

Transmission Pricing Advisory Group ::: Meeting number six

Venue ::: Meeting room 1, Electricity Authority

Time and date ::: 09:00 to 14:30 ::: 14 April 2011

## Minutes

### Present

#### Members

::: Graham Scott (Chair)  
 ::: Ray Deacon (until 12.00)  
 ::: Guy Waipara  
 ::: David Reeve  
 ::: John Clarke (from 9:10)  
 ::: Peter Calderwood  
 ::: John Woods

#### In attendance

::: Peter Smith  
 ::: Katherine Moore  
 ::: John Culy  
 ::: Catherine Ross  
 ::: Bruce Smith  
 ::: Lee Wilson

The meeting opened at 09:00.

### 1 Welcome, introduction and apologies

The chair opened the meeting.

Apologies received from Bruce Girdwood, Glenn Sullivan and Bob Weir. Ray Deacon noted that he was able to stay until 12:00 only.

### 2 Minutes of 8 April meeting

The minutes of the 8 April 2011 meeting were approved with the following amendments:

- Item 4, under scope of work and priorities: Final bullet should read: In view of the extended timeframe for preparing the discussion paper and the importance of consistency TPAG agreed to give priority to the HVDC....
- Item 4, two typos under the scope of work and priorities.

The issue of TPAG's approach to loss and constraint rental allocation was raised in discussion on the minutes. TPAG agreed that its approach should be to include the existing rentals allocation in its analysis, but to consider the impact on the analysis of removing some rentals to fund financial transmission rights (FTRs).

The secretariat has considered this impact in version 3 of the discussion paper. John Culy has met with those working on FTRs to discuss the options for treatment of the FTR residuals, and considered the options set out in the locational price risk management consultation paper published 13 April 2011. TPAG will need to ensure

that its proposal is robust to the options for allocation of the FTR residuals.

**3 Report from Static Reactive Sub-Committee**

Members of the sub-committee reported to TPAG that the sub-committee:

- has agreed its scope (which is limited to treatment of **static** reactive costs not dynamic);
- has agreed an approach based on TPAG’s analysis framework; and
- aims to deliver its draft paper for 1 May 2011. The intention is that this draft paper should form a section of the TPAG discussion paper.

The chair requested that the draft paper be circulated to all members when it is available.

**4 Draft discussion paper**

TPAG reviewed version 3 of the draft discussion paper. Detailed comments are given in the attached table 1 which is intended to provide guidance to the secretariat.

Members discussed the consistency of the results in section 5 (locational price signalling with those in section 6 (assessment of options for HVDC charging). The efficiency gains are of the same order, but some members questioned whether they are treated consistently. The possible efficiency gains are considered immaterial for the purposes of justifying the development of locational pricing but material for the purposes of justifying a change to HVDC charging. The analysis relies on the substantial differences in the implementation costs and risks associated with introducing locational signals and with remedying the inefficiencies in section 6.

Action	By	Date for action
Redraft the discussion paper to reflect TPAG advice.	Secretariat	By next meeting

**5 Summarising consensus going forward**

Members present gave their views on the TPAG analysis of the HVDC options. Two members not present provided e-mail notes. The attached table 2 summarises members’ views..

TPAG discussed the following points:

**Capacity rights**

- Capacity rights would be a major change to the market and would be hard to implement within the current market arrangements. Amongst TPAG members there are the following views:
  - a desire to see work on capacity rights proceed in due course but recognition that for their successful implementation the market would need to develop greater depth and maturity;
  - the two solve method is not the only way to proceed ,a simpler scheme could be investigated as well; but
  - some concern at the prospect of capacity rights giving private parties the right to restrict capacity on an asset that has been funded by the industry.

Ray Deacon left the meeting (12.00)

**Transition options**

- If transition options are to be considered it is important to match the timing of any transition plan to the timing of possible benefits to consumers.
- The step change in prices from the forthcoming increase in AC costs due to the increased investment in AC assets will be far higher than that from a change in HVDC charging and it would be useful to view any changes in prices owing to HVDC charges in this context.
- The discussion paper should include more detail on the transition options.

**Economic inefficiencies**

- There are differences in opinion amongst TPAG members about the materiality of the results of the analysis of economic inefficiencies, and about the probability of the gains shown in the analysis from changing the allocation of HVDC costs. Further analysis and drafting could explore the robustness of the possible efficiency benefits.

**Preferred options**

- Based on the views given to the meeting, there are a number of members who consider that the analysis supports a conclusion in favour of transition to postage stamping the HVDC costs, with the transition designed to benefit consumers through the transition. There are alternative views that the preferred option should be either the status quo or a change to MWh-based charges on SI generators.

Action	By	Date for action
<p>Develop more detail in the discussion paper on:</p> <ul style="list-style-type: none"> <li>• the robustness of the potential efficiency benefits of a change from the status quo. This may involve explaining more closely the assumptions made and possible scenarios; and</li> <li>• the transition options. This should consider aligning the timing of the transfer of costs to consumers to the likely efficiency improvements so as to provide a net expected benefit to consumers through the transition and beyond.</li> </ul>	Secretariat	By next meeting
<p>Prepare two notes on behalf of the chair considering the two alternative options – the status quo and MWh-based charge – against the analysis framework. These notes should highlight the assumptions that TPAG would need to make in order to conclude from the analysis that these options should be preferred options.</p>	Secretariat	By next meeting

**6 Deep connection**

John Culy led a discussion based on the presentation provided to TPAG members on deep connection issues and options. TPAG discussions included the following points.

- Additional options should be included – a rule based definition of connection (as per the status quo) and a shallower connection definition.
- There is a need to provide evidence of efficiency gains for deeper connection in order to justify value transfers.

- A gradual deepening of connection could be considered to provide a transitional arrangement.
- The possible efficiency benefits associated with a deeper connection: these result from providing a signal prior to investment which may prompt participants to get involved in the investment process and seek more efficient alternatives.
- The incentives present in the status quo encourage lobbying to socialise the cost of a connection with private benefits.

<b>Actions</b>	<b>By</b>	<b>Date for action</b>
Discuss practical issues arising from the current connection regime with John Clarke	Secretariat	By next meeting
Draft section of discussion paper on analysis of connection options.	Secretariat	By next meeting

Meeting closed 14.30

## TPAG Meeting 14 April 2011

### Schedule of actions

1.	Redraft the discussion paper to reflect TPAG advice.	Secretariat	By next meeting
2.	Develop more detail in the discussion paper on: <ul style="list-style-type: none"> <li>• the robustness of the potential efficiency benefits of a change from the status quo. This may involve explaining more closely the assumptions made and possible scenarios; and</li> <li>• the transition options. This should include linking the options to the efficiency benefits where possible in order to design a transition which benefits consumers through the transition and beyond.</li> </ul>	Secretariat	By next meeting
3.	Prepare two notes on behalf of the chair considering the two alternative options – the status quo and MWh-based charge – against the analysis framework. These notes should highlight the assumptions that TPAG would need to make in order to conclude from the analysis that these options should be preferred options.	Secretariat	By next meeting
4.	Discuss practical issues arising from the current connection regime with John Clarke	Secretariat	By next meeting
5.	Draft section of discussion paper on analysis of connection options.	Secretariat	By next meeting

**Table 1: Summary of comments on discussion paper**

This table summarises comments made in item 4 of the agenda above, but also includes comments made in other items that are relevant for the drafting of the discussion paper. It is intended to provide guidance to the secretariat in redrafting the discussion paper.

Section	Comments
General	Ensure TPAG ownership is clear where relevant. Useful words maybe 'TPAG has adopted, TPAG has considered'.
1,2,3	Include regulatory framework and Code Amendment Principles (moved from section 4)
4	<p><b>General</b></p> <p>Keep this section to TPAG's analysis framework. This means:</p> <ul style="list-style-type: none"> <li>• moving descriptions of the regulatory and Authority framework to section 2;</li> <li>• transferring parts of section 6 that describe the general analysis framework and leaving section 6 to deal with specific discussion of the HVDC cost allocation.</li> </ul> <p><b>Efficiency considerations (summary definitions)</b></p> <ul style="list-style-type: none"> <li>• General comment: link efficiency considerations more closely to the statutory objective and Code amendment principles (now in earlier section).</li> <li>• Economic inefficiencies: Clarify what 'economic inefficiencies' are and the relationship between economic inefficiencies and the 'dimensions of efficiency' (table 10). Consider changing economic inefficiencies to 'competition enhancements' or similar.</li> <li>• Simplicity and workability: Rename and include only implementation and transactions costs. The workability aspect of this consideration should be covered in good regulatory practice.</li> </ul> <p><b>The detailed descriptions of the efficiency considerations ( 4.4.4 onwards)</b></p> <ul style="list-style-type: none"> <li>• Ensure 'depth of TPAG conversations' is captured. The bullet points below under good regulatory practice include the type of issues TPAG would like captured more closely.</li> <li>• Economic inefficiencies: Include further clarification and description of this efficiency consideration.</li> <li>• Beneficiary pays: <ul style="list-style-type: none"> <li>• Redraft to separate the 'commercial world' issues from the 'regulated world' issues so the messages about free-riding, hold out and information availability are more clearly articulated.</li> <li>• Include text on whether it is necessary to identify all beneficiaries and about aligning beneficiary pays with decision rights.</li> <li>• Delete footnote 14, or part of it.</li> </ul> </li> <li>• Good regulatory practice <ul style="list-style-type: none"> <li>• Include mention of the law and common law principles.</li> <li>• Describe timing considerations for good regulatory practice - the possible different treatments of</li> </ul> </li> </ul>

	<p>sunk costs v new investment and possible ‘retrofitting’ of new pricing regimes for assets built and approved under a previous regime.</p> <ul style="list-style-type: none"> <li>• Consider the ‘producer surplus’ discussion.</li> <li>• Include a note about how the landscape has changed and what implications this has for good regulatory practice.</li> <li>• Include a note about beneficiary pays as good regulatory practice (in both 6.6.6 and 4.4.15).</li> <li>• Include the workability issues currently covered in ‘simplicity and workability’.</li> <li>• 4.5.4 Better explain ‘conflicts with Transmission Alternatives’.</li> </ul>
6	<p><b>General comments</b></p> <ul style="list-style-type: none"> <li>• Avoid repetition with Appendix C.</li> <li>• Keep to application of section 4 framework (general framework points should be removed to section 4)</li> <li>• Keep to facts, take out any ‘argumentative’ tone.</li> <li>• Note action 2 in the minutes is relevant to this section. (Include more detail on the robustness of the inefficiencies and on the transition options.)</li> </ul> <p><b>Summary of HVDC options</b></p> <ul style="list-style-type: none"> <li>• Include an option that postage stamps HVDC costs to generators or include an explanation of why it would not be efficient to charge generators. (from John Clarke’s summary, table 2).</li> </ul> <p><b>Section 6.5 (economic inefficiencies)</b></p> <ul style="list-style-type: none"> <li>• Add the total value of investments and time horizon to give an idea of the scale of inefficiencies.</li> </ul> <p><b>Section 6.6 (beneficiary pays)</b></p> <ul style="list-style-type: none"> <li>• Change the title to beneficiary pays considerations</li> <li>• Rework this section to more clearly apply the considerations set out in section 4. This section should step through: TPAG’s general support for applying a beneficiary-pays approach; that TPAG is not put off by free-riding; that applying this approach to the HVDC runs up against problems in identifying beneficiaries; that TPAG should avoid applying a beneficiary-pays principles that it is not prepared to apply in a consistent manner elsewhere.</li> <li>• Improve 6.6.5 onwards by clarifying TPAG’s consideration of how to identify the beneficiaries: that identification of the beneficiaries would depend on debateable forecasts; that the identification of beneficiaries depends on the timeframes considered; that the values attached to the use of the HVDC in any given half hour can be very different and that there are issues created by reserves requirements. Give factual descriptions that illustrate why it is hard to identify beneficiaries. Note that the environment has changed from when pole 2 or 1 were commissioned. ‘HVDC now provides a mix of....’</li> <li>• 6.6.7 Note NIGUP in footer rather than in the text.</li> <li>• Include discussion on why the HVDC is - or is not - different from the rest of the grid.</li> </ul>

	<p><b>Section 6.7 (Capacity rights)</b></p> <ul style="list-style-type: none"> <li>• Include the TPAG discussion about the ‘maturity’ of the market. The market is not dealing with capacity in an organised way, currently, and capacity rights would be hard to implement with the current market.</li> </ul> <p><b>Section 6.11/6.12</b></p> <ul style="list-style-type: none"> <li>• Include some context for the wealth transfers and potential step changes in prices, noting other factors that may cause price increases such as increasing AC costs.</li> </ul> <p><b>Section 6.12 (possible transition to postage stamping)</b></p> <ul style="list-style-type: none"> <li>• Extend work on transition options to include a range of options tested against our agreed principles.</li> </ul> <p><b>Table 17</b></p> <ul style="list-style-type: none"> <li>• The level of potential for dispute for postage stamp transition should be reviewed.</li> </ul>
<p><b>Appendix C</b></p>	<ul style="list-style-type: none"> <li>• Keep strictly to analysis, not conclusions</li> </ul>

**Table 2: Summary of members views on HVDC cost allocation analysis (item 5)**

Member	Summary of views
Peter Calderwood	<ul style="list-style-type: none"> <li>• Following the logic provided in table 17 of the draft discussion paper leads to a conclusion that a transition to postage stamping should be the preferred option.</li> </ul>
Guy Waipara	<ul style="list-style-type: none"> <li>• The analysis builds a case that there are demonstrable, measurable problems with the status quo.</li> <li>• Capacity rights is unlikely to be justified at this time.</li> <li>• Full postage stamping would be preferable, but a form of transition that involves an incentive-free allocation is pragmatic, if there is a longer term plan in place.</li> <li>• A transition to postage stamp is consistent with TPAG’s analytical framework and would be beneficial to wholesale and retail markets.</li> <li>• TPAG should consider transition options in more detail.</li> </ul>
David Reeve	<ul style="list-style-type: none"> <li>• TPAG’s decision should be consistent with its approach to deep or shallower connection.</li> <li>• If you were investing in a new HVDC, you would not be able to identify beneficiaries in a meaningful way which would suggest postage stamping was the right approach. Shifting from the status quo to postage stamp would be a change with significant wealth effects.</li> </ul>
Ray Deacon	<ul style="list-style-type: none"> <li>• The analysis does not suggest we are in a robust position to move from the status quo.</li> <li>• The inefficiency is insufficient to justify changing and a reliance on this analysis would put TPAG on dangerous ground.</li> <li>• Postage stamping the HVDC would involve an immediate price rise for consumers, for only a possible efficiency gain.</li> <li>• TPAG should be exploring capacity rights plus deep connection options, but as this is not possible in the timeframe, the status quo should remain for the meantime.</li> <li>• Analysis may suggest we could change to MWh option as this does not involve significant wealth transfers.</li> </ul>
John Clarke	<ul style="list-style-type: none"> <li>• There is a clear inefficiency built into incentives for new generation in the SI vs NI .</li> <li>• While it is a small dis-benefit it is present in all scenarios. It is treated as material as the benefits of removing it outweigh the costs of doing so. Noted that the benefits sought are larger than or equal to those sought in other EA work streams.</li> <li>• A market solution - Capacity rights - is not likely to be justified by the small inefficiencies in the status quo and does not, in the short term, offer certainty for South Island generators.</li> <li>• If a pricing allocation that is “incentive free” for new SI generation build as well as encouraging existing SI generation to meet NI peaks is possible that is stable, doesn’t</li> </ul>



	<p>have sudden value transfers etc - then a change should be made.</p> <ul style="list-style-type: none"> <li>• If not then MWh charging is the alternative that reduces the inefficiency.</li> <li>• In designing a suitable pricing allocation we should include an option to allocate HVDC to generators as well as postage stamping to load – or explain why this is inefficient.</li> </ul>
John Woods	<ul style="list-style-type: none"> <li>• There is a benefit in moving from the status quo.</li> <li>• MWh option leaves some inefficiencies and therefore it is unlikely to be durable. There will be ongoing lobbying to move to a more efficient charging regime.</li> <li>• It is doubtful that capacity rights could be successful given the maturity of the market at this time.</li> <li>• Postage stamping but with a transition option, to make it more palatable to consumers is emerging as the preferred option.</li> <li>• It is important to consider what consumers think.</li> </ul>
Bruce Girdwood (by e-mail)	<ul style="list-style-type: none"> <li>• The HVDC should be allocated to either SI gens or NI loads as they are the key beneficiaries this has not yet been properly discounted.</li> <li>• It is important to consider, if the HVDC was removed, who will suffer economic loss and by how much.</li> <li>• The costs should be allocated to the party or parties that can bear the cost without affecting their LRMC if this is possible. The SI hydro generators are most likely to have a producer surplus. If this producer surplus is big enough to accommodate the HVDC charge while allowing the generators to recover their LRMC then this is the most efficient outcome.</li> <li>• But it is hard to discover the producer surplus and not all SI generators are hydro generators. It is therefore likely that allocating only to SI generators will create a distortion in generation investment which is not hydro or hydro that has no producer surplus. This is probably not a good outcome but we do not know how big the problem is.</li> <li>• In the absence of being able to conclusively produce evidence for the above, there has to be an alternative. Allocating the whole charge to the other key beneficiaries – NI consumers - will increase delivered cost to consumers. Perhaps there is a way to add some of the HVDC charge to the postage stamp charge and some to the SI beneficiaries. Failing that, postage stamping is a solution but in all likelihood the charge will simply be passed through to end consumers.</li> <li>• In summary, there is no perfect way of allocating the HVDC cost without creating some sort of investment “distortion”.</li> <li>• Preference is for – in order - MWh to SI gens, incentive free allocation to SI gens, postage stamp.</li> </ul>
Bob Weir (by e-mail,	<ul style="list-style-type: none"> <li>• A major overhaul to include locational signals has no merit.</li> </ul>

summarised)

- Capacity Rights/Arbitrager Model. The benefits are unclear and the costs and complexities appear to be great so it is unlikely to be worth pursuing.
- HAMI/MWh. This appears to have merit for consideration. It may require some further analysis to test scenarios.
- The existing locational signal from the HVDC charge may not be as distortionary as indicated. It is not an overwhelming argument that the charge alone is sufficient to see a major shift in whether SI or NI generation should or will be built. The HVDC charge should stay.
- Transferring HVDC charges into the interconnection charge while simple, especially if one discounts the beneficiary pays principle, has the major issue of wealth transfers to contend with. Customers should not take this hit on the basis of questionable arguments about future benefits that even if they did eventuate would be lost to customers in the noise of all other future price impacts.
- Deep vs Shallow Connection. Considering this issue may delay getting decisions on the HVDC. The EA has significant work in far more critical workstreams than this.
- Impacts on the FTR work stream. I don't see the options above being greatly influenced by the FTR work on inter-island transmission hedging. The decision just needs to be made so the FTR work stream is able to take account of it.