

eFTR Upload and Download File Formats

Version 4.3

June 16, 2021



eFTR

This document describes the file formats used by the eFTR application. This application provides means for eligible FTR bidders and FTR holders to participate in FTR (Financial Transmission Rights) auctions. The upload files are used to submit bids to purchase and offers to sell FTRs during the auction bidding periods published in ISO New England calendars.

The download files provide information regarding auction results and other relevant information supporting the FTR auction analysis. In addition to the information in the Tracking Table included in this document, changes made in the latest version of download files are highlighted; text related to new and renamed columns appears on yellow background.

Questions on this document, and the eFTR application in general, should be forwarded to the Customer Services at ISO New England Inc. at customer.com.

File Name Convention:

The reports descriptions reference the File Name as displayed in eFTR. As these reports are generated upon request, there is no set file name for the reports when the "Save As" dialog box appears. File Names for the downloads will be specified by the users through eFTR.

Line Code Convention:

C – Comment row

I – Informational row

D – Data row



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Change Summary

| Revision | Transmittal # | Date | Comments |
|----------|---------------|------------|---|
| Draft | None | 2003 | Draft |
| 1.0 | None | 05/13/2004 | Removed DRAFT indication per DAC. |
| 2.0 | None | 08/15/2005 | Updated Report Names and File Names to match eFTR; |
| | | | added description for the new FTR Auction Results report; |
| | | | made some formatting changes including new logo; updated |
| | | | Public Clearing Prices and Public Binding Constraints reports |
| | | | (see Tracking Table); updated introductory description and |
| | | | added an eFTR Report Tracking Table. |
| 2.1 | None | 10/07/2005 | Included more information in the Report Descriptions related |
| | | | to the header information included in a report. Also includes |
| | | | conforming changes so that document better reflects the file |
| | | | formats. |
| 3.1 | None | 09/11/2012 | Updated report descriptions to reflect file formats |
| | | | implemented in eFTR version 2.0.0-BOPP. |
| 4.1 | None | 09/26/2012 | Added the upload file format description. Highlighted |
| | | | changes made in the latest version of download files (version |
| | | | 2.0.0-BOPP) |
| 4.2 | None | 06/22/2016 | Modified the CSV file formats for the following files: |
| | | | ftr.csv, |
| | | | auction_bids.csv, |
| | | | auction_results.csv, |
| | | | FTR upload file. |
| 4.3 | None | 06/16/2021 | Modified the CSV file formats for the following files: |
| | | | auction_bids.csv, |
| | | | auction_results.csv, |
| | | | FTR upload file. |



eFTR File Descriptions Tracking Table

Below is the Tracking Table for changes to the various FTR reports and upload files used by the eFTR application. This Tracking Table provides participants a historical view of any changes or revisions to the file formats as well as a description of change.

Revision 6 contains the description of changes to provide Market Participants with the ability to have separate settlement accounts, called subaccounts. Participants register their subaccounts in CAMS. This new feature does not affect Participants who do not use subaccounts.

| File | Revision | Description of Change | Version | Posting Date |
|--------------------|----------|--|---------|---------------------|
| Upload file format | 6 | Added the optional column SUBACC applicable only to participants who use subaccounts. | 4.3 | 06/16/2021 |
| Upload file format | 5 | Renamed columns and modified data type from character to number for columns: Customer, Source, Sink. Added requirement for MW column - must be greater than zero. | 4.2 | 06/22/2016 |
| Upload file format | 4 | Added description of the upload file format. Changes made in the latest version of download files are highlighted in yellow. | 4.1 | 09/26/2012 |
| Auction_Results | 6 | Added column SubAccount applicable only to Participants who use subaccounts. | 4.3 | 06/16/2021 |
| Auction_Results | 4 | Added column Customer ID, renamed column Owner to Customer Name. | 4.2 | 06/22/2016 |
| Auction_Results | 3 | Added descriptions of renamed and new columns. New: Source Location ID, Source Location Type, Sink Location ID, Sink Location Type. Renamed: FTR Auction, Source Location Name, Sink Location Name, Class Type. Modified header description. | 3.1 | 09/11/12 |
| Auction_Results | 2 | Updated the description of the report so that the column names in this document conform to the files produced by eFTR. No changes were made to the reports in the eFTR application. | 2.1 | 10/07/05 |
| Auction_Bids | 6 | Added column SubAccount applicable only to Participants who use subaccounts. | 4.3 | 06/16/2021 |
| Auction_Bids | 4 | Added columns: Customer ID, Source Location ID, Source Location Type, Sink Location ID, Sink Location Type. Renamed columns: Owner to Customer Name, Origin Node to Source Location Name, Destination Node to Sink Location Name. | 4.2 | 06/22/2016 |



| File | Revision | Description of Change | Version | Posting Date |
|---------------------|----------|---|---------|---------------------|
| Auction_Bids | 3 | Modified descriptions of Bid MW, Bid Price, Buy/Sell. Renamed column: FTR Auction. New column: Owner. | 3.1 | 09/11/12 |
| Auction_Bids | 2 | Updated the description of the report so that the column names in this document conform to the files produced by eFTR. No changes were made to the reports in the eFTR application. | 2.1 | 10/07/05 |
| FTR_Auction_Results | 3 | Updated descriptions of report header, and Class Type. Renamed column: FTR Auction. Removed column: Auction Dollars. | 3.1 | 09/11/12 |
| FTR_Auction_Results | 2 | Updated the description of the report to include details about the information included in the header of the report (primarily that the Market Name is detailed in the header). | 2.1 | 10/07/05 |
| FTR_Auction_Results | 1 | New. FTR Auction Results Report. | 2 | 08/15/05 |
| Clearing_Prices | 2 | Added descriptions of renamed and new columns. Renamed: FTR Auction, Class Type, Node Name. New: Node Type. | 3.1 | 09/11/12 |
| Clearing_Prices | 1 | New column added: Node ID. Name updated to reflect eFTR File Name, previously referred to in this document as Public Clearing Prices Report. | 2 | 08/15/05 |
| Binding_Constraints | 2 | Added description of the renamed columns: FTR Auction, Class Type. | 3.1 | 09/11/12 |
| Binding_Constraints | 1 | New column added: Marginal Value. Name updated to reflect eFTR File Name, previously referred to in this document as Public Binding Constraints Report. | 2 | 08/15/05 |
| Auction_Results | 1 | Name updated in this document to reflect the actual eFTR File Name, previously referred to in this document as Public Results Report. No changes were made to the report in this version. | 2 | 08/15/05 |
| FTR | 3 | Added column Customer ID, renamed column Owner to Customer Name. | 4.2 | 06/22/2016 |
| FTR | 2 | Added descriptions of renamed and new columns. Renamed: FTR Auction, Source Location Name, Sink Location Name, Class Type. New: Source Location ID, Source Location Type, Sink Location ID, Sink Location Type. | 3.1 | 09/11/12 |



| File | Revision | Description of Change | Version | Posting Date |
|----------------------------|----------|---|---------|---------------------|
| FTR | 1 | Name updated in this document to reflect the actual eFTR File Name, previously referred to in this document as Monthly FTRs Report. No changes have been made to the report in this version. | 2 | 08/15/05 |
| Auction_Bids | 1 | Name updated in this document to reflect the actual eFTR File Name, previously referred to in this document as Private Results Report. No changes have been made to the report in this version. | 2 | 08/15/05 |
| Public_Results | 0 | New. Public Results Report. | 1 | 08/15/05 |
| Public_Clearing_Prices | 0 | New. Public Clearing Prices Report. | 1 | 2003 |
| Public_Binding_Constraints | 0 | New. Public Binding Constraints Report. | 1 | 2003 |
| Monthly_FTRs | 0 | New. Monthly FTRs Report. | 1 | 2003 |
| Private_Results | 0 | New. Private Results Report. | 1 | 2003 |



Upload File Format – Rev 6

Upload files must have the CSV (coma-separated values) format. The file extension must be ".csv".

The comment lines and informational lines (line codes "C" and "I") are optional and may be placed in any row of the upload file. The file may start with the first data line (line code "D"). The last comment line must contain the number of lines in the file (counting the last comment line), e.g.: C, END OF REPORT, 25.

The following table describes the upload file format. If the first column contains the code "C" or "I", all the other values are optional, but the fields must be still separated by a coma. If the first column contains the code "D" the values are required or optional as specified in the table below.

| COLUMN | DESCRIPTION | FORMAT/ MAX LENGTH | REQUIRED |
|-----------------------|---|---------------------------------|----------|
| LINE CODE | The code of the line content: C - Comment I - Information D - Data | 1 character | Yes |
| FTRBID | Optional field | | No |
| BID | Optional field for the data lines. NOTE: In the last line of the upload file, this field must contain the number of rows in the file. | | No |
| VERSION | Optional field | | No |
| CUSTOMER ID | The numeric identifier of the Customer | Number | Yes |
| AUCTION | Optional field | | No |
| BEGIN | Beginning date of the Auction for which the bid is submitted. This is the first day of month for monthly auctions, or the first day of year for long term auctions. | YYYY/MM/DD | Yes |
| END | Ending date of the Auction for which the bid is submitted. This is the last day of month for monthly auctions, or the last day of year for long term auctions. | YYYY/MM/DD | Yes |
| CLASS | ONPEAK or OFFPEAK | 7 characters, case sensitive | Yes |
| BUY SELL | BUY or SELL | 4 characters | Yes |
| SOURCE LOCATION ID | The numeric identifier of the FTR source node | Number | Yes |
| SINK LOCATION ID | The numeric identifier of the FTR sink node | Number | Yes |
| MW | The MW amount of the bid. Must be greater than zero. | 8 digits with 1 decimal place | Yes |
| PRICE | The \$/MW amount for the bid | 10 digits with 2 decimal places | Yes |
| SUBACC | Name of the subaccount associated with the FTR transaction. Applicable only to Participants who use subaccounts. | 20 characters | No |



Auction Results – Rev 6

Private file transfer / auction_results.csv

This file contains auction results for FTRs submitted by the Participant.

Availability: After the completion of the FTR auction analysis. It is made available to FTR Holders.

| REPORT COLUMN | DESCRIPTION |
|----------------------|---|
| FTR Auction | The auction name indicating the period for which FTRs are defined and for which the FTR auction was performed. |
| Source Location ID | The ID of the FTR source location. |
| Source Location Name | This is the name of the FTR source location. It can be any location for which a locational marginal price is posted by ISO NE. |
| Source Location Type | Location type of the source node. Location type can be: Hub, Zone, Bus, Aggregate, Interface. |
| Sink Location ID | The ID of the FTR sink location. |
| Sink Location Name | This is the name of the FTR sink location. It can be any location for which a locational marginal price is posted by ISO NE. |
| Sink Location Type | Location type of the sink node. Location type can be: Hub, Zone, Bus, Aggregate, Interface. |
| Customer ID | The numeric ID of the FTR's owner |
| Customer Name | The name of the FTR's owner |
| Class Type | Designates the auction for which the FTR was submitted, specified as: On — for the on-peak auction Off — for the off-peak auction |
| Buy/Sell | A flag that designates whether the bid was a request to purchase an FTR in the FTR auction or an offer to sell an FTR in the FTR auction. |
| Clearing MW | The cleared MW amount of the FTRs for the source/sink location and class type, specified to the nearest 0.1 MW. |
| Clearing Price | The dollar amount of the clearing price, specified in \$/MW to the nearest \$0.01. The price may be a positive or a negative number. |
| SubAccount | The name of the subaccount associated with the FTR. Applicable only to Participants who use subaccounts. |



Clearing Prices - Rev 2

Public file transfer / clearing_prices.csv

This file contains the clearing prices for each node.

Availability: After the completion of the FTR auction analysis. It is made available to registered eFTR users.

| REPORT COLUMN | DESCRIPTION |
|----------------|--|
| FTR Auction | The auction name indicating the period for which FTRs are defined and for which the FTR auction was performed. |
| Class Type | Designates the auction for which the clearing prices are applicable, specified as: On — for the on-peak auction Off — for the off-peak auction |
| Node ID | Location ID |
| Node Name | Location name for source or sink node. |
| Node Type | Node type can be: Hub, Zone, Bus, Aggregate, Interface. |
| Clearing Price | The dollar amount of the clearing price, specified in \$/MW to the nearest \$0.01. The price may be a positive or a negative number. |

Binding Constraints – Rev 2

Public file transfer / binding_constraints.csv

This file contains the binding transmission constraints for a market.

Availability: After the completion of the FTR auction analysis. It is made available to registered eFTR users.

| REPORT COLUMN | DESCRIPTION |
|--------------------|---|
| FTR Auction | The auction name indicating the period for which binding constraints are defined and for which the FTR auction was performed. |
| Class Type | Designates the auction for which the binding constraints were observed, specified as: On — for the on-peak auction Off — for the off-peak auction |
| Monitored Facility | The element of the transmission system whose operating limits are violated under normal or contingency conditions. |
| Contingency | The name of the contingency in which one or more facilities defined in the contingency will be outaged. |
| Marginal Value | The Marginal Value of the constraint in dollars per MW. |



FTR – Rev 3

Public file transfer / ftr.csv

This file contains a summary of all FTRs owned by FTR Holders.

Availability: After the completion of the FTR auction analysis. It is made available to registered eFTR users.

| REPORT COLUMN | DESCRIPTION |
|----------------------|---|
| FTR Auction | The auction name indicating the period for which FTRs are defined and for which the FTR auction was performed. |
| Source Location ID | The ID of the FTR source location. |
| Source Location Name | This is the name of the FTR source location. It can be any location for which a locational marginal price is posted by ISO NE. |
| Source Location Type | Location type of the source node. Location type can be: Hub, Zone, Bus, Aggregate, Interface. |
| Sink Location ID | The ID of the FTR sink location. |
| Sink Location Name | This is the name of the FTR sink location. It can be any location for which a locational marginal price is posted by ISO NE. |
| Sink Location Type | Location type of the sink node. Location type can be: Hub, Zone, Bus, Aggregate, Interface. |
| Customer ID | The numeric ID of the FTR's owner |
| Customer Name | The name of the FTR's owner |
| Start Date | The start date for the FTR, in DD-MM-YYYY format. |
| End Date | The end date for the FTR, in DD-MM-YYYY format. |
| Class Type | Designates the auction for which the FTR is submitted, specified as: On — for the on-peak auction Off — for the off-peak auction |
| MW | The cleared MW amount of the FTRs for the source/sink location and class type, specified to the nearest 0.1 MW. FTR MW values are treated as up to quotes in the FTR auction analysis. |
| Source Type | Indicates whether an FTR derived from an Auction ('A') or from the Secondary Trading Center ('S'). Note that the originating source is always the auction. This field distinguishes secondary trades from FTRs awarded in the auctions. |



Auction Bids – Rev 6

Private file transfer / auction_bids.csv

This file contains auction bids and results for FTRs submitted by the Participant.

Availability: Displays auction bids during the auction bidding window. Displays the auction bids and results after the completion of the FTR auction analysis. It is made available to FTR Holders.

| REPORT COLUMN | DESCRIPTION |
|----------------------|---|
| FTR Auction | The auction name indicating the period for which FTRs are defined and for which the FTR auction was performed. |
| Source Location ID | The numeric ID of the FTR source location. |
| Source Location Name | The FTR source location name. It can be any location for which a locational marginal price is posted by ISO NE. |
| Source Location Type | Source location type (Hub, Zone, Bus, Aggregate, Interface) |
| Sink Location ID | The numeric ID of the FTR sink location. |
| Sink Location Name | The FTR sink location name. It can be any location for which a locational marginal price is posted by ISO NE. |
| Sink Location Type | Sink location type (Hub, Zone, Bus, Aggregate, Interface) |
| Customer ID | The numeric ID of the FTR's owner |
| Customer Name | The name of the FTR's owner. |
| Class | Designates the auction for which the FTR was submitted, specified as: On — for the on-peak auction Off — for the off-peak auction |
| Bid MW | The MW amount of the FTR bid specified to the nearest 0.1 MW. FTR MW values are treated as up to quotes in the FTR auction analysis. |
| Bid Price | The dollar amount of the bid, specified in \$/MW to the nearest \$0.01. The price may be a positive or a negative number. |
| Clearing MW | The MW amount of the FTR that cleared specified to the nearest 0.1 MW. |
| Clearing Price | The dollar amount of the clearing price, specified in \$/MW to the nearest \$0.01. The price may be a positive or a negative number. |
| Buy/Sell | A flag that designates whether the bid was a request to purchase an FTR in the FTR auction or an offer to sell an FTR in the FTR auction. |
| SubAccount | The name of the subaccount associated with the FTR. Applicable only to Participants who use subaccounts. |



FTR Auction Results - Rev 3

Public file transfer / ftr_auction_results.csv

This file contains auction results.

Availability: After the completion of the FTR auction analysis. It is made available to registered eFTR users.

NOTE: This report contains an additional comment row at the beginning of the report that details the corresponding Auction name for the specific report downloaded. The header also contains the FTR solution status: either date of approval, or "NOT APPROVED". The auction status column is omitted if the report contains data for multiple auctions.

The calculated column Auction Dollars has been removed.

| REPORT COLUMN | DESCRIPTION |
|----------------------|--|
| FTR Auction | The auction name indicating the period for which FTRs are defined and for which the FTR auction was performed. |
| Customer ID | The Customer ID number for the Customer buying or selling the awarded FTR. |
| Customer Name | The Customer Name for the Customer buying or selling the awarded FTR. |
| Source Location ID | The Source Node/ Unit ID number of the awarded FTR. |
| Source Location Name | The Source Node Name of the awarded FTR. |
| Source Location Type | The Source Location Type of the awarded FTR. It can be a Hub, Load Zone or Network Node. |
| Sink Location ID | The Sink Node/ Unit ID number of the awarded FTR. |
| Sink Location Name | The Sink Node Name of the awarded FTR. |
| Sink Location Type | The Sink Location Type of the awarded FTR. It can be a Hub, Load Zone or Network Node. |
| Buy/Sell | A flag that designates whether the quote was a request to purchase an FTR in the FTR auction (Buy) or an offer to sell an FTR in the FTR auction (Sell.) |
| Class Type | Designates the auction for which the FTR was submitted, specified as: ONPEAK — for the on-peak auction OFFPEAK — for the off-peak auction |
| Award FTR MW | The amount of the FTR awarded in the auction specified to the nearest 0.1 MW. |
| Award FTR Price | The dollar amount of the clearing price, specified in \$/MW to the nearest \$0.01. The price may be a positive or a negative number. |