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Submissions
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Transmission Pricing Methodology Issues and Proposal Consultation Paper Cross Submission

The Authority's TPM proposal should not be implemented in current form

Mighty River Power has engaged PricewaterhouseCoopers (PwC) Australia to provide an independent evaluation of the 53 submissions to the TPM consultation paper[1]. The PwC analysis clearly indicates a high degree of consensus among submitters that the Authority's proposal should not be implemented as currently proposed.

Submitters indicated many concerns including:

- The materiality of the change of circumstances claimed by the Authority as justification to amend the TPM;
- The weaknesses of the Authority's Cost Benefit Analysis to support its proposal;
- The application of the proposed TPM to sunk assets post-2004;
- The inadequate analysis of consumer impacts; and
- The ability of the SPD test to accurately identify beneficiaries.

Many consumers in particular raised concerns around the increased volatility and uncertainty in transmission charges. As such, we believe the proposal needs significant redesign from its current form if it is to be pursued relative to the status quo and should be considered with other viable alternatives identified in the consultation process.

We suggest the Authority consults with the electricity industry and more broadly with Government agencies including the Commerce Commission, MBIE, Treasury and other sectors on an appropriate way forward. A robust and independently verified cost benefit analysis incorporating the additional static and dynamic impacts identified by submitters is an important starting position.

[1] PwC Australia "Electricity Authority's Transmission Pricing Methodology review: Overview of stakeholder responses to key issues" - report X March 2013". Provided at Attachment A.

Further options should be assessed, including the status quo, in a transparent net benefit framework consistent with the principles outlined by Mighty River Power in its original submission. We discuss in later sections of this submission key design elements of the TPM which we believe many submitters indicated a preference for and we relate these preferences to a potentially modified version of the Authority's proposal.

Little support for the Authority's proposal among consumers

Only two submitters[2] offered support for the Authority's proposal, being Meridian and Pacific Aluminium. However, both suggested changes would still be required to the proposal before they would be able to support. Crucially, both submitters held differing views on the appropriate treatment of the HVDC.

The majority of consumers do not consider that the proposal will be in their long term interests given the potential for excessive pass through of transmission charges due to the volatility introduced. A significant proportion of submitters indicated there were limitations in the consumer impact analysis underpinning the Authority's proposal[3]. As Vector note[4]:

> "The Authority's failure to consider the pricing impacts, including wealth transfers between suppliers and consumers, as part of its proposal means it could conclude a policy change is to the long-term benefit of consumers even if consumers would be worse off."

Retrospective sunk cost reallocations

There was significant disagreement that the changes in circumstances as identified by the Authority (or the perceived deficiencies with the interconnection charge[5]) were in fact material changes. We agree with the Major Energy Users Group submission[6]:

> "We do not accept that problems with the current TPM for allocating sunk costs are material enough to justify significant changes… where the efficiency gains from re-arranging sunk costs are not obvious."

The majority of submitters also expressed concern with the Authority's view that the allocation of the costs of sunk assets should be changed retrospectively[7]. This view is summarised by Northpower[8]:

> "Except when correcting an error or an unintended consequence, it is generally accepted that changes to legislation should not be applied retrospectively. The Authority's proposal to apply "beneficiaries pay" to new grid investments approved since 2004 is effectively retrospective legislation… Changes in behaviour by "beneficiaries" of those investments will not change those investments at all. In

[2] While NZX support the approach they note significant implementation issues.

[3] See PWC report, Attachment A, Section 4.3.

[4] Vector submission section 179, pg 34

[5] See for example Transpower's submission "…the Authority has not demonstrated that there are material problems that would warrant a change to interconnection charges." Page 2.

[6] MEUG submission, para 7, page 2.

[7] See PwC report, Attachment A Section 3.4.

[8] Northpower Submission, section 1.4 page 2.

> fact, we should be encouraging the maximum use of these new projects to maximise the benefits of those investments."

Many submitters agreed that with the exception of the HVDC, where there are known inefficiencies in investment and dispatch, there is no compelling rationale to reallocate costs on sunk assets. Several indicated support for incremental reforms only to the TPM focusing on resolution of the HVDC, and many offered support for the TPAG majority view as a commensurate and superior option to the Authority's proposal[9]. However, notably Vector were categorical in their position that the TPAG majority view should not be considered a viable reform option by the Authority.

Opposition to the reallocation of sunk costs was also raised by a range of submitters from outside of the electricity sector[10] who highlighted the regulatory uncertainty created by the proposal and its impact on capital markets. Australian-based Alinta Energy commented that it "remains interested in investment opportunities in New Zealand and it is certain the proposal adds further uncertainty to an already complex market"[11]. Mighty River Power submits that these complexities and uncertainties are not in the long term interests of consumers.

Identification of beneficiaries and linkage to grid approvals process

The validity of the Cost Benefit Analysis provided by the Authority to justify a shift toward the more complex SPD based method was called into question by many submitters. Fundamentally there was little support for the Authority's contention that the SPD approach would accurately identify beneficiaries, would lead to significant dynamic efficiency gains or would be durable.

Among other issues with the SPD approach, the disconnect with Commerce Commission's grid approval process was highlighted as a material issue, as illustrated by Powerco[12]:

> "The TPM proposal, if implemented, would not change the administrative processes that apply to transmission capital expenditure. In particular, the Investment Test would not be modified in any way… Hence, in our view, the most likely effect on dynamic efficiency of the mechanism… is zero."

Like Mighty River Power, Orion considered that if, as the Authority contends, inefficient decisions have been made around large transmission investments then "clearly [that] decision-making process should be the direct and primary focus of review"[13]. However, several others noted that the majority of the current large scale transmission investments were actually approved under by the Authority's predecessor, the Electricity Commission.

In any regard, the underlying sentiment in many submissions is that the "jury is out" (as expressed by MEUG) on the transfer of transmission regulation to the Commerce

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[9] See discussion in PwC report, Appendix A, s3.1.3.

[10] See for example submissions from Auckland Airport, Auckland Chamber of Commerce and EMA Northern and Business New Zealand.

[11] Alinta Energy Submission, page 2.

[12] Powerco submission

[13] Orion submission, response to question 12.

Commission and there is little benefit in fundamental review without allowing time for this new arrangement to properly bed in[14].

Consistency with beneficiary pays concept

Several submitters highlighted that the 50:50 split between generation and distributors[15] for the residual charge was at odds with the Authority's overall approach of linking charges to the benefits that grid users derive from transmission assets.

Trustpower stated: "The 50:50 ratio is inconsistent with the beneficiaries pay philosophy that the Authority is advocating[16]" and several distributors (who are economically neutral to the proposal given their ability to opt-out from the residual charge) highlighted the inconsistencies of the Authority's approach. Mainpower for example:

> 'We believe that if a distributor is allowed to opt out of the residual charge, and is not subject to SPD charge as the EA in its analysis assumed, this means that the distributor would not even be paying for any benefit at all. This would be inconsistent with the principles of beneficiaries pay that the EA proposed in the methodology[17].'

Allocation of charges to generators

Buller Electricity argued that allocation of charges to generators requires careful consideration particularly if the industry is to avoid similar disputes to those that have characterised the HVDC. Like Mighty River Power, Buller indicated it: "supports a principle of setting prices to recover fixed interconnection costs in a manner that creates the lowest risk of distorting efficient nodal prices observed in the wholesale market.[18]".

Reflecting this view, just under half of all submitters considered that the residual charge should either remain entirely allocated under the existing RCPD mechanism or the ratio significantly revised toward loads to reflect the reliability benefits of the majority of transmission investments. The Domestic Energy Users' Network noted[19]:

> "Generators are not "causers" of network use, they are responders to consumer electricity use, as dispatched by the system operator. There seems to be no compelling economic reason to charge generators for use of transmission."

The prevalent view expressed across a wide range of submitters was that the allocation of SPD and residual charges to generators and potentially retailers would lead to increased distortions to wholesale and retail market prices and added risk premiums reflecting the volatility of charges. In addition, Energy Link also noted that:

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[14] See discussion in section 2.1.2 of PwC Report, Attachment A.

[15] Potentially including retailers where distributors exercise their right to opt-out of the residual charge.

[16] Trustpower submission section 28.1

[17] Mainpower submission page 2.

[18] Buller Electricity submission page 6.

[19] DEUN submission, page

> "For smaller retailers and businesses there are no obvious hedges for this volatility. As a result new entrant retailers are likely to find it harder to enter the market and/or to expand if the Proposal is implemented. Additionally businesses purchasing off the spot market are likely to find it difficult to accurately predict their costs. Quite simply, retailers and businesses are not well placed to pass-through or manage this risk."[20]

Like Mighty River Power, many submitters considered the potential impact on wholesale and retail market efficiency from the Authority's proposal was not seen as beneficial to the long term interests of consumers.

Wealth transfer impacts

The lack of clarity around the treatment of embedded generation and concerns about the ongoing economic viability of such investments was a consistent theme among many submitters. NZIER estimate in excess of 160 generation sites could be impacted and consider this is a material issue for resolution. In particular, the ability for distributors to opt-out and the reduction in RCPD charges due to the split of the residual charge were considered contentious issues, even among distributors[21].

Both Ringa Matau Limited and Tuaropaki Power Company indicated that Authority's proposal would have material financial impacts on their geothermal operations, potentially up to 18% and 15% of annual revenues respectively[22]. The commissioned research on behalf of both entities indicates clearly that the Authority's proposal is likely to have a disproportionate impact on Maori land trust geothermal investments and Maori economic development as a result.

Supported elements of a preferred TPM

Predictably there was little consensus among participants as to a viable alternative to the Authority's proposal. However, there were a number of common themes that submitters would prefer, many of which are consistent with the good practice principles for transmission cost allocations outlined in Mighty River Power's original submission. The feedback from participants is that the Authority should seek to implement a TPM that:

1. *Is simple and understandable*

   The complexity and lack of ability of participants to understand the implications of the Authority's proposal was a consistent theme from many submitters:

   > "Northpower strongly disagrees that a methodology should be made considerably more complex just because technology enables greater computing power. On the contrary, there has been considerable focus on simplifying and

[20] Energy Link submission, pages 2-3.

[21] See for example Powerco's concerns as to how a distributor would recover variable transmission charges under its default price-quality path where it does not exercise the option to opt-out of the residual.

[22] See Cognitus Report "Impact of Electricity Authority's Transmission Pricing Methodology Proposals on certain Maori Geothermal Generation Investments" Pg 42

standardising electricity pricing, for instance through the Distribution Pricing Principles and standardisation of tariff codes.[23]"

2. *Minimises implementation burden*

Several submitters commented that if implemented the Authority's proposal would require significant increases in resources to forecast and estimate transmission charges[24]. Transpower also noted that the direct costs of implementing the Authority's proposal would be $20m with ongoing annual costs of $1m.

3. *Provides stability and predictability in transmission charges*

The resulting volatility of transmission charging was among the top concerns with the Authority's proposal across the majority of submissions. As noted by NZ Steel:

> "Predictable and manageable pricing is a requirement for business... There are many unknowns in the proposal as to where charges will fall and volatility is expected. This is unacceptable. Variability and uncertainly invariably lead to higher risk premiums which are not in the interests of consumers."[25]

Contact Energy noted that the inclusion of a number of very small assets due to the $2m threshold adds volatility to cash flows and results in significant resource burdens in terms of parties forecasting charges[26]. Both Contact and Meridian advocated to increase the threshold to between $50 – $100m.

4. *Does not result in incentives to distort wholesale and retail markets*

A significant proportion of submissions, particularly from consumers, raised concerns as to the potential distortions arising from generators bidding incentives within the wholesale market and in terms of retailers passing through volatile charges at a premium reflecting uncertainty[27].

5. *Favours incremental reform that avoids significant wealth transfers*

Business New Zealand noted:

> "Regulators face the unavoidable fact that they operate in a world of uncertainty. Moreover, an incorrect decision may potentially impose very large costs on firms and the economy... BusinessNZ's advice is that small, incremental policy changes be used initially so that their effectiveness can be assessed."[28]

Several submission highlighted the potential for unintended consequences resulting from the complexity of the proposal[29]. Incremental reform was preferred by a

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[23] Northpower submission. page 1.

[24] For example Buller Electricity: "If the TPM is modified as proposed, BEL will need to invest in sophisticated modelling systems to forecast potential transmission costs." Page 10

[25] NZ Steel submission, para 5, page 2.

[26] Contact Energy submission, section 6, page 17.

[27] See PwC report, Appendix A, section 4.3.3.

[28] Business NZ submission, pages 4-5.

[29] See PwC report, Appendix A, section 3.4.3.

number of submitters on the basis that it avoided such outcomes and made 'troubleshooting' more effective.

Many small-scale embedded generators indicated that the ability for distributors to opt-out and the halving of the current RCPD residual is controversial as it would significantly impact on the value of such investments and result in significant wealth transfers.

6. Avoids inefficiencies associated with significant reallocation of sunk costs

   A major concern from a number of consumers and other participants outside of the electricity sector, were the inefficiencies caused within the wholesale and retail markets by retrospectively reallocating sunk costs.

   An exception to this was resolving the HVDC cost allocation given its known dispatch and investment inefficiencies and the fact that the need for change has been signalled in successive transmission pricing reviews.

   Several submissions expressed the view that any changes to transmission cost allocations should only apply prospectively[30] in order to provide regulatory certainty.

7. Allocate costs according to benefits where possible

   Many submissions offered in-principle support for the concept of beneficiary pays but did not consider the Authority's proposed SPD method would effectively identify beneficiaries. In particular the fact that SPD allocated charges on a gross basis to beneficiaries indentified at the half hour level, was seen to be at odds with who the actual long run beneficiaries of transmission assets[31].

Conclusions and Way Forward

Mighty River Power appreciates that transmission pricing reform is challenging given the historic positioning of participants and the potential for significant wealth transfers. The Authority should be given credit for moving the debate forward and attempting to seek resolution on a difficult policy issue.

In terms of progressing towards a resolution Mighty River Power suggests the Authority:

- Consults with industry and more broadly with Government agencies including the Commerce Commission, MBIE, Treasury and other sectors on an appropriate way forward. Such agencies have a strong policy and administrative/regulatory engagement in relation to transmission impacts on New Zealand's economic activity.
- Considers undertaking further Cost Benefit Analysis incorporating the additional static and dynamic costs identified by submitters and having the results independently verified.

[30] See for example Transpower's submission.

[31] See for example the submissions from EPOC page 8, TrustPower, Q7 and Norske Skog Tasman pg 4.

- If further options are to be considered (including a modified version of the Authority's proposal) we recommend they are evaluated within a net benefit framework consistent with the principles outlined in our previous submission and also explicitly include retaining the status quo.

Given the feedback from participants and the conclusions from a range of independent economic analysis, Mighty River Power considers that the Authority could, as measured against its own code amendment principles, favour a incremental approach which seeks to demonstrate and trial the concepts outlined in its TPM proposal.

Core elements of a proposal that could be consulted on more widely include:

- Retaining the existing approach to connection charging in its current form;
- Trial the concept of allocating beneficiary shares on the HVDC only;
- Allocating HVDC beneficiary shares on an ex ante, fixed basis to avoid volatility in charges;
    - HVDC Shares could be allocated according to a modified version of SPD where charges would be fixed annually without any capping.
    - Alternatively, HVDC shares could be allocated according to an economic modelling approach that would more closely align with the Commerce Commission's grid investment test process.
- Any residual charges would be allocated under the existing RCPD arrangement;
- No distributor opt-out or inclusion of charges to retailers. Inter-year volatility in transmission charges would have to be resolved to prevent any issue under distributors default price-quality path; and
- If the trial was considered successful it could be implemented prospectively to future transmission investments of $100m or over.

Please direct any queries on this submission to myself on nick.wilson@mightyriver.co.nz or 09 580 3623.

Yours sincerely,

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