

# Proposed Code amendment for FTR reconfiguration auctions

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## Consultation Paper

Submissions close: 5:00pm 8 April 2014

11 March 2014



## **Executive summary**

The Authority is proposing amendments to the Electricity Industry Participation Code 2010 (Code) that will enable Financial Transmission Rights (FTR) reconfiguration auctions to take place. The Authority is seeking feedback on the proposed Code amendments, and in particular feedback to the questions contained in this consultation paper.

The FTR manager has requested the Code amendments, as it believes the existing Code is insufficient to enable the operation of reconfiguration auctions. FTR market participants have asked the FTR manager to enable reconfiguration options as part of its 2014 FTR allocation plan.

FTR reconfiguration auctions are a useful tool to improve the flexibility of FTRs, and therefore the efficiency of the FTR market in providing locational price risk management. Enabling improved locational price risk management is expected to improve competition in, and the efficient operation of, the wholesale and retail electricity market.

The key difference between reconfiguration auctions and the existing secondary trading process for FTRs is that reconfiguration auctions will allow existing FTRs to be transformed into different types of FTR based on the demand by bidders in the auction.

Based on cost estimates provided by the FTR manager, participant demand for reconfiguration auctions, and overseas experience, the Authority believes that the implementation of reconfiguration auctions as proposed by the FTR manager is the best option for improving the operation of the FTR market. The proposal is supported by both qualitative cost-benefit analysis and an estimated quantitative cost-benefit analysis.

The proposed Code amendments include new definitions in Part 1, and new and amended provisions in subpart 6 of Part 13.



## Glossary of abbreviations and terms

<b>Act</b>	Electricity Industry Act 2010
<b>Authority</b>	Electricity Authority
<b>Code</b>	Electricity Industry Participation Code 2010
<b>FTR</b>	Financial transmission right
<b>FTR allocation plan</b>	A document prepared and published by the FTR manager and approved by the Authority - it sets out the detailed process for operating the FTR market and describes how the FTR manager will meet the requirements of subpart 6 of Part 13 and Schedule 13.5 of the Code.
<b>FTR auction</b>	An auction held by the FTR manager to allocate FTRs on the basis of participant bids
<b>FTR manager</b>	The service provider tasked with providing and operating the FTR market
<b>FTR Primary Auction</b>	A type of <b>FTR auction</b> that allocates new FTR months for the first time
<b>FTR Variation Auction</b>	A type of <b>FTR auction</b> that allocates additional FTR quantities for previously auctioned FTR months
<b>reconfiguration auction</b>	An <b>FTR auction</b> that allows holders of FTRs to offer them for sale in the auction, and allows those FTRs to be reconfigured into FTRs of a different form
<b>Regulations</b>	Electricity Industry (Enforcement) Regulations 2010



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# **1. What you need to know to make a submission**

## **1.1 What this consultation paper is about**

- 1.1.1 The FTR manager has proposed to introduce reconfiguration auctions into the FTR market. Reconfiguration auctions enable holders of FTRs to offer their FTRs for sale into an auction where the FTRs may be purchased by other participants as the same or different type of FTRs.<sup>1</sup>
- 1.1.2 Reconfiguration auctions differ from the existing secondary trading process (known as assignment), by enabling the FTRs offered for sale to be 'reconfigured' or transformed by the FTR reconfiguration auction process into different types of FTRs.
- 1.1.3 A reconfiguration auction has an advantage over simple secondary trading activity as it provides additional flexibility and enables FTRs to be modified to better match the risk management requirements of participants. This is expected to improve the efficiency and effectiveness of the FTR market in providing locational price risk management to participants.
- 1.1.4 Reconfiguration auctions have been rated as a high priority by the FTR users group. For this reason, the FTR manager has agreed to investigate the implementation of reconfiguration auctions as part of the 2014 FTR allocation plan. As part of its investigation, the FTR manager has identified that the Code does not enable the effective operation of reconfiguration auctions, and has proposed Code amendments to address this.
- 1.1.5 The Authority considers that improved locational price risk management is likely to lead to improved retail and wholesale market competition, with associated dynamic efficiency benefits. Accordingly, the Authority supports this proposal and is seeking feedback on proposed Code amendments that will allow for the operation of reconfiguration auctions.
- 1.1.6 The proposed Code amendments do not require the FTR manager to implement reconfiguration auctions. Rather, they facilitate their implementation.

## **1.2 How to make a submission**

- 1.2.1 The purpose of this paper is to consult with parties interested in Code amendments intended to facilitate FTR reconfiguration auctions.

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<sup>1</sup> For a full explanation of reconfiguration auctions and the proposed design, please refer to the FTR manager's consultation paper on the 2014 FTR allocation plan (Section 4, pp24-34), available at <http://ems.co.nz/ftr/ftrconsultation/3-dec-2013-consultation-on-al.pdf>

- 1.2.2 Section 39(1)(c) of the Act requires the Authority to consult on any proposed amendment to the Code and the regulatory statement. Section 39(2) provides that the regulatory statement must include a statement of the objectives of the proposed amendment, an evaluation of the costs and benefits of the proposed amendment, and an evaluation of alternative means of achieving the objectives of the proposed amendment. The regulatory statement is set out in part 3 of this paper.
- 1.2.3 The proposed Code amendments are attached as Appendix C.
- 1.2.4 The Authority invites submissions on the proposed amendment (including drafting comments) and the associated regulatory statement and cost benefit analysis.

## 1.3 **Deadline for receiving a submission**

The Authority's preference is to receive submissions in electronic format (Microsoft Word). It is not necessary to send hard copies of submissions to the Authority, unless it is not possible to do so electronically. Submissions in electronic form should be emailed to [submissions@ea.govt.nz](mailto:submissions@ea.govt.nz) with Consultation Paper—Proposed Code amendment for FTR reconfiguration auctions in the subject line.

If submitters do not wish to send their submission electronically, they should post one hard copy of their submission to either of the addresses provided below.

Submissions  
Electricity Authority  
PO Box 10041  
Wellington 6143

Submissions  
Electricity Authority  
Level 7, ASB Bank Tower  
2 Hunter Street  
Wellington

Tel: 0-4-460 8860

Fax: 0-4-460 8879

- 1.3.1 Submissions should be received by 5:00pm on 8 April 2014. Please note that late submissions are unlikely to be considered.

- 1.3.2 The Authority will acknowledge receipt of all submissions electronically. Please contact the Submissions' Administrator if you do not receive electronic acknowledgement of your submission within two business days.
- 1.3.3 If possible, submissions should be provided in the format shown in Appendix A. Your submission is likely to be made available to the general public on the Authority's website. Submitters should indicate any documents attached, in support of the submission, in a covering letter and clearly indicate any information that is provided to the Authority on a confidential basis. However, all information provided to the Authority is subject to the Official Information Act 1982.



## **2. Issue the Authority would like to address**

### **2.1 Existing Code provisions do not provide for reconfiguration auctions**

- 2.1.1 The Authority agrees with the FTR manager's view that the existing Code does not adequately provide for reconfiguration auctions.
- 2.1.2 The existing Code provisions relating to FTRs were developed during the initial establishment of the FTR market.<sup>2</sup> The establishment of the FTR market was a very substantial undertaking and was completed in a short timeframe in order to launch the FTR market as early as possible. The new Code was kept as simple as possible, to reduce complexity and ensure broad participation. Enhancements such as reconfiguration auctions were expected to be added as participants gained experience and understanding.
- 2.1.3 Accordingly, there are no specific provisions in the Code that refer to a participant being able to offer FTRs into an FTR auction, or to the FTR manager modifying the FTR registry following an auction where FTRs are sold by participants or transformed into different types of FTR.

### **2.2 FTR market participants consider reconfiguration auctions a high priority**

- 2.2.1 From time to time, FTR participants raise suggested modifications or enhancements to the FTR market. These are then assessed by the FTR manager and discussed with the FTR User Group (FUG). Part of this process involves maintaining a "long list" of options for FTR market enhancements. Discussions at the FUG have determined the relative priority and ranking of these options. This has guided the FTR manager in developing its proposal for the 2014 FTR allocation plan.
- 2.2.2 The current long list of options is shown in Table 1 below, with reconfiguration auctions rated as high priority by the FUG.

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<sup>2</sup> Background on the development of the FTR market can be found on the Authority's website:  
<http://www.ea.govt.nz/our-work/programmes/priority-projects/locational-hedges/ftr-development/>

**Table 1: FTR user group's long list of options<sup>3</sup>**

Option	Description	FUG priority	Difficulty
Multiple hubs	Add new FTR hubs	High	Low
Reconfiguration auctions	FTR holders to be able to offer FTRs for sale in FTR auctions	High	Medium
Bulletin board	Add bulletin board functionality for facilitating Assignments	Medium	Medium
Quarterly strips	Ability to bid for sets of three one-month FTRs	Medium	Low
Extended assignment	Ability to assign FTRs up to the end of the actual month of the FTR period	Medium	Low
Sloped bids	Ability to enter a sloped rather than stepped bid curve	Medium	Low
Losses in FTR grid	Add dynamic losses to the HEDGE FTR Market System <sup>4</sup> calculation	Low	High
Reserve constraints	Reflect reserve market impacts on FTR grid transfer capacity better than through nomograms	Low	High
Varying FTR firmness	Differentiate FTR products by their susceptibility to scaling in cases of revenue adequacy	Low	High
Different FTR durations	FTR durations of other than one month	Low	Low
Longer FTR horizons	Offering FTR with horizons longer than the current maximum of 26 months	Low	Low
Time-of-use FTRs	Offering time-of-use FTRs e.g. day/night, peak/off-peak, business-day/non-business day	Low	Low

Source: FTR manager consultation

## 2.3 The FTR manager has proposed a set of Code amendments to facilitate reconfiguration auctions

2.3.1 The FTR manager included provisions to enable reconfiguration auctions in its consultation on its proposed 2014 allocation plan, and indicated the first of these auctions could be held later in 2014. Consultation on the proposed changes to the FTR allocation plan closed on 3 February 2014. Five of the six FTR participants who submitted on that consultation agreed that reconfiguration auctions were a high priority and should be implemented immediately.

<sup>3</sup> FTR manager, Consultation on FTR Allocation Plan 2014, Table 1, p12. The consultation paper is available at <http://ems.co.nz/ftr/ftrconsultation/3-dec-2013-consultation-on-al.pdf>

- 2.3.2 In order to be able to deliver on its proposed allocation plan, the FTR manager has put forward a Code amendment proposal to enable the operation of FTR reconfiguration auctions. The FTR manager's full Code amendment proposal can be found in its online FTR library.<sup>4</sup>
- 2.3.3 The Authority has reviewed the Code amendment proposal and concurs with the FTR manager that some changes to the Code are necessary to effectively facilitate reconfiguration auctions.

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<sup>4</sup> <http://ems.co.nz/ftr/ftrlibrary/code-amendment-proposal---rec.pdf>





### 3. Regulatory Statement

#### 3.1 Authority proposes to amend the Code

- 3.1.1 The Authority's proposal is to amend the Code to enable FTR reconfiguration auctions in accordance with the proposed draft Code amendments in Appendix C. This section of the consultation paper describes the proposed amendments in more detail and provides the reasoning behind the proposed changes. It also sets out the alternatives considered and the associated cost benefit analysis.

##### Definitions in Part 1

- 3.1.2 The Authority proposes the following new terms to be defined in the Code:

**FTR reconfiguration auction** means an **FTR auction** that allows a holder of an **FTR** to offer the **FTR** for sale

**FTR reconfiguration amount** means the amount the **participant**, who offered an **offered FTR** in the **FTR reconfiguration auction**—

- (a) is entitled to be paid for the **reconfigured FTR**, if the amount is positive;
- (b) is obligated to pay for disposing of the **reconfigured FTR**, if the amount is negative

**offered FTR** means an **FTR** that has been offered into an **FTR reconfiguration auction**

**reconfigured FTR** means—

- (a) an **offered FTR** that was successfully sold at an **FTR reconfiguration auction**; or
- (b) a part of an **offered FTR** that was successfully sold at an **FTR reconfiguration auction**

##### Adjustment of FTR holdings following the auction process

- 3.1.3 It is proposed to add a new clause 13.242A that details the adjustment of reconfigured FTR holdings following the auction process. The proposed new clause will mean that the FTR manager will be required to update the quantities and acquisition costs of FTRs that were offered for sale into a reconfiguration auction and were successfully sold.

**13.242A FTR manager to reduce the capacity of offered FTRs after reconfiguration FTR auction**

**The FTR manager must—**

- (a) reduce the capacity of an **offered FTR** by the capacity of the **reconfigured FTR** that relates to the **offered FTR**; and
- (b) adjust the **FTR acquisition cost** for the **offered FTR** by subtracting the **FTR reconfiguration amount** of the **reconfigured FTR** from the **FTR acquisition cost** of the **offered FTR**.

### **Adjustments to the FTR register for reconfigured FTRs**

- 3.1.4 It is important that the FTR register maintains a complete and accurate record of FTR holdings. It is proposed to modify clause 13.247 to include the adjustments required in the FTR register for reconfigured FTRs. The proposed addition of subclause (1)(e) will ensure that the FTR register is updated appropriately following the auction.

#### **13.247 FTR manager must operate FTR register**

- (1) The **FTR manager** must create and operate an **FTR register** that records—
  - (a) the holdings of **FTRs**; and
  - (b) the **FTR acquisition cost** for each **FTR**; and
  - (c) assignments of **FTRs** including any price disclosed under clause 13.249; and
  - (d) the amount of **electricity** (in **MW**) to which each **FTR** relates; and
  - (e) the reconfiguration of each **offered FTR**.
- (2) The **FTR register** must contain an account for each holder of an **FTR**.
- (3) The **FTR manager** must assign a registered number to each **FTR** recorded in the **FTR register**.
- (4) The **FTR manager** must maintain an up to date copy of the **FTR register** and make it available to the public at no cost on the **FTR manager's** website at all reasonable times.

### **A prudential check against offered FTRs has been included**

- 3.1.5 It is proposed to modify clause 13.244 to include a prudential check against offered FTRs at the same time as this is completed for FTR bids.
- 3.1.6 The existing clause 13.244 only requires the FTR manager to check the prudential exposure arising from FTR bids made by each participant. It is possible that certain types of offer made by participants in reconfiguration auctions could actually increase their prudential exposure. However, this is expected to be infrequent.
- 3.1.7 At present the proposed amendment to clause 13.244 will have no impact on prudential assessment as this amendment will not be reflected in the methodology currently used by the clearing manager and the FTR manager to determine prudential exposure. However, if this methodology was to evolve in the future, this proposed amendment would ensure there

will be suitable Code provisions in place to accommodate a more advanced methodology.

#### **13.244 Acceptance of bids and offers in FTR auction**

- (1) The **FTR manager** must not accept a bid or an offer in an **FTR auction** if the **FTR manager** considers that the bid or the offer, if accepted, would cause the person making the bid or the offer to incur an obligation for which it does not have sufficient acceptable security under Part 14.
- (2) For the purposes of subclause (1), the **FTR manager** must, based on information received from the **clearing manager**, determine the maximum liability that each person can incur in respect of its bids or offers in the **FTR auction** ~~auction~~.

Clause 13.244: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011

#### **Clarification that FTRs are created by the auction process, rather than prior to it**

- 3.1.8 The Authority proposes amendments to some of the provisions in Subpart 6 of Part 13 of the Code to clarify that FTRs are created by the auction process rather than prior to it.
- 3.1.9 Following a participant query in late 2013 regarding the truncation of FTR auction outcomes, the Authority reviewed this section of the Code and determined that the existing wording could be made clearer to reflect the intention that FTRs are allocated and created by the FTR auction. This is expressly provided in the FTR allocation plan but is not particularly clear in the Code.
- 3.1.10 The Authority proposes to amend the Code so that it clearly conveys the intended meaning, which is that the FTR Auction process first defines the allocation of FTRs, and then creates them as per the allocated amounts. While this is important to the existing FTR process, it is even more important for the reconfiguration process. This is because the purpose of a reconfiguration auction is to be able to buy existing FTRs from participants and reconfigure them into different FTRs and sell these to other participants.
- 3.1.11 The existing wording is such that one interpretation could be that all FTRs must be created prior to allocation via the auction process. If this interpretation were to apply, then it would not be possible to reconfigure FTRs (i.e. create new and different ones) via an auction process, as they would be required to have been already created prior to the allocation process that reconfigures them.

### 13.237 Contents of this subpart

This subpart provides for the processes by which—

- (a) the **FTR manager** prepares and **publishes** the **FTR allocation plan**; and
- (b) the **Authority** approves the **FTR allocation plan**; and
- (c) the **FTR manager** allocates and creates ~~and allocates~~ **FTRs**; and
- (d) the **FTR manager** operates the **FTR register** and collects information from the **grid owner** and **clearing manager**; and
- (e) **FTRs** may be assigned; and
- (f) the **clearing manager** collects and allocates **FTR auction** revenue and collects information from the **FTR manager**; and
- (g) the **Authority** may direct the **FTR manager** to suspend the allocation of **FTRs**.

Clause 13.237: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### ~~Creation and allocation~~ *Allocation, creation and reconfiguration of FTRs*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### 13.242 **FTR manager must ~~create and allocate~~ and create FTRs**

- (1) The **FTR manager** must conduct an **FTR auction** ~~create and allocate **FTRs**~~ in accordance with the **FTR allocation plan** approved under clause 13.240 to—
  - (a) allocate **FTRs**; and
  - (b) create **FTRs**; and
  - (c) reconfigure FTRs.
- (2) Every **FTR** must relate to—
  - (a) a minimum amount of **electricity** (in **MW**) of 0.1 **MW**; and
  - (b) an amount of **electricity** (in **MW**) that is a multiple of 0.1**MW**.

Clause 13.242: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.242(2): substituted, on 1 June 2012, by clause 4 of the Electricity Industry Participation (Removal of Quantity Limit for Financial Transmission Rights) Code Amendment 2012.

### 13.251 **Information to be provided to FTR manager**

- (1) Each **grid owner** must provide a forecast of the configuration and capacity of the **grid owner's grid** for the **FTR period** (as advised to each **grid owner** by the **FTR manager**) to the **FTR manager** for use in determining the ~~**FTRs**~~ capacity to be offered in each **FTR auction**.
- (2) .....

### **3.2 The objective of the proposed amendments is to enable the operation of FTR reconfiguration auctions**

- 3.2.1 The objective of the proposed amendments is to enable the operation of reconfiguration auctions as proposed in the FTR manager's consultation on the 2014 FTR allocation plan.
- 3.2.2 As discussed in section 2 of this consultation paper, FTR market participants have requested that reconfiguration auctions be made available as part of enhancements to the FTR market.
- 3.2.3 The proposed amendments are the minimum set of changes necessary to enable the operation of reconfiguration auctions of the form proposed by the FTR manager.

### **3.3 Evaluation of the costs and benefits of FTR reconfiguration auctions**

- 3.3.1 Costs to implement the proposed reconfiguration auctions are as follows:
- (a) The Authority's legal costs for amending the Code (in the event the amendments are approved) are expected to be approximately \$8,000.<sup>5</sup>
  - (b) The costs of implementing the reconfiguration auctions have been estimated by the FTR manager as \$58,582<sup>6</sup> based on implementation alongside other proposed changes and using existing functionality within the Nexant i-Hedge software tool that is used to run the auction process.
  - (c) It is expected that FTR participants will incur some implementation costs in order to participate in reconfiguration auctions. While the required changes are anticipated to be minor, depending on the design of participant systems and their internal risk management and control policies, the costs of these changes may be significant for some parties. The Authority considers that an average allowance of \$5,000 per active participant is a reasonable estimate, resulting in a total cost to participants of \$40,000.

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5 The Authority's costs for considering these Code amendments, including the consultation process, are considered to be sunk costs and are not included in the analysis. The similar costs for other parties are also treated in the same manner.

6 FTR manager, Enabling FTR reconfiguration auctions Code amendment proposal, Section 5, p5. The proposal is available at <http://ems.co.nz/fttr/library/code-amendment-proposal---rec.pdf>

- 3.3.2 The benefits of the proposed Code amendments arise from their enabling introduction of reconfiguration auctions. The source of benefits is therefore access to the increased effectiveness of FTRs as a locational price risk management product.
- 3.3.3 A qualitative assessment of these benefits would suggest that they are highly likely to exceed the costs identified, based on the total costs being low and one-off, and the apparent benefits being substantial and enduring.
- 3.3.4 The FTR manager states in their Code amendment proposal<sup>7</sup> that:
- “The benefits of introducing FTR reconfiguration auctions would be to:*
- Improve the secondary trading of FTRs, hence the liquidity of the FTR market and competition in the FTR and energy markets, including retail competition*
  - Provide greater opportunity for FTR participants to purchase hedges against locational price risk that complement their energy hedge portfolio, hence encouraging new entrants and retail competition*
- While we have not quantified these benefits, we expect them to be significantly greater than the cost.”*
- 3.3.5 The assessment in 3.3.4 is consistent with that of the Mid-Continent Independent System Operator (MISO) in the United States which recently launched an enhanced FTR auction process. The accompanying press release reads: *“MISO anticipates the expanded auctions will provide benefits through expanded FTR terms, improved price discovery, and the ability to reconfigure FTR portfolios frequently in order to better manage risk and align with expected congestion costs.”*<sup>8</sup>
- 3.3.6 In the interests of completeness, an attempt is made below to quantify these benefits, however the Authority notes that the types of benefit are inherently difficult to quantify, and therefore the accuracy of this assessment may be limited. The assessment made here is deliberately conservative.
- 3.3.7 A quantitative assessment of benefits is attempted as follows:

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<sup>7</sup> FTR manager, Enabling FTR reconfiguration auctions Code amendment proposal, Section 5, p5. The proposal is available at <http://ems.co.nz/ftr/ftrlibrary/code-amendment-proposal---rec.pdf>

<sup>8</sup><https://www.misoenergy.org/AboutUs/MediaCenter/PressReleases/Pages/MISOLaunchesEnhancedFinancialTransmissionRightsAuction.aspx>

- (a) If approved, the proposed Code amendment will enable reconfiguration auctions to be implemented late in 2014.
- (b) In Appendix D, the Authority provides analysis supporting an estimate that the value to the market of FTR auctions has been about \$250,000 per month for the 8 months of operation to date.
- (c) In the absence of actual reference data, an assumption is required. For example if reconfiguration auctions improve the benefit of the FTR market by 10%, through improved efficiency of allocation, and reduction in costs of locational price risk management, then the estimate of benefits would be \$25,000 per month.
- (d) Consequently the Authority estimates the total gross benefit arising from implementing FTR reconfiguration auctions is \$550k for the period from November 2014 to August 2016. This forms the basis against which alternatives are compared.

### **3.4 Evaluation of alternative means of achieving the objectives of the proposed amendment**

3.4.1 The Authority considers that the available alternatives are as follows:

**(a) Status quo**

Reconfiguration auctions in the form proposed by the FTR manager would not be able to be undertaken, so the benefits identified would not be accessed, although the costs would also be largely or completely avoided.

**(b) Heavily restricted implementation of re-configuration auctions under existing Code**

An extremely limited implementation of reconfiguration auctions may be possible under the existing Code. The existing Code allows for transfer of FTRs from one party to another via secondary trading activity.

Hence, in theory reconfiguration auctions could be implemented in a heavily restricted form by withholding the ability for FTRs to be reconfigured via the auction, i.e. without any transformation from one type or path into one or more other types or paths.

Attempting to implement reconfiguration auctions without this functionality would severely impair the effectiveness of reconfiguration auctions.

Pursuing this alternative would result in greatly decreased benefits and potentially substantial increases in costs and delays to implementation due to the need to introduce altered, bespoke, functionality into the FTR software systems.

The FTR manager has advised the Authority that they do not intend to proceed with reconfiguration auctions unless amendments are made to both the Code and FTR Allocation Plan to enable them.

**(c) Pursue alternative approaches to enhancing FTR secondary trading**

The FUG has discussed the potential for facilitated secondary trading, via a platform or bulletin board feature. The FTR manager has investigated this and found that whilst technically possible, there were substantial technical hurdles and additional costs incurred in order to provide such a feature. Further, experience in FTR markets internationally has shown that reconfiguration auctions are more effective at facilitating secondary trading of FTRs than traditional secondary trading platforms.

This is supported by the FUG's assessment of priority in Table 1 that rates reconfiguration auctions as high priority and bulletin board as medium priority.

The Authority does not have detailed cost or benefit estimates available for this alternative, but expects that costs would be higher and benefits lower than the proposed approach.

As a minimum, a delay of implementation of at least 12 months would be expected, along with an increase in cost over the proposed option due to work being carried out separately from the main package of work planned by the FTR manager for the 2014 allocation plan.

An estimate of these differences in cost and benefit is made in Table 2 for comparative purposes.

- |            |  |
|------------|--|
| <b>Q1.</b> | <b>Do you agree with the Authority's assessment that an amendment to the Code is necessary for the proper functioning of FTR reconfiguration auctions?</b> |
| <b>Q2.</b> | <b>Do you consider that the Authority has considered an appropriate range of alternatives?</b>   |
| <b>Q3.</b> | <b>Do you agree with the Authority's assessment of the apparent alternatives?</b>  |
| <b>Q4.</b> | <b>Are there other alternative approaches that you consider should have been assessed in this section?</b>   |



## 3.5 Net cost–benefit assessment

- 3.5.1 Table 2 below summarises the values discussed in the section above and derives a net cost-benefit value after two years of operation. From this assessment it is clear that the proposal to amend the Code has a positive net cost-benefit, and is more cost-benefit positive than the other options considered.
- 3.5.2 Both the qualitative and quantitative costs and benefits assessments indicate that the proposed Code amendments will quickly become cost–benefit positive and are likely to do so in a period of less than one year.
- 3.5.3 The minimum improvement in FTR market benefits to achieve break-even over a ten year timeframe is 0.50%. The Authority feels this level of increased benefit is extremely likely to be exceeded.

**Table 2: Summary of Costs and Benefits**

Option	Costs of Implementation (\$,000)	Benefits from implementation (\$,000)	2 year Net Cost-Benefit <sup>1</sup> (\$,000)
Status quo	\$ 0	\$ 0	\$ 0 k
Proposal	\$ 106	\$ 300 per year	\$ 444
Heavily restricted implementation of reconfiguration auctions under existing code	\$ 148 <sup>2</sup>	\$50 per year <sup>2</sup>	-\$ 98
Pursue alternative approaches to enhancing FTR secondary trading	\$ 148 <sup>2</sup>	\$ 100 per year <sup>2</sup>	-\$ 48

Notes:

1 A two year timeframe has been used as it provides a sufficiently clear picture of the net cost-benefit. The benefits can be expected to continue to accrue over a longer period.

2 These figures are very approximate estimates and provided for illustrative purposes only.

- Q5. Do you consider that the Authority has correctly assessed the costs and benefits of the proposed Code amendment?**
- Q6. Do you agree that the proposed Code amendment will have positive net benefits?**

### 3.6 Assessment under section 32(1)

- 3.6.1 Section 32(1) of the Act provides that Code provisions must be consistent with the Authority's objective and be necessary or desirable to promote any or all of the following:
- (a) competition in the electricity industry
  - (b) the reliable supply of electricity to consumers
  - (c) the efficient operation of the electricity industry
  - (d) the performance by the Authority of its functions
  - (e) any other matters specifically referred to in this Act as a matter for inclusion in the Code.
- 3.6.2 Appendix B contains a table setting out an assessment of the proposed amendment against the requirements of section 32(1) of the Act.

### 3.7 Assessment against the Code amendment principles

- 3.7.1 When considering amendments to the Code, the Authority is required by its Consultation Charter to have regard to the following Code amendment principles, to the extent that the Authority considers that they are applicable.
- 3.7.2 *Principle 1 – Lawfulness:* The Authority and its advisory groups will only consider amendments to the Code that are lawful and that are consistent with the Act (and therefore consistent with the Authority's statutory objective and its obligations under the Act).
- 3.7.3 The proposed Code change is lawful and consistent with the Authority's statutory objective.
- 3.7.4 *Principle 2 – Clearly Identified Efficiency Gain or Market or Regulatory Failure:* Within the legal framework specified in Principle 1, the Authority and its advisory groups will only consider using the Code to regulate market activity when:
- (a) it can be demonstrated that amendments to the Code will improve the efficiency of the electricity<sup>9</sup> industry for the long-term benefit of consumers;

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<sup>9</sup> Where efficiency refers to allocative, productive and dynamic efficiency, and improvements to efficiency include, for example, a reduction in transaction costs or a reduction in the scope for disputes between industry participants.

- (b) market failure is clearly identified, such as may arise from market power, externalities, asymmetric information and prohibitive transaction costs; or
  - (c) a problem is created by the existing Code, which either requires an amendment to the Code, or an amendment to the way in which the Code is applied.
- 3.7.5 The Authority considers that the proposed Code amendment will improve the efficiency of the electricity industry for the long-term benefit of consumers, by facilitating improvements to the FTR market expected to reduce the cost of locational price risk management.
- 3.7.6 *Principle 3 – Quantitative Assessment:* When considering possible amendments to the Code, the Authority and its advisory groups will ensure disclosure of key assumptions and sensitivities, and use quantitative cost-benefit analysis to assess long-term net benefits for consumers, although the Authority recognises that quantitative analysis will not always be possible. This approach means that competition and reliability are assessed solely in regard to their economic efficiency effects. Particular care will be taken to include dynamic efficiency effects in the assessment, and the assessment will include sensitivity analysis when there is uncertainty about key parameters.
- 3.7.7 As per section 3.5, the Authority considers that the proposed Code amendment will be strongly cost-benefit positive based on the results of a high-level 'best endeavours' approach to cost-benefit analysis.

<b>Q7. Do you agree that with the Authority's assessment that the proposed Code amendment meets the requirements of Section 32 of the Act?</b>
--

## 3.8 Conclusion

- 3.8.1 The Authority concludes that enabling the implementation of FTR reconfiguration auctions via the proposed Code amendments will improve the effectiveness of the FTR market, with related benefits for wholesale and retail market competition and efficiency.
- 3.8.2 The Authority also concludes that the proposed Code amendment meets the requirements of Section 32 of the Act.

## 3.9 Summary of questions

3.9.1 The following is a summary of the questions posed in this consultation paper:

- |            |  |
|------------|--|
| <b>Q1.</b> | <b>Do you agree with the Authority's assessment that an amendment to the Code is necessary for the proper functioning of FTR reconfiguration auctions?</b> |
| <b>Q2.</b> | <b>Do you consider that the Authority has correctly assessed the costs and benefits of the proposed Code amendment?</b>                                    |
| <b>Q3.</b> | <b>Do you agree that the proposed Code amendment will have positive net benefits?</b>  |
| <b>Q4.</b> | <b>Do you consider that the Authority has considered an appropriate range of alternatives?</b>   |
| <b>Q5.</b> | <b>Do you agree with the Authority's assessment of the apparent alternatives?</b>  |
| <b>Q6.</b> | <b>Are there other alternative approaches that you consider should have been assessed in this section?</b>   |
| <b>Q7.</b> | <b>Do you agree that with the Authority's assessment that the proposed Code amendment meets the requirements of Section 32 of the Act?</b>                 |

## Appendix A Format for submissions

Question No.	General comments in regards to the:	Response

## Appendix B Assessment under section 32(1) of the Act

Section 32(1) requirements:	Response
The proposed amendment is consistent with the Authority's objective under section 15 of the Act, which is as follows:	
(a) to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers	FTR reconfiguration auctions will promote efficiency and competition by reducing the cost of electricity locational price risk management.
The proposed amendment is necessary or desirable to promote any or all of the following:	
(a) competition in the electricity industry;	The increased flexibility of FTR holdings is expected to result in the improved effectiveness of the FTR market by enabling participants to manage locational price risk at minimum cost. This is expected to improve competition in the electricity industry by making it easier and cheaper for new and existing parties to compete to supply consumer demand.
(b) the reliable supply of electricity to consumers;	N/A
(c) the efficient operation of the electricity industry;	Improved effectiveness of the FTR market should contribute to the efficient operation of the electricity industry by reducing the costs of locational price risk management to participants.
(d) the performance by the Authority of its functions;	N/A
(e) any other matter specifically referred to in this Act as a matter for inclusion in the Code.	N/A

## Appendix C Proposed Code amendment

### Part 1

#### Preliminary provisions

...

#### 1.1 Interpretation

- (1) In this Code, unless the context otherwise requires,—

...

**FTR** means a financial transmission right created under subpart 6 of Part 13

Clause 1.1(1) **FTR**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

**FTR account** means the trust account established by the **clearing manager** in accordance with clause 14.43A

Clause 1.1(1) **FTR account**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

**FTR acquisition cost** means—

- (a) the amount a **participant** must pay or be paid in respect of the acquisition of an **FTR** in an **FTR auction**; or
- (b) if an **FTR** has been assigned by the first holder of the **FTR**, the amount that becomes payable under clause 13.249(3)

Clause 1.1(1) **FTR payment**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 1.1(1) **FTR payment**: amended to **FTR acquisition cost**, on 1 November 2012, by clause 4(2) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

**FTR allocation plan** means the FTR allocation plan prepared and **published** by the **FTR manager** under clause 13.238

Clause 1.1(1) **FTR allocation plan**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

**FTR auction** means an auction conducted by the **FTR manager** in accordance with the **FTR allocation plan** approved under subpart 6 of Part 13

Clause 1.1(1) **FTR auction**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

**FTR hedge value** means the gross amount that becomes due and payable by the **clearing manager** or the holder of an **FTR** on the settlement of the **FTR** in accordance with the terms of the **FTR** (excluding the **FTR acquisition cost** and any amount payable under clause 13.249(4) or (7))

Clause 1.1(1) **FTR hedge value**: inserted, on 1 November 2012, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

**FTR manager** means the **market operation service provider** who is for the time being appointed as the FTR manager for the purposes of this Code

Clause 1.1(1) **FTR manager**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 1.1(1) **FTR payment**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 1.1(1) **FTR payment**: amended to **FTR acquisition cost**, on 1 November 2012, by clause 4(2) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

**FTR period** means a period for which an **FTR** applies

Clause 1.1(1) **FTR period**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

**FTR reconfiguration auction** means an **FTR auction** that allows a holder of an **FTR** to offer the **FTR** for sale

**FTR reconfiguration amount** means the amount the **participant**, who offered an **offered FTR** in the **FTR reconfiguration auction**—

(a) is entitled to be paid for the **reconfigured FTR**, if the amount is positive;

(b) is obligated to pay for disposing of the **reconfigured FTR**, if the amount is negative

**FTR register** means the register created and operated by the **FTR manager** under clause 13.247

Clause 1.1(1) **FTR register**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

...

**obligation FTR** means an **FTR** for which the terms and conditions provide that—

(a) (excluding the **FTR acquisition cost**) the holder of the **FTR** is entitled to receive a payment when, for the **FTR period**, the difference between the price (calculated in accordance with the terms of the **FTR**) at the **hub** identified as hub B and the price at the **hub** identified as hub A in the **FTR** is positive; and

(b) (excluding the **FTR acquisition cost**) the holder must make a payment when the difference between those prices is negative

Clause 1.1(1) **obligation FTR**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 1.1(1) **obligation FTR**: amended, on 1 November 2012, by clause 4(3) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

...

**offered FTR** means an **FTR** that has been offered into an **FTR reconfiguration auction**

...

**option FTR** means an **FTR** for which the terms and conditions provide that—

(a) (excluding the **FTR acquisition cost**) the holder of the **FTR** is entitled to receive a payment when, for the **FTR period**, the difference between the price (calculated in accordance with the terms of the **FTR**) at the **hub** identified as hub B and the price at the **hub** identified as hub A in the **FTR** is positive; but

(b) (excluding the **FTR acquisition cost**) the holder is not required to make a payment when the difference between those prices is negative

Clause 1.1(1) **option FTR**: inserted, on 1 October 2011, by clause 4(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 1.1(1) **option FTR**: amended, on 1 November 2012, by clause 4(4) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

**reconfigured FTR** means—

(a) an **offered FTR** that was successfully sold at an **FTR reconfiguration auction**; or

(b) a part of an **offered FTR** that was successfully sold at an **FTR reconfiguration auction**



## Part 13

### Trading arrangements

...

#### Subpart 6—Financial transmission rights

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

##### 13.237 Contents of this subpart

This subpart provides for the processes by which—

- (a) the **FTR manager** prepares and **publishes** the **FTR allocation plan**; and
- (b) the **Authority** approves the **FTR allocation plan**; and
- (c) the **FTR manager** allocates and creates ~~and allocates~~ **FTRs**; and
- (d) the **FTR manager** operates the **FTR register** and collects information from the **grid owner** and **clearing manager**; and
- (e) **FTRs** may be assigned; and
- (f) the **clearing manager** collects and allocates **FTR auction** revenue and collects information from the **FTR manager**; and
- (g) the **Authority** may direct the **FTR manager** to suspend the allocation of **FTRs**.

Clause 13.237: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

##### *FTR allocation plan*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

##### 13.238 Preparation and publication of FTR allocation plan

- (1) The **FTR manager** must prepare and **publish** an **FTR allocation plan** that complies with Schedule 13.5.
- (2) The **FTR manager** must make the **FTR allocation plan** available to the public at no cost on the **FTR manager's** website at all reasonable times.
- (3) Subject to subclause (4), if Schedule 13.5 is amended, the **FTR manager** must, no later than 3 months after the date on which the amendment comes into force, submit to the **Authority** for approval under clause 13.241(4), a variation to the **FTR allocation plan** to make the **FTR allocation plan** consistent with Schedule 13.5.
- (4) The **FTR manager** is not required to comply with subclause (3) if no amendment is necessary to make the **FTR allocation plan** consistent with Schedule 13.5.

Clause 13.238: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

##### 13.239 FTR manager gives draft FTR allocation plan to Authority

- (1) The **FTR manager** must submit to the **Authority** for approval a draft **FTR allocation plan** by the date specified in the **market operation service provider agreement** between the **FTR manager** and the **Authority**.
- (2) In preparing the draft **FTR allocation plan**, the **FTR manager** must—
  - (a) consult with persons that the **FTR manager** thinks are representative of the interests of persons likely to be substantially affected by the plan; and
  - (b) consider submissions made on the plan.
- (3) The **FTR manager** must provide a copy of each submission received under subclause (2) to the **Authority**.

Clause 13.239: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### 13.240 Authority approves FTR allocation plan

- (1) The **Authority** must, as soon as practicable after receiving the draft **FTR allocation plan**, by notice in writing to the **FTR manager**—
  - (a) approve the plan; or
  - (b) decline to approve the plan.
- (2) If the **Authority** declines to approve the draft **FTR allocation plan**, the **Authority** must **publish** the changes that the **Authority** wishes the **FTR manager** to make to the draft plan.
- (3) When the **Authority** **publishes** the changes that the **Authority** wishes the **FTR manager** to make to the draft **FTR allocation plan** under subclause (2), the **Authority** must **notify** the **FTR manager** and interested parties of the date by which submissions on the changes must be received by the **Authority**.
- (4) Each submission on the changes to the draft **FTR allocation plan** must be made in writing to the **Authority** and be received on or before the date specified by the **Authority** under subclause (3).
- (5) The **Authority** must—
  - (a) provide a copy of each submission received to the **FTR manager**; and
  - (b) **publish** the submissions.
- (6) The **FTR manager** may make its own submission on the changes to the draft **FTR allocation plan** and the submissions received in relation to the changes. The **Authority** must **publish** the **FTR manager's** submission when it is received.
- (7) The **Authority** must consider the submissions made to it on the changes to the draft **FTR allocation plan**.
- (8) Following the consultation required by subclauses (3) to (7), the **Authority** may approve the **FTR allocation plan** subject to the changes that the **Authority** considers appropriate being made by the **FTR manager**.

Clause 13.240: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### 13.241 Variations to FTR allocation plan

- (1) A **participant** or the **Authority** may submit a proposal for a variation to the **FTR allocation plan** to the **FTR manager**.

- (2) The **FTR manager** must provide a copy of each proposed variation received from a **participant** under subclause (1) to the **Authority**.
- (3) The **FTR manager** must consider a proposed variation to the **FTR allocation plan** submitted under subclause (1).
- (4) The **FTR manager** may submit a request for a variation to the **FTR allocation plan** to the **Authority**.
- (5) The consultation and approval requirements under clause 13.239(2) and (3) and clause 13.240 apply to a request for a variation submitted under subclause (4) as if references to the draft plan were a reference to the requested variation.
- (6) If the **FTR manager** does not submit a request for a variation submitted under subclause (1) to the **Authority** under subclause (4), the **Authority** may consider the proposal and require the **FTR manager** to submit a request for a variation based on the proposal to the **Authority**, and subclause (5) applies accordingly.
- (7) The **Authority** may approve a variation requested under subclause (4) or subclause (6) without complying with the provisions referred to in subclause (5) if—
  - (a) the **Authority** considers that it is necessary or desirable in the public interest that the requested variation be made urgently; and
  - (b) the **Authority publishes** a notice of the variation and a statement of the reasons why the urgent variation is needed.
- (8) Every variation made under subclause (7) expires on the date that is 9 months after the date on which the variation is made.

Clause 13.241: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

*~~Creation and allocation~~ Allocation, creation and reconfiguration of FTRs*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

**13.242 FTR manager must ~~create and allocate~~ and create FTRs**

- (1) The **FTR manager** must conduct an FTR auction ~~create and allocate FTRs~~ in accordance with the **FTR allocation plan** approved under clause 13.240 to—
  - (a) allocate FTRs; and
  - (b) create FTRs; and
  - (c) reconfigure FTRs.
- (2) Every **FTR** must relate to—
  - (a) a minimum amount of **electricity** (in MW) of 0.1 MW; and
  - (b) an amount of **electricity** (in MW) that is a multiple of 0.1MW.

Clause 13.242: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.242(2): substituted, on 1 June 2012, by clause 4 of the Electricity Industry Participation (Removal of Quantity Limit for Financial Transmission Rights) Code Amendment 2012.

### **13.242A FTR manager to reduce the capacity of offered FTRs after reconfiguration FTR auction**

**The FTR manager must—**

- (a) reduce the capacity of an offered FTR by the capacity of the reconfigured FTR that relates to the offered FTR; and**
- (b) adjust the FTR acquisition cost for the offered FTR by subtracting the FTR reconfiguration amount of the reconfigured FTR from the FTR acquisition cost of the offered FTR.**

### **13.243 Participation in FTR auction**

The **FTR manager** must not allow a person to participate in an **FTR auction** unless the **FTR manager** is satisfied that the person meets the prudential security requirements in Part 14.

Clause 13.243: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.244 Acceptance of bids and offers in FTR auction**

- (1) The FTR manager must not accept a bid or an offer in an FTR auction if the FTR manager considers that the bid or the offer, if accepted, would cause the person making the bid or the offer to incur an obligation for which it does not have sufficient acceptable security under Part 14.**
- (2) For the purposes of subclause (1), the FTR manager must, based on information received from the clearing manager, determine the maximum liability that each person can incur in respect of its bids or offers in the ~~FTR auction~~ **FTR auction**.**

Clause 13.244: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### *Auction revenue and FTR receipts and payments*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.245 Clearing manager must collect and allocate auction revenue**

The **clearing manager** must collect the **FTR auction** revenue and allocate it in accordance with Part 14.

Clause 13.245: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.246 Clearing manager must deal with FTR receipts and payments**

The **clearing manager** must deal with all receipts and payments in respect of **FTRs** in accordance with Part 14.

Clause 13.246: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### *FTR register*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.247 FTR manager must operate FTR register**

- (1) The **FTR manager** must create and operate an **FTR register** that records—
  - (a) the holdings of **FTRs**; and
  - (b) the **FTR acquisition cost** for each **FTR**; and
  - (c) assignments of **FTRs** including any price disclosed under clause 13.249; and
  - (d) the amount of **electricity** (in **MW**) to which each **FTR** relates; and
  - (e) the reconfiguration of each offered FTR.
- (2) The **FTR register** must contain an account for each holder of an **FTR**.
- (3) The **FTR manager** must assign a registered number to each **FTR** recorded in the **FTR register**.
- (4) The **FTR manager** must maintain an up to date copy of the **FTR register** and make it available to the public at no cost on the **FTR manager's** website at all reasonable times.

Clause 13.247: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.247(1)(d): inserted, on 1 June 2012, by clause 5 of the Electricity Industry Participation (Removal of Quantity Limit for Financial Transmission Rights) Code Amendment 2012.

Clause 13.247(1)(b): amended, on 1 November 2012, by clause 5 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

### *Assignment of FTRs*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.248 Assignment of FTRs**

- (1) If a person ("assignor") wishes to assign an **FTR** or part of an **FTR** to another person ("assignee"), the assignor and assignee must complete and sign Form 1 in Schedule 13.6 and provide it to the **FTR manager**.
- (2) The form may be transmitted in electronic form through the **information system** if—
  - (a) both the assignor and assignee consent to completing and signing the form electronically; and
  - (b) the electronic form contains all of the information required by Form 1 in Schedule 13.6; and
  - (c) the notification of assignment to the **FTR manager** is in a format specified by the **FTR manager**.
- (3) The **FTR manager** must not register an assignment in the **FTR register** unless the **FTR manager** is satisfied that the assignee meets the prudential security requirements in Part 14.
- (4) The **FTR manager**, on being satisfied that all requirements for an assignment are met, must register the assignment on the **FTR register**.
- (4A) If an assignment is made under this clause in respect of part of an **FTR**, the **FTR manager** must register the assignment as follows:

- (a) create a new record for an **FTR** in respect of the amount of **electricity** (in **MW**) to which the assignment relates; and
  - (b) amend the record for the **FTR** retained by the assignor by reducing the amount of **electricity** (in **MW**) to which the **FTR** relates so as to reflect the assignment.
- (5) An assignment of an **FTR** or part of an **FTR** is not effective unless it is registered on the **FTR register** by the **FTR manager**.
- (6) The **FTR manager** must not register an assignment that is expressed to have effect after the end of the **billing period** to which the **FTR** relates.

Clause 13.248: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.248(1): amended, on 1 June 2012, by clause 6(1) of the Electricity Industry Participation (Removal of Quantity Limit for Financial Transmission Rights) Code Amendment 2012.

Clause 13.248(4A): inserted, on 1 June 2012, by clause 6(2) of the Electricity Industry Participation (Removal of Quantity Limit for Financial Transmission Rights) Code Amendment 2012.

Clause 13.248(5): amended, on 1 June 2012, by clause 6(3) of the Electricity Industry Participation (Removal of Quantity Limit for Financial Transmission Rights) Code Amendment 2012.

### **13.249 Liability for FTR acquisition cost when FTR assigned and price disclosed**

- (1) This clause applies if—
- (a) an **FTR** is assigned under clause 13.248; and
  - (b) the notification of assignment discloses the price (being an amount that may be positive or negative) at which the **FTR** has been assigned.
- (2) The **FTR manager** must provide a copy of the notification of assignment to the **clearing manager**.
- (3) The assignee becomes liable for the price disclosed under subclause (1)(b) when it becomes due on settlement of the **FTR**.
- (4) If the price disclosed in the notification is less than the **FTR acquisition cost** in respect of the **FTR** that would, if the assignment had not taken place, become due on settlement of the **FTR**, the assignor becomes liable to pay the **clearing manager** an amount equal to the difference between the **FTR acquisition cost** and the price at which the **FTR** has been assigned.
- (5) The **clearing manager** must include the amount payable under subclause (4) in the invoice for the **billing period** in which the assignment took place.
- (6) The **clearing manager** must transfer to the **FTR account** any amount received pursuant to an invoice issued under this clause, but that amount must not be applied for the settlement of **FTRs** until the **billing period** in which the **FTR** to which the payment relates is due to be settled.
- (7) If the price disclosed in the notification is more than the **FTR acquisition cost** in respect of the **FTR** that would, if the assignment had not taken place, become due on settlement of the **FTR**, the assignor becomes entitled to be paid by the **clearing manager** on settlement of the **FTR** an amount equal to the difference between the price at which the **FTR** has been assigned and the **FTR acquisition cost**.

Clause 13.249: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.249 Heading: amended, on 1 November 2012, by clause 6(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

Clause 13.249(1)(b): amended, on 1 November 2012, by clause 6(2) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

Clause 13.249(4): amended, on 1 November 2012, by clause 6(3) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

Clause 13.249(7): amended, on 1 November 2012, by clause 6(4) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

### **13.250 Liability for FTR acquisition cost when FTR assigned and price not disclosed**

- (1) This clause applies if—
  - (a) an **FTR** is assigned under clause 13.248; and
  - (b) the notification of assignment does not disclose the price at which the **FTR** has been assigned.
- (2) The **FTR manager** must provide a copy of the notification of assignment to the **clearing manager**.
- (3) The assignee becomes liable to pay the **FTR acquisition cost** in respect of the **FTR** that has been assigned when it becomes due on settlement of the **FTR**.

Clause 13.250: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.250 Heading: amended, on 1 November 2012, by clause 7(1) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

Clause 13.250(3): amended, on 1 November 2012, by clause 7(2) of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

### *Provision of information to the FTR manager and clearing manager*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.251 Information to be provided to FTR manager**

- (1) Each **grid owner** must provide a forecast of the configuration and capacity of the **grid owner's grid** for the **FTR period** (as advised to each **grid owner** by the **FTR manager**) to the **FTR manager** for use in determining the **capacity** to be offered in each **FTR auction**.
- (2) The information that each **grid owner** must provide must include relevant planned outages.
- (3) Except as otherwise agreed with the **FTR manager**, each **grid owner** must provide the information to the **FTR manager** no later than 1 month before the date (as advised to each **grid owner** by the **FTR manager**) on which an **FTR auction** is to be held.
- (4) The **clearing manager** must advise the **FTR manager**—
  - (a) whether a person who has applied to participate in an **FTR auction** meets the prudential security requirements in Part 14; and
  - (b) the amount of security that a person who has applied to participate in an **FTR auction** has provided that exceeds that person's other obligations under Part 14.

- (5) Except as otherwise agreed with the **FTR manager**, the **clearing manager** must provide the information to the **FTR manager** no later than 2 **business days** before the date (as advised to the **clearing manager** by the **FTR manager**) on which an **FTR auction** is to be held.
- (6) If the information referred to in subclause (4) changes, the **clearing manager** must, if requested by the person who has applied to participate in an **FTR auction**, provide the updated information to the **FTR manager**.
- (7) The **clearing manager** must inform the **FTR manager**, as soon as practicable after receiving a request from the **FTR manager**, whether an assignee of an **FTR** meets the prudential security requirements in Part 14.

Clause 13.251: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.252 Information to be provided to clearing manager**

- (1) The **FTR manager** must provide the following information to the **clearing manager** in relation to each successful bidder in an **FTR auction**:
  - (a) the details of each **FTR** allocated under an **FTR auction**, including—
    - (i) the period to which the **FTR** applies; and
    - (ii) whether the **FTR** is an **option FTR** or an **obligation FTR**; and
    - (iii) the formula under which the **FTR hedge value** is to be calculated for the settlement of the **FTR**;
  - (b) the **FTR acquisition cost** in respect of each **FTR**.

- (2) The **FTR manager** must provide the information specified in subclause (1) to the **clearing manager** as soon as practicable and no later than 1 week after each **FTR auction**.

Clause 13.252: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.252(1): amended, on 1 November 2012, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2012.

### **13.253 Transmission of information to FTR manager and clearing manager**

The information required to be provided to the **FTR manager** and the **clearing manager** under clauses 13.251 and 13.252 must be transmitted through the **information system**, except as otherwise agreed by the parties providing and receiving the information.

Clause 13.253: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

### **13.254 Publication of results of FTR auctions**

The **FTR manager** must, as soon as practicable after each **FTR auction**, make the results of each **FTR auction** available to the public at no cost on the **FTR manager's** website in accordance with the **FTR allocation plan**.

Clause 13.254: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.



### *Suspension of FTR allocation*

Heading: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

#### **13.255 Authority may direct FTR manager to suspend allocation of FTRs**

The **Authority** may direct the **FTR manager** to suspend the allocation of **FTRs** if there is any situation that—

- (a) threatens, or may threaten, confidence in, or the integrity of, the allocation or settlement of **FTRs**; and
- (b) in the reasonable opinion of the **Authority**, cannot satisfactorily be resolved by any other mechanism available under this Code.

Clause 13.255: inserted, on 1 October 2011, by clause 8 of the Electricity Industry Participation (Financial Transmission Rights) Code Amendment 2011.

Clause 13.255: amended, on 18 July 2013, by clause 9(1) of the Electricity Industry Participation (Undesirable Trading Situation) Code Amendment 2013.

Clause 13.255(a): substituted, on 18 July 2013, by clause 9(2) of the Electricity Industry Participation (Undesirable Trading Situation) Code Amendment 2013.

Clause 13.255(b): amended, on 18 July 2013, by clause 9(3) of the Electricity Industry Participation (Undesirable Trading Situation) Code Amendment 2013.

## Appendix D Estimates of FTR market benefit to date

D.1 The performance and resulting benefit of the FTR market is estimated below using the following approach:

- based on consistent growth in ASX futures volumes, we make the assumption that ASX prices are the most efficient hedge prices available from the open market
- because the hedging pay-outs from FTRs are funded by the loss and constraint excess (LCE), which is created as an artefact of the nodal pricing system, these pay-outs are self-funding, and consequently carry a lower risk profile than futures contracts which confer the risk onto the selling participant
- this means that parties are able to purchase FTRs more cheaply than ASX futures, thereby managing their risk at a lower cost
- because risk management can be considered a cost of production, any reduction in the costs of risk management can reasonably be assessed as productive efficiency gains
- economic benefit is estimated as:

$(\text{ASX hedge price} - \text{FTR price}) \times \text{FTR volume} \times 0.9^{10}$

- to ensure appropriate conservatism in these estimates, a further reducing factor of 0.5 is applied in recognition that some of this benefit may be a transfer from the revenue that participants formerly received from the LCE that now funds FTRs

D.2 The results of applying this analytical approach to the first 8 months of FTR auctions is shown in Table 3 (results by auction) and Table 4 (results by month for all auctions) below. The conclusion is that a conservative estimate of the economic benefit of the FTR market is about \$267,000 per month on average.

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<sup>10</sup> This is a scaling factor reflecting the possibility of revenue inadequacy in FTR auctions.

**Table 3: Results of FTR benefits estimates by Auction**

Primary Auction				
Auction Month	Average FTR price paid (\$/MW)	FTR volume (MW months <sup>1</sup> )	Average Implied ASX price (\$/MW)	Estimated Economic Market Value (\$)
June	\$2.82	171	\$4.75	\$106,930
July	\$7.41	58.6	\$13.90	\$123,222
August	\$10.57	121.6	\$13.90	\$140,932
September	\$3.88	166	\$3.10	-\$41,952
October	\$4.43	251.2	\$11.30	\$585,180
November	\$2.76	232	\$2.75	-\$752
December	\$5.26	113.9	\$5.76	\$18,452
January	\$5.49	130.9	\$6.30	\$34,272

Variation Auction				
Auction Month	Average FTR price paid (\$/MW)	FTR volume (MW months)	Average Implied ASX price (\$/MW)	Estimated Economic Market Value (\$)
June	\$3.75	153	\$4.75	\$49,572
July	\$9.65	56	\$13.90	\$77,112
August	\$14.65	62.9	\$16.14	\$50,013
September	\$8.63	110.3	\$15.10	\$231,344
October	\$4.63	229.6	\$8.65	\$298,586
November	\$3.98	199.2	\$10.42	\$415,643
December	\$7.76	210	\$8.50	\$50,350

Source: Electricity Authority

Notes: 1 The units of MW months is given here as each month's auction comprises multiple months, and the quantities in each month are not identical.

**Table 4: Summary of results by Auction month**

**Summary**

Auction Month	Estimated Economic Market Value (\$)
June	\$156,502
July	\$200,334
August	\$190,945
September	\$189,393
October	\$883,766
November	\$414,891
December	\$68,801
January	\$34,272

<b>Average</b>	<b>\$267,363</b>
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Source: Electricity Authority