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By email to: submissions@ea.govt.nz

TPM Supplementary Consultation: cross-submission on asset valuation

Please find enclosed our cross-submission on the valuation method for determining the revenue to be recovered under the Authority's proposed area-of-benefit (AoB) charges.

In the discussion below we:

1. Explain why we strongly recommend not mandating a specific valuation method in the Guidelines. We highlight the risks associated with undue prescription at this point and set out why the concerns raised by submitters can be dealt with subsequently, if necessary.
2. Observe that the submissions by Meridian, NZAS and Contact may foreshadow the challenges to come in developing a new TPM, when this will be but one of many factors that could produce substantial wealth transfers and inevitable disputes between potential 'winners and losers'.
3. Comment on process, including our support for this cross-submission round, but concern at its limited scope and omission of key points raised throughout the consultation period – we note also the restricted nature of the pending 'Q & A' session on the CBA.

We recommend not prescribing a specific valuation method in the Guidelines

Meridian, NZAS and Contact raise potential issues with the Authority's December 2016 proposal and suggest these could be remedied by the Authority prescribing a specific valuation methodology for investments allocated via the AoB charge.¹

We understand some of the issues raised by these parties but consider these concerns are best addressed during the TPM development process when parties will have the time and information to properly understand the options and assess these on merit. Our concern about over-prescription in the Guidelines holds regardless of the valuation method that was mandated – whether indexed historical cost (IHC), depreciated replacement cost or any other approach.

Transpower's concern is similar to that raised in relation to prescribing the allocator for AoB charges to generators in the Guidelines.

In our view, a significant amount of work, including quantified analysis, is required for a robust decision on these matters. The analysis also needs to be informed by other components of the new TPM which are not yet known. It is not, therefore, possible to address the risk of unintended consequences or foreclosing more efficient options at this stage in the process.

We consider that the Authority's current proposal allows the Authority to determine the optimal asset valuation method, on the basis of Transpower's work, and as part of an overall TPM package.

¹ Limited other submitters, such as BusinessNZ, touched on this topic, but their commentary was peripheral to the debate.

Any stakeholders that disagreed with Transpower's analysis would be able to raise concerns to Transpower, and if unresolved, to the Authority.

In our view this is appropriate and is likely to result in the most efficient and durable outcome. Conversely, mandating a specific valuation methodology now, without due consideration to the types of matters listed above could result in unintended consequences and foreclose more efficient (or durable) options. In other words, specifying a valuation method now is unnecessary and risky, with no corresponding upside.

Submissions on the valuation topic serve as a 'canary in the coal mine'

Submissions on the valuation methodology for AoB highlight the danger of focussing on a potential effect raised by one particular group of customers. The Authority's TPM proposal will give rise to material redistributive effects, only in part due to the choice of valuation methodology. The valuation methodology chosen would affect the incidence of charges (and wealth transfers) between (i) generation and load, and, (ii) between load in different areas of New Zealand. Other design choices, in combination with the choice of valuation method, will similarly give rise to redistribution effects and are also likely to be contentious.

The topic of asset valuation became more prominent following the Authority's proposal to charge the residual to load only. There is now a clear demarcation of views in relation to asset valuation and the scope of the AoB charge,² with those opinions essentially reflecting how the Guidelines might impact those different parties financially. This is consistent with the sentiments expressed by most submitters and experts throughout the consultation process.³

While cross-submissions are limited to a single topic, many other topics are likely to elicit similar responses from affected parties so the issues raised here are likely to be just the tip of the iceberg.

Separately, we note the clear inference from some of the commentary in submissions about what would and would not be lawful, and of the risk that disputes could include legal challenge. Taken at face value, submissions on the Supplementary Consultation indicate the Authority could face concurrent legal challenge from both the supporters and opponents of the TPM changes.

Process issues

While we fully support the inclusion of a cross-submission step in the consultation process, we are concerned with its limited and selective nature. We consider that the Authority should allow stakeholders to decide for themselves what matters they consider to be of sufficient importance to address. An 'open round' of cross-submissions would not preclude parties from providing further material on asset valuation if they wished to do so, and it would also allow them to address any other substantive issues they considered worthy.

In our view, several other important issues have been raised by stakeholders, which would benefit from cross-submissions – perhaps even more so than the matter of asset valuation. For example, we consider the question of whether some form of peak-usage charge should be retained to have larger and more direct efficiency impacts than the valuation of AoB investments. We have also urged the Authority to seek feedback on our Simplified Staged Alternative.

A full cross-submission round would also have allowed us to respond to the objections about widening the scope of the AoB charge. The main concerns appeared to be that estimating private benefits would be difficult and contentious. However, these concerns appear to relate more to

² Cross-submissions were not sought on the scope of the AoB charge.

³ In essence, that the proposed changes would increase dispute and undermine the durability of the TPM (contra to the Authority's claims).

whether the AoB methodology should be adopted at all, rather than the appropriate coverage of the charge.

We are also wary of considering the matter of asset valuation in isolation, as required by the narrow scope for cross-submissions, due to linkages between this matter and:

- (i) connection charges⁴
- (ii) the type of pricing signal the AoB charge can and should send, and
- (iii) the allocation of charges between generation and load (and amongst load in different parts of New Zealand).

We consider this topic to be of critical importance to prices produced under the Authority's proposals. However, we do not believe that most understand the issues or appreciate their significance. This is reflected in their lack of engagement in any meaningful way.⁵

Separately, there is a broader question of how to get the balance between flexibility and prescription right (this cannot be resolved without considering the proposed TPM Guidelines in a holistic manner).

Valuable contributions, or circumventing the Authority's process ... or both?

It is apparent that the Supplementary Consultation stage has been used by some stakeholders as an opportunity to cross-submit in response to submissions made on the 2nd Consultation Paper (and previous consultations). On one hand, this could be construed as submitters circumventing the Authority's process to gain some advantage over other parties. On the other hand, it could simply be symptomatic of problems with the process itself, and those de-facto cross-submissions could be yielding useful information that would otherwise not come to light.

Specifically, parties have responded to Appendix I of our own 2nd Issues paper submission. The Authority evidently considers these de facto cross-submissions to be useful. We note also the various comments about Transpower's Simplified Staged Alternative, and the advancement of moderate reform options, in many submissions. These again constitute 'cross-submissions', and the information obtained from them is of value.

In the absence of formal cross-submission rounds, parties have used the next stage of consultation to cross-submit on the previous round. We consider it would be more efficient for the Authority to have planned for cross-submissions on the 2nd Issues Paper in the first place. The Authority would then have been able to consider the comments last year, prior to the Supplementary Consultation, rather than at this late stage when it is working to a very tight timeframe to complete the review by April.

Yours sincerely



Jeremy Cain
Regulatory Affairs & Pricing Manager

⁴ Much of the discussion on asset valuation for AoB relitigates the debate from the Connection Charge Working Paper in 2014.

⁵ It seems unlikely that this short and un-signalled cross-submission round (on what, at face value appears a dry, technical matter) will change that.

1. Cross submission: Introduction

The Authority, up until now, has been trying to improve the balance between prescription and flexibility in the proposed Guidelines. The clear majority of stakeholders support this movement toward more flexibility with less prescription in the proposed Guidelines, and think the balance should shift further towards flexibility.

Contact Energy, Meridian Energy and Pacific Aluminium's recommendation that the Authority mandate a specific valuation methodology at this point (favourable to those parties) is unnecessary and would, in our view, be a retrograde and risky step.

2. Summary of our position on asset valuation

We consider the Authority should not change the approach, in the proposed Guidelines, of providing the option of adopting an indexed valuation methodology, or an alternative if it can be shown to meet certain criteria or principles.

- It is appropriate for the Authority to provide Transpower discretion to propose the valuation methodology or methodologies as part of the TPM development process.
- We support the proposed Guidelines' clause 27 providing an indexed valuation method to be the default option, consistent with the Authority's position on connection charges, with allowance for Transpower to propose an alternative under certain criteria.
- Our proposal to expand clause 15 in the proposed Guidelines would enable Transpower to seek a determination from the Authority on the preferred valuation method if Transpower was unable to decide between two or more options. We would particularly welcome expansion of clause 15 for matters where decisions on TPM design will give rise to very large wealth transfers, with much smaller impacts on the efficient operation of the electricity industry.
- We do not believe the Authority has sufficient time between now and April to consult adequately on the appropriate asset valuation methodology for the AoB charge. This would result in considerable further delay in the TPM review process and is unnecessary, as concerns raised by submitters can be dealt with in the TPM development process.

The changes we have advocated to the valuation methodology clauses in the proposed Guidelines are aimed entirely at improving the technical drafting of the Guidelines, rather than the Authority's policy intentions.⁶

3. Balance between discretion and prescription

Most submissions on the Supplementary Consultation touched in some way on whether the proposed new TPM Guidelines should provide flexibility for Transpower to determine key matters – such as the asset valuation method – when designing the TPM, or prescribe the detailed methodologies that Transpower must apply.

Some submitters go so far as to suggest that unduly prescriptive Guidelines could be considered unlawful. PwC, for example, noted that increasing the discretion to Transpower in developing a new

⁶ For example, we have expressed concern to the Authority that any alternative valuation methodology, including options preferred by Meridian et al, would require Transpower to demonstrate that the alternative was cost-reflective and service-based (without practicability qualifications) and meet the statutory objective (clause 27(b)), and then also that it promoted an efficient trade-off between accurate price signals and administrative costs (clause 28). This is effectively four sets of tests or gates which must be met before an alternative to an indexed valuation method can be adopted.

TPM “gives Transpower more scope to ensure the new TPM does not result in perverse or unreasonable outcomes”.⁷

Most submissions did not offer an opinion on the appropriate asset valuation approach – presumably because the Guidelines (appropriately, in our view), provided Transpower the flexibility to select the most appropriate approach following appropriate consultation. The principal exceptions were Contact, Meridian and Pacific Aluminium.

Meridian stated that there will be matters that Transpower is better placed to determine, and others where it would be better for the Authority to decide: “It is important that the proposals retain a demarcation between the roles of the Authority and Transpower. This can sensibly be done by considering whether Transpower or the Authority has better information and expertise ...”⁸ We agree with this sentiment.

However, on several other points, our views depart from those expressed by Meridian. For example, we do not consider it would be appropriate to determine the appropriate asset valuation approach without giving careful consideration to the efficiency and durability implications of this method or whether it what is practicable, given our internal systems and records. We also challenge and refute any inference that Transpower:

- has a particular financial interest in whether higher or lower valuations are adopted (we are commercially neutral on this point), and
- is biased or has ‘predetermined’ our preferred valuation approach.⁹

The first point is uncontroversial and the second point is clear from our submissions and engagement through this process. That has been focussed consistently on assisting the Authority to make a decision on TPM that is workable, and helps promote efficient operation of the transmission grid and the electricity industry more generally (including retaining price signals which will help avoid bringing forward investment).

Further work is needed before the optimal valuation method is known

We agree with Pacific Aluminium, who recognises the need for further work on this issue:

“Analysis is required to determine whether utilising a particular valuation method in setting the AoB charge would, in practice and in combination with the residual charge and other charges, better advance the Authority’s statutory objective compared to the alternatives. Neither the Second issues paper, nor the Supplementary consultation paper, provides this analysis”.¹⁰

At this point neither we nor the Authority has not undertaken the analysis, including quantitative analysis, to determine which valuation option would best satisfy the objective in section 15 of the Electricity Industry Act.

We would expect to form views about the optimal valuation approach following appropriate consultation when we develop the Guidelines into a TPM. We expect to address issues raised by submitters as part of that process and note that the proposed Guidelines permit Transpower to adopt alternative valuation approaches if considered superior. We note the TPM that Transpower arrives at will be the result of consultation and be subject to the Authority’s approval, providing parties with ample opportunity to provide their views and raise any concerns.

⁷ PwC, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 10.

⁸ Meridian, TPM 2nd Issues paper: Supplementary Consultation, 24 February 2017, page 4.

⁹ For example, Meridian make the unsubstantiated claim that “Leaving policy issues to Transpower about which it has already expressed firm views as a submitter in the Authority’s process gives rise to administrative law issues and risks undermining the durability of the resulting TPM”. [Meridian, TPM 2nd Issues paper: Supplementary Consultation, 24 February 2017, paragraph 27.]

¹⁰ Pacific Aluminium, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 87.

Therefore, while there is no particular downside to this aspect of the proposed Guidelines, there are clear risks associated with prescribing a methodology in the Guidelines. In particular, mandating a specific valuation methodology now without due consideration to these matters could foreclose more efficient (or durable) options.

Our concern would hold regardless of the valuation method that was mandated – whether it be IHC, depreciated replacement cost or any other approach.¹¹

4. Overview of the Contact, Meridian and Pacific Aluminium submissions

Contact, Meridian and Pacific Aluminium have raised several potentially valid and useful comments in their submissions. Naturally, we would explore and test these issues as part of the TPM development process before making any recommendations to the Authority on asset valuation. The submissions also highlight the potential for tension to emerge between backward and forward-looking (or short-run and long-run) concepts of cost-reflectivity that need to be carefully balanced.

However, as we explain in more detail below, we consider that some of the comments from these three parties are based on flawed analysis and/or a misunderstanding of the views we expressed in our response to the 2nd Issues Paper.

Some of the other comments from these parties also demonstrate some confusion about the role of asset valuation under Part 4 of the *Commerce Act 1986* and the TPM, respectively. For example:

- the inappropriate extension of the “NPV = 0” principle to individual assets/investments. The NPV = 0 principle is relevant to Transpower’s entire regulated business (i.e., its total RAB), but not necessarily to individual assets, and
- The High Court commentary on asset revaluation. This is not relevant, since any revaluations of particularly assets for TPM purposes would not increase Transpower’s overall revenues – this is again an inappropriate comparison.

We were particularly surprised by Meridian’s comment that “The Authority would be at risk of a legal challenge on the basis that the proposed treatment of HVDC assets was inconsistent with the Part 4 price control regime and/or unlawful”.¹² The suggestion seems to be that Transpower is legally obligated to set bespoke prices for particular assets – including the HVDC link – that are linked explicitly to the asset values determined by the Commission. We are unaware of any such obligation, and observe that:¹³

¹¹ Our concerns echo those that we raised in relation to the Authority’s proposal to prescribe the allocator for AoB charges to generators. In our view, a significant amount of work, including quantified analysis, is required for a robust decision on these matters.

¹² Meridian, TPM 2nd Issues paper: Supplementary Consultation, 24 February 2017, paragraph 84.

¹³ Meridian also refers to the Vodafone case in the determination of the net cost of the Kiwi Service Obligation. The relevance of this case from a different jurisdiction, which relates to the determination of the cost of an entire service (i.e., not a particular asset or investment), is not clear. It may be worth the Authority discussing this matter with the Commerce Commission.

We are aware, for example, that the case was referred to by some submitters in the Commerce Commission’s UCLL and UBA FPP price determination. This included the same citation Meridian rely on that “It is sensible to revalue on an optimised basis, say, a switch by attributing to it the lower value (price) of a new switch which performs the same or better function but is able to be acquired at a lesser price. It is quite another thing to attribute a modern equivalent value to an old asset which is not actually being replaced and for which no replacement would sensibly be introduced. All that does is to artificially inflate the value of the old asset and provide a windfall for the firm in terms of an enhanced return on and of capital employed.” [Vodafone New Zealand Ltd v Telecom New Zealand Ltd [2011] NZSC 138, [2012] 3 NZLR 153 at [70]].

The Commerce Commission’s determination of the FPP price for UCLL and UBA services revalued (without the revaluation being treated as income) assets which would not be replaced at their modern equivalent value. If the

- the approach the Commission has taken under Part 4, including in relation to asset valuation and treatment of revaluations, is influenced by its treatment of wealth transfers as directly relevant to promotion of long-term benefit of consumers
- the purpose of asset valuation under Part 4 is to determine Transpower's maximum allowable revenue (MAR) – the IMs place no limits on how we should subsequently determine prices for individual customers, and we note that regulatory frameworks commonly provide regulated providers with significant flexibility on pricing, e.g., by specifying a broad range within which efficient prices might lie, such as between incremental and stand-alone costs, and
- it has not yet been established that a shift to, say, an IHC-based methodology would lead to South Island generators paying more than the total cost that was approved by the Commission for that investment (a matter we return to later) or that prices would exceed the 'stand-alone cost' of providing an 'HVDC service' – to the extent that can be meaningfully defined.

If Meridian's legal and economic arguments have merit we would, naturally, take them into account when designing the TPM. For now, the discussion distracts from the legitimate debate over valuation for transmission pricing purposes.

5. How the valuation method can impact on the revenue to be recovered for each eligible investment

Some of the objections to the adoption of an indexed valuation method, rather than a depreciated valuation method, may in part be based on a misunderstanding of how the proposed Guidelines would work, or on certain presumptions about how Transpower would apply them.

We explain below two different ways we could apply the Guidelines to determine the AoB charges; one possible approach is to calculate the "full cost" of eligible investments independently of our MAR; and the other is to calculate the "full cost" based on allocation of the MAR.

Approach 1: Calculation of full cost independent of MAR

Under this approach, the capital cost to be recovered by the AoB charge is entirely a function of the asset valuation method used for those assets in the TPM (which may differ from the asset valuation approach used to determine Transpower's MAR under Part 4). The higher the asset valuation, the higher the "full cost" and the higher the AoB charges.

The concerns Contact, Meridian and Pacific Aluminium are raising appear to be based on a presumption this approach would be adopted, just as much as about the actual valuation methodology. However, they appear to have confused these two distinct matters.

This approach can be construed to have advantages if it is considered to be more efficient to recover transmission costs through AoB charges than through the residual. The higher the value of eligible investments relative to the total RAB, the more revenue will be recouped through AoB charges (and the less revenue recouped through the residual charge).

In theory, more than 100% of Transpower's revenues could be recovered through AoB charges, resulting in a negative residual. In this event, clause 29 (the scaling provisions) would be needed to ensure the total quantum of TPM charges did not exceed Transpower's MAR.

Vodafone case had limited relevance to other cost determinations under the Telecommunications Act it is likely to have little or no relevance to the determination of transmission pricing Guidelines under the Electricity Industry Act.

Approach 2: Calculation of full cost based on relevant elements of the MAR

Under this approach, asset valuation is not used to directly determine the “full cost” of investments earmarked for AoB charges. Asset valuation is instead used to apportion the relevant MAR¹⁴ between different assets.

For example, if the asset value of eligible investment A is x% of the total asset value of *all* transmission assets, then the “full cost” that needs to be recovered from eligible investment A is x% of the relevant MAR.¹⁵

The scaling provisions in clause 29 would not be required, since the AoB charges would not exceed the relevant MAR. It would make no difference whether the valuation methodology resulted in asset valuations which exceeded the RAB or not, since allocations would automatically be linked to the relevant MAR.

PwC make the same comment: “using IHC to allocate costs but only seeking to recover Transpower’s regulatory asset values will avoid the problem this refinement [enabling charges to be scaled back to avoid over-recovery] was trying to solve”.^{16 17}

This approach also highlights some of the dangers with using different valuation methods for different eligible investments, as previously proposed in the 2nd Issues Paper. If the HVDC was treated differently and valued on, say, a DHC basis, and other investments valued at IHC, it would skew the AoB charges down for HVDC and up for other charges.

6. Determining the appropriate valuation methodology

Different asset valuation methods offer advantages and drawbacks (including potential for different wealth transfer outcomes). As we have explained above, full consultation on the valuation options would be needed.¹⁸

The submissions made by Contact, Meridian and Pacific Aluminium raise some valid reasons why DHC may have merit and should be considered.¹⁹ For example, effectively delegating decisions on asset valuation to the Commission, as part of its Part 4 IMs and IPP determinations, would be administratively convenient (part of the criteria in the proposed Guidelines) for the Authority and Transpower. Meridian also points out “Using present RAB values will ... avoid the need for Transpower to assess the historical costs of old assets”.²⁰

Just as valid, there are reasons why indexed asset valuation methodologies, such as IHC and RC, should be considered. This was very clear from the Connection Charge Working Paper submissions.²¹

¹⁴ The relevant elements of the MAR may be the capital costs, operating and maintenance costs and other attributable costs but may exclude a contribution towards common costs.

¹⁵ This approach potentially has the advantage of not needing to specifically identify things like overheads and operating costs, because the MAR could be directly allocated, rather than individual cost components.

¹⁶ PwC, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 14.

¹⁷ We have not commented on PwC’s recommendation that this approach be adopted, since it is beyond the scope of the cross-submissions the Authority has requested, and is a matter we would need to resolve as part of the TPM development process.

¹⁸ Notably, the Commerce Commission adopted additional consultation and workshops on emerging technology and WACC, as part of its IMs review, given these were particularly contentious. We consider the approach the Commerce Commission adopted was prudent.

¹⁹ We would anticipate, given the majority of submitters and experts have raised concerns about application of the AoB charge to sunk costs, that many parties would consider the concerns about over-recovery could be addressed by only applying AoB to new assets, and not to sunk assets. The choice of asset valuation method is only one option for addressing the concerns raised.

²⁰ Meridian, TPM 2nd Issues paper: Supplementary Consultation, 24 February 2017, paragraph 42.

²¹ There was also only limited support for a depreciated valuation methodology in response to the Connection Charge Working Paper. Meridian was the only party that fully supported a depreciated valuation methodology. Nova Energy considered it appropriate for generators and major users (not EDBs). PwC acknowledged there were pros and cons with

Pacific Aluminium has also noted that “the choice of valuation method has implications for ... the price incentives and information conveyed by the AoB charge”.²² The Authority’s present position is that AoB would act as a proxy for LRM/C/dynamically-efficient pricing signals. It has been pointed out throughout the TPM review process, from the original Issues Paper onwards, that a combination of beneficiaries-pay and depreciated asset valuation would result in charges falling as transmission becomes constrained and as the aggregate private benefits (and LRM/C) increase. This is potentially the opposite of a dynamically-efficient price signal and beneficiaries-pay principles.²³

Finally, it is unclear at present whether the chief concern submitters have raised in relation to IHC and RC methodologies – namely, that it would lead to ‘over-recovery’ (however defined) on particular assets – has merit. These submissions raise several key questions, such as:

1. Given there have been no bespoke prices applied to the majority of investments earmarked for the AoB charge²⁴ – just a pool of ‘interconnection revenue’ recovered from *all interconnection* assets – there is no obvious way to work out whether the costs of any particular interconnection investment have been ‘over-’ or ‘under-recovered’ (we consider the specific case of the HVDC charge below).
2. Assuming that such an empirical exercise was feasible (which is unclear at this point) and revealed there was some possibility of ‘over-recovery’ (however defined) on particular investments, would that be inefficient. For example, it is not clear that it would result in prices that are not ‘service-based’, or outside the bounds of incremental and stand-alone cost?

These are not straightforward matters to resolve and would be difficult for the Authority to explore properly in the limited time remaining to finalise the Guidelines. In the following sections, we provide some initial observations about these claims relating to potential ‘over-recovery’ and respond to some of the comments made about our previous submission – most notably, “Appendix I”.

7. NPV = 0 arguments and Transpower’s Appendix I

Contact, Meridian and Pacific Aluminium all raised “NPV = 0” / “over-recovery” arguments against shifting to an indexed valuation methodology to determine AoB charges, and cross-submitted on Appendix I of Transpower’s submission in response to the 2nd Issues Paper. We consider that these submissions warrant consideration, which we would expect to undertake as part of any TPM development process.

However, we stress, as should be clear from the discussion above, that the analysis in Appendix I is just one relevant consideration in determining the appropriate asset valuation method (particularly, noting Contact’s incorrect suggestion that if the analysis in Appendix I doesn’t hold it follows that DHC should be adopted).²⁵

Pacific Aluminium’s was incorrect to claim “the reasoning set out in the Transpower annex does not hold: the analysis in Transpower’s annex assumes that the AoB charge applies only to new assets and recently commissioned assets”.²⁶ Our Appendix I analysis was based on existing/sunk

different options. The remainder of submitters, including PwC, supported adoption of a flat-line/non-depreciated valuation method. While these submissions were made in the context of connection charging, their wider relevance needs to be considered in any decision on asset valuation.

²² Pacific Aluminium, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 46.

²³ These arguments against depreciated valuation methodologies would be weaker if the Authority adopted Transpower’s suggestion that AoB be treated as having a role in cost allocation only, with LRM/C pricing used to provide dynamic pricing signals.

²⁴ The exception being the HVDC link.

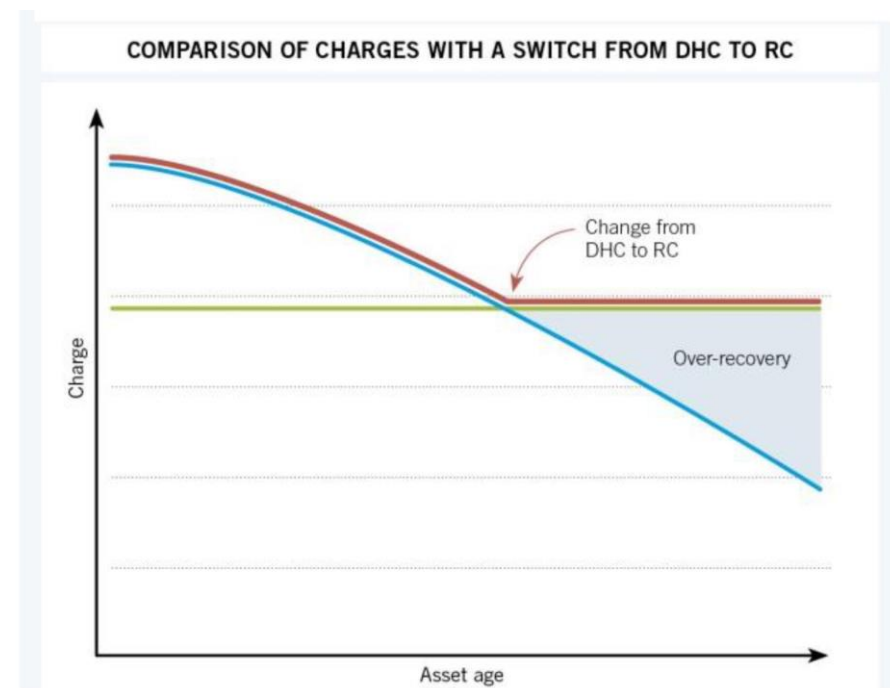
²⁵ Contact, TPM 2nd Issues paper: Supplementary Consultation, 24 February 2017.

²⁶ Pacific Aluminium, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 82.

investment as reflected in the diagram above. This misunderstanding appears to have impacted on Pacific Aluminium’s conclusions about the Appendix I analysis.

For the avoidance of doubt, the purpose of the Appendix I was to demonstrate that the Authority had not established using DHC for sunk investments was necessarily to avoid over or double-recovery.

Figure 10 from our Appendix I (below) illustrates how “over-recovery” (of a kind) for an individual asset could occur from a switch in valuation methodologies during its life.

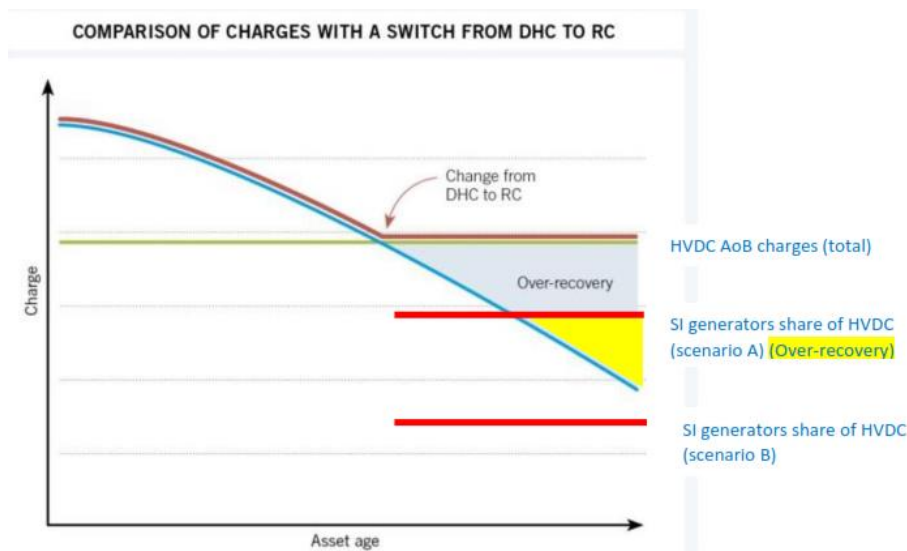


Our point is that it should not simply be assumed that a DHC methodology is required to avoid individual customers paying “too much” for an existing asset. The claim that “some customers receiving services from the historic asset would pay more than the cost of the asset providing the services they receive”²⁷ has not been proven.

Whether a switch from DHC to RC or IHC would result in South Island generators paying ‘too much’, or result in ‘over-recovery’ for the link is by no means certain. It depends on which revenue allocation approach is taken and on whether scenario A or scenario B holds in the chart below. The latter hinges, in part, on the percentage of aggregate private benefits South Island generators are ultimately deemed to receive from HVDC Poles 2 and 3.²⁸

²⁷ Pacific Aluminium, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 82.

²⁸ In making this illustration we have not taken into account the requirement in clause 6(a) of the proposed Guidelines that the AoB charge be “calculated as if the area-of-benefit charge had applied to the eligible investment since it was commissioned or completed”. The impact of clause 6(a) would be to lower the two red lines and any potential over-recovery. Clause 6(a) was proposed as part of the Supplementary Consultation and proposed subsequent to our submission of Appendix I.



If Transpower was ‘over-recovering’ its MAR this would clearly breach the well-understood “NPV=0” requirement, with clear adverse consequences for efficiency and equity. The potential efficiency implications of ‘over-recovering’, if scenario A was found to apply, in relation to any particular *asset* are much less certain. Some of the relevant factors include:

- to the extent ‘over-recovery’ occurs this will result in lower residual charges. If Meridian’s calculations are correct (which we cannot verify²⁹) the impact for the HVDC AoB charges would be to reduce the residual charges by up to \$400m.
- whether a switch to, say, an IHC methodology would result in prices for HVDC assets that exceed the ‘stand-alone cost’ of providing an ‘HVDC service’ – to the extent that can be meaningfully defined (noting that this might entail assets in addition to the link itself – since arguably no ‘service’ can be provided by those assets in isolation), and
- the fact that many network businesses would violate the “NPV = 0 if the test is done on an asset-by-asset basis. The legislative requirement that Chorus set the same price for copper and fibre services, regardless of whether the location is rural or urban is an obvious example. Section 113 of the Electricity Industry Act is also widely considered to have a similar impact, resulting in greater averaging of rural and urban distribution prices.

The perceived “fairness” of the Authority addressing one potential avenue of “over-charging” (assuming it can be reasonably characterised in this manner) is also questionable. If the Authority were to specifically address one element of potential ‘over-recovery’/over-charging – perhaps even just as it relates to the HVDC charge (recognising that it may be impossible to test for “over-charging” on interconnection assets), we would expect other stakeholders to raise analogous concerns. For example, the proposal to include post-2004 assets only (Pole 2 as the exception) as eligible investments – which has been criticised by many experts³⁰ – could be said to result in an

²⁹ For example, we do not know what, if any, adjustments were made to address the requirement in clause 6(a) of the proposed Guidelines that the AoB charge be “calculated as if the area-of-benefit charge had applied to the eligible investment since it was commissioned or completed”.

³⁰ Covec notes that “the weight of expert opinion is against the inclusion of existing assets in a new AoB charge” [paragraph 267] with “twenty expert reports opposing the EA’s proposal to include assets installed since 2004 in the AoB charge, with two in favour” [paragraph 273]. In Covec’s opinion “neither of the two supporting expert reports provides a convincing argument in support of the proposition” [paragraph 274]. Covec, Expert Review of Expert Reviews of Transmission Pricing Methodology Reform Proposals, 23 February 2017.

over-allocation of costs to the UNI region. The use of a depreciated asset value would further exacerbate the disadvantage ('over-charging') UNI would face.

Other potential 'over-recovery'/over-charging scenarios include:

- The Authority's problem definition details that generators have under-paid, and load has over-paid for interconnection services historically, on the basis that only the former has paid for interconnection:

"generators do not pay any charge for interconnection services, despite clearly receiving services and benefits from interconnection circuits ... generators clearly receive services from the Wairakei Ring, for example, as it was built in part to allow new geothermal generation in that area to transport electricity to the wider interconnected grid".³¹

The corollary of this is that load customers have been historically 'over-charged', and will continue to be over-charged if AoB charges apply only to a subset of assets.
- The Authority's problem definition details that the LSI, USI and LNI regions have 'over-paid' and the UNI region has 'under-paid' for interconnection assets (see the Authority's table below).³² Consistent with this, Pacific Aluminium note "socialised charges mean that some customers would have paid more than the cost of services they receive while others paid less".³³ The Authority is proposing to only correct for this on a forward basis, and not account for any historic over-payment.

Table 3: Incidence and allocation of post-2004 approved investment

Region	Post-2004 investment*	Impact on Transpower revenue requirement	Actual increase in interconnection charges from 2008/9 to 2015/16	Actual tariff increase as a % of impact on revenue requirement
UNI	\$1.342m	\$201m	\$87m	43%
LNI	\$237m	\$36m	\$80m	225%
USI	\$77m	\$12m	\$40m	343%
LSI	\$81m	\$12m	\$40m	327%

*does not include HVDC or connection investment

- The analysis by Transpower for the submission on the 2nd Issues Paper details how limiting the application of AoB charges to only relatively recent transmission investments would result in the

³¹ Electricity Authority, TPM 2nd Issues paper, 17 May 2016, paragraphs 6.13 – 6.14.

³² Electricity Authority, TPM 2nd Issues paper, 17 May 2016, Table 3.

³³ Pacific Aluminium, TPM 2nd Issues paper: Supplementary consultation, 24 February 2017, paragraph 82.

NI region being ‘over-charged’ in the future, if the additional component clause 47(h) is not applied or is removed from the final version of the Guidelines (as recommended by Meridian).³⁴

Table 2: Indicative price regional price impacts

Region	Status Quo interconnection (IC) \$	Status Quo IC %	AoB for all IC assets	Residual (using GAMD)	Regional allocation (AoB + Residual) \$	Regional allocation (AoB + Residual) %	Change from Status Quo
UNI	\$218m	33%	\$142m	\$99m	\$241m (\$266m)*	36%	+10% (+22%)*
LNI	\$217m	33%	\$113m	\$104m	\$217m (\$257m)*	32%	-1% (+17%)*
USI	\$112m	17%	\$55m	\$53m	\$108m	17%	-4%
LSI	\$114m	17%	\$52m	\$45m	\$97m	15%	-15%

Notes: For the scenario modelled in this table we assign \$360m via the AoB charge using asset location and value (Replacement Cost¹⁴ – indexed to 2012) and \$302m¹⁵ via the Residual charge using gross anytime maximum demand (GAMD) as the allocator. *Bracketed numbers include the Authority’s modelled allocation of HVDC costs to NI consumers.

To be clear, we are not suggesting that it would necessarily make sense to explore in great detail all of these potential sources of “over-” and “under-recovery”. Rather, these examples highlight the danger of focussing unduly on a potential effect raised by one particular group of customers, when the Authority’s proposal will inevitably give rise to enormous redistributive effects that extend well beyond the choice of asset valuation approach.

In our view, if ‘unders and overs’ are to be considered it should be done in a far more holistic manner than just focusing on one particular potential example.

³⁴ Transpower submission TPM 2nd issues and proposals paper, 26 July 2016, Table 2.