TRANSPOWER NEW ZEALAND LIMITED

Managing Locational Price Risk – Proposed Amendments to Code

May 2011

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Contents

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1. Introduction

1.1 Purpose of this document

This is Transpower New Zealand Limited's (Transpower's) submission on the Electricity Authority's 12 April 2011 consultation paper *Managing locational price risk: Proposed amendments to Code*.

2. Key Points

2.1 Overview

Transpower agrees in principle with the introduction of FTRs. FTRs have proved to be an effective hedge product in overseas markets. A simple BEN-OTA, one month, price-difference product is a good place to start, but very much a "plain vanilla" offering by the standards of other nodal price markets. The regime introduced should be expandable to include other nodes/hubs, as overseas experience suggests that traders will demand a wide range of FTR nodes/hubs, and FTR types and durations over time.

While we support the introduction of FTRs in principle, we have six specific concerns about the Authority's proposals, viz:

- the proposed timeline is unrealistic;
- it is not clear why there is a need for a new FTR service provider role – it would be better for the Authority to establish the market by slightly expanding its existing contracts with the System Operator and Clearing Manager;
- the proposed review of the allocation methodology for "residual FTR revenue" is inappropriately tight and the process proposed inadequate for such an important matter – the consultation paper also does not acknowledge that the proposed new clause 14.73(4) when read together with clause 45.1(a) of the benchmark agreement means that the allocation methodology can only be amended by Transpower;
- the proposals fail to acknowledge that the FTR design must not inhibit the normal operation of the grid – in particular, the practical implications of outage planning need to be specifically recognised;
- provision needs to be made for additional costs and liability limitation;
- section 109(b) of the Electricity Industry Act 2010 requires new regulations if the Authority decides to proceed to create a new separate FTR service provider role.

2.2 Timeline unrealistic

The detail of the proposed framework and the proposed timing set out in section 3.6 of the consultation document seem to be in conflict, creating a high risk of failure:

- The FTR service provider is required to develop an FTR allocation plan, that must be consulted on and then submitted to the Authority for approval. This obligation applies (rightly) even if the Authority suggests a draft FTR allocation plan to seed the process. As this allocation plan will describe the detailed workings of the auction process (including critical details like price determination), the auction software cannot reasonably be defined until the FTR allocation plan is complete. The contractual and communication interfaces with the System Operator and Clearing Manager will also need to be established. The auction software and secure web interface will need to be designed, developed, implemented, tested and audited, and parties trained in its use. The timeline has the proposed new FTR service provider doing this from a "cold start" in five or six months, which we believe is unrealistic.
- The System Operator has, in response to a request for analysis from the Authority (TASC 014), signalled that Transpower's development of software to support the FTR market (even under the simplest options) is likely to take at least 12 months, from the point when scope and funding are agreed with the Authority.

2.3 Need for separate FTR service provider

We note the proposal for a new FTR service provider. It is not clear why this new role is necessary. In our view, the efficiency goals of the Authority would be better served by reducing the number of service providers to capture synergy and productive efficiency benefits, rather than creating two new small roles (the second being the proposal to outsource the FTR clearance role).

In much larger comparable markets, it is the norm for the System Operator to run the FTR market, as it is just another instance of an SPD-based market, along with real-time markets, commitment (scheduling) markets and day-ahead markets. The only significant difference, apart from timeframes, is the replacement of generation offers and demand bids by combined source-and-sink FTR bids.

It appears that one of the drivers for creating a separate FTR service provider role is to enable the FTR auction to be conducted by a party that does not require knowledge of transmission and constraint issues, thereby increasing competition for this role. However, creating a separate FTR service provider role might force a less that optimum sequencing of processes leading to the FTR auction, by creating an artificial "handover" point. There is also a real risk that an FTR service provider might be appointed that has expertise in running auctions, but does not have the expertise in transmission issues required for its other

key roles of developing the FTR allocation plan and, perhaps most importantly, evolving the FTR market over time.

We suggest that the most efficient and expeditious way forward would be for the Authority to establish the market by slightly expanding its existing contracts with the System Operator and Clearing Manager[1]. The draft Code would need only simple modification to achieve this.

These issues relating to the roles and responsibilities of the service providers, and the options for service provision, are not well described in the consultation paper; nor are any questions posed about the extent and impacts of the possible different options. Furthermore, these 'behind the scenes' roles will only be of direct interest to the System Operator and those considering applying to be the FTR service provider. For these reasons we do not expect this consultation to shed much light on the best way forward. We therefore strongly recommend that the Authority work closely with the System Operator to ensure that the full implications of the different options are understood.

2.4 Review of allocation methodology for "residual FTR revenue"

There is a new proposal for the Authority to review how "residual FTR revenue" is to be allocated. The "residual FTR revenue" is that part of the loss and constraint excess that must be retained by the clearing manager and paid into the FTR account in accordance with the proposed new Schedule 14.6, plus the FTR auction revenue. It is proposed that this review should be completed prior to finalisation of the FTR Code, which is now scheduled for July 2011. Our first point is a technical one relating to the way in which the methodology for allocating the loss and constraint excess payments can be changed. The proposed new clause 14.73(4), when read together with clause 45.1(a) of the benchmark agreement (and provided that Transpower remains the sole grid owner) mean that the loss and constraint excess payments must be allocated in accordance with Transpower's prevailing methodology, which can only be amended by Transpower. Although the consultation paper does not refer to this point, we assume the Authority is aware of it and will approach Transpower if it wishes to recommend a change to the methodology for allocating loss and constraint excess payments.

A more substantial point is that, if a significant modification to the methodology for allocating loss and constraint excess payments is being seriously considered, the timeframe proposed is far too tight, and the forum arguably inappropriate for such an important issue. The allocation involves a substantial amount of money and changing the approach in any significant way risks impairing economic efficiency. Hence, it is important that any review which may fundamentally alter the current

[1] We did not recommend this in our submission to the Electricity Commission on Managing Locational Price Risk Proposal, 22 October 2010. This is because the inefficiencies and limitations inherent in the separate FTR service provider model have become apparent in the System Operator's recent work on defining the process requirements and options.

allocation method is properly structured, provides for input from all stakeholders, including Transpower as grid owner and the transmission customers that currently receive allocations of loss and constraint excess payments (the distribution companies, directly connected end users and the South Island generators), and provides for cross submissions, so that preferred approaches that may be commercially motivated can be properly examined. Not to take this approach to such an important issue may expose the Authority to the risk of judicial review. There should be no problem with continuing to use the current methodology until this review is completed, so there is no need to treat a review of the loss and constraint excess payments allocation methodology as an urgent matter.

If, despite this submission, the Authority decides to continue to review the loss and constraints excess payments methodology as part of the current FTR development exercise, Transpower recommends that the current allocation methodology be retained. This is primarily because allocating rentals generated on assets to those that pay for the assets can help to minimise distortion to investment decision making, thus increasing dynamic efficiency. We disagree with the suggestion that retaining the current methodology would create possible competition concerns because some parties allocated a share of the excess payments may also be FTR market participants. The ability to purchase an FTR and also receive a share of loss and constraint excess payments is, in effect, no different to the situation that currently applies, whereby a party may enter into a hedge contract with respect to circuits that that could potentially generate transmission rentals, a share of which could be allocated back to them. An FTR is, after all, just another type of hedge contract.

2.5 Relationship with dynamic operation of the grid, including outage planning

As a principle, the FTR design must not inhibit the normal operation of the grid. Transpower has a range of other obligations under the Electricity Industry Participation Code and to the Commerce Commission and customers that help ensure efficient grid operation. The proposed FTR design may create practical operational difficulties because it seems to envisage what is essentially a static grid. We strongly recommend that the Authority give more careful consideration to the following:

- Prevailing hydrological conditions, such as high generation in the Bay of Plenty region that occurs during periods of high inflows into the rivers and dams in that region. Such high generation requires splitting of the 110 kV system for security reasons. Transpower is also likely to defer planned outages on key assets while generation levels are high. Transpower has limited ability to predict future hydrological conditions, which would necessitate a change to the grid configuration or cause a need to defer planned outages.

- Transpower is currently reviewing ratings for transmission circuits. These ratings are likely to change from seasonal ratings to monthly ratings in the near future and this new approach may significantly complicate the determination of the FTR grid.
- Changes to capacity ratings and reconfigurations (in relation to connection assets) may occur following designated transmission customer requests and Transpower's agreement. Such changes are permitted under default Transmission Agreements. In relation to interconnection assets, Transpower may change asset capacity and grid configuration for a number of reasons which do not necessarily relate to asset investments, such as maintaining the safety and integrity of equipment, to maintain the health and safety of persons or in accordance with demonstrably prudent economic criteria. Such changes are permitted by clause 12.112 of the Code.
- The Outage Protocol incorporated by reference into Part 12 of the Code permits variations to outages included in the annual outage plan for a number of reasons (such as safety and integrity of equipment, insufficient resources to carry out a planned outage and refurbishment of assets that is required at short notice). Transpower, designated transmission customers and other industry participants may request variations to the timing or duration of planned outages or request new outages or request the removal of a planned outage from the outage plan. Hence, it is highly likely that some planned outages which are forecast to occur in a particular month will need to be moved to another time in that month, or outside that month, or may be for a completely different duration. In any month, it is also highly likely that a planned outage may be removed completely or a new outage scheduled for that month. This will affect parties who have procured FTRs for a particular month in anticipation of a planned outage. Parties so affected would have an incentive to oppose a move to the next month even if it can be shown to be nationally beneficial;
- In relation to the relevant commissioning, decommissioning and reconfiguration of grid assets, we recommend that the Code should specify that the information that the grid owner must provide under the proposed clause 13.250(2)(b) of the Code, should be the information about upcoming grid asset outages that is published in the Planned Outage Co-ordination Protocol (POCP) database (http://pocp.redspider.co.nz/).

The proposed forecast monthly FTR grid appears not to take account of the rights and obligations of Transpower and other industry participants under the Code (including the Outage Protocol) and contract. There is also a very real risk that the FTR process being proposed may result in a considerably more constrained operation of the grid and power system, with possible negative net economic effects for the nation as a whole.

We therefore strongly recommend that the Authority liaise with Transpower about these matters before finalising the content of the proposed Code changes.

2.6 Provision for additional costs and liability limitation

The FTR service provider may require Transpower as grid owner to provide requested information in a manner that requires it to develop a new information system or employ additional staff to develop and provide the FTR grids. There should be provision made in the Code to allow Transpower as grid owner to recover such additional costs. We have included recommended wording in the comments on the draft Code in Appendix 2.

We also recommend new regulations 70A and 70B of the Electricity Industry (Enforcement) Regulations 2010 to limit the FTR service provider's liability (in line with the limits that already apply to the System Operator) and exclude participants' liability in respect of FTR information provided to the FTR service provider(see Appendix 3). Alternatively, these proposed regulations could be rolled into the new regulations that will be required to constitute the FTR service provider as a market operation service provider (see below).

2.7 Regulations needed to constitute a new separate FTR service provider

We note that the Electricity Industry Act 2010 requires new market operation service providers to be introduced by way of regulations under section 109(b). A Code change is not sufficient. New regulations will therefore be necessary if the Authority decides to proceed to create a new separate FTR service provider role.

APPENDIX 1: Consultation Questions

	Consultation question	Transpower's comments
Q1	Do you agree with the proposal that FTRs would include loss costs (in addition to loss rentals, transmission and reserve constraints and price differences caused by scarcity pricing) so that the FTR payout/MW would be the price difference between Otahuhu and Benmore? If you agree, why, and if not, why not?	Yes, as it will provide a more complete locational hedge product for traders.
Q2	Would you be interested in offering loss and/or reserve support contracts if such products were sought by the FTR service provider?	No.
Q3	Do you agree with the proposed variations of obligations and options that could be offered initially? If not, please describe the changes you would propose and an explanation as to why these changes are necessary.	Yes, but Transpower notes that there is a potential inconsistency between offering Option FTRs, the adoption of Option (a) for FTR grid design (Question 7), and the Authority's urgency. This is because the determination of options directly on an FTR grid is complex.
Q4	Do you agree with the proposal that the inter-island FTR would provide coverage for the price difference between the Benmore and Otahuhu grid reference points? If you agree, why, and if not, why not?	Yes, as an initial position pending and allowing for the introduction of further nodes/hubs.
Q5	Do you agree with the proposal that:	
	(a) by the end of the first year of operation the FTR availability horizon (the period for which FTRs are available in advance at an auction) should be at least 12 months; and	No. This might be too soon in terms of the development by all parties of a good understanding of FTR market operations. A sequence of FTRs with short availability horizons should accelerate this process. Transpower suggests that this change be made after the first 18 months (or more) of operation.
	(b) by the end of the third year of operation the FTR availability horizon should be at least two years;	Yes, if this timeframe is supported by traders.
	with details determined by the FTR service provider in the FTR allocation plan (in consultation with persons likely to be substantially affected by the plan)?	Yes.
	If you agree, why, and if not, why not?	The proposed process seems sensible, subject to the comments on (a) above.

Consultation question		Transpower's comments
Q6	Do you agree with the proposed FTR auction design requirements, and in particular that: (a) the Code will specify the requirements that the FTR service provider must comply with in designing the FTR auction and the FTR service provider will set out the auction design in an FTR allocation plan; (b) that the FTR auction should be designed: (i) so that the number and nature of the FTRs allocated, under the FTR allocation plan, and available for auction must be supported by a reasonable estimate of the capacity of the notional interconnector for the relevant period; (ii) to maximise the value achieved in the auction having regard to bids made in the auction; (iii) to minimise opportunities for the abuse of weak competitive pressure in the FTR auction; and (iv) to minimise costs of participation in the auction? If you agree, why, and if not, why not?	Yes.
Q7	Do you agree with the proposed approach to design of the FTR grid, and in particular, that:	
	(a) the system operator be required to provide information to the FTR service provider (if Option (a) is adopted) on the intended configuration of the transmission grid together with a list of contingencies to be assessed for security purposes for each month for which FTRs will be available for auction; (b) the configuration and capacity of the grid and the contingency list used by the FTR service provider or the system operator to determine the quantity and the allocation of FTRs be based on the grid configuration and capacity and the contingency list provided by the system operator;	Yes, if the Option (a) approach is adopted with a separate FTR service provider. However, in our view, this approach is sub-optimal, for the reasons discussed in the main body of this submission. We believe that the System Operator should run the FTR market, as it is just another instance of an SPD-based market, along with real-time markets, commitment (scheduling) markets and day-ahead markets. The only significant difference, apart from timeframes, is the replacement of generation offers and demand bids by combined source-and-sink FTR bids. Hence, there is no need for a separate FTR service provider and a real risk that an FTR service provider might be appointed that has expertise in running auctions, but does not have the expertise

Consultation question	Transpower's comments
	in transmission issues required for its other key roles of developing the FTR allocation plan and, perhaps most importantly, evolving the FTR market over time.
(c) the FTR service provider or system operator should design the FTR grid according to the following principles:	
(i) the FTR grid should be based on the forecast baseline dispatch grid for the FTR period; and	In principle, yes. However, the proposal seems to contemplate what effectively amounts to a static grid. In reality, the configuration and operation of the grid depend on a number of factors which are dynamic, including: • prevailing hydrological conditions; • changes to capacity ratings and reconfigurations (in relation to connection assets), which may occur upon designated transmission customer request and Transpower agreement; • the likely future change from seasonal ratings to monthly ratings; • variations to outages included in the annual outage plan for a number of reasons permitted by the Outage Protocol incorporated by reference into Part 12 of the Code. (Parties that have procured FTRs for a particular month in anticipation of a planned outage would have an incentive to oppose a move to the next month even if such a move can be shown to be nationally beneficial.) The proposed forecast monthly FTR grid appears not to take account of the rights and obligations of Transpower and other industry participants under the Code (including the Outage Protocol) and contract. There is also a very real risk that the FTR process being proposed may result in a considerably more constrained operation of the grid and power system, with possible negative net economic effects for the nation as a whole. We therefore strongly recommend that the Authority liaise with Transpower about these matters before finalising the

Consultation question		Transpower's comments
		content of the proposed Code changes.
	(ii) the FTR grid should ensure to the extent possible that the quantity of FTRs awarded matches the forecast grid capacity subject to revenue adequacy being maintained in a reasonably foreseeable set of adverse circumstances?	No. The FTR grid does not define the quantity of FTRs to be awarded. Rather it defines the transfer capacity of the grid, if no unplanned outages occur. With horizons of over 12 months, all outages are unplanned, and therefore need to be allowed for statistically, e.g. by offering only X% of the capacity. Measures such as the X% are properties of the auction, not of the FTR grid. It is the combination of FTR grid plus such measures that secures revenue adequacy, not the FTR grid per se.
	If you agree, why, and if not, why not?	See above. Note also that Question 7 relates to how Option (a) would operate. A similar level of detail is required with respect to how Option (b) would operate.
Q8	Which option for determining the amount of FTRs that can be offered in an FTR auction do you consider should be preferred and why: (a) the system operator providing a provisional FTR grid and relevant model updates and a contingency list to the FTR service provider, who would determine the final FTR grid; or (b) the system operator providing the FTR service provider with the amount of FTRs in MW that can be offered in each direction?	Both options can be made to work. Option (a) possibly requires a full FTRO capable of Option FTRs. Computing option multi-node option FTRs is complex. Doing the same on a few nodes may be computationally simpler, but Transpower is unaware of the software implications of this. Option (b) is limited in saleability to no more than a few, linear nodes/hubs but could possibly be implemented more quickly.
	Do you have any suggestions for alternative approaches that could be used for determining the amount of FTRs that can be offered in an FTR auction?	No.
Q9	Do you agree with the proposed FTR participation requirements and, in particular, that any party may participate in an FTR auction or hold FTRs provided they meet the prudential security requirements of Part 14 of the Code? If you agree, why, and if not, why not?	No comment.
Q10	Do you agree with the proposed approach to management of FTR revenue adequacy, which it is proposed would be managed through:	
	(a) FTR grid and auction design;	Yes, subject to our comments in response to Questions 7 and 8.

Consultation question		Transpower's comments
	(b) limiting the quantity of FTRs offered to an amount for which there is a high probability of support;	No. This should not be an issue if the full loss and constraint excess pool is available to support the FTR market.
	(c) establishment of an FTR account that would be funded by:	
	(i) surplus rentals arising between Otahuhu and Benmore; and	No. The proposal (3.4.124 and Appendix E) is unnecessarily complex with no overall benefit. The requirements on the Clearing Manager are excessive and require knowledge of transmission constraints and dispatch modelling that it is unreasonable to assume. The proposal has the potential to complicate unnecessarily the onwards allocation of residual rentals and the FTR auction income to Transpower's customers via the current loss and constraint excess allocation methodology (or whatever other method may be developed and adopted by Transpower). It would be more efficient to allocate all rentals to support FTRs. This would be expandable if further FTR hubs/nodes were introduced. A further benefit is that (using the 67% figure of BEN-OTA rentals as a proportion of the total from the CBA), the duration of the fund retention (proposed at six months) could be reduced commensurately (to four months) See also Transpower's comments on Schedule 14.6 below.
	(ii) auction proceeds;	Yes.
	(d) in the event that these measures were insufficient to support revenue adequacy, FTRs would be scaled; and	Yes.
	(e) prior to allocation to the FTR account, in the event FTRs were scaled, any surplus rentals or auction revenue in the year following the initial scaling would be applied to attempt to fully fund (retrospectively top-up) these FTRs?	The timescale should be aligned with that of the fund, e.g. six months. This does not have to be done prior to allocation to the FTR account – it might be simpler to use the FTR account for this purpose.
	If you agree, why, and if not, why not?	Explained above.
Q11	Do you agree with the proposed approach to partitioning the transmission rentals between those used for FTR support and	No, as explained in response to Question 10(c)(i) above.

	Consultation question	Transpower's comments
	those reserved for other purposes? If you agree, why, and if not, why not?	
Q12	Do you agree with the proposed approach to management of the FTR account, which would involve: (a) retaining any funds not required to support revenue adequacy in the FTR account for a maximum of six months; (b) after six months remaining funds would be forwarded to recipients of residual revenue; and (c) funds in the FTR account would attract interest, which would be paid to recipients of residual revenue? If you agree, please explain why, and if not, why not?	Yes. Six months is reasonable and, presumably, could be revised over time based on experience.
Q13	Do you agree with the proposed approach to management of credit and default risk, which involves: (a) development of specific details for management of credit and default risk by the clearing manager, in consultation with interested parties; (b) high level guidelines in the Code, as follows: (i) the risk of default would be shared proportionately between all parties due FTR payouts in the billing cycle during which the event of default occurred; (ii) the minimum level of security required to be provided by purchasers would be calculated on the basis of the total cost of FTRs purchased less the forecast FTR value with (at least) weekly margin calls for any increases in the level of security; and (iii) a trading limit would apply which would set the maximum total amount an FTR auction participant could bid in an auction (unless the trading limit is adjusted)? If you agree, why, and if not, why not?	No comment.

Consultation question		Transpower's comments
Q14	Do you agree with the proposed approach to settlement of FTRs, which involves: (a) FTR settlement prices would be final half hourly prices for the Benmore 2201 and Otahuhu 2201 nodes; (b) the amount that the clearing manager would pay per MW for the settlement of FTRs would be: (i) the relevant inter-nodal price difference; less (ii) any scaling in relation to (a); less (iii) the per MW auction price for the FTR; but (c) if this amount is negative, the FTR holder would have to pay that amount to the clearing manager; (d) risks to liquidity in the secondary FTR market from this approach (see paragraphs 3.4.208 to 3.4.210) be addressed by providing that: (i) a party that successfully purchases an FTR in an auction FTR is responsible for paying for that FTR irrespective of whether they hold the FTR at settlement; but (ii) the option of paying for FTRs purchased in an FTR auction at any time prior to settlement would be available; and (e) settlement of FTRs would be within the same timeframe as that used for energy market settlement? If you agree, why, and if not, why not?	Yes, assuming that scarcity pricing is reflected in the final prices.
Q15	Do you agree with the proposed approach to management of weak competitive pressure in relation to FTRs, which would involve: (a) market monitoring; (b) potential limitations on FTR holdings; and (c) a requirement in the Code that the FTR service provider should design FTR auctions to, amongst other objectives, maximise competition? If you agree, why, and if not, why not?	Yes.
Q16	Do you agree that options for allocation of residual FTR revenue should be assessed according to the extent to which they contribute to the project objective of	Yes, but not because it is the project's objective, rather because it is the Authority's overall objective. This critical issue should not be managed

Consultation question	Transpower's comments
promoting competition in the electricity industry for the long-term benefit of consumers? If so, why, and if not, what alternative assessment criteria would you suggest and why?	as part of this project, and should not be rushed. The timeframe proposed is far too tight, and the forum arguably inappropriate for such an important issue. The allocation of loss and constraint excess payments involves a substantial amount of money and changing the approach in any significant way risks impairing economic efficiency. Hence, it is important that any review which may fundamentally alter the current allocation method is properly structured, provides for input from all stakeholders, including Transpower as grid owner and the transmission customers that currently receive allocations of loss and constraint excess payments (the distribution companies, directly connected end users and the South Island generators) and provides for cross submissions, so that preferred approaches that may be commercially motivated can be properly examined. Not to take this approach to such an important issue may expose the Authority to the risk of judicial review. There should be no problem with continuing to use the current methodology until this review is completed, so there is no need to treat a review of the loss and constraint excess payments allocation methodology as an urgent matter. We note that the proposed new clause 14.73(4), when read together with clause 45.1(a) of the benchmark agreement (and provided that Transpower remains the sole grid owner) mean that the loss and constraint excess payments must be allocated in accordance with Transpower's prevailing methodology, which can only be amended by Transpower. Although the consultation paper does not refer to this point, we assume the Authority is aware of it and will approach Transpower if it wishes to recommend a change to the methodology for allocating loss and constraint excess payments.

Consultation question		Transpower's comments
Q17	Do you have any comments on the options identified for allocation of residual revenue and the preliminary assessment of the advantages and disadvantages of each?	Allocating to transmission customers consistently with the approach taken by the TPM has two additional advantages: (1) It reduces the inevitable distortions that result from any allocation of the full economic costs of Transpower's services; (2) As the TPM is being designed to be consistent with the Authority's statutory objective, this approach will automatically promote that objective. Allocating rentals generated on assets to those that pay for the assets can help to minimise distortion to investment decision making, thus increasing dynamic efficiency. We disagree with the suggestion that retaining the current methodology would create possible competition concerns because some parties allocated a share of the excess payments may also be FTR market participants. The ability to purchase an FTR and also receive a share of loss and constraint excess payments is, in effect, no different to the situation that currently applies, whereby a party may enter into a hedge contract with respect to circuits that that could potentially generate transmission rentals, a share of which could be allocated back to them. An FTR is, after all, just another type of hedge contract.
Q19	What is your preferred option for allocation of residual revenue and why?	Allocating to transmission customers consistently with the TPM allocation of transmission costs, for the reasons set out in response to Q18 above. This is the approach used by Transpower's current loss and constraint excess payments allocation methodology.
Q20	Do you agree with the proposed approach to funding the costs of FTR provision, which would involve:	
	(a) initial set up and operational costs of the FTR funded through the levy until the outcome of the funding review is implemented;	Yes.

	Consultation question	Transpower's comments
	(b) the Authority submitting a request to the Minister for an increase to the Electricity Industry Governance and Market Operations appropriation to fund the set up and ongoing operating costs for a FTR market in the 2011/12 financial year onwards subject to funds being available in later years from auction proceeds and potentially user fees;	Yes, if this is necessary.
	(c) after the first year of operation evaluation of the option of auction proceeds to fund FTR operational and service provider costs to determine whether this would be sufficient;	Yes, although after first year might be too soon to determine cost trends.
	(d) in the event that auction proceeds were insufficient, continuing to fund any shortfall from the levy; and	Yes.
	(e) in the longer term, giving consideration to funding FTR operational and service provider costs with user fees?	This should not be necessary. In any event, it would impose risk on FTR operational and service providers and would need to be considered very carefully.
	If you agree, why, and if not, why not?	See above.
Q21	Do you agree with the assessment of the costs and benefits of the proposed inter-island FTR? If you agree, why, and if not why not?	The benefits do not include; • the dynamic efficiency benefits of generators being less locationally restricted in their investment decisions; • the allocative efficiency benefits of generators modifying their offer behaviour to maximise grid use; an effect that has been observed with the introduction of FTR market overseas (this benefit is included in the assessment against he Authority's statutory objective). The costs do not take account of: • The fact that the configuration and operation of the grid depend to some extent on prevailing hydrological conditions meaning that there is a risk that the FTR process being proposed may result in more constrained operation of the grid and power system, with possible negative net economic effects for the nation as a whole. • Parties that have purchased FTRs

Consultation question		Transpower's comments
		with a view to hedging nodal price risk in a particular month would have an incentive to oppose moving a planned outage to the next month even if such a change can be shown to be nationally beneficial.
Q22	Do you agree with the assessment of the proposed inter-island FTR against the Authority's statutory objective? If you agree, why, and if not, why not?	Yes.
Q23	Do you agree with the Authority's preferred option and proposal for managing inter-island locational price risk? If you agree, why, and if not, why not?	With regard to the product design, we agree with the preferred option and proposal with the qualifications expressed above, and as a 'plain vanilla' starting point for future evolution. With regard to the framework for operating the FTR market, we do not agree that a new service provider role needs to be created. Another critical issue is whether Option (a) or (b) (Q7) – or some other approach – is selected for the process of creating FTR grids and conducting auctions. These have radically different implications for role definition and FTR expandability. It is not clear from the consultation paper which of these is the Authority's preferred option. See our discussion in the main body of this submission. Another critical concern is timing. We understand the Authority's legislated timetable and the desire to have FTRs operational before scarcity pricing is introduced. We are keen to play our part in establishing the FTR market. Nevertheless, we believe that the Authority has significantly underestimated the time that the system operator and especially the FTR service provider will need to deliver operational systems.

Appendix 2: Comments on the draft Code

The following comments are on specific clauses of the proposed Code:

Draft Code		Transpower's submission
Definitions	**FTR service provider** means the **market** operation **service provider** who is for the time being appointed as the FTR service provider under this Code	We recommend that no separate FTR service provider be appointed. This could be most simply provided for by amending the definition as follows: **"FTR service provider** means the **system operator"** Those clauses that refer to the handover of information between the FTR service provider and the system operator could be deleted to avoid restricting the most efficient process for implementing the FTR market.
	hub means a **node** or group of **nodes** identified as either hub A or hub B in an **FTR**	Substitute: **hub** means a **node** or group of **nodes**, which may or may not have weightings assigned to them, identified as either hub A or hub B in an **FTR**.
13.241	(8) Every variation made under subclause (7) expires on the date that is 9 months after the date on which the variation is made.	If the intention of 13.241 is to ensure that variations are subject to consultation, when made under urgency without consultation, the following addition to clause 8 is suggested: …Prior to expiry, the FTR Service Provider must complete the consultation and approval process under the provisions referred to in subclause (5).
13.250	**13.250 Information to be provided to FTR service provider** (1) Each **grid owner** must provide a forecast of the configuration and operation of the **grid** for the **FTR period** (as advised to each **grid owner** by the **FTR service provider**) to the **FTR service provider** for use in determining the type and quantity of **FTRs** to be offered in each **FTR auction**.	If there is more than one grid owner, then each would have to provide a forecast of the configuration and operation of the whole grid for the FTR period. This would be impracticable and inefficient. It would be better to place this obligation on Transpower. The forecast would not be used to determine the type of FTRs offered. The principal purpose is for the FTR service provider or the system operator to construct the FTR grid, so it would be better to specify this as follows: (1) ~~Each **grid owner**~~ Transpower

Draft Code	Transpower's submission
	must provide a forecast of the configuration and operation of the **grid** for the **FTR period** (as advised ~~to each **grid owner** by~~ the **FTR service provider**) to the **FTR service provider** for use in determining the ~~type and quantity of **FTRs** to be offered in each **FTR auction**~~ FTR grid.
(2) The information that each **grid owner** must provide must include— (a) relevant planned outages; and (b) relevant commissioning, decommissioning and reconfiguration of **grid** assets.	We recommend that (b) be amended as follows: (b) ~~relevant commissioning, decommissioning and reconfiguration of **grid** assets.~~ the information about upcoming grid asset outages that is published in the Planned Outage Coordination Protocol (POCP) database (http://pocp.redspider.co.nz/) .
(3) Each **grid owner** must provide the information to the **FTR service provider** no later than 1 month before the date (as advised to each **grid owner** by the **FTR service provider**) on which an **FTR auction** is to be held.	The comments above with respect to each grid owner versus Transpower also apply here. The 1 month requirement should not be prescribed in the Code, but rather in the FTR Allocation Plan or by contract between the FTR Service Provider and Transpower. This is because more up to date information is to be preferred, and it is not yet known how much time the System Operator and FTR service provider will need to process the information. We recommend that (3) be amended as follows: (3) ~~Each **grid owner**~~**Transpower** must provide the information in accordance with the FTR Allocation Plan or in accordance with the terms of a contract between the FTR Service Provider and Transpower. ~~to the **FTR service provider** no later than 1 month before the date (as advised to each **grid owner** by the **FTR service provider**) on which an **FTR auction** is to be held.~~

Draft Code	Transpower's submission
	The cost of the System Operator's new information provision obligations under proposed clauses 13.250(4) and (5) will be recoverable through the system operator service provider agreement because the introduction of FTRs will be a fee change event under that agreement. However, because there is no service provider agreement for Transpower in its capacity as a grid owner, the following additional subclause needs to be added to clause 13.250 to guarantee that Transpower will recover its FTR information provision costs: (10) The **FTR service provider** must pay Transpower's reasonable capital and operating costs of fulfilling its obligations under subclauses (1) to (3). To ensure the FTR service provider can recover those costs under its service provider agreement, we recommend the following new clause 3.4(1A): (1A) The remuneration of the **FTR service provider** must include the recovery of payments made by the **FTR service provider** to Transpower under clause 13.250(10).
(4) The **system operator** must provide the following information to the **FTR service provider**: (a) a recommended **FTR** grid for each **FTR period** for which the **FTRs** will be offered in the **FTR auction**: (b) relevant planned changes to the **system operator's** scheduling, pricing and dispatch model or simultaneous feasibility testing model (if any).	We agree with to Option (a). The relevance of option (b) is not apparent. Changes to SPD can only be made though the Governance process, so any changes will be well signalled. SPD is the basis for the FTR capacity calculations, so any changes will be incorporated in the FTR. SFT changes will similarly be made apparent by the code governing changes to software in the market.
(5) The **system operator** must provide the information to the **FTR service provider** no later than 1 month before the date (as advised	The 1 month requirement should not be prescribed in the Code, but rather in the FTR Allocation Plan or in contract between the FTR Service

Draft Code		Transpower's submission
	to the **system operator** by the **FTR service provider**) on which an **FTR auction** is to be held.	Provider and Transpower. This is because more up to date information is to be preferred, and it is not yet known how much time the system operator and FTR service provider will need to process the information. Consequently, we recommend that (5) be amended as follows: (5) The **system operator** must provide the information to the **FTR service provider** information in accordance with the FTR Allocation Plan or in accordance with the terms of a contract between the FTR Service Provider and Transpower. ~~no later than 1 month before the date (as advised to the **system operator** by the **FTR service provider**) on which an **FTR auction** is to be held.~~
Schedule 13.5	**4 Requirements for FTR grid design** The **FTR** grid must— (a) be based on the forecast baseline dispatch grid for the **FTR period**; and (b) ensure, to the extent possible, that the quantity of **FTRs** awarded matches forecast grid capacity subject to revenue adequacy being maintained in a reasonably foreseeable set of adverse circumstances.	Further to our response to Question 7(c)(ii) above: The FTR grid does not define the quantity of FTRs to be awarded; rather, it defines the transfer capacity of the grid, if no unplanned outages occur. With horizons of over 12 months, all outages are unplanned, and therefore need to be allowed for statistically, e.g by offering only X% of the capacity. Measures such as the X% are properties of the auction, not of the FTR grid. It is the combination of FTR grid plus such measures that seeks revenue adequacy, not the FTR grid per se. It is also critical that the award of FTRs take account of the dynamic nature of outage planning. We therefore recommend that (b) be amended as follows: (b) make allowance for planned outages in accordance with the FTR allocation plan. ~~ensure, to the extent possible, that the quantity of **FTRs** awarded matches forecast grid capacity subject to revenue adequacy being maintained in a reasonably foreseeable set of adverse circumstances~~.

Draft Code		Transpower's submission
		If (b) is not amended as we propose, we suggest that additional wording be added to state that Transpower and the FTR service provider have no liability for a breach of clause 4 of Schedule 13.5 where the quantity of FTRs awarded does not match forecast grid capacity by reason of compliance with the requirements of the Outage Protocol, a default Transmission Agreement or the requirements of Part 12 of the Electricity Industry Participation Code.
Schedule 14.6	**Calculation of amount of loss and constraint excess to be paid into FTR account**	The approach in this schedule is unnecessarily complex with no overall benefit and probably significant implementation cost. It would be more efficient to allocate all rentals to support FTRs. This would be expandable if further FTR hubs/nodes were introduced. See our response to Question 10(c)(i).
	5 Process for determining capacities to be assigned (1) The **system operator** must determine a normal **grid** configuration.	
	(2) The normal **grid** configuration determined under subclause (1) must be a **grid** configuration with all existing **branches** and switches closed except where the **system operator** has implemented **operational system splits** and the **system operator** considers that the normal state of those **operational system splits** is for the relevant **branch** or switch to be **open**. (3) The **system operator** must provide to the **clearing manager** the model data describing the normal **grid** configuration determined under subclause (1), including all **branch security constraints** and any **mixed constraints** involving **AC line** flows. (4) The **system operator** must determine a new normal **grid** configuration if the **system**	This is a very onerous requirement on the System Operator, of similar magnitude to (but far less useful than) the determination of the FTR grid: it will be simpler in that it does not allow for outages, but more complex in that it is down to half-hour rather than one-month resolution. As this information would be used for a cost allocation it would need to be automated, robust and auditable. There would be significant time and cost in developing such a system. Transpower recommends that, before this code is adopted, the Authority liaise further with the System Operator on appropriate Code amendments.

Draft Code	Transpower's submission
operator considers it necessary because, for example, any of the following occur: (a) some grid equipment is commissioned or decommissioned: (b) there is a change in the capacity or impedance of some grid equipment: (c) the **system operator** considers that the normal state of any **operational system split** has changed.	
(5) The **system operator** must provide new model data to the **clearing manager** if there is a change to any of the inputs listed in subclause (8).	Presumably this refers to subclause (4).

Appendix 3: Proposed amendments to the Electricity Industry (Enforcement) Regulations 2010

Proposed amendment	Recommended wording
New heading and regulations 70A and 70B.	We recommend that new regulations be created as follows: **Liability in respect of FTRs** **70A Limit of liability of FTR service provider** The FTR service provider is not liable for a sum in excess of- (a) $200,000 in respect of any one event or series of closely related events arising from the same cause or circumstance; or (b) $2 million in respect of all events occurring in any financial year. **70B Limit on compensation and penalty if breach relates to FTR information** The Rulings Panel may not order an industry participant to pay a civil pecuniary penalty or compensation to any other person in respect of a breach of the Code if the breach is related to, or connected with, information provided to the FTR service provider.