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25 August 2010

Karen Murray  
Chief Adviser  
Regulation Branch  
Commerce Commission  
PO Box 2351  
WELLINGTON

Dear Karen

**Re: Cross submission on:  
Input Methodologies Transpower – Draft Reasons Paper  
Individual Price-Quality Path Transpower – Draft Reasons Paper  
Draft Commerce Act (Transpower Input Methodologies) Determination**

Transpower has reviewed the submissions on the above documents published on the Commerce Commission's website on 12 August 2010 and wishes to respond to a number of statements and arguments contained in them. Some of the matters raised by submitters are, we believe, not justified or supported by fact. We acknowledge the two day extension granted by the Commission but maintain that it would take more than the time allowed for the cross submission to prepare detailed rebuttals for each issue. In this cross submission we have highlighted the key issues only and made initial counter argument.

Our submission is supported by an expert opinion from Harding Katz - Economic consultants (Attachment 1) which comments on some of the arguments presented in both the NERA and CRA reports. We have also attached a report by PWC which provides a background to Transpower's Economic Value reporting framework (Attachment 2)<sup>1</sup>.

**Veracity of the current negative HVDC EV balance**

Both NERA and CRA (supporting respectively the submissions of Meridian and Contact) challenge the justification for the current negative EV balance. The NERA report *Treatment of Operating Costs*, authored by Greg Houston and Hayden Green, that forms part of Meridian's submission, claims that the negative DC EV balance is inflated because Transpower earned excessive profits in the period prior to the administrative settlement. However, NERA also notes the Commission's acknowledgement that Transpower's returns were artificially depressed in the period 1998-2006 by the fact that the replacement costs of Transpower's assets were not re-valued upwards during this period to reflect actual replacement costs. Transpower maintains that through the application of the economic value approach it did not generate economic gains for its shareholder at the expense of customers. The mechanism is self correcting, that is, economic value gains or losses are quantified, accumulated and "fed back" into the revenue requirement to adjust future prices.

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<sup>1</sup> Transpower intends to submit Attachment 2 under separate cover.

Transpower notes the following advice by NERA from p.20 of its February 2006 report *Declaration of Control of Transpower*, authored by Greg Houston, Elisabeth Ross and Brendan Quach:

“The basis on which the Commission has attributed excess profits to Transpower is fundamentally inappropriate. The Commission has used Transpower’s price threshold to estimate excess profits by assuming that the level of any breach that cannot be “reconciled” must represent excess profits.

“Implicit in the claim that Transpower has earned excess profits is an assumption that the threshold represents a reasonable proxy for an efficient price, and therefore that any revenues above this level that cannot be reconciled must necessarily be excess profits. The Commission provides no evidence that the threshold may be indicative of an efficient price, and does not appear to have justified why this may be an appropriate interpretation of the threshold.”

Transpower adopted an economic value approach to measuring its financial performance not long after its establishment as a separate SoE. The EV calculations are embodied in economic value financial statements that were first produced (and audited) in 1996. A summary of the development and application of Transpower’s EV methodology to revenue setting was authored by PwC in 2006 which provides useful context and chronicles the year on year movement in the economic value accounts<sup>2</sup>.

A major contributor to the annual gains or losses until 2006 was optimised deprival valuation (ODV) asset revaluations. The principle that revaluation gains (or losses) should be treated as income (and/or expense) was embodied in the requirements in the Disclosure Regulations for disclosing Transpower’s annual returns on investment. Transpower has consistently adhered to this principle through its application of the EV methodology which has ensured that, over the years, revaluation gains have been returned to customers. As the Commerce Commission has previously noted “no other lines business has used such a mechanism to ensure that consumers (or shareholders) are compensated as appropriate in this manner.”<sup>3</sup>

Transpower notes also the following advice by CRA International from p.23 of its February 2006 report *“The Costs and Benefits of Regulating Transpower”*, authored by Andrew Shelley, Jeremy Hornby, and James Mellsop:

“Furthermore the Commission does not reconcile its assumption of excess profits with Transpower’s self imposed zero economic profit constraint through its EV adjustments. This in itself casts significant doubt on how Transpower could ever earn excess profits in anything but the short-run. Under the EV adjustments economic gains and losses are accumulated with interest charged at a rate equal to WACC, and adjustments to revenue are made on the basis of the balance of the accumulated gains and losses, as well as forecast gains and losses for the current and future years. This process ensures that, over time, the economic profit made by Transpower is zero, assuming that a) Transpower has employed the appropriate WACC, and b) all costs are efficient.”

In considering the EV account balances, in their paper accompanying the Contact Energy submission, CRA comments that Transpower appears to have complied with all relevant methodologies and rules that were placed on it (to determine the respective balances over the years), but states that the resulting allocation was not consistent with the outcomes that would be expected in a competitive market or would be expected if the HVDC service was provided by a standalone regulated supplier. We provide further comment on this latter point below:

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<sup>2</sup> PricewaterhouseCoopers “Transpower New Zealand Limited – Development and Application of EV Methodology to Revenue Setting, February 2006”

<sup>3</sup> Commerce Commission, Decision and Reasons for Not Declaring Control of Transpower New Zealand Limited & Decision to Reset Transpower’s Thresholds, 2008, paragraph 285.

In its review of the CRA paper, Harding Katz disagrees with CRA's suggestion that it is reasonable to expect charges in a workably competitive market to only increase by the change in the CPI. As an average measure of consumer prices, increases in the CPI will mask a wide range of price movements for particular goods and services. Harding Katz therefore does not accept CRA's view that prices in a workably competitive market should only increase by the CPI. Furthermore, total charges to HVDC customers will reflect volume and price effects, whereas the CPI would only address the price increase. CRA is therefore ignoring the volume effects, even though instantaneous reserve requirements have increased in recent years.

Harding Katz also raises concerns regarding CRA's assessment of standalone costs. The key issue is CRA's assumption that a standalone service provider would not recover the total costs of instantaneous reserve. Harding Katz considers that a standalone service provider would fully recover the costs of instantaneous reserve. If CRA's assessment of standalone costs is corrected to address this issue, Transpower's charges to HVDC customers would be shown to not exceed the standalone costs. CRA's criticism of Transpower's charges to HVDC customers is therefore misplaced.

In relation to NERA's paper, Harding Katz does not agree with NERA's view that effective pricing signals can only be provided through an ex ante charging arrangement. In particular, HVDC customers will face appropriate signals to reduce the costs of instantaneous reserve even if these costs are allocated after-the-event.

#### **Claim that EV adjustments made to account for volume risk**

The CRA report, accompanying Contact Energy's submission, states (at para. 52.1, p.17):

"Transpower does not bear any volume risk – if volume is lower than forecast and revenue is consequently lower, then the shortfall in revenue is added to the EV account and recovered in future years."

This statement was correct under the old transmission pricing methodology but under the transmission pricing methodology that came into force in April 2008, there is no longer a need for any EV adjustments due to actual volume differing from forecast volume, because revenue is allocated based on variables (e.g. off-take volumes) observed during the previous capacity measurement period (the period 1 September – 31 August prior to the relevant pricing year). This means the forecast revenue requirement will always be more accurately recovered. EV adjustments are still required to account for variations in the revenue requirement caused by other differences, for example between forecast and actual asset commissioning.

#### **Process by which the EV balances built up not transparent**

Both Meridian and Contact have expressed concern about the lack of transparency in regard to the EV accounts; specifically a lack of adequate information from Transpower regarding movements in the EV accounts. Transpower disagrees with these statements. Both parties are aware that, under the terms of its administrative settlement with the Commerce Commission, as set out in the Commerce Act (Transpower Thresholds) Notice 2008, there is a requirement on Transpower to publish its annual EV statements. As a result, there has been full transparency and disclosure around the make-up of the EV accounts and movements in the account balances for several years. Moreover, the independently audited EV statements are available publicly on the Transpower New Zealand website at <http://www.transpower.co.nz/n2855,207>.

While Transpower accepts that there may always be room for increased transparency, there has never been any attempt to conceal this information and further information or commentary on the EV accounts has always been provided to third parties as requested.

For example, in late 2006, Meridian requested from Transpower details of the EV account calculations broken down by HVAC and HVDC asset type, including details of how interest (to that point in time) had been calculated. In February 2007, Transpower wrote to Meridian providing a breakdown of the EV accounts together with a reconciliation to explain the annual movement in the account balances over the period 2003 to 2006. We also referenced the various publicly available ODV documents which set out details of the historical asset revaluations. This information was copied to the Commerce Commission. In October 2007, again on request, Transpower wrote to Meridian explaining the process for the allocation of overhead costs – this was followed up shortly thereafter by further correspondence from Transpower, firstly providing a breakdown of the components of AC and DC transmission revenue requirements, together with copies of the most recent EV statements, and, secondly, in November 2007, providing an historical breakdown of the AC and DC revenue requirements. In 2010, Meridian requested similar, updated, information, which was provided via several meetings and subsequent written correspondence (in April, May and June 2010).

Prior to the administrative settlement, EV statements were not published, but it is incorrect to say that information regarding the status of the EV accounts was not available. Firstly, the EV methodology was set out in Transpower's publicly available transmission pricing methodology and Appendix K of the annual pricing schedule showed the annual EV charge adjustment applied to the respective AC and DC revenue requirements. Looking back at various correspondences between Transpower and Meridian, going back to 2003, we can cite several instances where information was sought (and provided) on the reasons for changes in transmission prices particularly with regard to the EVA adjustments; these included disclosure of the deficit in the HVDC account. For example:

*"The HVDC customer account balance is now in deficit (forecast at minus \$13.3m at 1 July 2004). Since the balance of the HVDC customer account is less than \$20m, Transpower has chosen not to recover that balance from its HVDC customers<sup>4</sup>."*

Finally, Transpower's EVA framework and its application was the subject of considerable discussion and scrutiny during the Commerce Commission's Post Breach Inquiry (2005 to 2007).

Whilst it can always be argued that Transpower could have done more to make the EVA process more transparent, to state that information provided and/or available was not sufficient for Meridian (and others) to understand key movements in the EV accounts is, in our view, an assertion not supported by the facts.

### **Claim that prior to the administrative settlement Transpower was an unconstrained monopoly**

The NERA report *Treatment of Operating Costs* that forms part of the Meridian submission makes the following claims:

*"...under the settlement, Transpower's revenue requirement is set on the basis of a prescribed building blocks approach, whereas prior to settlement the revenue requirement was set by Transpower at its discretion." (p.7)*

*"The DC EV account balance of -\$88.1million (as at the time of the administrative settlement) is simply the proportion of revenue that an unconstrained monopolist thought that it was entitled to." (p.12)*

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<sup>4</sup> Letter from Len Gould (Transpower) to Ari Sargent (Meridian Energy), 3 May 2004 re. Tiwai Point Transmission Charging.

These pejorative assertions are not correct. Prior to the administrative settlement Transpower was constrained by its Statement of Corporate Intent, agreed with its shareholding Ministers, to earn no more than its weighted average cost of capital. Indeed, the EV accounts were developed as a mechanism to ensure that this objective was achieved. Until June 2006, Transpower was also subject to the optimised deprival valuation (ODV) methodology, which resulted in the grid being periodically notionally redesigned to reflect the minimum asset complement required to provide the transmission service. The application of the ODV rules meant that Transpower systematically achieved a return below its WACC because of the sub-economic return on assets that were “optimised out or optimised down” in deriving the optimal grid configuration.

**Draft decision to treat reserves costs allocated to Transpower as recoverable**

Contact and Meridian object to the Commission’s draft decision to classify instantaneous reserves (IR) costs allocated to Transpower as owner of the HVDC link as recoverable costs.

Meridian contends that IR costs are foreseeable and controllable by Transpower. Any number of parties can speculate on future costs. The key question remains which are the parties that can efficiently manage these costs? Instantaneous reserves prices are mainly driven by generator offer behaviour, reflecting generation availability and prices. This behaviour will reflect, inter alia, generators’ fuel situation. HVDC utilisation and the corresponding requirement for instantaneous reserves is a function of South Island inflows and market participants’ hydro storage management decisions.

As we noted in our cross submission to the Commission in October 2008, the only levers that Transpower could use to manage its exposure to IR costs would be to restrict HVDC capacity or become an energy market participant and seek to hedge the exposure in some way. The former approach would reduce national benefit (refer below). The latter would create inherent conflicts with Transpower’s core functions as grid owner and system operator.

Transpower has undertaken a number of initiatives to assess the scope for hedging its exposure to IR costs. Transpower engaged STRATA to provide an indication of parties with the potential to provide hedges to manage IR costs. We subsequently approached 19 parties seeking expressions of interest to assist Transpower in managing HVDC IR costs. We tried to obtain financial and physical hedges at some cost and effort but with limited response. Parties that did respond indicated that, due to the significant uncertainty in the magnitude of the exposure, they would have difficulty in pricing such hedges and were only willing to offer very limited MW hedge capacity. In effect both parties would be gambling on inflows during the period of the hedge. This mirrors – and is arguably more severe than - the illiquidity in the energy futures market as a whole, which has been the object of considerable concern to policy makers.

In order to better quantify IR costs, Transpower engaged Energy Link to forecast likely Transpower IR costs for the 2009/10 year. Likely costs were forecast to be in the range of \$1m - \$15m, with an average of \$8.2m. This assumed that generators and reserve providers would continue to offer generation and IR at prices as they have in the recent past. High south transfers in extremely dry years are difficult to forecast, but they could result in HVDC reserve costs exceeding \$30m. HVDC southwards transfer reserve costs are very dependent on the scale and the cost of South Island IR, both of which are driven by generator behaviour. The modelling work reconfirmed the high volatility of IR costs allocated to the HVDC link. Not inconsistent with the \$24.5m reserve charges incurred by Transpower in during the 2008 dry winter in the South Island.

Notwithstanding these initiatives, the volatility of the IR costs to which Transpower is exposed will not be significantly reduced. The actions summarised above demonstrate that

Transpower has taken all actions reasonably available to it to try to control its exposure to IR costs. These costs remain essentially beyond Transpower's control, unless we resort to actions that restrict HVDC capacity to the detriment of the national benefit.

### **Incentive to Limit Forced Outages**

Genesis Energy argues that there is a need to incentivise Transpower to maintain the HVDC link in a state that limits forced outages. Genesis goes on to support a position that Transpower should be able to recover all reserves costs, other than those occurring during a forced outage of an HVDC pole. Transpower disagrees with the proposition that it should be exposed to reserves costs during a forced outage of an HVDC pole. Such a limitation creates a perverse incentive on Transpower to adopt bi-pole outages instead of mono pole outages, in order to minimise exposure to both availability and event reserve costs when a pole trips

The incentive proposed by Genesis to manage the length of planned and unplanned outages is unnecessary, as the Outage Protocol, currently contained in Schedule F7 to Section VII of Part F of the Electricity Governance Rules 2003, ensures that transmission plant outages are managed efficiently and expeditiously, taking account of transmission customer preferences.

Transpower realises the importance of the HVDC system and places high priority on minimising forced outages and prompt restoration. For example, when Pole 2 tripped on Sunday 4 July and Pole 1 failed to start, Transpower went to considerable effort and expense to rectify the issues with Pole 1 urgently, and managed to make Pole 1 available later in the afternoon. This action cost Transpower in the order of \$300,000 in reserve charges over a single hour, charges which we would not have faced had we not taken a conservative approach to restarting Pole 1. If IR costs due to forced outages were not recoverable, then there would be an incentive on Transpower not to maximise asset availability and prefer bi-pole outages (when no IR costs are payable).

To illustrate the point further, shortly after Pole 3 of the HVDC link is commissioned, Pole 2 will be taken out of service for several months in order to replace control equipment. This outage is essential, because the existing Pole 2 ABB controls do not allow Pole 2 and the new Pole 3 to be operated as an integrated bi-pole link. The provision supported by Genesis would appear to expose Transpower to instantaneous reserves availability costs allocated to Transpower as HVDC owner during this period – this would do nothing other than create a perverse incentive for Transpower to operate the upgraded HVDC link sub optimally. On the face of it, the same problem would also seem to arise when Pole 1 of the link is decommissioned, which is expected to occur in October 2011.

Transpower agrees that there should be incentives in place to ensure maximum HVDC availability for the benefit of the industry as whole. The correct way to achieve this is to provide financial incentives for availability as a whole. This is what the Commission is seeking to achieve through its proposed performance incentive mechanism (which Transpower supports). The Meridian and Genesis proposals would create incentives for Transpower to minimise its own costs by finding ways to restrict HVDC availability or opting not to implement the control system required to enable optimal operation of the upgraded HVDC link, both of which would produce net costs for the nation as a whole,

### **Assertion by CRA that the Commerce Commission decided that the instantaneous reserves cost were “unrecoverable” by Transpower**

The report by CRA that forms part of the submission from Contact Energy claims that the Commerce Commission decided that instantaneous reserves costs allocated to Transpower as owner of the HVDC link were “unrecoverable”. This is not correct. The Commission's decision was that the reserves costs should not be treated as “pass through” costs, but rather that they should continue to form part of recoverable operating expenditure, subject to

the cap on total operating expenditure specified in the Commerce Act (Transpower Thresholds) Notice 2008. This misapprehension by CRA effectively undermines their argument about the correct allocation of costs to AC and DC customers. Meridian also incorrectly states in its submission that the Commission rejected Transpower's request that IR costs should be treated as part of recoverable operating expenditure.

Meridian goes on to state (clause 109) that Transpower subsequently recommissioned Pole 1 in order to reduce its exposure to IR costs and the availability of Pole 1 has since been relatively high. For the record, this statement is factually incorrect. At all times our objective was to reinstate Pole 1 in a way that was safe and for the benefit of overall power system operation. The work on partial restoration of Pole 1 started before the Commerce Commission's decision not to categorise instantaneous reserve costs as a pass through. Transpower undertook extensive remedial work, environmental analysis and consultation prior to recommissioning Pole 1 in a limited operational capacity. As noted above, Transpower does not operate Pole 1 in order to minimise reserve costs but rather to maximise asset availability,

#### **Method used to rebate over-expenditure of opex cap to AC and DC customers**

Meridian and Contact both assert that the method used to rebate expenditure that exceeds the opex cap specified by the Commerce Act (Transpower Thresholds) Notice 2008 ("Thresholds Notice") to DC and AC customers is allocatively inefficient.

In the first year of the settlement in 2006/07, Transpower had to determine what to do when actual operating expenses were (inevitably) at variance with the operating cap. Cost allocation can be a complex process particularly where there are relatively large amounts of common or joint costs. Transpower considered various options for how the variance could be shared and allocated between AC and DC customers. The method we settled on, and have consistently applied, was that any difference (positive or negative) between actual operating costs and the operating cap would be pro-rated to AC and DC customers so that the operating cap is recovered from AC and DC customers in the same ratio as actual costs incurred. Importantly, the costs components attributable to either AC or DC customers are first determined by applying Transpower's ACAM methodology which attributes only the incremental costs of providing the DC services to DC customers.

Allocative efficiency requires incremental costs to be allocated to the causers of those costs and common costs to be allocated in a non-distortionary manner. Transpower applies the avoidable cost allocation method (ACAM). ACAM is an economically justifiable allocation method – one which allocates only the incremental costs to DC customers and allocates all common costs to AC customers.

Of course arguments can be made for alternative ways of undertaking the allocation which may also be allocatively efficient. Transpower's approach is considered to be a pragmatic approach which operates within an acceptable tolerance of allocative efficiency given that only incremental costs are allocated to DC customers. What is clear is that instantaneous reserves costs are DC costs, as they are allocated to Transpower as owner of the HVDC link. Hence, all the reserves costs should be (and are) allocated initially to DC customers as part of the incremental costs of providing the HVDC link. If total operating expenditure then exceeds the cap determined in accordance with the Thresholds Notice, to maintain strict allocative efficiency there is an argument to support all over expenditure being rebated to those customers that bear the common costs, i.e. the AC customers. To rebate some of the excess to DC customers could be claimed to be less allocatively efficient, as it means the DC customers bear less than the incremental cost of the service they are receiving.

Transpower notes that its approach used to allocate and rebate over-expenditure of the operating expenditure cap to AC and DC customers was set out in a (public) submission to the Commerce Commission in 2008.<sup>5</sup>

### **Exclusion of bi-pole availability from the quality measures in RCP1**

Contact and Meridian object to the Commission's draft decision to exclude bi-pole availability from the quality measures in RCP1. Transpower supports the Commission's draft decision. Given the level of planned work on the HVDC link (and associated assets), over the next 2 to 3 years, the historical performance of the HVDC link is not a suitable basis on which to establish targets for the next four years (RCP1). We have agreed with the Commission, in principle, that bi-pole availability measures should be considered for inclusion as a quality measure under RCP2.

### **Further regulation in relation New Investment Agreements**

Transpower agrees with the Commission that revenue associated with electricity lines services provided in accordance with new investment contracts should be excluded from the individual revenue-quality path. We do not believe that there is a need for the Commission to provide any further back stop regulation as suggested by MEUG in its submission. In Transpower's view, the improvements that have been made as part of the development of the new Customer Investment Contract and associated processes (which were generally supported at the workshop), together with the terms of the Benchmark Agreement in Schedule F2 to Section II of the Electricity Governance Rules, and transmission agreements based on it, provide adequate protection for contracting parties. As the Commission notes, the new Customer Investment Contract and process came into effect on 7 May 2010 and we will continue to engage with customers (including undertaking a formal review in 2011) to identify further improvements where necessary.

Yours sincerely



**Dr. Richard Fletcher**  
Regulatory Strategy Manager  
Transpower New Zealand Ltd.

### **Attachments:**

- 1) Harding Katz (Economic and Regulatory consultants): "Comments on submissions by CRA and NERA on EV balances Report prepared for Transpower New Zealand, August 2010
- 2) PWC: Development and Application of EV Methodology to Revenue Setting – February 2006 (updated 2010).

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<sup>5</sup> Transpower's Cross Submission to the Commerce Commission on Draft Decision and Reasons for not Amending Transpower's Administrative Settlement to include Instantaneous Reserves as Pass Through Costs, 28 October 2008.