Meter Reader 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.

## Section 2: Reserved

Reserved for future use.

## **Section 3: Demand Resource Auditing**

### **3.1 Demand Response Resource Types**

This section of the manual discusses how the ISO will audit the following classes of Demand Resources:

- (1) On-Peak Demand Resources
- (2) Seasonal Peak Demand Resources
- (3) Real-Time Demand Response Resources
- (4) Real-Time Emergency Generation Resources

All communication between the ISO and the Market Participants regarding auditing will be through the Lead Market Participant or the Demand Designated Entity.

## **3.2 Demand Resource Audits and Auditing Periods**

(1) Seasonal Performance Audits

Market Rule 1 Section III.13.6.1.5.4.3.1 addresses the requirements for a Seasonal DR Audit.

(2) Demand Resource Commercial Operation Audit

Market Rule 1 Section III.13.6.1.5.4.4 address the requirements for a Demand Resource Commercial Operation Audit

(3) Additional Audit Methodologies

Market Rule 1 Section III.13.6.1.5.4.5 addresses conditions and methodologies for additional audits.

(4) New Demand Response New Asset Audits

Market Rule 1 Section III.13.6.1.5.4.8 addresses conditions and methodologies for New Demand Response Asset Audits.

### **3.3 Auditing Demand Assets**

The audit result will be communicated to the Lead Market Participant within 14 Business Days.

(1) Demand Resource audit results calculated from Demand Asset audits

A Demand Resource's audit value is the simple sum of the audit values of the Demand Assets mapped to that Demand Resource. Demand Assets may have negative audit values based on their performance during an audit.

## **3.4 Demand Resource Audits**

Market Rule 1, Section III.13.6.1.5.4 addresses the auditing requirements for Demand Resources and the auditing requirements for New Demand Response Assets.

References to the Capacity Supply Obligation of a Demand Resource in this Section 3 are to the obligations of a Demand Resource prior to applying any gross up adjustments, such as an adjustment for transmission and distribution losses. The results of the audit shall be adjusted to account for the average hourly output of distributed generation based measures during the audit that exceed the monthly average hourly load of the end-use customer to which the resource is directly connected.

### **3.4.1 Reserved**

### **3.4.2 Reserved**

### **3.4.3 Audit Methodologies for Real-Time Demand Response Resources and Real-Time Emergency Generation Resources**

Audits do not contribute to the performance hours for the month in which the audit is conducted. When scheduling audits for Real-Time Emergency Generation Resources, preference will be given to days that are not forecasted air quality action days.

### **3.4.4 Requesting or Cancelling a Demand Resource Audit**

The Lead Market Participant of a Demand Resource must submit an audit request to the ISO through the Demand Response Audit and Testing Tool in order to establish the audit results of the Demand Resource.

Prior to initiation of the customer requested audit, the Lead Market Participant may request cancellation by communicating to the ISO through the Demand Response Audit and Testing Tool. For Real-Time Demand Response Resources and Real-Time Emergency Generation Resources, if the cancellation request is not received in time to prevent the initiation of the audit, then the Lead Market Participant shall have the option to reverse the cancellation request by informing the ISO within two Business Days following the audit.

### **3.4.5 Initiating a Demand Resource Audit**

The ISO shall review and approve or deny any customer requested audits.

The ISO shall deny any audit request that does not comply with the provisions of this manual or Market Rule 1. The ISO shall deny or reschedule any audit request that cannot be accommodated due to reliability concerns or other concerns regarding the administration of the New England Markets or operation of the electrical system.

If approved, the ISO shall conduct the audit within 20 Business Days of the requested date. The date and time of the audit will be unannounced. For Real-Time Emergency Generation Resources, On-Peak Demand Resources and Seasonal Peak Demand Resources, audits will be consistent with the performance or event hours of the applicable Demand Resource type as defined in Market Rule 1. For Real-Time Demand Response Resources, audits will be conducted during on-peak hours (i.e., hours ending 0800 to 2300) on weekdays that are non-Demand Response Holidays.



### **3.4.6 Performance During an Audit and Processing of Audit Results**

Market Rule 1 Section III.13.6.1.5.4.6 addresses how audit results are established.

#### **3.4.6.1 On-Peak Demand Resources and Seasonal Peak Demand Resources**

Performance for measures without interval meters may be based on estimated hourly reduction values or stipulated performance data to establish the Average Hourly Load Reduction. Pursuant to the Measurement and Verification methodology applicable to the measure type, Demand Reduction Values are established using reported performance data across the Demand Resource On-Peak Hours or reported Demand Resource Seasonal Peak Hours.

#### **3.4.6.2 Real-Time Demand Response and Real-Time Emergency Generation Resources**

A Demand Asset's audit value is based on the performance over the duration of the audit event, excluding the Demand Resource Notification Time for Real-Time Demand Response and Real-Time Emergency Generation Resources.

Audits may start at any time during an hour and must last at least one hour, excluding the notification period. Dispatch Instructions triggered by an audit shall include a MW value equal to the Capacity Supply Obligation of the Demand Resource that is in effect for that month of the applicable Capacity Commitment Period. The MW value in the Dispatch Instruction is the minimum level of expected performance. Lead Market Participants are encouraged, though not required, to deploy all active and "ready to respond" Demand Assets during the audits. The Dispatch Instruction shall indicate that the dispatch is an audit. The Demand Designated Entity shall comply with and carry out audit Dispatch Instructions in the same manner it would across Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours.

Upon issuance of Dispatch Instructions for an audit (the "Issue Time") for a Real-Time Demand Response or Real-Time Emergency Generation Resource, the Demand Resource shall have 30 minutes until the Reduction Deadline<sup>2</sup> to reach the MW level contained in the Dispatch Instructions. The one-hour audit period shall begin with the Reduction Deadline (i.e., the first full five-minute interval after the Issue Time plus 30 minutes) and last for one hour (the "Effective Period"). The measurement of the actual interruption during the Effective Period shall determine the performance of the Demand Resource during the audit. If the duration of an audit event includes a partial hour, then the average load reduction or average output calculations will account for the number of five-minute recording intervals within that partial hour. During an audit, the ISO will record the performance of all Demand Assets mapped to the Demand Resource.

A Real-Time Demand Response Resource that has established an audit value for the current season based on event performance and has mapped assets that are located behind the same end-use customer meter as assets mapped to a Real-Time Emergency Generation Resource shall receive an audit dispatch instruction when the Real-Time Emergency Generation Resource is audited. The dispatch instruction for the Real-Time Demand Response Resource

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<sup>2</sup> As defined in the NAESB Wholesale Demand Response Standards.

shall be for a MW value equal to the Capacity Supply Obligation of the Real-Time Demand Response Resource in effect for that month. However, the Lead Market Participant is required to deploy only those assets mapped to the Real-Time Demand Response Resource that are located behind the same end-use customer meter as assets mapped to the Real-Time Emergency Generation Resource being audited.

The baseline and baseline adjustment are calculated in accordance with Market Rule 1 Section III.8A.

The ISO may, at its discretion, extend the audit beyond one hour, terminate, or cancel an audit at any time due to reliability concerns or other concerns regarding the administration of the New England Markets or operation of the electric system.

The ISO may update the Real-Time Demand Response and Real-Time Emergency Generation Asset's registered maximum interruptible capacity, maximum generation, and maximum facility load based on the results of an audit or the review of recorded interval data, as appropriate.

### **3.4.7 Audit Methodologies for New Demand Response Assets of Real-Time Demand Response Resources and Real-Time Emergency Generation Resources**

Audits do not contribute to the performance hours for the month in which the audit is conducted. When scheduling audits for New Demand Response Assets of Real-Time Emergency Generation Resources, preference will be given to days that are not forecasted air quality action days.

### **3.4.8 Requesting or Cancelling a New Demand Response Asset Audit**

The Lead Market Participant of a Demand Resource with one or more New Demand Response Assets must submit an audit request to the ISO through the Demand Response Audit and Testing Tool in order to establish the audit results of the New Demand Response. Audits must be requested in the last seven calendar days of the month prior to the month of the audit.

Prior to the initiation of the customer requested audit, the Lead Market Participant may request cancellation by communicating to the ISO through the Demand Response Audit and Testing Tool. For New Demand Response Asset Audits of Real-Time Demand Response Resources and Real-Time Emergency Generation Resources, if the cancellation request is not received in time to prevent the initiation of the audit, then the Lead Market Participant shall have the option to reverse the cancellation request by informing the ISO within two Business Days following the audit.

### **3.4.9 Initiating a New Demand Response Asset Audit**

The ISO shall review and approve or deny any customer requested New Demand Response Asset Audits.

The ISO shall deny any New Demand Response Asset Audit request that does not comply with the provisions of this manual or Market Rule 1. The ISO shall deny or reschedule any New Demand Response Asset Audit request that cannot be accommodated due to reliability

concerns or other concerns regarding the administration of the New England Markets or operation of the electrical system.

If approved, the ISO shall conduct the New Demand Response Asset Audit within 20 Business Days of the date of the request. The date and time of the audit will be unannounced. For New Demand Response Assets of Real-Time Emergency Generation Resources, New Demand Response Asset Audits will be consistent with the event hours of the applicable Demand Resource type as defined in Market Rule 1. For New Demand Response Asset of Real-Time Demand Response Resources, New Demand Response Asset Audits will be conducted during on-peak hours (i.e., hours ending 0800 to 2300) on weekdays that are non-Demand Response Holidays.

### **3.4.10 Performance During an Audit and Processing of Audit Results**

Market Rule 1, Section III.13.6.1.5.4.6 addresses how audit results shall be established.

#### **3.4.10.1 New Demand Response Assets of Real-Time Demand Response and Real-Time Emergency Generation Resources**

A New Demand Response Asset's audit value is based on the performance over the duration of the audit event, excluding the notification period for the New Demand Response Asset.

Audits may start at any time during an hour and must last at least one hour, excluding the notification period. Dispatch Instructions triggered by an audit shall include a MW value equal to the Capacity Supply Obligation of the Demand Resource that is in effect for that month of the applicable Capacity Commitment Period. Since only the New Demand Response Assets are to be dispatched, the MW value in the Dispatch Instruction does not represent the minimum level of expected performance. Lead Market Participants are required to deploy only New Demand Response Assets mapped to the Demand Resource during the New Demand Response Asset Audits. The Dispatch Instruction shall indicate that the dispatch is an audit. It is the responsibility of the Lead Market Participant to ensure that the Demand Designated Entity knows that a request for a New Demand Response Asset Audit has been requested for the Demand Resource. The Demand Designated Entity shall be responsible to dispatch only the New Demand Response Assets during the New Demand Response Asset Audit, and shall comply with and carry out audit Dispatch Instructions in the same manner it would across Real-Time Demand Response Event Hours, or Real-Time Emergency Generation Event Hours.

Upon issuance of dispatch instructions for a New Demand Response Asset Audit (the "Issue Time") for a Real-Time Demand Response or Real-Time Emergency Generation Resource, the New Demand Response Assets of the Demand Resource shall have 30 minutes until the Reduction Deadline<sup>3</sup> to reach the MW reduction level. The one-hour audit period shall begin with the Reduction Deadline (i.e., the first full five-minute interval after the Issue Time plus 30 minutes) and last for one hour (the "Effective Period"). The measurement of the actual interruption during the Effective Period shall determine the performance of the New Demand Response Assets of the Demand Resource during the audit. During an audit, the ISO will

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<sup>3</sup> As defined in the NAESB Wholesale Demand Response Standards.

record the performance of all the New Demand Response Assets mapped to the Demand Resource.

The baseline and baseline adjustment are calculated in accordance with Market Rule 1, Section III.8A.

The ISO may, at its discretion, extend the audit beyond one hour, terminate, or cancel an audit at any time due to reliability concerns or other concerns regarding the administration of the New England Markets or operation of the electric system.

The ISO may update the Real-Time Demand Response and Real-Time Emergency Generation Asset's registered maximum interruptible capacity, maximum generation, and maximum facility load based on the results of the New Demand Response Asset Audit or the review of recorded interval data, as appropriate.

## **Section 4: Dispatchable Asset Related Demand Auditing**

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### **4.1 Introduction**

This section discusses the requirements that must be met by Dispatchable Asset Related Demand Resources to establish and audit the Nominal Consumption Limit (“NCL”) values.

All communication between the ISO and Market Participants regarding rating and auditing of Dispatchable Asset Related Demand Resources must be conducted through the Designated Entity for the applicable Dispatchable Asset Related Demand Resource.

## **4.2 Claimed NCL Periods**

There are two Claimed Capability Demonstration Periods for Dispatchable Asset Related Demand Resources. The Summer Capability Period runs from June 1 through September 30 and the Winter Capability Period runs from October 1 through May 31.

### **4.3 Claimed NCL Demonstration Periods**

The Claimed Capability Demonstration Periods are defined subsets of the respective Summer and Winter Capability Periods. Claimed NCL Ratings for Dispatchable Asset Related Demand Resources 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 CNA-Seasonal, 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, CNA-Seasonal audits must be timed to occur during periods of normal operation for the Dispatchable Asset Related Demand Resource (i.e. not a two-week summer shutdown, extended maintenance, or other unusual activity that would reduce consumption levels).

## **4.4 NCL Claimed Capability**

Nominated Consumption Limits (NCL) for Dispatchable Asset Related Demand Resources, including both the Summer (NCL-S) and Winter (NCL-W) Limits, are analogous to the Seasonal Claimed Capability of Generating Resources. Claimed NCL Ratings are the minimum level to which a Dispatchable Asset Related Demand Resource will reduce its consumption, in megawatts, to three decimal places

All Dispatchable Asset Related Demand Resources must have Claimed NCL Ratings for both the Summer Capability Period and the Winter Capability Period.

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



## 4.5 NCL Capability Audits

The ISO may conduct audits for the purpose of establishing, restoring or verifying the Claimed Nominated Consumption Limit of all Dispatchable Asset Related Demand Resources. An ISO initiated audit is called a Claimed NCL Audit (CNA). CNA results are based on the physical performance of the Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource:

- (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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource, and must be requested at least once per Capability Period for each Dispatchable Asset Related Demand Resource. The primary purpose of the CNA-Seasonal is to demonstrate that the Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource has successfully passed a CNA during that Capability Period, in order to verify that the Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resources 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource at its NCL.

The ISO initiates audits by ordering a Dispatchable Asset Related Demand Resource'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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource 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 Assigned Meter Reader 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 e-mail within seven Business Days of the completion of the audit.

For all Dispatchable Asset Related Demand Resources, 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 Dispatchable Asset Related Demand Resource 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:

- (1) Establishing Capability for New Dispatchable Asset Related Demand Resources
  - (a) A Governance Participant with a new Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resources 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 Dispatchable Asset Related Demand Resources, required applications and data include: (1) Asset Registration Process; and (2) technical data (initial NX-12). When the registration process is complete and all required forms and data have been received by the ISO, a newly identified Dispatchable Asset Related Demand Resource may participate in the markets no sooner than at 0001 hour, thirty calendar days later.
  - (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 Dispatchable Asset Related Demand Resource will be declared operational). A Dispatchable Asset Related Demand Resource 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.
  - (d) The ISO will conduct a CNA-Establish within seven Business Days after the Dispatchable Asset Related Demand Resource 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 CNA-Establish. 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 CNA-Establish 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 option, file a revised 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 Dispatchable Asset Related Demand Resource was declared operational.
  - (f) The CNA-Establish for a new Dispatchable Asset Related Demand Resource is used to determine its rating during the seasonal Capability Period in which the CNA-Establish was conducted. The initial NCL rating for the Dispatchable Asset Related Demand Resource in a different season cannot exceed the initial NCL rating established for the Capability Period for which the CNA-Establish was conducted.
- (2) Reducing NCL for Existing Dispatchable Asset Related Demand Resources
- (a) In order to reduce the NCL of a Dispatchable Asset Related Demand Resource with an established NCL, a Designated Entity must request a CNA-Establish. For a Dispatchable Asset Related Demand Resource 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 CNA-Establish.
  - (b) For a Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource may be conducted at any time of the year. A CNA conducted for the purpose of reducing the NCL-S of a Dispatchable Asset Related Demand Resource 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 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resources will be effective no sooner than seven Business Days following receipt by the ISO of a completed NX-12 Form, in accordance with ISO-NE Operating Procedure No. 14.
- (3) The following are more detailed descriptions of the various types of CNAs applicable to Dispatchable Asset Related Demand Resources:

(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 Dispatchable Asset Related Demand Resource to establish its NCL rating for Claimed NCL Ratings purposes, the Designated Entity must notify the ISO that the Dispatchable Asset Related Demand Resource is available for dispatch. The ISO will conduct a CNA-Establish within seven Business Days after the Dispatchable Asset Related Demand Resource is declared commercial.

In order to reduce NCL for an existing Dispatchable Asset Related Demand Resource, 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource 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 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource’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.

## 4.6 NCL Re-ratings due to Failed Audits

- (1) Claimed NCL Ratings will be increased due to a failure of a Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource (via a NX-12 Form revision), as described below.
  - (a) A Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource 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 Re-rating 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 Dispatchable Asset Related Demand Resource 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 Dispatchable Asset Related Demand Resource was available to be tested during that entire period, the Dispatchable Asset Related Demand Resource will be considered to have passed the CNA-Establish.
- (3) The NCL of a Dispatchable Asset Related Demand Resource that has been increased due to a CNA re-rating can be reduced if:
  - (a) A CNA-Establish is requested and the Dispatchable Asset Related Demand Resource 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.

## **4.7 Compensation for Claimed NCL Audits**

For all types of CNAs, a Dispatchable Asset Related Demand Resource will pay for Energy consumed at Locational Marginal Price at the Node at which the Resource is located.

## Section 5: Reserved

Reserved for future use.



## 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.

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 - Approval Date: June 1, 2012

Section No.   Revision Summary

1.7.2.1..... Adds meter number and end-use metering point and clarifies that the Lead Market Participant must provide facility information to the ISO.

1.7.2.2..... Deletes “hourly” and adds a reference to the metering point.

1.7.6.1..... Adds a reference to Market Rule 1 section for mapping and unmapping of DR Assets to DR Resources.

1.7.7.....	Deletes subsection (3).
3.2.....	Replaces audit provisions with Market Rule 1 references.
3.3.....	Revises section to reflect new audit process.
3.4.....	Replaces audit provisions with a reference to Market Rule 1.
3.4.1.....	Deletes section.
3.4.2.....	Deletes section.
3.4.3.....	Deletes first paragraph and first sentence of the second paragraph.
3.4.4.....	Adds 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 CCA-Seasonal. 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.
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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".
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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.
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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: 11 - Approval Date: April 4, 2014

Section No.   Revision Summary

Entire Section 1.7 revised to reflect Market Rule 1 implementation of the Demand Response Baseline and Scheduled Curtailments subject.

3.2(1)..... Replaces “Demand Reduction Value” with “Performance”.

3.4.4 through 3.4.10.1

..... Revises these subsections to reflect Market Rule 1 implementation of the Demand Response Baseline and Scheduled Curtailments subject.

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.

This set of revisions was approved on January 9, 2015

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.....	Replaces the “Demand Response Customer Information Request Form” with “contacting ISO-NE Customer Service by telephone or e-mail”.
1.2.2.....	Revises the subsection to contain two subsections; (1) Timing Requirements and (2) Ownership Shares.
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).....	Replaces “business day” with “Business Day”.
1.3.1(4)	Replaces the phrase “Asset Related Demand Asset” with “Asset Related Demand asset”.
1.6.2.....	Replaced existing language with a requirement of two Business Days for a desired effective date for a Tie-Line Asset update.
1.6.3.....	Adds a new subsection titled Retirement.
1.7, 3.1, 4.1,	Replaces “Section” with “section”.
1.7.2.2.1(3)....	Replaces “Section III.13.7.1.5.2” with “Section III.13.7.1.5.3”.
3.4.6.2, 3.4.10.1.....	Replaces “dispatch instruction” with “Dispatch Instructions”.

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.
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Revision: 16 - Approval Date: May 5, 2017

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, 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 <i>ARD Asset Registration Form</i> ” 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.