

ISO New England Manual for  
**Market Operations**  
Manual M-11

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Prepared by  
ISO New England Inc.

**ISO New England Manual for  
Market Operations**

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## About This Manual

This is the ISO New England Manual for Market Operations. The reader is referred first to Market Rule 1 for an explanation and information regarding the operation of the markets. Terms that are capitalized in this manual generally are defined in Section I of the ISO Tariff.

This manual provides additional implementation or other detail for those provisions of Market Rule 1 that require the Market Participant to take an action.

# Section 1: Overview of Energy Market Operations

## 1.1 Scope & Purpose of Scheduling and Dispatching

Operation of the New England Control Area involves many activities that are performed by different operating and technical personnel. These activities occur in parallel on a continuous basis, 24 hours a day and can be grouped into three overlapping time frames:

- Pre-scheduling operations
- Scheduling operations and the Day-Ahead Energy Market
- Scheduling and dispatching operations and the Real-Time Energy Market

In this manual we focus on the scheduling activities associated with the Day-Ahead Energy Market, scheduling activities that take place in the Real-Time Energy Market throughout the Operating Day and Real-Time Energy Market dispatching activities that take place within the operating hour.

## 1.2 ISO Responsibilities

### 1.2.1 Day-Ahead Energy Market

In the Day-Ahead Energy Market, the ISO determines the least-cost means of satisfying the cleared Demand Bids, cleared Decrement Bids, Operating Reserve, Replacement Reserve, Local Second Contingency Protection Resource requirements and other applicable Ancillary Services requirements of Market Participants, including the reliability requirements of the New England Control Area.

### 1.2.2 Real-Time Energy Market

Following the Day-Ahead Energy Market scheduling process, after the Real-Time Re-Offer Period and, as needed, throughout the Operating Day, the ISO will commit and de-commit Resources through the Reserve Adequacy Analysis, based upon the ISO's forecast of actual loads (including some External Transactions), resource availability and Self-Scheduled Resources for the next Operating Day, to:

- (1) Satisfy Operating Reserve and Replacement Reserve requirements of the New England Control Area by minimizing the cost to provide additional Operating Reserve, Replacement Reserve and additional Local Second Contingency Protection Resources above what was scheduled in the Day-Ahead Energy Market, if required;
- (2) Provide other Ancillary Services requirements, as required; and
- (3) Satisfy all other reliability requirements of the New England Control Area.

When additional capacity must be committed through the Resource Adequacy Analyses to meet New England Control Area requirements, the commitment objective is to minimize the total cost to commit the Resource and operate it at its Economic Minimum Limit or Minimum Consumption Limit for the greater of the Resource's Minimum Run Time or the duration of the capacity requirement.

- (1) In making this determination, the ISO identifies available Resources that can be released for dispatch during or before the hours of need based on their state (Hot Intermediate, or Cold), Notification Times and Start-Up Times;
- (2) The identified Resources are ranked in ascending order based on the sum of the applicable Start-Up Fee, No-Load Fee and the cost to operate at their Economic Minimum Limits or Minimum Consumption Limits for the longer of their Minimum Run Times or the duration of the capacity requirement;
- (3) The set of Resources that meets the capacity requirement at the least cost are committed.

If a Market Participant has procured gas for a gas-fired generating Resource that is ordered to come on-line after the close of the Day-Ahead Energy Market, the start-up will not be cancelled unless there is a reliability concern that needs to be addressed. When a gas-fired generating Resource is given an hourly commitment schedule in the Reserve Adequacy Analysis, the ISO will honor the hourly commitment schedule at the Resource's Economic Minimum Limit for the Commitment Period, unless there is a reliability concern that needs to be addressed.

In Real-Time, the ISO monitors and controls the New England Control Area such that the least-cost means of satisfying the projected Energy, Regulation, Operating Reserve, Replacement Reserve and other Ancillary Services requirements, including the reliability requirements of the New England Control Area, are met.



## **1.3 Market Participant Responsibilities**

Only Market Participants with settlement accounts for the Energy Market are eligible to submit Supply Offers, Increment Offers, Demand Reduction Offers, Demand Bids, External Transactions (other than Through Service External Transactions) and Decrement Bids and purchase Energy or related services in the Day-Ahead Energy Market and in the Real-Time Energy Market. All Market Participants and Non-Market Participant Transmission Customers may submit “Through Service” External Transactions in the Real-Time Energy Market. The major responsibilities of Market Participants are as follows:

### **1.3.1 Market Participants Buying from Energy Market**

Market Participants may submit hourly Demand Bids for the amount of demand that they want to participate in the Day-Ahead Energy Market. Any Market Participant that owns a Dispatchable Asset Related Demand, except for pumping demand of a pumped storage generator without a Capacity Supply Obligation, must submit a Demand Bid for the Resource as described in Market Rule 1 Section III.1.10.6.

The key scheduling responsibilities of a Market Participant purchasing Energy from the Energy Market for consumption by end-users that are located inside the New England Control Area or that is selling to buyers external to the New England Control Area include but are not limited to:

- (1) Submitting hourly schedules for Self-Scheduled Dispatchable Asset Related Demand;
- (2) Submitting Demand Bids including modifications to Demand Bids submitted by Dispatchable Asset Related Demand as described in Market Rule 1 Section III.1.10.9(a) and (e);
- (3) Submitting Decrement Bids for use in the Day-Ahead Energy Market;
- (4) Submitting External Transaction sales to entities outside the New England Control Area as described in Market Rule 1 Sections III.1.10.7, III.1.10.7.A and III.1.10.9(c).

### **1.3.2 Market Participants Selling into Energy Market**

The key scheduling responsibilities of a Market Participant that is selling Energy into the Energy Market include but are not limited to:

- (1) Submitting hourly schedules for Self-Scheduled Resources as provided for in Market Rule 1 Sections III.1.10.3 and III.1.10.9;
- (2) Submitting External Transactions purchases for delivery as described in Market Rule 1 Sections III.1.10.7, III.1.10.7.A and III.1.10.9(c);

- (3) Submitting Supply Offers for Dispatchable Resources for supply of Energy to the Day-Ahead Energy Market and Real-Time Energy Market as described in Market Rule 1;
- (4) Submitting Supply Offers for DNE Dispatchable Resources as described in Market Rule 1 Sections III.1.11.3, III.13.6.1.3.1 and III.13.6.2.3.1;
- (5) Submitting External Transactions associated with an Import Capacity Resource Capacity Supply Obligation in the Day-Ahead and Real-Time Energy Markets as described in Market Rule 1 Section III.13.6.1.2; and
- (6) Submitting Increment Offers for use in the Day-Ahead Energy Market.

### **1.3.3 Market Participants wheeling Energy through the New England Control Area**

Market Participants purchasing Energy from outside the Energy Market and wheeling the Energy through the New England Control Area must submit External Transactions.

### **1.3.4 Market Participants Participating with Real-Time Demand Response and Real-Time Emergency Generation Resources**

#### **1.3.4.1 DATA REQUIREMENTS FOR REAL-TIME DEMAND RESPONSE AND REAL-TIME EMERGENCY GENERATION RESOURCES**

- (1) The two-day forecast of hourly demand reduction described in Market Rule 1 Section III.13.6.1.5.5 must be submitted by the offer submission deadline for the Day-Ahead Energy Market. The hourly data is not subject to re-declaration during the Operating Day.
- (2) The monthly forecast of the maximum monthly demand reduction for each of the next twelve months as described in Market Rule 1 Section III.13.6.1.5.6 must be submitted before the close of business on the last day of the previous month.

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## **1.4 Non-Market Participant Transmission Customer Responsibilities**

Non-Market Participant Transmission Customers purchasing Energy from outside the New England Control Area and wheeling the Energy through the New England Control Area for use outside the New England Control Area must submit External Transactions to the Real-Time Energy Market.

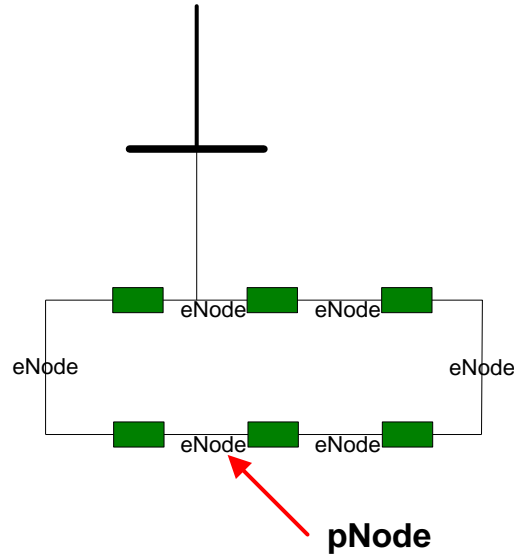
### 2.1 Pricing Locations

There is a set of Locations within the New England Control Area at which the ISO calculates prices. Locations include nodes on the New England Transmission System to which Generators are physically connected and all nodes at which Asset Related Demand is physically connected. All other load is priced at the Load Zone and is modeled as described in Section 2.2.2.1(12) and (13) of this manual.

The ISO use of nodes is explained below:

Nodes of several different types are used within the New England electricity markets. At the most fundamental level, an electrical node, or **E-Node**, is a point where two or more devices (such as a line, transformer, breaker, etc.) connect. E-Nodes represent the physical connection points of the components of the power system that are modeled in the ISO's network model. Generation is injected and load is withdrawn from the electrical system at E-Nodes. The ISO's dispatch and pricing software calculates prices at E-Nodes. Prices for E-Nodes are not publicly reported.

**P-Nodes** are "Pricing Nodes". Each P-Node is mapped to a single E-Node. P-Nodes are used to translate the physical "private" power system model ("private" in that the Market does not "see" this model) into a commercial or financial "public" model for market purposes. When multiple E-Nodes are electrically "close" together such that there would never be congestion between the E-Nodes (for example, multiple E-Nodes at the same voltage level within a substation), a single P-Node is sufficient to represent the price of the "close" E-Nodes. As a result, many E-Nodes do not have a P-Node mapped to them, as shown in Exhibit 2.1. The set of all P-Nodes is therefore smaller than the set of all E-Nodes. This is advantageous because the "public" financial model of the power system is able to remain relatively stable, even though the physical power system model may undergo frequent small changes.



*Exhibit 2.1: Single P-Node Mapped to Multiple “Close” E-Nodes*

Certain P-Nodes are used only for modeling purposes as part of **AP-Nodes (“Aggregated Pricing Nodes”)**. Prices for these P-Nodes are not published and are not “public” P-Nodes. For other P-Nodes that are “public” P-Nodes, prices are published for the Day Ahead, Real Time, and FTR markets. These “public” P-Nodes represent locations that may be used for the submission of Offers/Bids/FTR transactions.

AP-Nodes are all “public” locations, and prices are published for all AP-Nodes. The price at an AP-Node is a weighted average price of the P-Nodes included in the AP-Node. The New England Hub is an example of an AP-Node. For the New England Hub, the Hub price is the arithmetic average of the prices of the P-Nodes that comprise the Hub. Load Zones are also examples of AP-Nodes. For each Load Zone, the Load Zone AP-Node Price is the load-weighted average of P-Node prices within the Load Zone. Certain generators (typically combined cycle units) and Dispatchable Asset Related Demands may have the Resource modeled as an AP-Node comprised of several P-Nodes. For these Resource AP-Nodes, the AP-Node Price is a MW-weighted average of the P-Node prices. Only the Resource’s AP-Node price is published, and all bidding for the Resource takes place at the AP-Node.

Settlement of the Markets is based on generation injections, load withdrawals, and prices at the “public” AP-Nodes and “public” P-Nodes for which prices are publicly published.

## 2.2 Energy Market Business Rules

### 2.2.1 Bidding & Operations Time Line

**10:00 a.m.** — Day-Ahead Energy Market submission period closes for Supply Offers, Increment Offers, Demand Bids and External Transactions.

**Upon Completion of the Day-Ahead Energy Market** — The Day-Ahead Energy Market hourly schedules, Day-Ahead Prices are posted and the Re-Offer Period begins. During this time, changes to Supply Offers and Demand Bids (for Dispatchable Asset Related Demand only) may be made in accordance with Market Rule 1 Section III.1.10.9.

**Close of the Real-Time Energy Market Re-Offer Period** — The ISO performs a Reserve Adequacy Analysis that includes the updated Supply Offers, updated External Transactions, updated Demand Bids for Dispatchable Asset Related Demands, updated generating Resource availability information, and updated ISO load forecast information including deviation between the ISO load forecast and the sum of cleared Demand Bids and Decrement Bids utilized in the Day-Ahead Energy Market.

When insufficient supply side capacity is available to meet the New England Control Area or zonal capacity requirements, the RAA identifies the ISO New England Operating Procedure No. 4 Actions needed to resolve the deficiency.

This analysis could also result in the release of generating Resources that were committed in the Day-Ahead Energy Market in order to avoid a projected Minimum Generation Emergency.

**5:00 p.m.** — The ISO provides individual Resource schedules developed during the initial Reserve Adequacy Analysis for non-Fast Start Generators and for priced External Transactions submitted under Market Rule 1 Section III.1.10.7 to affected Lead Market Participants by posting on a secure site.

**Throughout the Operating Day** — The ISO may also perform additional Reserve Adequacy Analyses, as necessary, based on updated ISO load forecasts and updated Resource availability information.

The ISO sends out individual Resource schedule updates developed during the additional Reserve Adequacy Analyses to affected Lead Market Participants by posting on a secure site.

### 2.2.2 Market Participants Buying from Energy Market

The following business rules apply to Market Participants purchasing from the Energy Market:

#### 2.2.2.1 DEMAND BIDS

- (1) Submittal of Demand Bids must be associated with a physical load that has been registered as a Load Asset.
- (2) A Demand Bid not associated with a Dispatchable Asset Related Demand must have a MW quantity for each hour of the Operating Day and Location specified. Price sensitive Demand Bids also must have a price specified above which the demand should not be scheduled. For all Demand Bids, other than Demand Bids associated with Asset Related Demands, the valid settlement Location is the applicable Load Zone.
- (3) Market Participants should not include the impact of PTF losses as part of their Demand Bids as PTF losses are accounted for on a financial basis through the Loss Component of the LMP.
- (4) Price sensitive Demand Bids for use in the Day-Ahead Energy Market are accepted in single bid blocks only. Up to ten bid blocks applicable to each hour of the day may be submitted per Market Participant at a specific Location.
- (5) Price sensitive Demand Bids must be less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.
- (6) If a Market Participant submits no Demand Bid into the Day-Ahead Energy Market for load not associated with an Asset Related Demand, then a zero MW quantity is assumed in the Day-Ahead Energy Market. (i.e., Demand Bids do not carry forward on a day-to-day basis).
- (7) If a Market Participant submits no Demand Bid into the Day-Ahead Energy Market for load associated with an Asset Related Demand, then the most recent previously submitted Demand Bid for a prior Day-Ahead Energy Market day other than as provided in Market Rule 1 Section III.1.10.1A(g) is assumed in the Day-Ahead Energy Market. (i.e., Demand Bids associated with Asset Related Demands carry forward on a day-to-day basis). The default Demand Bid MW quantity for an Asset Related Demand is zero.
- (8) Except as otherwise provided in Market Rule 1 Section III.1.10.6 for pumping demand of a pumped storage generator that does not have a Capacity Supply Obligation, Market Participants with Dispatchable Asset Related Demands must submit Demand Bids into the Day-Ahead Energy Market for such Resources with a Minimum Consumption Limit that is less than or equal to the Nominated Consumption Level specified during the Asset Registration Process. The Demand Bid must specify changes to the Maximum Consumption Limit and Minimum Consumption Limit from those submitted as part of the Resource's Offer Data to reflect the physical operating characteristics and/or availability of the Resource, except that, for a Self-Scheduled Resource, the Minimum Consumption Limit may be revised to reflect the Self-Scheduled consumption level of the Resource. Market Participants may submit up to 10 Demand Bid Blocks per day for each Dispatchable Asset Related Demand. Demand Bids from DARD Pumps must also specify changes to their Minimum Run Times, Minimum Down Times, Maximum

Daily Consumption Limit, Maximum Number of Daily Starts from those submitted as part of their Offer Data to reflect their physical operating characteristics.

- (9) Demand Bids from Dispatchable Asset Related Demand in MW amounts larger than the largest generating Resource on the system are prohibited.
- (10) Market Participants with Dispatchable Asset Related Demands that are Self-Scheduled Resources must submit Demand Bids for the entire operating range of the Resource between the Nominated Consumption Limit Level and Maximum Consumption Limit.
- (11) A Market Participant may revise its Demand Bid associated with a Dispatchable Asset Related Demand and submit it for use in the Real-Time Energy Market or it may Self-Schedule the Dispatchable Asset Related Demand with ISO approval as described in Market Rule 1 Section III.1.10.9.
- (12) For modeling purposes, the load distribution to Nodes within a Load Zone for the Day-Ahead Energy Market is based on a rolling seven-day average of historical State Estimator distribution for that Load Zone. The list of Load Zones at which Demand Bids are accepted is posted on the ISO's website.
- (13) For modeling purposes, the load distribution to Nodes within a Load Zone for the Real-Time Energy Market is the actual State Estimator distribution of loads

#### **2.2.2.2 DECREMENT BIDS**

- (1) Market Participants may submit up to fifty Decrement Bid Blocks per hour for use in the Day-Ahead Energy Market at any Location for which an LMP is calculated.
- (2) It is not required that physical load exists at the Location that is specified in the Decrement Bid.
- (3) Decrement Bids are only applicable in the Day-Ahead Energy Market.
- (4) Decrement Bids must be less than or equal to the Energy Offer Cap and be equal to or above the Energy Offer Floor.

#### **2.2.2.3 EXTERNAL TRANSACTIONS (EXPORTS)**

- (1) External Transactions not properly submitted are rejected. The Market Participant is notified of the reason for rejection and the Market Participant may then take action to submit a new External Transaction.
- (2) External Transaction data applicable to the Day-Ahead Energy Market does not carry forward for use in the Real-Time Energy Market.
- (3) Market Participants should not include the impact of PTF losses as part of their External Transactions as PTF losses are accounted for on a financial basis through the Loss Component of the LMPs.



- (4) “Up-to Congestion” External Transactions are supported in the Day-Ahead Energy Market only and may not be submitted at less than \$.01/MWh or more than \$25/MWh.
- (5) Priced External Transaction sales for the Day-Ahead Energy Markets must be offered at less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.
- (6) Priced External Transaction sales for the Real-Time Energy Markets submitted under Market Rule 1 Section III.1.10.7 must be offered at less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.
- (7) External Transaction sales for the Real-Time Energy Markets submitted under Market Rule 1 Section III.1.10.7.A must be offered at less than or equal to the Energy Offer Cap and equal to or above -\$1000.00.
- (8) A Market Participant may revise the price component of its priced External Transaction submitted under Market Rule 1 Section III.1.10.7 for the Real-Time Energy Market during the Re-Offer Period.
- (9) External Transactions submitted under Market Rule 1 Section III.1.10.7 for more than 999 MW are prohibited.

## **2.2.3 Market Participants Selling into Energy Market**

The following business rules apply to Market Participants selling into the Energy Market:

### **2.2.3.1 GENERATING RESOURCES**

- (1) Submittal of Supply Offers must be associated with a registered Generator Asset.
- (2) Supply Offers must be less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.
- (3) Submitting a generating Resource’s Supply Offer in MW amounts greater than the largest generating Resource on the system is prohibited.
- (4) The set of Supply Offers last submitted for each Generator shall remain in effect for each day until specifically superseded by subsequent Supply Offers except as provided in Market Rule 1 Section III.1.10.1A (g).
- (5) During and after the Re-Offer Period, a Market Participant may revise the Supply Offer of a generating Resource or request to Self-Schedule the generating Resource as described in Market Rule 1 Section III.1.10.9.
- (6) Supply Offers for Self-Scheduled generating Resources will be used by the ISO for scheduling available Resources in the Day-Ahead Energy Market for the energy between their Economic Minimum Limits and their Economic Maximum Limits.

- (7) Fast Start Generators may be scheduled in the Day-Ahead Energy Market. However, the decisions concerning actual operation of Fast Start Generators by the ISO during the Operating Day are made based upon economic dispatch in the Real-Time Energy Market.
- (8) DNE Dispatchable Generators are scheduled in the Day-Ahead Energy Market and dispatched in Real-Time in the same manner as generating Resources that are not Fast Start Resources.
- (9) Intermittent Power Resources are scheduled in the Day-Ahead Energy Market and dispatched in Real-Time as described in Market Rule 1 Sections III.1.11.3 and III.1.11.5.
- (10) Generating Resources must specify a Minimum Run Time to be used for scheduling purposes that does not exceed 24 hours. Generating Resources with Minimum Run Times that require that they run for more than 24 hours may Self-Schedule to remain on-line.
- (11) A Market Participant may change the Supply Offer of a generating Resource as provided in Market Rule 1 Section III.1.10.9.
- (12) Market Participants may submit, for any Resource for which a Supply Offer is submitted, its Offered CLAIM10 and Offered CLAIM30.
- (13) Except as otherwise provided in Market Rule 1 Section III.1.11.5, a Supply Offer for a generating Resource that is not cleared for the Day-Ahead Energy Market automatically carries over for use in the Real-Time Energy Market unless modified pursuant to Market Rule 1 Section III.1.10.9.
- (14) Only one Supply Offer for each generating Resource is in effect at any given time during an Operating Day.
- (15) A Supply Offer must include operating limits, which must be based on the following:
  - (a) Emergency Minimum Limit is based on the physical capability and design of the generator and should not change on a day to day basis, except as required by the impact of environmental factors, including ambient temperature, emission limits and other operating permit requirements and is defined in Section I.2.2 of the Tariff.
  - (b) Economic Minimum Limit is as defined in Section I.2.2 of the Tariff.
  - (c) Economic Maximum Limit as defined in Section I.2.2 of the Tariff.
  - (d) Real-Time High Operating Limit as defined in Section I.2.2 of the Tariff. For Market Participants submitting an Economic Maximum Limit value for a Resource as part of a Day-Ahead Energy Market offer, the Real-Time High Operating Limit is provided to ISO through each Resource's Day-Ahead Supply Offer data and

must be re-declared to reflect changes in physical operating characteristics and operating permit limitations.

- (e) If Real-Time High Operating Limit changes at any time after the initial data values were communicated to the ISO, the Designated Entity must re-declare the data values as follows:
  - (i) Re-declarations made on the day prior to the Operating Day must be called into the Forecaster Desk.
  - (ii) Re-declarations made during the Operating Day must be called into the Control Room Generation Desk.

(16) For Limited Energy Resources, a Market Participant shall submit into the Day-Ahead Energy Market, as part of the normal Supply Offer for the generating Resource, an estimate of the total Energy that unit is capable of producing for the Operating Day. In Real-Time, the Market Participant can manage the use of energy from any portion of a Limited Energy Resource through the use of limited energy hourly maximum levels for the associated Limited Energy Resource.

(17) For DNE Dispatchable Generators the Supply Offers submitted pursuant to Market Rule 1 Sections III.13.6.1.3.1 or III.13.6.2.3.1 will include: (i) Economic Maximum Limits<sup>1</sup> and (ii) an Economic Minimum Limit and Emergency Minimum Limit.

### **2.2.3.2 INCREMENT OFFERS**

- (1) A Market Participant may submit on an Increment Offer up to fifty Blocks per hour for use in the Day-Ahead Energy Market at any Location for which an LMP is calculated. It is not required that physical generation or load exists at the Location that is specified in the Increment Offer.
- (2) Increment Offers are only applicable in the Day-Ahead Energy Market.

### **2.2.3.3 EXTERNAL TRANSACTIONS (IMPORTS)**

- (1) A Market Participant with an Import Capacity Resource must meet the requirements of Market Rule 1 Section III.13.6.1.2.
- (2) External Transactions not properly submitted are rejected. The Market Participant is notified of the reason for rejection and the Market Participant may then take action to submit a new External Transaction.

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<sup>1</sup> Market Participants are responsible for contacting the Control Room to redeclare the unit's hourly EcoMax when the forecast of generation from a hydro DNE Dispatchable Generator changes. The hourly EcoMax value of a wind DNE Dispatchable Generator is automatically redeclared to match the ISO's most current wind generation forecast.

- (3) External Transaction data applicable to the Day-Ahead Energy Market does not carry forward for use in the Real-Time Energy Market.
- (4) Market Participants should not include the impact of PTF losses as part of their External Transactions as PTF losses are accounted for on a financial basis through the Loss Component of the LMPs.
- (5) Priced External Transaction purchases for the Day-Ahead Energy Market must be less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.
- (6) Priced External Transaction purchases for the Real-Time Energy Market submitted under Market Rule 1 Section III.1.10.7 must be less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.
- (7) Up-to Congestion External Transactions are supported in the Day-Ahead Energy Market only and may not be offered or bid at less than \$.01/MWh or more than \$25/MWh.
- (8) A Market Participant may revise the price component of its priced External Transaction submitted under Market Rule 1 Section III.1.10.7 for the Real-Time Energy Market during the Re-Offer Period.
- (9) External Transaction purchases for the Real-Time Energy Markets submitted under Market Rule 1 Section III.1.10.7.A must be offered at less than or equal to the Energy Offer Cap and equal to or above -\$1,000.00.
- (10) External Transactions submitted under Market Rule 1 Section III.1.10.7 for more than 999 MW are prohibited.

#### **2.2.3.4 DEMAND RESPONSE RESOURCES**

The ISO will include Real-Time Demand Response Resources and the Day-Ahead Demand Reduction Offers of Real-Time Demand Response Assets in the current operating plan for the Operating Day.

Real-Time Demand Response Resources and Real-Time Emergency Generation Resources will be dispatched as provided in Market Rule 1 Section III.13. Real-Time Demand Response Assets will be scheduled as provided in Market Rule 1 Appendix III.E1.

#### **2.2.4 Non-Market Participant Transmission Customers**

The following business rules apply to Transmission Customers wheeling energy through the ISO:

- (1) Non-Market Participant Transmission Customers may only submit Through External Transactions into the Real-Time Energy Market.

- (2) A Transmission Customer should not include the impact of transmission losses as part of its Through External Transaction submitted for use in the Real-Time Energy Market as transmission losses are accounted for on a financial basis through the Loss Component of the LMP.
- (3) Through External Transactions must be submitted to the Real-Time Energy Market as fixed, they may not be priced.

## **2.2.5 Designation as Real-Time Reserve and Declaration of Limited Energy Resource Status**

The following business rules apply to designation of available Resources as Real-Time Reserve and declarations of hourly profiles for Limited Energy Resources.

- (1) During the various Reserve Adequacy Analyses, the ISO may limit its dependence on off-line Fast Start Generators to provide Operating Reserve in order to maintain reliable operational standards. Such limits shall be based on past performance of these units.
- (2) Available Resources may be designated as Real-Time Operating Reserve if they meet the following criteria:
  - The Resource must be following Dispatch Instructions;
  - The Resource must meet the eligibility conditions to provide Real-Time Operating Reserve as specified in ISO New England Operating Procedures No. 8 and No. 14.
  - The Resource must be on-line or be an off-line Fast Start Generator or Dispatchable Asset Related Demand with CLAIM10 and/or CLAIM30 values greater than zero;
  - A generating Resource must have excess capacity not being utilized to meet the energy needs of the system (i.e., be operating below its Economic Maximum Limit);
  - A DARD Pump must be online and the ISO must be able to reduce or curtail its load to maintain reliability;
  - The applicable MW of the Resource are available for Real-Time dispatch; and
  - The generating Resource must not have been designated as constrained in order to manage transmission congestion.
- (3) For Limited Energy Resources, the Lead Market Participant may declare an hourly profile of economic dispatch maximums that can be below the Economic Maximum Limit specified in the Offer Data. These hourly limits can be set to a Day-Ahead hourly schedule or be redeclared subject to Market Rule 1 and ISO business procedures restrictions. The Lead Market Participant can request that the Real-Time dispatch limit hourly scheduling to the lower dispatch maximum for the purpose of preserving a

limited supply of Energy for future hours of the Operating Day. The ISO will continue to designate the Operating Reserve available above the lower limit up to the Economic Maximum Limit requested by the Market Participant and may activate that Operating Reserve as it deems appropriate to maintain reliability. Market Participants may request a change in the hourly generation schedule of a Limited Energy Resource by calling the ISO system operators at least 30 minutes prior to the time of the desired change. If the ISO can accommodate the schedule change in less than the 30-minute notification period, the change may be granted earlier.

## 2.2.6 Technical Rules

(1) A valid Supply Offer consists of the following elements:

For generating Resources, a valid Supply Offer consists of the following inputs. The default values are:

- Day-Ahead Energy Market switch is “check” or yes (“1”).
- Real-Time Energy Market switch is “check” or yes (“1”).
- Use offer slope switch is “square box” or no (“0”).
- Condense available switch is blank or no (“0”).
- Hourly Start-Up Fee and No-Load Fee is zero.
- Fuel type default is lower priced fuel for dual fuel Resources
- Must contain an Emergency Minimum Limit; and an Economic Maximum Limit of at least one MW.
- Hourly Economic Max/Min and Emergency Min are the unit level economic and emergency MW limits.
- Minimum Down Time, Minimum Run Time, Start-Up Times, and Notification Times are zero.
- Maximum Run Time and maximum number of starts per week are infinity.
- Blocks (price and quantity of energy) for each hour of the Operating Day.
- The default for incremental offer curve data is \$0. The curve is extended up using zero slope from the last incremental point on the curve if the offer curve is of inadequate length to dispatch and/or price operating capability.
- Offered CLAIM10 MW. Default value is zero MWs.
- Offered CLAIM30 MW. Default value is zero.
- Manual Response Rates (MRR) for associated MW ranges.

(2) Valid Demand Bids, price sensitive and fixed, consist of the following items:

- MW, with a default value of zero MW.
- Location (Load Zone).
- Price above which demand should not be scheduled (for price-sensitive Demand Bids).

(3) Valid Demand Bids for Asset Related Demand consist of the following items:

- Hourly Maximum Consumption Limit and hourly Minimum Consumption Limit (for non-dispatchable Asset Related Demand, Minimum Consumption Limit is equal to Maximum Consumption Limit).
  - Monotonically decreasing bid curve for Blocks between Minimum Consumption Limit and Maximum Consumption Limit for Dispatchable Asset Related Demand (non-dispatchable Asset Related Demand is considered fixed demand at the Node).
  - Ramp rate for associated MW ranges for Dispatchable Asset Related Demand.
  - CLAIM10 for Dispatchable Asset Related Demand. Default value is zero MW.
  - CLAIM30 for Dispatchable Asset Related Demand. Default value is zero MW.
- (4) Valid Demand Bids for DARD Pumps consist of (2) and (3) above plus the following items:
- Minimum Run Time (not to exceed one hour). Default is one hour.
  - Minimum Down Time (not to exceed one hour). Default is one hour.
  - Maximum Daily Consumption. Default is unlimited.
  - Maximum Number of Daily Starts. Default is 12.

## 2.2.7 Major Modeling Assumptions

Fixed External Transactions, priced External Transactions, Supply Offers, Increment Offers, Decrement Bids and Demand Bids are modeled in the Day-Ahead Energy Market technical software. Up-to Congestion External Transactions are not modeled in the Day-Ahead Energy Market commitment, but are handled in the Day-Ahead Energy Market dispatch. The ISO does not commit additional generation in the Day-Ahead Energy Market to support Up-to Congestion External Transaction sales and does not reduce generation commitment in the Day-Ahead Energy Market to account for Up-to Congestion External Transaction purchases.

### 3.1 Treatment of Certain Resources

#### 3.1.1 Local Second Contingency Protection Resources

When establishing operating schedules, the ISO chooses (or “flags”) which Resources must be operated for local second contingency protection. The ISO will also indicate, in an auditable log, why each Resource was chosen. See the *ISO New England Manual for Market Rule 1 Accounting, M-28* and Market Rule 1 Appendix III.F for a description of the settlement treatment associated with Local Second Contingency Protection Resources.

#### 3.1.2 Special Constraint Resources

In order to maintain area reliability, Transmission Owners or distribution companies may request the ISO to change the commitment of a Resource or the incremental loading on a previously committed Resource to provide relief for constraints not reflected in the ISO’s systems for operating the New England Transmission System or its operating procedures. Requests will normally be made to the ISO via the appropriate Local Control Center unless Emergency Conditions justify immediate communications with the Resources.

Such out of merit operation of units for any reliability purposes to provide relief for constraints (thermal, voltage or stability) not reflected in the System Operator’s systems or procedures will result in the Resource(s) being designated as a Special Constraint Resource (SCR). When a unit would not be operating above its Economic Minimum but for the request of the Transmission Owner or distribution company, it shall be flagged as SCR for Net Commitment Period Compensation under Market Rule 1 Appendix III.F.

#### 3.1.3 Self-Scheduled Dispatchable Asset Related Demand Resources

Market Participants can choose to Self-Schedule their Dispatchable Asset Related Demand in the Day-Ahead Energy Market or can choose to allow the ISO to schedule their demand in the Day-Ahead Energy Market based on the Demand Bids submitted. The Market Participant indicates the desired level of Self-Scheduled MW by submitting a Minimum Consumption Limit equal to the amount of Self-Scheduled MW. Subsequent to the Day-Ahead Energy Market clearing, any Dispatchable Asset Related Demand may choose to Self-Schedule or submit revised Demand Bids as provided in Market Rule 1 Section III.1.10.9.



## 3.2 External Transactions

### 3.2.1 External Transaction Submittal Software

External Transactions are submitted through either the ISO-NE Enhanced Energy Scheduler (EES) application and/or the NYISO Joint Energy Scheduling System (JESS), depending on the energy market and interface as defined in the table below. This includes the requirement to submit certain transactions into both the EES and JESS applications.

	<b>DAM, ISO-NE EES</b>	<b>RTM, ISO-NE EES</b>	<b>RTM, NYISO JESS</b>
Submitted under III.1.10.7	ALL	ALL	not applicable
Submitted under III.1.10.7A	ALL	a) Wheeling through ISO-NE b) Import Capacity Resource that is wheeling through NYISO	ALL

### 3.2.2 External Transaction Submission Timelines

External Transactions can be submitted at various times, depending on the type of transaction and the energy market as described below.

	<b>ISO-NE EES</b>		<b>NYISO JESS</b>
	<b>All DAM RTM priced</b>	<b>RTM not priced</b>	<b>RTM</b>
Earliest submittal	10 days prior to start of transaction	10 days prior to start of transaction	60 days prior to start of transaction
Maximum duration	one calendar month	one calendar month	N/A
Latest submittal	Section III.1.10.7	Section III.1.10.9(c)	Section III.1.10.7A

The following additional changes can be made to a priced Real-Time External Transaction submitted to EES:

- (1) During the Re-Offer Period, the price can be modified, resulting in the treatment described in Market Rule 1 Section III.1.10.7(b).
- (2) Prior to the deadline in Market Rule 1 Section III.1.10.9(c) for notifying the ISO of a request to Self-Schedule an External Transaction, the MW value on the priced Real-Time External Transaction can be reduced.

### **3.2.3 External Transaction Submission Rules**

- (1) Advance purchase of transmission service on the ISO New England OASIS is not required for purchase, sale or through External Transactions.
- (2) Advance purchase of transmission service on non-PTF interfaces is required and will be subject to transmission charges whether or not they are used to support Real-Time External Transactions.
- (3) The MW value submitted on the External Transaction must be expressed in whole megawatts (MW) and must be stated in terms of the MW quantity to be received at or delivered to the balancing area boundary.
- (4) For a Real-Time External Transaction that requires a transmission reservation, the Market Participant submitting the Real-Time External Transaction must also be the owner of the referenced transmission reservation unless other arrangements are made with ISO-NE.
- (5) The ISO will confirm that the Market Participant submitting a Real-Time External Transaction associated with an Import Capacity Resource is the Lead Market Participant of the Import Capacity Resource. Upon request to the ISO, this validation can be removed, which will allow any Market Participant to reference the Import Capacity Resource.

### **3.2.4 Additional Treatment for External Transactions**

Sections II.44 and III.1.10.7 of the Tariff contain rules regarding certain types of External Transactions and their treatment in real-time scheduling. Table 3.1 describes certain treatment options that can be associated with a transaction, the conditions under which each can or should be selected, and any additional information that is required.

These options are applicable to transactions submitted to the ISO-NE EES application. The only option for a transaction submitted to the NYISO JESS application is Generation Information System.

Option	Description	Comment
Import Resource	<p>Market Participants with an Import Capacity Resource with a Capacity Supply Obligation must use this option to notify ISO that the transaction is backing an Import Capacity Resource.</p> <p>For transactions submitted under Section III.1.10.7A, this information must be included on Day-Ahead Market External Transaction.</p>	Must reference the Import Capacity Resource ID
Flex Reservation	<p>Applicable only to Market Participants submitting priced transactions backing Import Capacity Resources over interfaces where advance reservations are required. Checking this flag allows the user to link an OASIS reservation, and e-Tag, up to one hour before the start of the transaction. User must also reference the Import Resource option.</p>	Must reference the Import Capacity Resource ID
Export without a Capacity Supply Obligation	<p>Market Participants must select this option for transactions to be considered under Section III.1.10.7(i) during system-wide capacity deficient conditions.</p>	Must reference the numerical Asset ID
LSCC Export (Capacity Export Through Import Constrained Zone or FCA Cleared Export Transaction)	<p>When this is selected by Market Participants that have bid and cleared appropriately in the FCA and submitted the transaction in accordance with Section III.1.10.7(f) i or ii, Market Participant is requesting that the transaction be considered in local second contingency commitment and will be allocated a share of certain costs as defined in Section III.1.10.7(h). Transactions with this option are considered supported in Real-Time scheduling as defined in Section II.44.</p> <p>Note: Market Participant must also reference Export without a Capacity Supply Obligation to be considered under Section III.1.10.7(i)</p>	Must reference the numerical Asset ID backing the FCA de-list bid
Unconstrained Export (Same Reserve Zone or Unconstrained Export Transaction)	<p>When this option is selected and the referenced generating Resource meets criteria in Section III.1.10.7(f) iii or iv, the transaction is considered supported in Real-Time scheduling as defined in Section II.44.</p> <p>Note: Market Participant must also reference Export without a Capacity Supply Obligation to be considered under Section III.1.10.7(i).</p>	Must reference the numerical Asset ID
Excepted Transaction	<p>When this is selected by Market Participants with active items in Section II Attachment G-3 and submitted in accordance with Section II.44(a), special priority is</p>	Does not require a comment

	assigned in real-time scheduling. There are currently no active items in Attachment G-3	
Generation Information System	Used to indicate transaction is associated with Generation Information System	Must contain a comment
EET Emergency	When emergency transactions are requested by ISO-NE, allows user to submit priced transactions within the operating day.	Does not require a comment
New Brunswick Security Energy Transactions	When New Brunswick Security Energy Transactions are requested by ISO-NE, allows user to submit priced transactions within the operating day.	Must contain a comment – “NB” is the suggested value
Grandfathered	When this is selected by Market Participants with active items in Attachment H of the Open Access Transmission Tariff and submitted in accordance with Section II.44(a), special priority is assigned in Real-Time scheduling.	Must reference MEPCO Grandfathered Transmission Service Agreements (MG TSA); user must also link a valid associated OASIS reservation

*Table 3.1: Available Options Associated with External Transactions*

### 3.2.5 Status of External Transactions Submitted to EES

Upon submittal of an External Transaction in EES to the Real-Time Energy Market, the ISO logs the request and performs automated validity and manual verification tests.

If an External Transaction does not pass the automated verification process, it is assigned a status of *Pending Action*. The Transmission Customer is notified of the validation failure and the Transmission Customer may then take action to resubmit the transaction within the appropriate submission deadlines. Manual administrative action to review transactions in a status of *Pending Action* is not taken by the ISO.

Once External Transactions pass the automated verification, they are assigned a status of *Pre-Approved* and the ISO performs manual administrative tests to establish the final status of the transaction.

Real-Time External Transactions that pass all of the preceding tests will have a status of *Approved*. If the requested Real-Time External Transaction fails any of the preceding tests, the status will be set to *Denied*. The ISO will inform the Market Participant or Transmission Customer that the External Transaction request has been denied and the reason for the denial.

### 3.2.6 Status of External Transactions Submitted to JESS

Information regarding the process of submitting and monitoring External Transactions to the NYISO JESS application can be found on the NYISO website in their JESS User Guide.

## Revision History

### *Approval*

Approval Date: November 1, 2002

Effective Date: March 1, 2003

### *Revision History*

Revision: 1 - Approval Date: February 5, 2003

Section No.    Revision Summary

1.2.2 (4).....Deletes the forecast of Day-Ahead LMPs from the posted pre-dispatch schedule report.

2.5.2 (1),

2.5.3 (1) &

2.5.6 (3).....Corrects problems discovered during Market Trials by adding language to the data verification section to have the ISO review Demand Bids, Supply Offers, Increment Offers and Decrement Bids in the Day-Ahead Energy Market for errors and to provide for ISO revision of certain Demand Bids and Supply Offers after discussion with the submitting Participant.

2.5.2 (14).....Clarifies that the Hub is not a valid Location for Demand Bids.

2.5.9.....Adds a better explanation of the calculation of the three components of the LMPs.

3.2.1 (10) &

3.2.7 (4).....Clarifies the calculation of Opportunity Costs in the Regulation Market.

Revision: 2 - Approval Date: April 4, 2003

Section No.    Revision Summary

1.1.....Adds language stating that Resources without Electronic Dispatch Capability (EDC) must Self-Schedule in the Day-Ahead Energy Market.

2.2.....Clarifies that ICAP Resources without EDC must meet the requirement to offer in the Day-Ahead Energy Market through a Self -Schedule.

2.5.3 (3).....Adds language stating that ICAP Resources without EDC must Self-Schedule in the Day-Ahead Energy Market.

2.5.3 (9).....Replaces the word “in” with the word “for” in the description of Supply Offers for Generators with minimum run times in excess of 24 hours.

2.5.9.2 (2)(b)..Clarifies that Generators on Regulation are excluded from the calculation for flagging units for failure to follow Dispatch Instructions.

6.3.4.....Clarifies that only Resources with EDC may submit Supply Offers in the Day-Ahead Energy Market.

Revision: 3 - Approval Date: May 2, 2003

Section No.    Revision Summary

2.5.10(1)(a)....Revise treatment of stale data or program failure to apply to cases where 11 intervals or less are affected and to explain when the next successful interval will be used in lieu of the last successful interval.

Revision: 4 - Approval Date: June 26, 2003

Section No.    Revision Summary

2.5.9.....Adds a description of a mathematical condition encountered by the software in the calculation of Real-Time Nodal Prices in rare instances known as “dual degeneracy” to the description of the calculation of Real-Time Nodal Price.

*The addition of Section 2.5.16.3 is contingent upon FERC acceptance of corresponding revisions to Market Rule 1 filed by the ISO on May 15, 2003.*

2.5.16.3.....Adds a new subsection that adds Reserve Shortage Condition provisions to the Manual, including: when a Reserve Shortage Condition will be declared, notification to the market by the ISO, pricing implications, and the calculation of Reserve Shortage Opportunity Costs to be recovered pursuant to ISO New England Manual for Market Rule 1 Accounting, M-28.

Revision: 5 - Approval Date: October 3, 2003

Section No.    Revision Summary

8.1.....Language is added to conform Manual 11 to the recent change in notice requirements announced pursuant to Market Rule 1 for changes to Self-Schedules for certain internal generating Resources to 30 minutes.

Revision: 6 - Approval Date: February 20, 2004

Section No.    Revision Summary

3.2.1(3).....Adds language clarifying that the information must be supplied prior to the close of the Regulation Market.

3.2.1(4).....Revises the section to state that unit regulating status for units available for Energy in the Day-Ahead Energy Market may be changed from available to unavailable after the Regulation Market closes.

3.2.1(7).....Revises the treatment of units that were unavailable in the Day-Ahead Energy Market and become available later so that they may Self-Schedule for Regulation only if they are available and submit the Self-Schedule prior to the close of the Regulation Market.

3.2.1(10).....Limits requests by Limited Energy Generators to Self-Schedule for Regulation (and the associated Redeclaration of Regulation Limits and Regulation Capacity to be consistent with the LEG MWh limit) to those submitted prior to the close of the Regulation Market.

Revision: 7 - Approval Date: March 12, 2004

Section No.    Revision Summary

1.2.2(2)(b)

& 2.1.....Adds language indicating that all offers and bids and External Transactions may clear in the Day-Ahead Market in partial MW quantities.

2.3.....Adds language indicating that External Transactions are scheduled and settled in whole MW quantities in the Real-Time Energy Market.

Revision: 8 - Approval Date: May 7, 2004

Section No.    Revision Summary

3.2.1(3)(b)....Clarifies that Regulation Capability represents the amount of movement that can be achieved within 5 minutes while providing Regulation.

3.2.1(9).....This subsection is deleted.

Revision: 9 - Approval Date: November 5, 2004

Section No.    Revision Summary

*These revisions shall cease to be in effect after April 15, 2006 (Sunset Provision).*

1.1.....Clarifies that the timeline for scheduling activities in Exhibit 1.1 applies under normal conditions and adds Exhibit 1.1.A to describe the scheduling timeline when a Cold Weather Event is declared pursuant to OP-20.

1.2.2(5).....Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.

2.3.....Replaces “noon” with “the close of the Day-Ahead Energy Market bid/offer period”.

2.5.1.....Divides the last sentence of the paragraph into two sentences for clarity.

2.5.7(2).....Replaces “12:00 deadline” with “the close of the Day-Ahead Energy Market bid/offer period”.

3.1.....Adds “under normal conditions” to the description of the Regulation Market Timeline. Adds a new Exhibit 3.1.A to illustrate the Regulation Market Timeline when a Cold Weather Event is declared pursuant to OP-20.

3.2.4.....Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.

6.4.1(2)&(3)...Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.

6.4.7.....Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.

Revision: 10 - Approval Date: June 28, 2004

Section No.    Revision Summary

Entire Manual revised to reflect RTO terminology and to reflect the Market Rule 1 and Transmission Markets and Service Tariff provisions filed with the FERC (e.g., the elimination of Internal Point-to-Point Transmission Service).

Revision: 11 - Approval Date: May 6, 2005

Section No.    Revision Summary

2.5.16.3.....Renumbers the subsections.

2.5.16.3(3)(vi)  
.....Replaces the terms “Market Monitoring Unit” and “Independent Market Advisor” with “Internal Market Monitoring Unit” and “Independent Market Monitoring Unit”.

Revision: 12 - Approval Date: May 27, 2005

Section No.    Revision Summary

*The following revision is contingent upon FERC acceptance of corresponding revisions to Market Rule 1 to be filed by the ISO. The ISO will request a waiver of the 60-day notice requirement so that the Market Rule 1 revisions may become effective on June 7, 2005.*

6.4.10.....Adds new subsection titled “ISO Purchases of New Brunswick Security Energy”.

Revision: 13 - Approval Date: September 9, 2005

Section No.    Revision Summary

1.1, 2.5.2 &

3.1.....Replace references to OP-20 with references to Appendix H to Market Rule 1.

2.5.8(2),

2.5.9.3(b),

2.5.16.3(4),

5.1, 6.3.2, 6.3.3

& 6.36..... Replace references to Section 5 of ISO New England Manual M-28 with references to Appendix F to Market Rule 1.

Revision: 14 - Approval Date: March 11, 2005

Section No.    Revision Summary

1.2.2.....Adds a reference to Regulation.

1.2.3.....Adds a new subsection title.

1.2.3(5).....Revises the subsection to provide for hourly posting of preliminary Real-Time Regulation Clearing Prices.

1.2.3(14)&(15)

.....Adds language providing for the posting of preliminary and Real-Time LMPs and RCPs.

2.3.....Revises the subsection to allow Resources selected in the Day-Ahead Market to participate in the Re-Offer Period.

2.5.1.....Revises the subsection to allow Resources selected in the Day-Ahead Market to participate in the Re-Offer Period.

2.5.3(8).....Revises the subsection to allow Resources selected in the Day-Ahead Market to participate in the Re-Offer Period.

2.5.5(7).....Adds the final RCP to the data to be posted.

2.5.6.....Deletes “Mechanical” from the subsection title.

2.5.9.2(c).....Revises the section to make Real-Time Dispatchable External Transactions eligible to set the Dispatch Rate.



- 2.5.10.....Adds RCP to verification procedure and to title of subsection.
- 3.1.....Completely revises the subsection to describe the new Regulation Market.
- 3.2.1(2).....Revises the criteria for units participating in the Regulation Market.
- 3.2.1(3).....Revises the information requirements and redefines Regulation Capability. Also revises the description of the manner in which the software treats Regulation High and Low Limits when they are not the most restrictive limits submitted.
- 3.2.1(4)–(8)....These subsections are deleted and replaced with new subsections (4) through (10).
- 3.2.1(4).....Adds a new subsection describing Minimum Regulation Range.
- 3.2.1(5).....Adds a new subsection on changing the unit’s Regulation status from available to unavailable.
- 3.2.1(6).....Adds a new subsection (revised former Section 3.2.1(9)) to describe the treatment of Limited Energy Generators.
- 3.2.1(7).....Adds a new subsection describing Self-Scheduling for Regulation.
- 3.2.1(8).....Adds a new subsection setting forth limitations on the submission of Self-Schedule requests.
- 3.2.1(9).....Adds a new subsection describing the treatment of Opportunity Cost in Self-Scheduled hours.
- 3.2.1(10).....Adds a new subsection describing unit eligibility for Regulation assignment.
- 3.2.2.....Revises the subsection to describe the method for setting Regulation Requirements.
- 3.2.4.....Deletes the words “necessary data”. Revises language describing the use of default offer values when no offer is submitted.
- 3.2.5.....Adds this new subsection to describe the process of assigning Regulation.
- 3.2.6.....Re-writes the subsection to describe the new Regulation Clearing Price calculation.
- 3.2.7.....Revises the subsection to describe the new Regulation assignment process.
- 3.2.8.....Adds language to provide for Regulation Service Credits and Time-On-Regulation Credits.
- 3.2.9.....Revises subsection to provide for monitoring of Automatic Response Rates.
- 3.2.10.....Revises the subsection to use new terminology, delete subsection (2) and re-define the qualifying measurement interval.
- 3.2.11.....Revises the performance calculation to reflect new Regulation Market.
- 3.2.12.....Revises list of existing performance records and adds several items for monitoring of ARR.
- 3.2.14.....Revises subsection to use Regulation Capability Compliance Rating, change rounding to nearest 0.1 MW and add a paragraph dealing with ARR.
- 5.2.3.....Eliminates the limitation on Resources that cleared Day-Ahead Market submitting offers in the Re-Offer Period.
- 5.2.5.....Revises and re-titles subsection to describe Regulation Assignment and Clearing software.
- 6.2.....Replaces “ISO Regulation Requirement” with “Regulation Requirement” here and throughout the document.
- 6.2.1(3).....Deletes subsection providing for the notification of Regulation Requirement by 16:00.
- 6.2.1(4).....Replaces clearing price at 22:00 with hourly clearing of the Regulation Market.

- 6.2.3.....Deletes the reference to a 22:00 posting of the Regulation Clearing Price.
- 6.3.....Eliminates the limitation on Resources that cleared in the Day-Ahead Market submitting offers in the Re-Offer Period.
- 6.3.1.....Adds references to OP-8 and OP-19.
- 6.3.4.....Eliminates the limitation on Resources that cleared in the Day-Ahead Market submitting offers in the Re-Offer Period.
- 6.3.6.....Replaces “pool-scheduled” with “Pool-Scheduled”.

Revision: 15 - Approval Date: December 2, 2005

Section No.    Revision Summary

The following revisions are part of the Winter 2005/2006 Action Plan and will expire (along with their associated Market Rule 1 provisions) on March 31, 2006.

- 2.5.1.....Adds references to Start-Up and No-Load Fees in the timeline to reflect daily submission of these values.
- 2.5.3(12).....Replaces the two eligibility periods twice a month to change Start-Up and No-Load Fees to once per day by noon of the day prior to the Operating Day for which the Start-Up and/or No-Load Fee is to be effective.
- 6.3.....Inserts “(excluding Start-Up and No-Load Fees)”.
- 6.3.4.....Inserts “(excluding Start-Up and No-Load Fees)”.

The following revisions are conforming changes to reflect Appendix H to Market Rule 1 and will expire with that Market Rule 1 provision on April 15, 2006.

- Table 1.1.....Replaces reference to OP20 with a reference to OP21.
- 1.1.....Adds “Except as otherwise provided in Appendix H to Market Rule 1,” before the statement describing when the Re-Offer Period begins and ends.
- 1.1.....Adds the revised times for close of the Day-Ahead Energy Market, posting of DAM schedules and the close of the Re-Offer Period.
- Exhibit 1.1A...Revises the timeline to conform to Appendix H to Market Rule 1.
- 1.2.3(2).....Deletes “at 16:00”.
- 2.3.....Deletes “at 18:00” in the first paragraph and “from 16:00 to 18:00” in the second paragraph.
- 2.5.1.....Adds Cold Weather Events to the list of items that may result in changes to the Supply Offer timeline.
- 2.5.3(25).....Revises section to reflect Appendix H to Market Rule 1 process related to Supply Offer caps for internal Resources.
- Exhibit 3.1.A...Revises Exhibit 3.1.A to reflect revised Supply Offer deadlines, Re-Offer Period, etc. as detailed in Appendix H to Market Rule 1.
- 3.2.1(3).....Deletes reference to 18:00 Day-Ahead.
- 5.1(1).....Deletes “prior to 12:00”.
- 5.2.3.....Revises last paragraph to reflect potential for changed deadlines pursuant to Appendix H to Market Rule 1.
- 6.2.....Adds language to the last sentence indicating the timeline could be adjusted pursuant to Appendix H to Market Rule 1 or for technical reasons.

6.2.1(3).....	Deletes a reference to 18:00.
6.3.7.....	Replaces “12:00 noon of the day before” with “the applicable deadline on the day before”.
6.4.8.....	Adds a reference to the Appendix H to Market Rule 1 process.
8.1.....	Adds “under normal conditions” to the last sentence.

Revision: 16 - Approval Date: October 14, 2005	
<u>Section No.</u>	<u>Revision Summary</u>
1.2.1, 1.2.1(1), 1.2.3.(3), 5.1(2), 6.1 & 6.3.2....	Replaces the terms “Daily RMR Resource” and “RMR Resource” with “Local Second Contingency Protection Resource”.
2.5.3(7)(b), 2.5.3(9), 2.5.9.2(2)(b), 2.5.11(3), 2.5.12(3), 2.5.13(2)(d), (e) & (f), 2.5.14(3), 3.2.7(5), 6.3.1, 6.3.3 & 6.3.5...	Replaces the term “Operating Reserve” with “NCPC”.
6.3.2.....	Replaces the term “RMR Agreement” with “Reliability Agreement”.

Revision: 17 - Approval Date: December 2, 2005	
<u>Section No.</u>	<u>Revision Summary</u>
The following Winter 2005/2006 Action Plan revisions (see Revision 15) have expired (along with their associated Market Rule 1 provisions) on March 31, 2006 and the previous Manual language has been reinstated.	
2.5.1.....	Adds references to Start-Up and No-Load Fees in the timeline to reflect daily submission of these values.
2.5.3(12).....	Replaces the two eligibility periods twice a month to change Start-Up and No-Load Fees to once per day by noon of the day prior to the Operating Day for which the Start-Up and/or No-Load Fee is to be effective.
6.3.....	Inserts “(excluding Start-Up and No-Load Fees)”.
6.3.4.....	Inserts “(excluding Start-Up and No-Load Fees)”.

Revision: 18 - Approval Date: April 7, 2006	
<u>Section No.</u>	<u>Revision Summary</u>
5.2.2(2).....	Replace the term “holidays” with “NERC Holidays and non-NERC Holidays for which the load forecast for the New England Control Area is likely to deviate from the load forecast that would otherwise be expected on a non-holiday”.

Revision: 19 - Approval Date: December 2, 2005

Section No.    Revision Summary

The following conforming changes to reflect Appendix H to Market Rule 1 have expired (along with Appendix H to Market Rule 1) on April 15, 2006 and the previous Manual language has been reinstated.

(see Revision 9)

- 1.1.....Clarifies that the timeline for scheduling activities in Exhibit 1.1 applies under normal conditions and adds Exhibit 1.1.A to describe the scheduling timeline when a Cold Weather Event is declared pursuant to OP-20.
- 1.2.3(5).....Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.
- 2.3.....Replaces “noon” with “the close of the Day-Ahead Energy Market bid/offer period”.
- 2.5.1.....Divides the last sentence of the paragraph into two sentences for clarity.
- 2.5.7(2).....Replaces “12:00 deadline” with “the close of the Day-Ahead Energy Market bid/offer period”.
- 3.1.....Adds “under normal conditions” to the description of the Regulation Market Timeline. Adds a new Exhibit 3.1.A to illustrate the Regulation Market Timeline when a Cold Weather Event is declared pursuant to OP-20.
- 3.2.4.....Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.
- 6.4.1(2)&(3)...Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.
- 6.4.7.....Replaces “12:00” with “the close of the Day-Ahead Energy Market bid/offer period”.

(see Revision 15)

- Table 1.1.....Replaces reference to OP20 with a reference to OP21.
- 1.1.....Adds “Except as otherwise provided in Appendix H to Market Rule 1,” before the statement describing when the Re-Offer Period begins and ends.
- 1.1.....Adds the revised times for close of the Day-Ahead Energy Market, posting of DAM schedules and the close of the Re-Offer Period.
- Exhibit 1.1.A...Revises the timeline to conform to Appendix H to Market Rule 1.
- 1.2.3(2).....Deletes “at 16:00”.
- 2.3.....Deletes “at 18:00” in the first paragraph and “from 16:00 to 18:00” in the second paragraph.
- 2.5.1.....Adds Cold Weather Events to the list of items that may result in changes to the Supply Offer timeline.
- 2.5.3(25).....Revises section to reflect Appendix H to Market Rule 1 process related to Supply Offer caps for internal Resources.
- Exhibit 3.1.A..Revises Exhibit 3.1.A to reflect revised Supply Offer deadlines, Re-Offer Period, etc. as detailed in Appendix H to Market Rule 1.
- 3.2.1(3).....Deletes reference to 18:00 Day-Ahead.
- 5.1(1).....Deletes “prior to 12:00”.

5.2.3.....	Revises last paragraph to reflect potential for changed deadlines pursuant to Appendix H to Market Rule 1.
6.2.....	Adds language to the last sentence indicating the timeline could be adjusted pursuant to Appendix H to Market Rule 1 or for technical reasons.
6.2.1(3).....	Deletes a reference to 18:00.
6.3.7.....	Replaces “12:00 noon of the day before” with “the applicable deadline on the day before”.
6.4.8.....	Adds a reference to the Appendix H to Market Rule 1 process.
8.1.....	Adds “under normal conditions” to the last sentence.

Revision: 20 - Approval Date: August 11, 2006

Section No.    Revision Summary

8.1.....	Adds language to the end of this section requiring LEG units to notify the ISO at least 30 minutes prior to a change in LEG status.
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Revision: 21 - Approval Date: June 2, 2006

Section No.    Revision Summary

Entire Manual revised to reflect ASM Phase II subjects which include the Locational Forward Reserve Market, Real-Time Reserve Clearing Prices, and Asset Related Demands.

Revision: 22 - Approval Date: November 3, 2006

Section No.    Revision Summary

These FCM Transition Period revisions shall become effective December 1, 2006 and shall be replaced by provisions implementing the Forward Capacity Market on or about June 10, 2010 as provided in the FERC approved Settlement Agreement in Docket No. ER03-563.

1.1.....	Revises the third paragraph to add references to Non-Dispatchable QFs, Other Demand Resources and Settlement Only Generators. Revises section reference to Market Rule 1.
1.3.1(3).....	Adds “(External sales are treated as Day-Ahead or Real-Time Load Obligations at the applicable External Node.)”.
1.3.2(2).....	Adds “(External purchases are treated as Day-Ahead or Real-Time Generation Obligations at the applicable External Node.)”.
1.3.2(6).....	Deletes a Section reference to Market Rule 1.
2.2.....	Corrects a Section reference in the last line of the third paragraph.
2.5.3(3)&	
2.5.5(8).....	Corrects Section references to Market Rule 1.

Revision: 23 - Approval Date: May 5, 2006 and August 11, 2006

Section No.    Revision Summary

This set of revisions was approved on May 5, 2006:

- 2.5.1..... Adds references to Start-Up and No-Load Fees in the timeline to reflect daily submission of these values.
- 2.5.3(12)..... Replaces the two eligibility periods twice a month to change Start-Up and No-Load Fees to once per day by noon of the day prior to the Operating Day for which the Start-Up Fee and/or No-Load Fee is to be effective.
- 2.5.9.2(3)(b)... The word “postured” is replaced by “Postured” to reflect the newly defined term added to Market Rule 1 and ISO New England Manual M-35.
- 5.1..... The word “postured” is replaced by “Postured” to reflect the newly defined term added to Market Rule 1 and ISO New England Manual M-35.
- 6.3 & 6.3.4..... Inserts “(excluding Start-Up and No-Load Fees)”.

This set of revisions was approved on August 11, 2006

- 1.1..... Adds a reference to the new Exhibit 1.3 which describes the scheduling timeline when a Cold Weather Event is declared pursuant to Market Rule 1.
- 1.1.1..... Adds a new Exhibit 1.3 to describe the scheduling timeline when a Cold Weather Event is declared pursuant to Appendix H to Market Rule 1.
- 2.5.1..... Revises the second sentence to add Cold Weather Events as an event which could cause the listed times to be adjusted.
- 3.1..... Adds a new Exhibit 3.1.A to illustrate the Regulation Market Timeline when a Cold Weather Event is declared pursuant to Appendix H to Market Rule 1.
- 5.2.3..... Adds “(see Appendix H to Market Rule 1 for deadlines during Cold Weather Events)” to the first sentence of the fourth paragraph.

Revision: 24 - Approval Date: November 3, 2006

Section No.    Revision Summary

- 3.2.5(1)(d)..... Deletes the previous subsection (d) language.
- 3.2.5(1)(d)..... Adds to the new subsection (d) the phrase “0.17 multiplied by” to the third sentence to now read “It is calculated as 0.17 multiplied by the greater of:”.
- 3.2.5(2)..... Revises the section reference 3.2.5(1)(c,d,e,f) to now read “3.2.5(1)(c,d,e)”.

Revision: 25 - Approval Date: October 12, 2007

Section No.    Revision Summary

List of Figures

- and Tables..... Adds “ISO New England Business Procedures” to the Table 1.1 title.
- Introduction... Adds “ISO New England Business Procedures” to this section.
- Table 1.1..... Adds “ISO New England Business Procedures” to the title and adds “Ancillary Service Schedule No. 2 Business Procedure” to the Transmission column.
- Table 2.2..... Revises the table by deleting the 1385 Line as part of the Roseton External Node definition and adding a new External Node (.INRTHPORT1385) for the 1385 Line (FERC acceptance of corresponding changes to Appendix F to Market Rule 1 was issued by FERC on June 19, 2007 in Docket No. ER07-767-000). Deletes the footnotes (a), (b), (c) and (d) in the table.

Revision: 26 - Approval Date: October 12, 2007

Section No.    Revision Summary

Table 2.2..... Revises the table by replacing external node “.IKESWICK 345 1” with “.I.SALBRYNB345 1” and adding “Lepreau – Orrington (390 Line)” as an associated transmission facility. Revises the table by deleting “HQ - Comerford 451+452 Lines (Phase 1)” as an associated facility for the .I.HQ\_P1\_P2345 5 external node.

Revision: 27 - Approval Date: December 7, 2007

Section No.    Revision Summary

2.6..... Replaces the terms “Claim 10” and “Claim 30” with “CLAIM10” and “CLAIM30”.

2.6.1..... Deletes the phrase “such authority as granted” in the second paragraph, deletes the third paragraph and deletes the third and fourth sentences in the fourth paragraph. Replaces the term “Dispatch” with “dispatch” in the last paragraph.

2.6.2..... Revises the title to state “2.6.2 Designated Entity/Lead Market Participant Responsibilities”.

2.6.2(3)..... Replaces “Designated Entity” with “Lead Market Participant” in the first sentence.

2.6.3..... Deletes the opening paragraph which duplicated the language contained in Section III.1.11.3(c) of Market Rule 1.

2.6.3(1)..... Revises this subsection to describe only the ISO’s performance audit and testing process of CLAIM10 and CLAIM30 capability.

2.6.3(2)..... Revises this subsection to describe the ISO’s performance audits of parameters other than CLAIM10 and CLAIM30 capability.

2.6.3(2)(g).... Adds a new subsection detailing the ability of the Designated Entity to request an audit of a Resource to demonstrate that a deficiency identified in an audit has been corrected.

2.6.4, 2.6.5,  
2.6.6 & 2.6.7...Deletes these sections in their entirety.

Revision: 28 - Approval Date: May 9, 2008

Section No.    Revision Summary

2.5.2(3), (7) &  
(14)..... Revises the sections to remove the capability of Fixed and Dispatchable External Transactions to have different Source and Sink Locations in the Day-Ahead Energy Market.

2.5.3(19), (21)  
& (23)..... Revises the sections to remove the capability of Fixed and Dispatchable External Transactions to have different Source and Sink Locations in the Day-Ahead Energy Market.

Table 2.3..... Revises the table to remove the capability of Fixed and Dispatchable External Transactions to have different Source and Sink Locations in the Day-Ahead Energy Market.

6.5.4.1(2).....Deletes “(s), and internal Node, if required”.

Revision: 29 - Approval Date: June 6, 2008

Section No.    Revision Summary

Entire Manual revised to reflect Market Rule 1 and Transmission, Markets and Services Tariff provisions filed with the FERC (i.e., provisions making External Transactions comparable to internal generation pursuant to FCM Settlement Agreement).

Revision: 30 - Approval Date: June 23, 2008

Section No.    Revision Summary

2.3.....Revises the third paragraph to clarify a scheduling and delivery practice for priced External Transactions as it may relate to Imports supporting a Capacity Supply Obligation.

2.5.13.1.....Deletes “Abnormal Conditions Alert” in the first and third paragraphs.

Revision: 31 - Approval Date: August 1, 2008

Section No.    Revision Summary

1.1.....Revises this subsection to reflect the prospect of the ISO being able to schedule External Transactions more than once an hour.

1.1(3).....Revises this subsection to reflect the ISO’s performance of hourly scheduling to cover the entirety of each hour throughout the Operating Day.

2.5.7(5).....Deletes “hourly” in the phrase “hourly transfer limit” in the third sentence.

Table 2.3..... Revises the table by deleting “Internal Location not applicable in Real-Time” in the Self-Scheduled/priced Real-Time column.

2.5.9.2(1).....Revises this subsection to reflect the prospect of the ISO being able to schedule External Transactions more than once an hour.

2.5.13.1..... Revises the second paragraph by adding the phrase “scheduling interval of an” and replacing the term “next-hour” with “upcoming”.

2.5.13.2..... Revises the second paragraph by replacing “upcoming” with “the next scheduling interval within an”, replacing “next-hour” with “upcoming”, and replacing “in-hour” with “within a scheduling interval”.

6.5.1(1).....Revises the footnote to state that any scheduling interval based on a thirty minute period will be begin at the top of the hour or thirty minutes after the top of the hour.

6.5.3..... Revises the section by deleting “hourly” in the phrase “hourly ramp constraints” and replacing “hour” with “scheduling interval”.

6.5.4.1(2).....Revises the phrase “External Node” to “External Node(s), and internal Node, if required”.

6.5.7..... Revises the section by replacing “Next Hour” with “for Next Scheduling Interval” in the title and within the paragraph. Replaces “hour” with “interval” in the second sentence.



Revision: 32 - Approval Date: June 6, 2008 and June 22, 2009

Section No.    Revision Summary

This set of revisions was approved on June 6, 2008

- 6.5.4.2(7-10)...Revises the subsections to address the submittal timing of External Transaction information for the Real-Time Energy Market.
- 6.5.5.....Revises the ISO review process for specific priced Real-Time External Transactions that have been submitted in support of an ICAP Import Contract which have a *Pending Action* status.
- 6.5.7.....Revises the “Real-Time Energy Market Next Hour Check-Out” process for Real-Time priced External Transactions.

This set of revisions was approved on June 22, 2009

Sections 1, 2

and 6.....Revises these three sections to reflect competitive offer requirements for ICAP Import Contracts.

Revision: 33 - Approval Date: May 7, 2010

Section No.    Revision Summary

Entire Manual revised to reflect the Forward Capacity Market as contained in Section III.13 of Market Rule 1.

Revision: 34 - Approval Date: November 18, 2010

Section No.    Revision Summary

Throughout the

manual..... Replaces “business days” with the defined term “Business Days”, utilizes military time (without colons), utilizes “manual” rather than “Manual” when not naming the manual (e.g., Manual M-11), and, with several exceptions, expressing numbers 1-9 by utilizing the words one through nine and expressing all higher numbers as numerals.

Introduction... Incorporates standardized description of the content and purpose of ISO New England Manuals and deleted Section listing.

Opening

Introduction for

each Section... Deletes the opening introduction for each Section.

2.5.3(19).....Revises the subsection to refer to the Market Rule 1 offer requirements for External Transactions associated with Import Capacity Resources.

6.5.....Revises the section to reference the competitive offer requirement in Section III.13.6.1.2.1 of Market Rule 1 for priced External Transactions.

6.5.2.....Revises the section to delete obsolete reference to ISO New England Manual M-20, and revises a subsection that might imply rejection of External Transactions where the aggregate amount of such transactions is less than an associated Capacity Import Contract’s Capacity Supply Obligation.

- 6.5.3.....Revises the section to eliminate reference to warnings (ramp constraint status is routinely posted, there is no explicit warning) and to clarify the section.
- 6.5.6.....Revises the section to refer to Market Rule 1 and OATT provisions that provide detailed scheduling information for various types of External Transactions and to refer to the adjustments and penalties that may apply to Import Capacity Resources.

Revision: 35 - Approval Date: October 15, 2010

Section No.    Revision Summary

- Table 2.2..... Replaces “Keswick – Orrington (396 Line)” with “Keene Road – Keswick (3001)”.

Revision: 36 - Approval Date: January 7, 2011

Section No.    Revision Summary

- 1.1..... Adds the phrase “, or are not otherwise required to submit a Supply Offer under the ISO Tariff,” to the second sentence within the fourth paragraph.
- 1.3.2(5)(a)..... Adds the phrase “, or are not otherwise required to submit a Supply Offer under the ISO Tariff,” to the first sentence.
- 1.3.2(5)(b)..... Creates a new subsection (b) from the second sentence previously contained in Section 1.3.2(5)(a).
- 2.2..... Adds the phrase “, or are not otherwise required to submit a Supply Offer under the ISO Tariff,” to the fourth sentence within the fourth paragraph.
- 2.5.3(3)..... Adds the phrase “, or are not otherwise required to submit a Supply Offer under the ISO Tariff,” to the second sentence.
- 2.5.3(14)(a)... Adds the phrase “, or are not otherwise required to submit a Supply Offer under the ISO Tariff,” to the first sentence.

Revision: 37 - Approval Date: December 10, 2010

Section No.    Revision Summary

- 6.3.2..... Deletes the third and fourth sentences in the second paragraph which conforms this Manual to the Appendix A to Market Rule 1 sunset of provision Section III.A.6 Reliability Agreements.

Revision: 38 - Approval Date: April 1, 2011

Section No.    Revision Summary

- 2.5.2..... Adds citation to access details on requesting the demand response enrollment information contained in ISO New England Manual M-RPA.

Revision: 39 - Approval Date: January 20, 2012

Section No.    Revision Summary

2.5.6(3).....Deletes the sentence “Hourly Maximum Consumption Limit must be greater than or equal to five MW.”

Revision: 40 - Approval Date: May 6, 2011

Section No.    Revision Summary

2.5.1,

2.5.3(7)&(11),

6.3 & 6.3.4.... Removes language that prohibited updates to the Start-Up and No-Load parameters of the Supply Offer during the Re-Offer Period.

2.5.2(2)..... Clarifies that only one hourly fixed Demand Bid quantity can be submitted for the next Operating Day.

2.5.2(9)..... Clarifies that up to ten price sensitive Demand Bid blocks can be submitted.

2.5.2(16)..... Clarifies that up to fifty Decrement Bid blocks per hour can be submitted.

2.5.2(18)..... Adds the sentence “Market Participants may submit up to ten Demand Bid blocks per day for each Dispatchable Asset Related Demand Bids the Day-Ahead Energy Market.”

2.5.3(10)..... Clarifies that a Supply Offer for a Generator may consist of up to ten incremental Energy offer blocks.

2.5.3(17)..... Clarifies that up to fifty Increment Offer blocks per hour can be submitted.

Revision: 41 - Approval Date: June 1, 2012

Section No.    Revision Summary

1.3.....Revises the section to add Demand Reduction Offers.

1.3.4.2.....Adds Day-Ahead Demand Reduction Offer of Real-Time Demand Response Asset. Changes OP-4 dispatch trigger to declaration from forecast OP-4. Deletes third paragraph and adds a new paragraph to describe capacity and energy dispatch of Real-Time Demand Response Resources, Real-Time Emergency Generation Resources (OP-4 dispatch) and energy dispatch under Appendix III.E of Real-Time Demand Response Assets.

2.3..... Revises dispatch language to eliminate advance notice and deletes the word “increase”.

5.1(5)..... Adds language on OP-4 dispatch of Real-Time Demand Response Resources.

Revision: 42 - Approval Date: October 3, 2012

Section No.    Revision Summary

6.5.7.....Deletes the phrase “that were submitted by 1200 on the day before the Operating Day” within the Real-Time Energy Market Day Before Checkout subsection.

Revision: 43 - Approval Date: January 4, 2013

Section No.    Revision Summary

3.2.4(3).....Deletes this subsection in its entirety.

5.2.3(2).....Deletes the phrase “for Regulation” within this subsection.

6.2.2..... Deletes the third sentence “Market Participants use the MUI to submit Internal Bilateral Transactions for Regulation that must be submitted prior to the Real-Time Internal Bilateral Transaction Trading Deadline.” in this section.  
Exhibit 6.3.....Deletes the “Internal Bilateral Trans.” phrase which was contained in the “Other ISO Systems” flow chart box.

Revision: 44 - Approval Date: May 3, 2013  
Section No.    Revision Summary  
1.1, 1.2.1(2), 1.2.3, 1.2.3(2), (4), (5) and (7), 1.3.4.1(1), 1.3.4.2, 2.3, Table 2.2, 2.5.1, 2.5.3(7), (11), (14), (16)(e), (27), (27)(a) and (b), 2.5.5(4), 2.5.6(4) bullets 3 and 4, 2.5.10(1)(a), 2.5.13.1, 2.5.13.2, 3.1, 3.2.1(3), 3.2.2(2), 3.2.3(1)(b), 3.2.4(1), 5.1 bullet 4, 5.2 bullet 7, 5.2.2(1), 5.2.3, 5.2.5, 6.2, 6.2.1(3), 6.2.2, 6.2.3, 6.3.8, 6.5.1(2), (3) and (4), 6.5.9, 8.1.....  
.....These Sections were revised to reflect the earlier clearing of the Day-Ahead Energy Market and earlier completion of the initial Reserve Adequacy Analysis process.  
Exhibits 1.1, 1.2, 1.3, 3.1, 3.1.A, 6.2, 6.3, 8.1.....  
.....These Exhibits were deleted to reflect the earlier clearing of the Day-Ahead Energy Market and earlier completion of the initial Reserve Adequacy Analysis process.

Revision: 45 - Approval Date: June 7, 2013  
Section No.    Revision Summary  
2.5.3(12),  
2.5.5(6),  
2.5.6(1)&(3),  
& 2.5.9.3..... Replaces “Claim 10” and “Claim 30” terminology with the defined terms “CLAIM10” and “CLAIM30”.

Revision: 46 - Approval Date: June 27, 2013  
Section No.    Revision Summary  
2.5.9.2(2)(b)... Updates cross reference to point to ISO New England Manual for the Regulation Market (M-REG).  
3..... Deletes this section and relocates the information to ISO New England Manual for the Regulation Market (M-REG).  
5.2.6..... Updates cross reference to point to ISO New England Manual for the Regulation Market (M-REG).  
6.2.1, 6.2.2,  
6.2.3 and  
Exhibit 6.2.....Deletes these subsections and exhibit, and relocates this information to ISO New England Manual for the Regulation Market (M-REG).

Revision: 47 - Approval Date: August 2, 2013

<u>Section No.</u>	<u>Revision Summary</u>
2.4(4).....	Replaces reference to Table 2.2 with a reference to Section III.F.3.2.16 of Market Rule 1.
Table 2.2.....	Deletes Table 2.2.

Revision: 48 - Approval Date: November 7, 2014

<u>Section No.</u>	<u>Revision Summary</u>
Entire Manual revised to reflect Market Rule 1 language implementing the energy market offer flexibility rules and Net Commitment Period Compensation payment rules; clean-up changes and updates; and the current structure and purpose of ISO-NE Manuals.	

Revision: 49 - Approval Date: March 6, 2015

<u>Section No.</u>	<u>Revision Summary</u>
2.2.8.....	Deletes this section and reserves the section number.
2.2.9.....	Deletes this section and reserves the section number.

Revision: 50 - Approval Date: December 4, 2015

<u>Section No.</u>	<u>Revision Summary</u>
1.2.2.....	Deletes the second sentence in the fourth paragraph.
1.3.1(4) and 1.3.2 (2) .....	Adds "III.1.10.7.A" to the sentence.
1.3.2(4).....	Replaces the previous sentence with "Submitting External Transactions associated with an Import Capacity Resource Capacity Supply Obligation in the Day-Ahead and Real-Time Energy Markets as described in Section III.13.6.1.2."
1.3.2(7) through (11) .....	Deletes these subsections.
2.2.1.....	Deletes the second paragraph under the Upon Completion of the Day-Ahead Energy Market section.
2.2.1.....	Adds "submitted under Section III.1.10.7" to the sentence under the 5:00 p.m. section.
2.2.2.3.....	Deletes "via EES" in the first sentence.
2.2.2.3(1)(a) through (c) .....	Deletes these subsections.
2.2.2.3(5).....	Deletes "and Real-Time".
2.2.2.3(6), (7) and (9) .....	Adds these new subsections.
2.2.2.3(8).....	Adds "submitted under III.1.10.7".
2.2.3.3(1).....	Revises the sentence to read "A Market Participant with an Import Capacity Resource must meet the requirements of Market Rule 1 Section III.13.6.1.2."
2.2.3.3(2).....	Deletes "via EES" in the first sentence.
2.2.3.3(3)(a) through (c) .....	Deletes these subsections.

2.2.3.3(5).....Revises the sentence to read “Priced External Transaction purchases for the Day-Ahead Energy Market must be less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.”.

2.2.3.3(6).....Revises the sentence to read “Priced External Transaction purchases for the Real-Time Energy Market submitted under III.1.10.7 must be less than or equal to the Energy Offer Cap and equal to or above the Energy Offer Floor.”.

2.2.3.3(8)..... Adds “submitted under III.1.10.7”.

2.2.3.3(9).....Revises the sentence to read “External Transaction purchases for the Real-Time Energy Markets submitted under III.1.10.7.A must be offered at less than or equal to the Energy Offer Cap and equal to or above -\$1000.00.”.

2.2.3.3(10).....Revises the sentence to read “External Transactions submitted under III.1.10.7 for more than 999 MW are prohibited.”.

2.2.8, 2.2.9, 2.2.10  
..... Deletes these subsections.

3.2..... This section has been completely revised.

Revision: 51 - Approval Date: September 11, 2015

Section No.    Revision Summary

1.3.2(3).....Deletes footnote 1.

Revision: 52 - Approval Date: March 4, 2016

Section No.    Revision Summary

1.3.2(3).....Replaces “Intermittent Generating Capacity Resource” with “Intermittent Power Resources”.

1.3.2(4).....Adds a new subsection (4).

2.2.3.1(8)..... Adds a new subsection (8).

2.2.3.1(12)(a). Combines subsections (a) and (b) into a new (a) which identifies the Market Rule 1 Sections regarding Self-Schedule requests for Non-CSO Generating Resources.

2.2.3.1(16)..... Adds a new subsection (16) which includes a new footnote 1.

2.2.5(2)..... Adds a new bullet in the second position which states “The Resource must meet the eligibility conditions to provide Real-Time Operating Reserve as specified in ISO New England Operating Procedures No. 8 and No.14.

Revision: 53 - Approval Date: December 4, 2015

Section No.    Revision Summary

1.2.2..... Adds “or Minimum Consumption Limit” to the second paragraph.

1.2.2(1).....Deletes “generating”.

1.2.2(2)..... Adds “or Minimum Consumption Limit”.

2.2.2.1(8)..... Replaces “Bid Data” with “Offer Data” in the second sentence.

2.2.2.1(8)..... Adds the sentence “Demand Bids from DARD Pumps must also specify changes to their Minimum Run Times, Minimum Down Times, Maximum Daily Consumption Limit, Maximum Number of Daily Starts from those submitted as part of their Offer Data to reflect their physical operating characteristics.”

- 2.2.5(2).....Revises the fourth bullet to read “A generating Resource must have excess capacity not being utilized to meet the energy needs of the system (i.e. be operating below its Economic Maximum Limit);”
- 2.2.5(2).....Adds a new fifth bullet to read “A DARD Pump must be online and the ISO must be able to reduce or curtail its load to maintain reliability;”
- 2.2.6(4).....Adds a new subsection.

Revision: 54 - Approval Date: April 7, 2017

Section No.    Revision Summary

- 1.1..... Deletes the third paragraph.
- 1.3.2(3).....Replaces “generating CSO Resources, other than Intermittent Power Resources or Settlement Only Resources,” with “Dispatchable Resources” and deletes “Section III.1.10.9”.
- 1.3.2(4).....Replaces “III.1.11.5” with “III.1.11.3”.
- 1.3.2(5), 2.2.1 (5:00 p.m.), 2.2.2.3(6), (7) and (9), 3.2.2 (1)  
..... Adds “Market Rule 1” prior to the Section number.
- 1.3.2(6).....Deletes this subsection.
- 2.2.1 (Throughout the Operating Day)  
..... Deletes the third paragraph.
- 2.2.2.3(8), 2.2.3.3(6), (8), (9) and (10), 3.2.2(2)  
..... Adds “Market Rule 1 Section” prior to the Section number.
- 2.2.3.1(5)..... Replaces “Sections III.1.10.9 and III.1.11.5” with “Section III.1.10.9”.
- 2.2.3.1(9)..... Adds a new subsection (9).
- 2.2.3.1(13).....Revises the subsection to state “Except as otherwise provided in Market Rule 1 Section III.1.11.5, a Supply Offer for a generating Resource that is not cleared for the Day-Ahead Energy Market automatically carries over for use in the Real-Time Energy Market unless modified pursuant to Market Rule 1 Section III.1.10.9.” and deletes subsection (a).
- 2.2.3.1(15)(c). Revises the subsection to state “Economic Maximum Limit is defined in Section I.2.2 of the Tariff.”
- 2.2.3.3(9)..... Replaces “-\$1000.00” with “-\$1,000.00”.
- 2.2.5(2)  
(sixth bullet)...Revises the bullet to state “The applicable MW of the Resource are available for Real-Time dispatch; and”.
- 3.2.2 (chart)... Adds “Section” prior to the Section number for the three Latest submittal entries.
- 3.2.4..... Adds “of the Tariff” in the first sentence within the first paragraph.
- Table 3.1..... Replaces Option “Non-Capacity Supply Obligation Export” with “Export without a Capacity Supply Obligation”.
- Table 3.1..... Replaces “Non-Capacity Supply Obligation Export” with “Export without a Capacity Supply Obligation” in the Note located within the Description sections for the LSCC Export and Unconstrained Export Options.
- Table 3.1..... Adds “There are currently no active items in Attachment G-3” within the Description section for the Excepted Transaction Option and replaces “There are currently no active items in Attachment G-3” with “Does not require a comment” in the Comment section for the Excepted Transaction Option.