

FTR MANAGER



FTR GLOSSARY

28 MARCH 2013



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1. EMS, as FTR Manager, will only offer and issue FTRs in New Zealand to persons who are:
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 - (b) within one of the categories of “approved participant” in The Authorised Futures Dealers (Financial Transmission Rights) Notice 2012,
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5. This document is for information purposes only. It is not part of the FTR allocation plan.

Version History

Version	Date	Status	Revision Description
Nov 2012	30 Nov 2012	Draft	First draft version
Mar 2013	28 Mar 2013	Released	FTR Grid Policy changed to FTR Grid and Auction Data Policy.

FTR Glossary

The purpose of the FTR glossary is to provide a central source for the definition of terms used in the FTR Allocation Plan, associated FTR Policies and the FTR Manager's FTR related documentation. This glossary should be read in conjunction with these publications.

Except in rare cases to improve clarity, the terms used are consistent with those in the Electricity Industry Act 2010 (the Act) and the Electricity Industry Participation Code 2010 (the Code). The Act, Code and FTR Allocation Plan definitions take precedence where there may be any inconsistency.

If you notice any errors in or omissions from this glossary, please advise ftmanager@ems.co.nz.

Unless otherwise specified, all dollar values are expressed in NZ\$ exclusive any GST to 2 decimal places.

Term	Meaning	See
\$/MW/h \$/MWh	Dollars per Megawatt per hour	
Allocated Prudential Amount	The amount of prudentials that would be allocated to each market participants if all of their bids in an FTR Auction were accepted.	FTR Policy on prudential requirements
APNode	Aggregate Pricing Node (i.e. a Hub). One APNode is mapped to one or more PNodes with defined participation factors.	FTR Policy on the FTR Grid
Assignment Assignor Assignee	The Assignment of an FTR in accordance with clause 13.248 of the Code. Assignor and Assignee refer to the two parties to an Assignment.	FTR Allocation Plan
Asset Owner	The name of the FTR participant or Market Participant.	FTR Policy on the use of the FIS
Assignment Difference Payment Assignor to Clearing Manager	In cases of an FTR Assignment with an FTR Disclosed Assignment Price, then if the FTR Disclosed Assignment Price is less than the FTR Acquisition Cost, a payment of the assignment difference is made by the Assignor to the Clearing Manager.	FTR Allocation Plan FTR Models
Assignment Difference Payment Clearing Manager to FTR Holder	In cases of an FTR Assignment with an FTR Disclosed Assignment Price, then if the FTR Disclosed Assignment Price is greater than the FTR Acquisition Cost, a payment of the assignment difference is made by the Clearing Manager to the Assignor.	FTR Allocation Plan FTR Models
Assignment Rules	The rules for the conduct of Assignments	FTR Allocation Plan
Auction	A method for awarding FTRs for an FTR period based on FTR participants' bids. There will usually be two auctions in an Auction Month, being either a Primary Auction or a Variation Auction. An FTR Auction can be for multiple FTR Periods.	FTR Allocation Plan

Term	Meaning	See
Auction Clearing Price	Price for each FTR Type and FTR Direction at which an FTR Auction for a particular FTR Period clears	FTR Allocation Plan FTR Models
Auction Horizon	An Auction Horizon is the period of time between the Auction Month and the FTR Period auctioned. Thus if an FTR Period of June 2015 is auctioned in June 2014, it has an Auction Horizon of 12 months See also FTR Horizon	FTR Allocation Plan
Auction Month	The month in which an FTR Auction occurs	FTR Allocation Plan
Auction Rules	The rules for the conduct of Auctions	FTR Allocation Plan
Authority	Electricity Authority	
Base Loading FTRs	Pre-existing FTRs for the Market. Pre-existing FTRs are used to determine what capacity has already been allocated and hence how much capacity remains available in the auction	FTR Grid and Auction Data Policy
BEN	Benmore, being the south end of the HVDC inter-island link	
Bid Portfolio	A set of bids for a particular FTR Auction and FTR Period, that an FTR Participant uploads or enters into the FTR Information System	FTR Allocation Plan
Bid Window	The period when a particular FTR Auction is open to receive Bid Portfolios	FTR Allocation Plan
Binding Constraints	A constraint that has been met in the network model which will prevent more power from flowing through the circuit. This can occur due to: <ul style="list-style-type: none"> • A circuit's capacity limit • An N-1 contingency • Group constraints or Nomograms 	
Business Day	A day defined in paragraph (b) of the definition of "business day" in Part 1 of the Code.	Code
Capacity Release Factor	The proportion of available FTR Grid capacity that is released in an FTR Auction for an FTR Period. The available FTR Grid capacity is the FTR grid capacity remaining after allowance for any FTRs already awarded and held	FTR Allocation Plan
Circuit	A conductor that forms a single electrical connection between two or more stations and which when faulted is removed automatically from the system (by circuit-breakers) as a single entity. (FTR models represent the three conductors of a physical HVAC circuit by a single circuit)	FTR Grid and Auction Data Policy
Clearing Manager CM	The person appointed by the Authority to act as the Clearing Manager under the Code, currently NZX Limited	

Term	Meaning	See
Code	Electricity Industry Participation Code 2010	
Contingency	An event that the transmission system is operated to be robust to, e.g. by ensuring that the unplanned failure of any one grid asset will not cause the resultant changed power flows to overload any grid assets	FTR Grid and Auction Data Policy
Daily Settlement Price	The Clearing Manager's assessment of the Hedge Value of an FTR on any given business day prior to settlement	FTR Policy on prudential requirements
Disclosed Assignment Price	Price (\$/MW/h) disclosed in an Assignment, if any	FTR Allocation Plan
Dollars (\$)	Unless otherwise specified, all dollar values are expressed in NZ\$ exclusive of any GST to 2 decimal places	FTR Allocation Plan
Elemental Price Nodes	See PNode	FTR Grid and Auction Data Policy
EMS	Energy Market Services, a business unit of Transpower New Zealand Limited	
Excel®	Microsoft Excel	
Final Price	Wholesale electricity prices as defined in the Code and published by the Pricing Manager for every trading period for every node Expressed in \$/MW/h to 2 decimal places	Code FTR Allocation Plan
FIS	FTR Information System provided by the FTR Manager	FTR Allocation Plan FTR Policy on the use of the FIS
FTR	Financial Transmission Right FTRs are allocated to FTR Participants (who then become FTR Holders) in an FTR Auction or through Assignment	FTR Allocation Plan
FTR Account	The trust account established by the Clearing Manager in accordance with clause 14.43A of the Code. (Made up of loss and constraint rentals and auction income)	Code FTR Allocation Plan
FTR Account Amount	The amount in the FTR Account for a particular FTR Period at the time of determining revenue adequacy for that period	FTR Allocation Plan
FTR Acquisition Cost	The cost (\$/MW/h or \$) of an FTR awarded at an FTR Auction, or acquired through Assignment	FTR Allocation Plan FTR Models
FTR Allocation Plan 2012	The FTR Allocation Plan as approved by the Authority in 2012	FTR Allocation Plan

Term	Meaning	See
FTR Allocation Plan 2013	The FTR Allocation Plan as approved by the Authority in 2013	FTR Allocation Plan
FTR Calendar	A calendar detailing the planned schedule of activities in the FTR market The FTR Calendar is issued as an FTR Policy	FTR Allocation Plan FTR Calendar
FTR Direction	FTRs are from one hub (the From or Source Hub) to another hub (the To or Sink Hub). So, an FTR whose direction is A to B has a From Hub A and a To Hub B For the Initial FTR Design with the BEN and OTA hubs only, it is sometimes convenient to refer to FTR Directions as northwards (BEN-OTA) or southwards (OTA-BEN)	FTR Allocation Plan
FTR Disclosed Assignment Price	The price that can be disclosed by the assignor and assignee in an Assignment. The price at which an FTR has been assigned, if a price is disclosed Expressed in \$/MW/h to 2 decimal places	FTR Allocation Plan FTR Models
FTR Duration	The length of the time period for which an FTR applies at settlement	FTR Allocation Plan
FTR Grid	The grid used by the FTR Manager to auction FTRs for an FTR Period. The FTR Grid includes not only the network model but also associated factors such as the contingent event list, constraints, outages and capacity scaling, if any	FTR Allocation Plan FTR Grid and Auction Data Policy
FTR Hedge Value	The value calculated in accordance with the FTR Allocation Plan There is a Provisional and a Final FTR Hedge Value, corresponding to the FTR Hedge Value before and after any FTR Payment Scaling	FTR Allocation Plan FTR Models
FTR Holder	An FTR Participant that holds an FTR Every FTR has an FTR Holder	FTR Allocation Plan
FTR Horizon	An FTR Horizon is the period of time between a specified time (e.g. now, or an auction) and the FTR Period See also Auction Horizon	FTR Allocation Plan
FTR Manager	The market operation service provider who has been appointed as FTR manager for the purpose of the Code. The FTR Manager is currently EMS	Code
FTR Manager Service Provider Agreement	The FTR Manager Service Provider Agreement between the Electricity Authority and Transpower New Zealand Limited, dated 2 April 2012	
FTR Models	The FTR Manager provides models that illustrate the workings of aspects of the FTR market	www.ftr.co.nz

Term	Meaning	See
FTR Participant	A party who has been approved and registered by the FTR Manager to participate in an FTR auction and to be Assigned FTRs	FTR Allocation Plan
FTR Payment	The value calculated in accordance with the FTR Allocation Plan	FTR Allocation Plan FTR Models
FTR Payment Scaling	The process of scaling down FTR Hedge Values in cases of Revenue Inadequacy	FTR Allocation Plan
FTR Payment Scaling Factor	The degree of scaling down of positive FTR Hedge Values in cases of Revenue Inadequacy	FTR Allocation Plan
FTR Period	The time period for which an FTR applies at settlement, the length of which is the FTR Duration Each FTR Period is a specific calendar month	FTR Allocation Plan
FTR Product	An FTR of specific FTR Type, Source Hub and Sink Hub	FTR Allocation Plan
FTR Rentals Amount	The amount (\$) calculated for a specific FTR Period in accordance with Schedule 14.6 of the Code, or the amount of loss and constraint excess for the FTR Period if less	FTR Allocation Plan
FTR Terms	The terms of an FTR as defined in the FTR Allocation Plan	FTR Allocation Plan
FTR Type	An FTR can be either an Obligation FTR or an Option FTR	FTR Allocation Plan
FTR Volume	The assigned volume of an FTR in MW (to 1 decimal place) Note that this is equivalent to the Code term of 'amount'	FTR Allocation Plan
Grid Owner	A person who owns or operates any part of the transmission grid. Currently the only Grid Owner is Transpower New Zealand Limited	
HAY	Haywards, being the north end of the HVDC inter-island link	
Hub	A node or group of nodes (and in the case of a group of nodes, nodes in the group may be given different weightings) identified as either the Source Hub or the Sink Hub of an FTR	FTR Allocation Plan
HVAC	High voltage alternating current, being the North Island and South Island parts of the grid, less the HVDC	FTR Allocation Plan
HVDC	High voltage direct current, being the inter-island link from Benmore in the South Island to Haywards in the North Island	FTR Allocation Plan
i-HEDGE®	The name of Nexant Inc's FTR product that the FTR Manager will use to run the FTR market	FTR Allocation Plan
Indicative Inter-hub Capacity	The inter-hub capacity determined by the FTR Manager and published to FTR Participants prior to an Auction It is indicative because adjustments to the FTR Grid may need to be made to ensure optimal clearance in the Auction	FTR Allocation Plan

Term	Meaning	See
Line	A circuit. (Not to be confused with the alternative use of the term as a series of structures carrying one or more transmission circuits)	FTR Grid and Auction Data Policy
Maximum Initial Margin	The Clearing Manager's assessment of the maximum margin required to cover market movements of the FTR Hedge Value	FTR Policy on prudential requirements
MOI	Market Operator Interface	
MUI	Market User Interface	
MW	Megawatts. The unit of measurement used to define the volume of an FTR	FTR Allocation Plan
Network Model	The Network Model is the Grid Owner's model of a forecast grid The Network Model forms the basis of the FTR Grid	FTR Allocation Plan FTR Grid and Auction Data Policy
Nomogram	The i-HEDGE term for constraints	FTR Grid and Auction Data Policy
Normal Grid Configuration	The Normal Grid Configuration is the Grid Owner's model of the actual grid The Normal Grid Configuration is a key input to the FTR Manager's determination of the FTR Rentals Amount	Code (Schedule 14.6) FTR Grid and Auction Data Policy
OTA	Otahuhu, in Auckland	
Outage	A grid asset that is to be removed completely from the Network Model The Outage file contains a list of grid assets which are to be removed from the network model (Grid Owner creates that outage file for each FTR grid)	FTR Grid and Auction Data Policy
P Node	Elemental Pricing Node (i.e load elemental PNode, generator PNode) One PNode is mapped to one and only one Bus, and one APNode is mapped to one or more PNodes with defined participation factors Note that the definition of PNode here is not the same as in scheduling, dispatch and pricing	FTR Grid and Auction Data Policy
Period	See FTR Period or Trading Period	
POCP	Planned Outage Coordination Process	
Portal	A graphical user interface used to log into the FTR components	Policy on the use of the FIS
Pricing Manager PM	The person appointed by the Authority to act as the Pricing Manager under the Code, currently NZX Limited	

Term	Meaning	See
Primary Auction	<p>The first of two auctions in a month, being for the initial auctions of new FTR periods</p> <p>For example, the first three offerings of a new FTR period will be made in three consecutive months alongside the other two months that make up an ASX futures quarter. These auctions will be primary auctions</p>	<p>FTR Allocation Plan</p> <p>FTR Calendar</p>
Prudential Trading Limit	<p>The excess prudential security held by the Clearing Manager on behalf of the participant, calculated by the Clearing Manager in accordance with Part 14 of the Code</p> <p>The Prudential Trading Limit refers to the amount available to an FTR Participant for FTR transactions</p>	<p>FTR Allocation Plan</p> <p>FTR Policy on prudential requirements</p>
Reserve Constraints	Constraints that can prevent additional power from flowing due to insufficient reserves being available	FTR Grid and Auction Data Policy
Revenue Adequacy	A situation where the FTR Account Amount is sufficient to settle all FTR Hedge Values in full for a particular FTR Period	FTR Allocation Plan
Revenue Adequacy Objective	An objective for the FTR Manager to use in developing the FTR policy on the FTR Grid	<p>FTR Allocation Plan</p> <p>FTR Grid and Auction Data Policy</p>
Revenue Inadequacy	A situation where the FTR Account Amount is insufficient to settle all FTR Hedge Values in full for a particular FTR Period	FTR Allocation Plan
Sink	The offtake Hub of an FTR	FTR Allocation Plan
Source	The injection Hub of an FTR	FTR Allocation Plan
Trading Period	A period of 30 minutes ending on each hour or 30 minutes past each hour on any trading day	FTR Allocation Plan
Transformer	A static electric device consisting of a winding or two or more coupled windings which transfer power by electromagnetic induction between circuits of the same frequency, usually with changed values of voltage and current	FTR Grid and Auction Data Policy
Variation Auction	The second of two FTR Auctions in an Auction Month	<p>FTR Allocation Plan</p> <p>FTR Calendar</p>