Impact of the proposed changes to the TPM on the CBA

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1. Background

On the 17 May 2016, the Electricity Authority (Authority) of New Zealand (NZ) released its second issues paper regarding potential changes to the way transmission services are charged for in NZ[1]. In that paper, it proposed changes to the way transmission charges are shared among transmission customers so that charges are linked to the transmission services delivered and the costs involved.

The two key changes that it proposed were to introduce an area-of-benefit (AoB) charge and a residual charge.

The Authority engaged Oakley Greenwood (OGW) to undertake a quantitative cost benefit analysis (CBA) to support the assessment of the Transmission Pricing Methodology (TPM) options that were included in its second issues paper, against the counterfactual case[2].

As part of the consultation process on the second issues paper, the Authority received numerous submissions regarding the detailed operation of the proposed TPM. After considering these submissions, the Authority is proposing to make several refinements to its proposed TPM.

2. Objective of this report

The Authority has asked us to advise it whether our CBA analysis of the Authority's initial proposed changes needs to change because of its recent proposed revisions to the TPM.

3. Caveats

There are several caveats that apply to this report:

- Our responses are based on a set of Guidelines[3] the Authority provided to us on the 8 December, 2016, as well as earlier written guidance[4] outlining the key changes it was proposing to make to the TPM arrangements.
- Our responses only focus on the material changes the Authority is proposing to make to the TPM arrangements, as compared to the arrangements outlined in its second issues paper, and
- We have only recommended changes to our original CBA if the Authority's proposed revisions would have a material effect on our CBA.

1 Electricity Authority, *Transmission pricing methodology: issues and proposal; Second issues paper*, 17 May 2016

2 OGW, *Cost Benefit Analysis of Transmission Pricing Options*, 11 May, 2016

3 The Guidelines outline the rules underpinning the implementation of the TPM.

4 Attachment to email from Blair Robertson to Rohan Harris, Tuesday, 18 October 2016

4. Key revisions to the TPM

The Authority is proposing to make a number of material[5] revisions to the TPM, as compared to the Guidelines that were published as part of the second issues paper. The Authority has directed us to review the following proposed material refinements[6]:

- Requiring Transpower to make more specific allocations of overhead and other expenses to the AoB charge,
- Requiring Transpower to specify a method for adjusting other charges, if it chooses to also apply a LRMC charge in relation to an asset,
- Removing the potential application of the PDP in situations where a customer's transmission price exceeds its willingness to pay for transmission services[7], yet its willingness to pay for transmission services is above Transpower's avoidable cost of supply (i.e., removing the potential application of the PDP to inefficient exit).
- Providing for a cap to be placed on price changes as a transition mechanism,
- Altering how the residual charge is determined, by:
  - Providing Transpower with the flexibility to develop the details of how the residual, and potentially the AoB charge, is allocated, subject to aligning with certain guiding principles, and
  - Requiring that potential double counting and other inadvertent anomalies in the calculation of the residual charge be avoided,
- Providing Transpower with the flexibility to extend the coverage of the AoB charge,
- Requiring Transpower to consider the trade-off between accuracy and practicality when calculating AoB charges,
- Providing Transpower with some discretion as to what asset valuation approach it uses to support the calculation of the AoB charge, and
- Making the marginal price adjustment mechanism an additional component that Transpower could introduce in the future.

These are discussed in more detail below.

5 There are also several minor revisions and clarifications that will not impact upon the CBA. These are not discussed in this report.

6 Attachment to email from Blair Robertson to Rohan Harris, Tuesday, 18 October 2016

7 Where willingness to pay is not driven by a customer's ability to adopt a more cost-effective self-supply option.

5. Overhead and other expenses

5.1. Proposed change

The Authority has advised us that it is proposing to adjust the Guidelines so as to require Transpower to include an AoB charge that recovers not only the full cost of each asset that is included in an eligible investment, but also, as far as practicable, expenses currently classified as overhead and other expenses that relate to those eligible investments. Of particular note, the Guidelines we have reviewed state that the TPM must include an AoB charge that recovers[8]:

> *to the extent practicable, an amount allocated to each eligible investment for any of Transpower's overhead and other expenses that relate to the eligible investment.*

A similar clause relates to connection assets[9].

5.2. Our response

The key factor that affects our assessment of this proposed change is whether the Guidelines prescribe that the recovery of overhead and other expenses from AoB charges relating to *future* assets be limited to those overhead and other expenses that are marginal (e.g., those that vary because of the construction of the underlying asset being priced into the AoB charge).

More specifically, *if* the Authority was proposing to recover some "fixed" overhead and other expenses via the charges for future assets, then this will distort the price signal for future assets, as the marginal price signal (e.g., the AoB charge) exceeds the actual marginal cost of providing the service being priced.

Everything else being equal, this will lead to an "under-consumption" of transmission services, and an "over-consumption" of alternatives such as demand-side response and distributed generation, thus leading to inefficient outcomes.

The wording in the Guideline we reviewed indicates that the overhead and other expenses that are to be recovered through AoB charges, *must relate to the eligible investment*. On the assumption that this clause is interpreted in a way that would only lead to *marginal* overhead and other costs being recovered via the AoB charge, we would not propose to change our CBA[10].

In saying this, we note that:

- The magnitude of the overhead and other costs that are marginal (i.e., vary because of the construction of the underlying asset being priced into the charge) is, in our opinion, likely to be immaterial in the context of the overall charge, hence:
  - We didn't explicitly reflect these costs in our assessment (e.g., they weren't explicitly reflected into our LRMC estimate in the original CBA), and
  - Explains why the analysis and results of the CBA would not materially change if they were to now to be included.

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8 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 6 (b)

9 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 5 (a) (ii)

10 It should be noted that clause 39(a) may result in some fixed overhead and other expenses being recovered via *future connection charges*, however this is no different from under the current TPM, therefore, there is no *incremental* effect from the retention of this provision in the Guidelines, hence why it doesn't affect the CBA.

- Logically, it follows that in our opinion the magnitude of the overhead and other costs that **are fixed** is likely **to be material**, hence if these costs were to be recovered from the AoB charges that apply to future (demand-driven) investments, this could materially distort those future charges away from efficient levels; and
- Any change to the way in which these costs are recovered from historic investments (e.g., moving them out of the residual charge into an AoB charge that relates to a historic investment), will not change the CBA modelling on the assumption that this change in the recovery method will not lead to charges exceeding a customer's standalone cost of supply (hence leading them to inefficiently disconnect from the network).

6. Specify a method for adjusting other charges, if it chooses to also apply a LRMC charge in relation to an asset

6.1. Proposed change

The revised TPM includes a component that allows Transpower to include a long-run marginal cost (LRMC) charge if its inclusion is practicable and consistent with the requirements of clause 12.89 of the Electricity Industry Participation Code (Code). More specifically, the Guidelines we have reviewed require that the LRMC charge[11]:

> *(i) is designed to promote the efficient use of Transpower's grid assets that are not connection assets, so as to efficiently defer investment; and*
>
> *(ii) complements or augments, but does not duplicate, the price signals provided by nodal pricing, other charges under the TPM, and any grid support arrangements relied on by Transpower to efficiently defer transmission investment.*

The Guidelines also state that[12]:

> *If an LRMC charge is included in the TPM, the TPM must specify that the purpose of the LRMC charge is to promote a change in the use of the interconnected grid in order to efficiently defer investment, after taking into account nodal prices, other transmission charges, and any grid support arrangements relied on by Transpower to efficiently defer transmission investment.*

6.2. Our response

Our original CBA assumed that any LRMC charge would not duplicate the price signals provided by other charges under the TPM. In particular, we stated that[13]:

> *Presumably, the LRMC based price signal would be used to signal forward-looking capacity augmentations that would otherwise not be effectively signalled via the deeper connection-based charge or the AoB charge*

We noted in a footnote that[14]:

11 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 47 (d)

12 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 48

13 OGW, *Cost Benefit Analysis of Transmission Pricing Options*, May 2016, page 77

14 Ibid

> *If this is not the case - ie, some capex is signalled via the AoB charge or deeper-connection charge as well as by a variable charge that is based on the LRMC of supply, then the price signal is potentially duplicated, which may lead to inefficient outcomes if customer's consider both price signals when determining their consumption or investment decisions. Following on from this, if there is a view that customers won't respond to that AoB or deeper-connection charge in certain circumstances (eg, due to the indivisibility of an investment), then from an efficiency perspective, capex that is consistent with those circumstances should be explicitly excluded from the definition of the AoB or deeper-connection price signal. If that capex is demand-related, then it could then instead be signalled via the LRMC based charged*

Given that the concept of allowing Transpower to adopt a LRMC charge to complement or augment, but not duplicate an existing price signal aligns with our original assumption, we see no need to revise our original CBA.

7. Changes to the PDP arrangements

7.1. Proposed change

The Authority is proposing to remove the potential application of the PDP in situations where a customer's transmission price exceeds its willingness to pay for transmission services[15], yet that customer's willingness to pay for transmission services is above Transpower's avoidable cost of supply. That is, the Authority is proposing to remove the potential application of the PDP to inefficient exit.

Instead, the Guidelines limit the application of the PDP to situations where a customers' overall transmission charge exceeds its physical stand alone cost. In particular, the Guidelines state that it[16]:

> *must provide that a prudent discount would be available if it is privately beneficial for a load designated transmission customer to **disconnect from the grid and source alternative supply**, but not efficient and not for the long-term benefit of consumers [emphasis added]*

7.2. Our response

In our CBA, we assumed that customers would theoretically be able to access a PDP in situations where their willingness to pay for transmission services was:

- less than the transmission pricing levels that they currently faced, *but*
- above Transpower's avoidable cost of supply,

even when this was not driven by a customer's ability to adopt a more cost-effective supply option.

The Authority has informed us that it has considered several factors when making its decision to revise the PDP arrangements, including, but not limited to[17]:

- That a business that seeks a prudent discount will have more information about its own prospects than the authority making the decision,
- That asymmetric information may increase the cost of implementing the PDP,

15 Where willingness to pay is not driven by a customer's ability to adopt a more cost-effective self-supply option.

16 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 43

17 Attachment to email from Blair Robertson to Rohan Harris, Tuesday, 18 October 2016

- Some parties have indicated that they do not consider PDPs provide enough certainty over the long term to make long term investment and operational decisions, and
- The Authority considers that its refinements to the AoB charge, residual charge and its proposed price cap may partially address situations where loads might inefficiently exit.

In order, our responses are:

- The risk of gaming due to asymmetric information is unavoidable in this situation. If a business "games" the process to get a lower transmission charge, it (a) may result in other customers facing higher transmission charges, (b) without any economic benefit accruing to the benefiting party (because if they have gamed the process, they may have never actually been going to inefficiently disconnect from the transmission network in the first place). Whilst this is obviously not an ideal outcome, this will most likely "just" involve a wealth transfer from many customers who face slightly higher charges to the individual customer "gaming" the PDP mechanism who is the recipient of the discounted charge. Given that the higher charges that are recovered from other customers should be recovered in a way that does not distort future consumption or investment behaviour, this should have no material impact on economic efficiency. However, the counter-point to this is that if a customer **has a genuine requirement for a PDP** (i.e., their willingness to pay for transmission services is less than the transmission pricing levels that they currently face, but above Transpower's avoidable cost of supply), the Authority's proposed change precludes them from ever being able to access any discount thus forcing them to inefficiently disconnect from Transpower's network. It is this economic loss that we quantified in our original CBA. It should be noted that in this situation, their contribution to Transpower's sunk investments would need to be recovered from all remaining customers, which is again a wealth transfer that is unlikely to lead to a material diminishment in economic efficiency if recovered in a way that least distorts future consumption and investment behaviour
- Implicit within our original CBA was that the PDP applicant would have to provide, upfront, detailed, audited information in support of their application. If the Authority is of the view that the cost of overcoming any information asymmetry is of concern, one would presume that a relatively easy option would be for the Authority to prescribe more detailed information gathering provisions in its Guidelines, or a more prescriptive assessment criteria, or both,
- Whilst some customers have indicated that they do not consider the PDPs provide enough certainty to make long term investment and operational decisions, this:
    - May not preclude the PDP from impacting on their short to medium term decisions, particularly where those decisions rely on the on-going operation of an *existing* facility (i.e., when they are not reliant on a large, irreversible, capital expenditure to continue their operations), and
    - If this were an issue, there would appear to be other options for addressing this area of concern that still allowed this component of the PDP arrangement to be retained,

- As stated in our original CBA, refinements to the AoB and residual charge are likely to better align a customer's transmission charge with their physical standalone cost, which reduces the risk that the overall level of revenue recovered from a customer will be materially mis-aligned with a self-supply option. This reduces the likelihood that the Authority's revised PDP, which is focused on customers who might inefficiently disconnect from the grid and rely on other supply options, would need to be relied upon[18]. However, the refinements will not ensure that charges are less than a customer's overall willingness to pay to retain a connection to the transmission network, where their willingness to pay is driven by changes in factors such as input costs and the price at which it can sell its outputs for.

Overall, whilst we understand the issues highlighted by the Authority, it is our view that by removing this component of the TPM, everything else being equal, there is a higher risk of large customer/s disconnecting from the transmission network, despite their willingness to pay for transmission services exceeding Transpower's avoidable cost, relative to what was assumed as part of the original CBA. Everything else being equal, this is an inefficient outcome, that will not be offset by any economic benefit that comes from guaranteeing that businesses cannot "game" this component of the TPM, or any other matter.

Therefore, in the context of our original CBA, this would turn the current positive benefit that accrues from this component of the TPM into a zero benefit, as that benefit would now not be obtained.

8. Capping price changes

8.1. Proposed change

The Authority's proposed Guidelines contain a mechanism for capping price changes as part of a suite of transitional arrangements. There are a number of detailed aspects of these capping arrangements, however, from our perspective, the important component relates to the fact that the Guidelines we have reviewed place a cap on the "net charge", which in turn reflects the deduction of certain components of the TPM from overall net charge that is subject to the price cap. The components that are deducted include[19]:

- *any LRMC charge;*
- *any kvar charge;*
- *any charge attributable to assets commissioned after the end of the 2019/20 pricing year;*
- *any area-of-benefit charge for assets included as eligible investments under the arrangements described in clause 47(h); and*
- *any increase in a distributor's or direct consumer's uncapped charges as a result of the optimisation of an investment or a material change in circumstances.*

18 It should be noted that the second issues paper also proposed providing a PDP for disconnection through self-supply, however we did not explicitly quantify this in our CBA as the broader refinements to the AoB and residual charge are likely to better align a customer's transmission charge with their physical standalone cost. That said, if anything, this refinement would be expected to be net beneficial.

19 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 57

8.2. Our response

The impact on the CBA of any price capping arrangement depends on how this price cap is implemented in practice. If the transitional arrangements compromise the introduction of the AoB charge as it relates to aspects of our analysis that have contributed to positive economic benefits, in particular:

- The application of the AoB charge to forward-looking, demand-driven, investments, or
- The removal of the RCPD charge and subsequent replacement with a:
  - residual charge that is non-distortionary and
  - an AoB charge that is applied to some historical assets,

then it would affect the results of the original CBA.

However, given that the net charge on which the cap is placed excludes recovery of the cost of new investments ('any charge attributable to assets commissioned after the end of the 2019/20 pricing year'), the cap would not appear to compromise the AoB price signal as it relates to forward-looking demand-driven investments.

Furthermore, it is our understanding that the cap would not involve the retention of the existing RCPD price signal to recover the costs of sunk investments, therefore we consider the original CBA does not need to be amended.

9. Changes to the way the residual charge is determined

9.1. Proposed change

The revised TPM provides Transpower with the flexibility to develop the details of how the residual is allocated, subject to certain guiding principles. For example, the Guidelines that we have reviewed state that[20]:

> *The method for calculating the residual charge must be one of the following–*
>
> *(a) historical anytime maximum demand:*
>
> *(b) another method*

It also states that[21]:

> *The method for calculating the residual charge must–*
>
> *…*
>
> *correct for double counting and other charging anomalies; and*
>
> *…*
>
> *to the extent that it can be economically achieved, be designed such that a customer's residual charge will not change as a result of the customer's actions or the actions of another party other than Transpower, such that it does not create incentives or opportunities for designated transmission customers to inefficiently avoid the residual charge; and*

20 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 33

21 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 31(b), (d), (e), and (f).

be related to the size of the load of each designated transmission customer so that the allocation of charges is durable; and

be designed so that any distributed generator that is paid or credited for transmission charges avoided by the relevant distributor would not receive such payment or credit in respect of the residual charge component of the relevant distributor's transmission charges (for example, by adding back a value representing the load supplied by the distributed generator for the purpose of calculating the residual charge)..

9.2. Our response

The potential use of other possible residual allocations that may not be related to a measure of physical capacity (which was the assumption underpinning the CBA) would not lead us to change the CBA, subject to it:

- Being very difficult for customers to avoid in the future, and
- Reflecting a customer's reliance on the transmission system.

This reflects the position that we stated in our original CBA[22] that subject to two provisos, the way in which historical investments are recovered should not materially influence economic efficiency, as these costs have already been incurred, and therefore, cannot be reversed. The two provisos are that the recovery mechanism minimises the extent to which it:

- Distorts the future usage of the existing network (e.g., consumption decisions); and
- Leads customers (including generators and distributed generators) to make inefficient connection, disconnection or other investment decisions.

Based on the wording included in the Guidelines we have reviewed, particularly the need for Transpower to ensure that the "charge will not change as a result of the customer's actions or the actions of another party other than Transpower, such that it does not create incentives or opportunities for designated transmission customers to inefficiently avoid the residual charge", we think that the proposed refinements are consistent with the two provisos mentioned above. Therefore, we don't believe that this change to the Guidelines materially impacts upon our original CBA.

10. Providing Transpower with the flexibility to extend the coverage of the AoB charge

10.1. Proposed change

The Guidelines we have reviewed provide Transpower with the flexibility to extend the coverage of the AoB charge beyond the set of historical assets provided for in the original TPM proposal. In particular, the Guidelines we reviewed stated that if it is practicable and consistent with the requirements of clause 12.89 of the Code, Transpower must include[23]:

(h) a method for including further assets as eligible investments, if doing so would promote the Authority's statutory objective.

22 For example, page 23-24

23 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 47(h)

10.2. Our response

The effect of the above additional component would be to recover more of the costs related to sunk investments via the AoB charge, as opposed to the residual charge. In our original proposal, we did not quantify any economic benefit from using the AoB charge **as compared to a residual charge**.

For existing customers, we stated that both recovery mechanisms will be efficient, if they don't:

- Distort the future usage of the existing network (e.g., consumption decisions); and
- Lead customers (including generators and distributed generators) to make inefficient connection, disconnection or other investment decisions.

The proposed adjustment, which would allow Transpower to extend the scope of the AoB charge if it is consistent with the Authority's statutory objective, does not change our position that for existing customers, both recovery mechanisms are likely to lead to efficient outcomes.

Regarding new customer connections, both the AoB charge and the residual charge involve levying a fixed charge on a new customer. In both cases, **as well as under the current TPM arrangements**, there is the possibility that the overall charge may exceed a potential new customer's willingness to pay, despite that customer's willingness to pay being greater than Transpower's incremental cost of supply. In short, we didn't model any potential distortions stemming from the use of the residual charge versus the AoB charge versus the current TPM arrangements on the efficient connection of new customers, because they all have similar attributes, hence we do not propose to change our CBA based on the Authority's proposed refinement.

11. Requiring Transpower to trade-off accuracy and practicality in the calculation of the AoB charge

11.1. Proposed change

The TPM must include[24]:

> *a standard method or methods for calculating the area-of-benefit charge, to apply to all eligible investments from the date on which the TPM comes into force…*
>
> *include a simplified method or methods for calculating the area-of-benefit charge, to apply to eligible investments valued at less than $5 million at the time the investment is commissioned,*

The Guidelines also state that[25]:

> *In determining the standard method and the simplified method or methods for the purposes of clauses 9 and 10, Transpower must weigh the economic benefits of sending accurate price signals against the economic costs of developing and administering the relevant method.*

24 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 9 and 10

25 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 12

11.2. Our response

The refinement would allow a simplified method to be developed for determining the benefits accruing from an asset's construction, where the additional benefit from calculating charges to a high degree of accuracy is unlikely to exceed the additional costs of administering and implementing that otherwise more accurate charge.

Trading off the improvements in economic efficiency versus implementation and administrative costs is appropriate. If anything, this may reduce the administrative costs of implementing the proposed changes, without affecting the efficiency. If anything, this would improve the outcomes, as compared to the CBA. That said, it is difficult to know exactly how this will translate into costs, therefore, we do not propose to adjust our CBA considering this change.

12. Providing Transpower with discretion as to what asset valuation approach its uses to support the calculation of the AoB charge

12.1. Proposed change

The Authority is proposing to provide Transpower with discretion as to what asset valuation approach it uses to support the calculation of the AoB charge, subject to complying with certain guiding principles that include, amongst other things, that[26]:

> *The method must–*
>
> *(a) result in annual area-of-benefit charges in relation to an eligible investment increasing over time in line with a price index determined by Transpower; or*
>
> *(b) be another method that is service-based and cost-effective, if that would better promote the Authority's statutory objective.*

Furthermore, the method included in the TPM must promote an efficient trade-off between[27]:

> *(a) the economic benefit of sending accurate price signals to customers; and*
>
> *(b) the economic cost of developing, implementing, and administering the valuation method.*

12.2. Our response

Our original CBA assumed that the valuation technique that applied to new assets would result in cost-reflective AoB charges, therefore promoting efficient investment in, operation of those assets. Therefore, the principles outlined in the Guidelines we have reviewed do not affect our original CBA, in relation to how new assets will be charged for.

Our original CBA also assumed that the valuation technique underpinning the recovery of Transpower's historical investments would not distort future consumption of investment decisions. The Guidelines we have reviewed, which, amongst other things, provide for Transpower to adopt any approach that better promotes the Authority's statutory objective, does not lead us to alter this position.

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26 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 27

27 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 28

13. Making the marginal price adjustment mechanism an additional component

13.1. Proposed change

The Guidelines make the introduction of the marginal price adjustment mechanism an additional component (i.e., it is not compulsory, rather Transpower will be required to introduce it if the benefits exceed the costs).

More specifically, subject to being practicable and consistent with the requirements of clause 12.89 of the Code, the Guidelines we have reviewed allow Transpower to include[28]:

> *a method for adjusting a customer's charges in relation to each standard investment commissioned on or after the date of these guidelines, to reflect any marginal saving to Transpower from the customer's credible commitment to reduce its demand for transmission services, if that reduction in demand would result in Transpower changing its investment plans resulting in a reduction in Transpower's costs*

13.2. Our response

Our original CBA assumed that this was a component of an efficient price signal. In particular, we stated that one of the benefits of the AoB charge over the deeper connection-based charge was its structure, namely the fact that[29]:

> *it is a two-part, fixed/variable tariff - means that the customer not only sees a total price that equates to the benefits they receive, but also a cost-reflective marginal price signal. In comparison, the deeper connection-based charge is assumed to simply allocate the full cost of an asset according to use, therefore, it does not send a truly marginal price signal. The lack of a marginal price signal is likely to lead to inefficient outcomes*

Despite the revised Guidelines making this an “additional component”, it still should be introduced if it is practicable and consistent with the requirements of clause 12.89 of the Code.

Our position is that given the increasing returns to scale from making lumpy transmission investments, Transpower is likely to consider an additional marginal price signal both practicable and consistent with the requirements of clause 12.89 of the Code, hence, on the balance of probabilities, it will be introduced. As such, we do not consider there to be any reason to adjust our original CBA.

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28 Electricity Authority, *TPM guidelines for development of the Transmission Pricing Methodology*, Clause 47(f)

29 OGW, *Cost Benefit Analysis of Transmission Pricing Options*, May 2016, page 12