

ISO New England Manual for
Financial Transmission Rights
Manual M-06

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Financial Transmission Rights
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About This Manual

This is the *ISO New England Manual for Financial Transmission Rights, M-06*. 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.2 of the Tariff or the ISO New England Manual for Definitions and Abbreviations, M-35.

Section 1: Financial Transmission Rights Overview

1.1 Definition and Purpose of FTRs

A Financial Transmission Right (FTR) is a financial instrument that entitles the holder to receive compensation for Congestion Costs that arise when the transmission grid is congested in the Day-Ahead Energy Market and differences in Day-Ahead Prices result from the dispatch of Resources to relieve the Congestion. Each FTR is unidirectional and is defined in megawatts from a point of receipt (where the power is injected onto the New England Transmission System) to a point of delivery (where the power is withdrawn from the New England Transmission System). For each hour in which Congestion exists on the New England Transmission System between the receipt and delivery points specified in the FTR, the holder of the FTR is awarded a share of the Day-Ahead Energy Market Congestion Charges collected for that hour. Some external interfaces are excluded from the FTR Auction because flows over those facilities are limited to those with transmission reservations and, therefore, there will be no Congestion over those facilities because external interface limits are honored in the clearing of the Day-Ahead Energy Market. Because there is no Congestion over these facilities in the Day-Ahead Energy Market, there is no need to offer FTRs.

The purpose of FTRs is to provide a mechanism to manage Congestion risk. FTRs entitle the holder to payments based on the Congestion Costs associated with a particular Energy transaction and thus act as a hedge against those costs. Essentially, FTRs are financial entitlements to the Day-Ahead Price Congestion Component differences for the associated receipt and delivery points. They do not represent a right for physical delivery of power.

The holder of the FTR is not required to deliver Energy to receive a Transmission Congestion Credit. If a constraint exists on the New England Transmission System, the holders of FTRs receive a credit based on the FTR MW quantity and the difference between the Congestion Components of the Day-Ahead Prices at the point of delivery (where the power is withdrawn from the New England Transmission System) and point of receipt (where the power is injected onto the New England Transmission System). This credit is paid to the FTR Holder regardless of who delivered Energy or the amount delivered across the path designated in the FTR. Likewise, an FTR will be a financial obligation if the congested flow is in the opposite direction of the held FTR.

The ISO conducts periodic auctions to allow Eligible FTR Bidders to acquire FTRs. The auctions also allow FTR Holders an opportunity to sell FTRs that they are currently holding. Offers to sell or requests to buy FTRs are submitted through eFTR.

1.2 Valuation of FTRs

The hourly economic value of an FTR is based on the FTR MW quantity and the difference between the Congestion Components of the Day-Ahead Prices at the point of delivery (where power is withdrawn from the New England Transmission System) and the point of receipt (where the power is injected into the New England Transmission System) designated in the FTR. Therefore, it is important to note that an FTR can provide financial benefit, but it can also be a financial liability resulting in additional charges to the holder.

- (1) It is a benefit when the path designated in the FTR is in the same direction as the congested flow. (The Congestion Component of the Day-Ahead Price at the point of delivery (where power is withdrawn from the New England Transmission System) is higher than the Congestion Component of the Day-Ahead Price at the point of receipt (where power is injected into the New England Transmission System).)
- (2) An FTR can be a liability when the designated path is in the direction opposite to the congested flow. (The Congestion Component of the Day-Ahead Price at the point of receipt (where power is injected into the New England Transmission System) is higher than the Congestion Component of the Day-Ahead Price at the point of delivery (where power is withdrawn from the New England Transmission System).)

1.3 Requirements to Participate

To participate in the FTR Auction, a Market Participant must satisfy the established financial assurance criteria and become an Eligible FTR Bidder or FTR Holder.

The financial assurance criteria for Market Participants and for Market Participants that are participating as FTR Only can be found in the ISO New England Financial Assurance Policy (Exhibit 1A of Section I of the Tariff).

1.4 Eligible FTR Bidder and FTR Holder Actions

As a Market Participant in the FTR process, you are required to perform the following actions:

- (1) For those FTRs you wish to buy in the auction, enter the required information and submit the bids to buy using *eFTR*, and
- (2) For those FTRs you wish to sell in the auction, enter the required information and post the FTRs for resale using *eFTR*.

1.5 ISO Actions

The ISO performs the following actions:

- (1) Registers Eligible FTR Bidders and FTR Holders
- (2) Initiates, directs, and oversees the FTR Auction
- (3) Posts FTR Auction results
- (4) Maintains a record of the FTRs
- (5) Incorporates FTRs into monthly settlements
- (6) Determines FTR Auction settlement
- (7) Maintains system models used for FTR and ARR calculations in accordance with the ISO's data retention policy as it applies to data that may be subject to a future request for billing adjustment and publishes related information as appropriate
- (8) Prior to each FTR Auction, the ISO will make available, as a minimum, the following information for the time period for which the FTR Auction is to take place to the extent that the release of such data does not create a competitive advantage to specific Market Participants or violate the ISO New England Information Policy:
 - (a) The FTR model to be used in the auction including a complete one-line system diagram with all pricing Nodes (indicating the Load Zone or other Location that the Node is part of) and including all Nodes used to calculate the Hub Price, and
 - (b) Transmission lines and components, transmission impedances, transmission ratings, transfer capabilities, and operating and transmission operation guides and other relevant assumptions and inputs used for the FTR Auction model.
- (9) After FTR Auction results are posted, the ISO will make available to Market Participants information relating to:
 - (a) A change in assignment of a pricing Node to a Load Zone, Reliability Region, DRR Aggregation Zone, or other Location, and
 - (b) A change in the definition of the Hub or External Nodes.

Section 2: Reserved

3.1 FTR Auction Overview

The FTR Auction provides a method of auctioning the FTR capability on the New England Transmission System. The auction also allows FTR Holders an opportunity to offer for sale any FTRs that they currently hold.

FTR Auctions are conducted by the ISO for annual and monthly auctions. The ISO provides notice of the annual auctions at least ninety (90) days prior to the first effective date of the FTRs to be auctioned. At the time of such notice ISO will post a schedule with dates for the opening and closing of bid submission windows and the posting date that results will be published. The assumptions for the two rounds of the annual auctions will specify the calendar year to be auctioned and will include modeling data to be used in the FTR auctions. Twenty-five percent of the available FTRs are auctioned in the first-round and the remaining balance of available FTRs up to fifty percent is auctioned in the second-round.

Following the annual auctions described above, FTR auctions will be held on a monthly basis. The ISO provides notice of the monthly auctions at least forty (40) days prior to the first effective day of the FTRs to be auctioned. The notice will provide a schedule for the bidding window, posting of results, and auction assumptions. After the annual FTR Auctions have been conducted, the remaining feasible FTRs, each having a term of one month, will be made available in the monthly FTR Auctions.

Each auction consists of an on-peak and an off-peak auction.

- FTRs awarded in the on-peak auctions are valid for hours ending 0800 to 2300 on weekdays.
- FTRs awarded in the off-peak auctions are valid for hours ending 2400 to 0700 on weekdays and for hours ending 0100 to 2400 on weekends and NERC Holidays.

FTRs acquired in an FTR Auction have the following characteristics:

- (1) A term as established by the auction: one month or one year.
- (2) A magnitude specified to the nearest 0.1 MW.
- (3) (a) Are available between any specified Locations for which a Locational Marginal Price (LMP) is calculated and posted (subject to simultaneous feasibility). The list of Locations includes Hub, Load Zone, DRR Aggregation Zone, Node, and External Node.

(b) The exceptions noted in subsection (3) (a) above are the External Nodes associated with Non-PTF, MTF, and OTF external tie-lines. For these External Nodes, proxy locations for FTR bidding are provided. These proxy bidding locations represent the connection points to the Non-PTF, MTF, and OTF external tie-line facilities and are shown in the table below.

Table 3.1 Proxy Bidding Locations for Non-PTF, MTF, and OTF External Tie-Lines

<u>External Interface</u>	<u>External Node</u>	<u>Proxies for FTR Auction</u>
Phase II	.I.HQ_P1_P2345 5	LD.SANDY_PD345 SMDINTLD
Cross Sound Cable	.I.Shoreham138 99	LD.HALVARSN345 SMDINTLD
New England Clean Energy Connect	.I.HQMRL_RD345 1	LD.LARRABEE345 SMDINTLD

- (4) May be designated as injections (points of receipt) at and withdrawals (points of delivery) from Locations within the New England Transmission System and External Nodes.
- (5) Do not hedge the FTR Holder against payment for losses.

The FTR Auction not only allows Eligible FTR Bidders to purchase the specific FTRs offered into the auction by sellers, but also enables bidders to purchase FTRs that are different from, but are enabled by, one or more of the FTRs offered into the auction. In this sense, the auction can be used (through the purchase and sale of FTRs) to reconfigure an FTR from its original definition to another definition.

3.2 Auction Timeline

The ISO initiates, directs, and oversees the FTR Auctions.

3.2.1 Annual Auctions

- (1) For annual FTR Auctions, the auction assumptions, including the modeling assumptions to be used for the FTR Auctions and dates and times for the opening and closing of bid submission windows will be announced by the ISO no later than 90 days prior to the first effective day of the FTRs to be auctioned.
- (2) The annual FTR Auction shall be conducted for FTRs effective for a single calendar year in two sequential rounds. Twenty-five percent of the available network capacity shall be available for the initial round of the annual FTR Auction. The FTRs that remain feasible with fifty percent of the network capacity available and after deducting the network capability associated with FTRs sold in the initial round shall be made available during the second round of the annual FTR Auction.
- (3) The ISO performs the FTR Auction clearing analyses.
- (4) The FTR Auction results for the first-round annual auctions, as specified in Market Rule 1 Section III.7.3.7, will be published prior to the opening of the bidding window for the second-round annual auctions. The FTR Auction results for the second-round annual auctions will be published prior to the opening of the bidding window for the first monthly auctions.
- (5) The identities of winning bidders and the quantities of FTRs cleared by individual bidders in the first round will not be published until the close of the second (and final) round of the annual FTR Auction.
- (6) Results of the on-peak auction and off-peak auction will be posted separately. The ISO shall not disclose the price specified in any bid to purchase or the reservation price specified in any offer to sell.

3.2.2 Monthly Auctions

- (1) For monthly FTR Auctions, the auction assumptions, including the modeling assumptions to be used for the FTR Auctions and dates and times for the opening and closing of bid submission windows, will be announced by the ISO no later than 40 days prior to the first effective day of the FTRs to be auctioned.
- (2) The ISO shall conduct monthly FTR Auctions, following the completion of the annual FTR Auction. A monthly FTR shall be effective for a single full calendar month. FTRs shall be made available for monthly auctions after accounting for all FTRs sold in the annual FTR Auctions.
- (3) The ISO performs the FTR Auction clearing analyses.
- (4) The FTR Auction results for the monthly auction will be published prior to the first effective day of the FTRs awarded in the auction.

- (5) Results of the on-peak auction and off-peak auction will be posted separately. The ISO shall not disclose the price specified in any bid to purchase or the reservation price specified in any offer to sell.

3.3 Auction Business Rules

The following information summarizes the FTR Auction business rules:

- (1) To submit bids or offers into the FTR Auction, an entity must satisfy established financial assurance criteria and become an Eligible FTR Bidder or FTR Holder. Such financial assurance criteria must be met at the time the auction-quoting period ends and before the auction is begun.
- (2) FTR Holders cannot submit offers to sell FTRs that they do not own at the time of the bid submittal. This ownership must extend throughout the entire duration of that auction period.
- (3) Invalid quotes into the auction are rejected. These quotes may be resubmitted and, if time stamped (as received by the ISO) before the close of the auction-quoting period, are included in the auction.
- (4) All outstanding FTRs that were previously awarded for the current auction period in previous auctions and not offered for sale in the current auction are modeled as fixed injections and withdrawals in the auction analysis.
- (5) Each offer to sell a specified MW quantity of FTRs for the auction period is deemed an offer to sell a quantity of FTRs equal to or less than the specified quantity at or above a price in dollars per MW. An offer to sell may not specify a minimum quantity being offered. Each offer to sell a previously awarded FTR may specify a reservation price, below which the FTR seller will not sell the FTR.
- (6) Each bid to purchase a specified MW quantity of FTRs for the auction period is deemed a bid to purchase a quantity of FTRs equal to or less than the specified quantity at or below a price in dollars per MW. A bid to purchase may not specify a minimum quantity that the bidder wishes to purchase.
- (7) A bid to purchase may specify any Location, as a point of receipt (where power is injected into the New England Transmission System) or a point of delivery (where power is withdrawn from the New England Transmission System), for which the ISO calculates and posts LMPs in accordance with Market Rule 1 Section III.2.
- (8) FTRs are awarded to winning bidders in FTR Auctions.

Section 4: Reserved

Section 5: Reserved

Section 6: Transmission Congestion Accounting

6.1 Transmission Congestion Accounting Overview

Congestion Costs collected from Market Participants or Transmission Customers by the ISO are utilized for payments to FTR Holders. When the Transmission System is scheduled Day-Ahead under constrained conditions or is operating in Real-Time under constrained conditions, the ISO calculates Congestion Costs for each Market Participant or Transmission Customer. The basis for the Congestion Cost is the Congestion Component of the applicable Day-Ahead or Real-Time Price at each Location.

The accounting processes described in this section result in Congestion Costs only for settlement intervals during which the Transmission System is constrained. The calculations derived here result in zero Congestion Costs when the Transmission System is unconstrained. The following calculations are performed to determine the monthly Transmission Congestion Revenue available for FTR Holders:

- (1) Transmission Congestion Revenue is calculated by summing all Market Participants' Day-Ahead Energy Market Congestion Charges/Credits and all Market Participants' and Transmission Customers' Real-Time Energy Market Deviation Congestion Charges/Credits for the month. Charges are generally expressed as negative numbers and credits as positive numbers for settlement of the Day-Ahead and Real-Time Energy Markets, but, for purposes of this Section 6, the sum of the Congestion charges/credits described above is multiplied by negative one. Under certain abnormal conditions in Real-Time, there is a potential that Transmission Congestion Revenue (the sum of Congestion charges/credits multiplied by negative one) will be negative, indicating that insufficient funds were collected as part of the normal energy accounting. The process for addressing this issue is described in Section 2 of ISO New England Manual for Market Rule 1 Accounting, M-28.
- (2) Positive FTR Target Allocations are determined and totaled for each FTR Holder for each hour of the month and negative FTR Target Allocations are identified and included in monthly Transmission Congestion Revenue.
- (3) Monthly Transmission Congestion Revenues, calculated as the sum of Transmission Congestion Revenue for the current month are allocated to FTR Holders as Transmission Congestion Credits based on positive FTR Target Allocations.
- (4) Any excess monthly Transmission Congestion Revenue that remains unallocated is carried forward to the end of the calendar year. At the end of the calendar year, any excess monthly Transmission Congestion Revenue is distributed first to FTR Holders that were paid less than their positive Target FTR Allocations and then pro-rata to Market Participants who paid Congestion Costs during the year.

6.2 Transmission Congestion Revenue

Transmission Congestion Revenue is calculated in accordance with Market Rule 1 Section III.5.2.5.

6.3 Transmission Congestion Credits

Each FTR Holder receives Transmission Congestion Credits, which are shares of the Transmission Congestion Revenue collected during the month subject to adjustment, as described below, for negative FTR Target Allocations. Each FTR Holder's Transmission Congestion Credits are calculated based upon the FTRs it holds.

6.3.1 FTRs & FTR Target Allocations

The FTR Target Allocation is calculated for each FTR in each hour in accordance with Market Rule 1 Section III.5.2.4.

6.3.2 Adjustments to FTR Target Allocations

Because virtual offers and bids are allowed, the ISO imposes a cap on payments to FTR Holders based on certain bidding behavior in accordance with Market Rule 1 Appendix III.A.12.

6.3.3 Monthly Transmission Congestion Revenue

The Transmission Congestion Revenue available for the month is equal to the Transmission Congestion Revenue for the month, plus the absolute value of the sum of negative FTR Target Allocations over all hours in the month. The ISO may adjust the available monthly Transmission Congestion Revenue as necessary to account for miscellaneous items. An explanation of such miscellaneous adjustments shall be provided by the ISO to FTR Holders either as part of the Customer Bill or via the ISO's website and will generally be limited to adjustments for interest earned on excess monthly Transmission Congestion Revenue and to adjustments that may be required to accommodate the Data Reconciliation Process (see Section 6 of the *ISO New England Manual for Market Rule 1 Accounting, M-28*).

As a result of the current monthly FTR settlement process, the monthly Transmission Congestion Revenue will be reduced to fund shortages in the Data Reconciliation Process. In the case of a negative balance after this adjustment, the shortage will be collected using an allocation method similar to the method used to distribute annual excess monthly Transmission Congestion Revenue. This methodology would be applied on a monthly basis using monthly rather than annual quantities.

6.3.3.1 ISO ACTIONS

- (1) The ISO retrieves the following information:
 - (a) Transmission Congestion Revenue for the month
 - (b) The Congestion Components of the Prices at the Points of Receipt and Points of Delivery
 - (c) Excess monthly Transmission Congestion Revenue available from previous months
 - (d) Each FTR Holder's hourly negative FTR Target Allocation (\$)
- (2) The ISO calculates the monthly negative FTR Target Allocation for by summing the following values:

- (a) Sum of all FTR Holders' negative FTR Target Allocations for all hours in the month
- (3) The ISO calculates the monthly Transmission Congestion Revenue as follows:

Monthly Transmission Congestion Revenue = (Day-Ahead and Real-Time Transmission Congestion Revenue) + (absolute value monthly negative FTR Target Allocations)

6.3.4 Monthly Allocation of Transmission Congestion Revenue

Monthly Transmission Congestion Revenue is allocated to FTR Holders based on their positive FTR Target Allocations. FTR Holders with negative FTR Target Allocations in any hour are charged for these amounts which are included in monthly Transmission Congestion Revenue determinations. To account for the collection of monthly Transmission Congestion Revenue associated with negative FTR Target Allocations, Transmission Congestion Credits will appear on the Customer Bill as a net value representing the monthly positive FTR Target Allocations reduced by the monthly negative FTR Target Allocations for that FTR Holder. The inclusion of monthly negative FTR Target Allocations in the calculation of monthly Transmission Congestion Revenue increases the amount that is available to be allocated as Transmission Congestion Credits to the FTR Holders with positive FTR Target Allocations.

If the monthly Transmission Congestion Revenue is greater than the monthly positive FTR Target Allocations, then there will be funds remaining in the month after the distribution of Transmission Congestion Credits. These funds are carried over until the end of the calendar year. If the monthly Transmission Congestion Revenue is less than the monthly positive FTR Target Allocations, a pro-rata amount, based on monthly positive FTR Target Allocations, all to positive FTR holders.

6.3.4.1 ISO ACTIONS

- (4) The ISO accounting process retrieves the following information:
 - (a) Monthly Transmission Congestion Revenue (\$)
 - (b) Each FTR Holder's hourly FTR Target Allocation (\$)
- (5) The ISO calculates the monthly positive FTR Target Allocation for by summing the following values:
 - (a) Sum of all FTR Holders' positive FTR Target Allocations for all hours in the month
- (6) If the Transmission Congestion Revenue for the month is greater than or equal to the monthly positive FTR Target Allocation, the monthly Transmission Congestion Credit for each FTR Holder is equal to its monthly positive FTR Target Allocation reduced by the monthly negative FTR Target Allocations. The excess monthly Transmission Congestion Revenue is equal to the monthly Transmission Congestion Revenue minus the monthly positive FTR Target Allocations.
- (7) If the monthly Transmission Congestion Revenue is less than the monthly positive FTR Target Allocation, then the Transmission Congestion Credit for each FTR Holder is equal to:

$$\frac{((\text{sum of FTR Holder's hourly positive FTR Target Allocation}) * (\text{Monthly Transmission Congestion Revenue}) / (\text{monthly positive FTR Target Allocations})) + (\text{monthly negative FTR Target Allocations})}{1}$$

Each FTR Holder's monthly FTR Target Allocation Deficiency is calculated as its monthly positive FTR Target Allocation plus its monthly negative FTR Target Allocation minus its monthly Transmission Congestion Credit. If the value is negative, then monthly FTR Target Allocation Deficiency equals zero.

6.3.5 Annual Allocation of Excess Transmission Congestion Revenue

The objective of the annual excess monthly Transmission Congestion Revenue distribution is to cover any FTR Holder positive FTR Target Allocation Deficiencies. If excess funds remain after this distribution, the remainder will be allocated to those entities that paid Congestion Costs during the year. The annual allocations are performed as follows:

- (1) The ISO calculates each FTR Holder's annual FTR Target Allocation Deficiency as the sum of its monthly FTR Target Allocation Deficiencies for the calendar year plus interest on each monthly FTR Target Allocation Deficiency using a monthly interest rate compounded monthly for all months subsequent to the month in which the monthly FTR Target Allocation Deficiency occurred until the end of the calendar year. The total annual FTR Target Allocation Deficiency is the sum of all FTR Holders' annual FTR Target Allocation Deficiencies. If the excess monthly Transmission Congestion Revenue remaining at the end of the calendar year is greater than or equal to the total annual FTR Target Allocation Deficiency, each FTR Holder is credited its annual FTR Target Allocation Deficiency and the ISO reduces the excess monthly Transmission Congestion Revenue by these amounts. If the excess monthly Transmission Congestion Revenue remaining at the end of the calendar year is less than the total annual FTR Target Allocation Deficiency, then the excess monthly Transmission Congestion Revenue is allocated to each FTR Holder pro rata, on the FTR Holder's annual FTR Target Allocation Deficiency divided by the total annual FTR Target Allocation Deficiency.
- (2) If there is any excess monthly Transmission Congestion Revenue remaining after the above distribution, the ISO distributes that remaining excess to Market Participants and Transmission Customers pro-rata on total yearly net Congestion Costs. The net congestion cost for each entity is its annual total Day-Ahead Energy Market Congestion Component Charge/Credit plus its annual total Real-Time Energy Market Deviation Congestion Charge/Credit. If the sum is a net charge, then the value is used in this pro-rata allocation. If the sum is a net credit, then it is set to zero in the pro-rata allocation.

Section 7: FTR Auction Revenue Settlement

7.1 Distribution of FTR Auction Revenues

FTR Auction Revenues are distributed to:

- (1) *Sellers of FTRs* – FTR Holders offering FTRs in an auction are paid the clearing price for any of their FTRs sold, and
- (2) *ARR Recipients* – The remaining auction revenues are distributed to those entities receiving Auction Revenue Rights (ARRs). ARRs are:
 - (a) Awarded to entities paying for transmission upgrades that make it possible to award additional FTRs in an auction (excluding upgrades paid for by the Pool RNS Rate or Local Network RNS Rate), and
 - (b) Allocated to Congestion Paying LSEs.

For such Congestion Paying LSEs, a four-stage process is used to determine each entity's ARRs based on its load share of all generation and tie sources within the capability of the transmission system. Special recognition is given to certain contractual arrangements and the parties to those agreements.

The method used to award a portion of the FTR Auction revenues that were made possible in part by transmission upgrades is discussed in Section 8, Incremental Auction Revenue Rights.

7.2 Auction Revenue Rights (ARR) Overview

Revenues from the FTR Auction will be allocated to: (1) entities paying for transmission upgrades; and (2) Congestion Paying LSEs. This will be accomplished by defining a set of ARRs.

FTR Auction Revenues associated with Incremental Auction Revenue Rights are allocated to an entity that pays for transmission upgrades. The balance of the auction revenues is allocated to Congestion Paying LSEs through the following process. Details of the process are described in subsequent subsections and in Market Rule 1 Appendix III.C.

- (1) Following the four-stage ARR Allocation process, allocate ARRs (quantified in megawatts) from each Generator Asset, source Node or tie-line source External Node to each load Node using:
 - (a) The same network model on which the related FTR Auction was based;
 - (b) The Seasonal Claimed Capability (SCC) for each Generator Asset source;
 - (c) The rated total transfer capability for each tie-line source;
 - (d) The load distribution from the network model; and
 - (e) The presumption that all generation and transmission facilities are in service.
- (2) Value the ARRs using the clearing prices from the FTR Auction being settled.
- (3) Sum the value of the simultaneously feasible ARRs by Load Zone.
- (4) Distribute to each ARR Holder in the Load Zone its share of the ARR value allocated to the Load Zone. The distribution is in proportion to the ARR Holder's Real-Time Load Obligation excluding Exports in the Load Zone at the time of the New England Control Area's coincident peak for the month being settled including adjustments for Excepted Transactions and NEMA Contracts.
- (5) Since the four-stage ARR Allocation process is not inherently revenue neutral, a proportional adjustment is applied to the auction revenue awards to distribute all available FTR Auction Revenues each month. The proportional adjustment is applied to ARRs awarded in the four-stage ARR Allocation process only.

7.3 ARR Definition, Entities Eligible for Allocations, and Required Actions

ARRs represent shares of the revenues generated by the sale of FTRs in a specific auction. They are expressed in terms of MW amounts and, like FTRs, they are characterized by:

- (1) An injection Node
- (2) A withdrawal Node
- (3) A MW quantity

In addition to the rights to FTR Auction Revenues awarded to entities that pay for transmission upgrades that increase the transfer capability of the New England Transmission System described in Section 8, rights to FTR Auction Revenues are allocated to Congestion Paying LSEs.

All data required for calculating ARR will be extracted from the market system databases, with no additional data input required from Market Participants. However, specific actions are required to qualify for ARR allocations relating to two components of the calculation: Excepted Transactions and NEMA Contracts.

7.3.1 Excepted Transactions

Market Rule 1 Appendix III.C provides that holders of certain contracts, called Excepted Transactions, have an option to be assigned ARRs in the initial stage of the allocation process. Excepted Transactions are listed in Attachments G and G-1 to the Open Access Transmission Tariff. Such ARRs are from the generation sources/External Nodes to the Node(s) of the load consistent with the Excepted Transaction. This option is available upon request for the earlier of 10 years following the SMD Effective Date or termination of the Excepted Transaction. Excepted Transaction treatment terminates with an effective date of February 28, 2012.

7.3.2 NEMA Contracts

Market Rule 1 Appendix III.C also provides that certain other long-term contracts having delivery points in NEMA (“NEMA Contracts”) be allocated ARRs provided copies of the contracts were furnished to the ISO by October 1, 2000 in the form that such contracts existed as of November 1, 1999. Such ARRs are from the generation sources to the Node(s) of the NEMA LSE’s load consistent with the NEMA Contract. This ARR allocation is available until the earlier of the expiration of the term of the NEMA Contract or until NEMA is no longer significantly constrained. To the degree a NEMA LSE transfers its responsibility for paying the Congestion Costs resulting from the NEMA Contract, the entitlements to ARRs associated with that load are also transferred.

7.4 Auction Revenue Rights Allocation

FTR Auction Revenues associated with Incremental Auction Revenue Rights are allocated in accordance with Market Rule 1 Appendix III.C.2, III.C.3, III.C.4, and III.C.5, and revenues are distributed in accordance with Market Rule 1 Appendix III.C.6.

7.5 Valuation of ARR

Once the ARR allocation has been determined for a particular auction, each ARR is valued by the results of that auction.

Entities eligible for Incremental Auction Revenue Rights are entitled to receive a monthly share of the FTR Auction Revenues reflecting the incremental value, as determined in the auction, of additional FTRs made possible by such transmission upgrade. The balance of the FTR Auction Revenues are valued using the four stage auction process as described in Market Rule 1 Appendix III.C.

Since the four-stage ARR allocation process is not inherently revenue neutral, a final proportional adjustment is applied to the auction revenue awards to distribute all available auction funds each month.

7.6 Auction Settlement Timeline

7.6.1 Monthly Auctions

The ARR allocations associated with the monthly FTR Auctions are determined at the beginning of the second month following the auction, using data for the month immediately following the auction (i.e., the month in which the auctioned FTRs are effective). The auction revenues are collected and distributed concurrently with that second month's settlement.

7.6.2 Long-Term Auctions

ARR allocations for the longer-term auctions are determined as for the monthly auctions, in monthly increments. A portion of the revenues associated with each long-term auction is distributed monthly, according to the number of days in the month.

7.7 Congestion Paying LSE Actions

Congestion Paying LSEs may request ARR allocation for eligible Excepted Transactions.

For as long as a NEMA LSE listed in Exhibit 1 to Market Rule 1 Appendix III.C has a right to request Stage 3 ARRs, it shall have an ongoing obligation to provide updated information for eligible NEMA Contracts.

7.8 ISO Actions

The ISO performs the following actions:

- (1) Receives, validates and monitors NEMA Contracts;
- (2) Responds to requests for ARR allocations associated with Excepted Transactions;
- (3) Selects and validates network model and data inputs appropriate for related auction periods;
- (4) Conducts ARR allocations;
- (5) Settles the FTR Auction; and
- (6) Distributes FTR Auction Revenues to ARR Holders.

Section 8: Incremental Auction Revenue Rights

8.1 Incremental Auction Revenue Rights and Eligibility for Awarding Incremental Auction Revenue Rights

Incremental Auction Revenue Rights are awarded to entities that pay for transmission upgrades that increase the transfer capability of the New England Transmission System, making it possible to award additional FTRs made possible by the transmission upgrade in the FTR Auction. Transmission upgrades in-service on or after March 1, 1997 may qualify for Incremental Auction Revenue Rights. Generator Interconnection Related Upgrades and Elective Transmission Upgrades to the PTF, each described in the Open Access Transmission Tariff, qualify for this treatment; upgrades paid for by the Local Network RNS Rate do not.

When the cost of transmission upgrades is shared, either (1) with other supporting entities or (2) as a qualifying portion of an upgrade that is also partially paid by the Local Network RNS Rate, Incremental Auction Revenue Rights are awarded in direct proportion to the percentage of the cost of the upgrades paid by each of the supporting entities. Incremental Auction Revenue Rights exist for as long as the costs of the upgrade are supported (either through upfront payments or periodic installments) or for the life of the upgrade (such as in the case where the upgrade is supplanted by a prior-planned, but subsequently installed, upgrade), if shorter.

The delivery and receipt points of Incremental Auction Revenue Rights are active FTR public pricing Nodes. In the event that an active pricing Node is removed from the network model and it affects an awarded path, the ISO will assess the related path and reassign the applicable pricing Node to another active pricing Node and will inform the affected entity.

8.2 Incremental Auction Revenue Rights Award Process

Incremental Auction Revenue Rights are awarded for each upgrade for the incremental amount of FTRs made possible by the upgrade between defined receipt and delivery locations as provided in Market Rule 1 Appendix III.C.

8.3 Incremental Auction Revenue Rights Business Rules

The following information summarizes the Incremental Auction Revenue Rights business rules:

- (1) The ISO will interact with only one Market Participant for each upgrade to the PTF resulting from a Generator Interconnection Related Upgrade or Elective Transmission Upgrade, and
- (2) Incremental Auction Revenue Rights are not subject to reduction in the FTR Auction Revenue settlement described in Section 7.

8.4 ISO Actions

Under the Incremental Auction Revenue Rights methodology used, the ISO performs the following actions.

- (1) The ISO settles Incremental Auction Revenue Rights every month. Each month, Incremental Auction Revenue Rights holders will receive a monthly share of their annual Incremental Auction Revenue Rights award value based on the annual FTR Auction clearing prices, and the monthly value of the Incremental Auction Revenue Rights Award based on the monthly FTR Auction clearing prices.
- (2) The ISO maintains a record of FTR Auction Revenues awarded pursuant to the Incremental Auction Revenue Rights methodology for use in the FTR Auction Revenue settlement.

Revision History

Approval

Approval Date: August 8, 2002
Effective Date: November 1, 2002

Revision History

Revision: 1 - Approval Date: February 14, 2003

Section No. Revision Summary

Sections 1, 7

& 8... ..Replaces the term Congestion Paying Entity with Congestion Paying LSE.

7.2(4)(a)... ..Replaces the term Real-Time Adjusted Load Obligation with Real-Time Load Obligation.

8.2... ..Clarifies the calculation of Qualified Upgrade Awards by the software.

Revision: 2 - Approval Date: April 4, 2003

Section No. Revision Summary

1.1... ..Clarifies that Non-PTF external interfaces are excluded from the FTR Auction.

3.1... ..Excludes MTF and other Non-PTF tie lines from the FTR capability being auctioned.

3.1(3)... ..Clarifies that prices at External Nodes reflect losses but not congestion on Non-PTF facilities and states that proxy bidding locations are shown in Table 3.1 for FTRs between External Nodes and other Locations.

6.2... ..Clarifies the last paragraph of the section by noting that External Nodes are modeled at proxy bidding locations for purposes of the FTR Auctions.

Revision: 3 - Approval Date: January 7, 2005

Section No. Revision Summary

The following revision is contingent upon FERC acceptance of the corresponding revision to Market Rule 1 to be filed by NEPOOL.

3.6(8)... ..Deletes previous item (8) which stated “A bid to purchase may not specify a negative price per megawatt.”

Revision: 4 - 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: 5 - Approval Date: May 6, 2005

Section No. Revision Summary

The following revisions are contingent upon FERC acceptance of the corresponding revisions to Market Rule 1 to be filed by the ISO.

- 5.2.....Removed statement that congestion revenues are carried over to the following month. Now states that excess monthly transmission congestion revenue is carried over to the end of the year.
- 5.2(1).....Removed statement that congestion revenues are carried over to the following month. Now states that excess monthly transmission congestion revenue is carried over to the end of the year.
- 5.3.....Adds a reference to the interest calculation described in ISO New England Manual M-28.

Revision: 6 - 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 3.1..... Revises the table by replacing the New Brunswick external interface’s external node name “Keswick 345-kV” with “Salisbury 345-kV” and deleting the Comerford 230 kV proxy bidding location for the Phase I/II external interface.

Revision: 7 - Approval Date: October 12, 2007

Section No. Revision Summary

Table 3.1..... Revises the table by deleting the New Brunswick external interface.

Revision: 8 - Approval Date: October 15, 2010

Section No. Revision Summary

The following sections were revised to reflect the suspension of the ISO-administered secondary FTR market as filed with the FERC in changes to Market Rule 1 and Section I of the Tariff:

1.1, 1.3, 1.4, 1.5(5) (deleted), 3.2, 3.6(8), 4 (deleted), and 6.6.1.

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.

1.3...Corrects reference to ISO New England Financial Assurance Policy.

3.4...Corrects numbering of steps.

Revision: 9 - Approval Date: December 9, 2011

Section No. Revision Summary

3.4, 7.1(2), 7.2,

7.4 & 7.5..... Replaces the term Qualified Upgrade Awards with Incremental Auction Revenue Rights.

8.1, 8.2, 8.3 &

8.4.....Revises these sections to reflect the implementation of Incremental Auction Revenue Rights.

Revision: 10 - Approval Date: August 3, 2012

Section No. Revision Summary

Entire Manual revised to reflect the Market Rule 1 provisions filed with the FERC to implement the Annual FTR Auction Rounds.

Revision: 11 - Approval Date: October 4, 2018

Section No. Revision Summary

Entire Manual revised to reflect the Market Rule 1 provisions filed with the FERC to implement Price Responsive Demand Full Integration also includes grammatical, formatting and capitalization corrections throughout.

1.....Adds “DRR Aggregation Zone” where applicable and removes “or Designated Congestion Area” because this is no longer a defined term, replaces with “other Location”.

3... Removes subsections 3.2, 3.3, 3.4 because this information was an unnecessary hold over from PJM, which is included in the eFTR user guide. This information also did not conform with the level of detail in all the other manuals. Adds “DRR Aggregation Zone”.

5.....Removes section 5 and places it as “Reserved” because this information is duplicative with the new section 6 material on Transmission Congestion Accounting.

6.....Moves Section 6 from M-28 to capture Transmission Congestion Accounting all in the same manual. Additionally, a few clarifying changes were made including: small grammatical changes, deleting “location” for clarity, removing the final sentence from 6.1(1), section 6.3.1 was condensed and replaced with a reference to Market Rule 1. Adds subsection 6.3.3.1(d) to further clarify negative Target Allocations. Specifies in 6.3.4.1(7) that “If the value is negative, then monthly FTR Target Allocation Deficiency equals zero”. The section on Congestion Shortfalls was left in M-28.

7.Removed subsection 7.2(4)(b) and abbreviates sections 7.3, 7.4 and 7.5 and references to the appropriate Market Rule sections were added. Removed section 7.4 because this information is better covered in the Tariff and training materials. Removes two paragraphs in subsection 7.5 on Long-Term Service has been eliminated from the Tariff.

8.....Clarifies “Generator Interconnection *Related* Upgrade and Elective *Transmission Upgrades to the PTF*” in Sections 8.1 and 8.3.1.

Revision: 12 – Approval Date: September 4, 2025

Section No. Revision Summary

3.1 Add New England Clean Energy Connect (NECEC) to Table 3.1 Proxy Bidding Locations for Non-PTF, MTF, and OTF External Tie-Lines