CONSULTATION PAPER

Amendments to correct issues in the new TPM

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ELECTRICITY AUTHORITY
TE MANA HIKO

Executive Summary

This paper sets out several amendments the Authority proposes to make to the Transmission Pricing Methodology (TPM) to correct issues that have been identified during its implementation. Details of these amendments are provided in the body of this paper.

The Authority considers that these amendments meet the requirements of clause 12.94A of the Electricity Industry Participation Code 2010 (the Code) and section 39(3) of the Electricity Industry Amendment Act 2010 (the Act), including because:

a) these amendments are technical in nature and should be non-controversial, given that they generally address minor drafting issues, correct mistakes in formulae or address small omissions, while otherwise ensuring that the TPM achieves its policy intent
b) the policy intent of the relevant clauses was subject to consultation in 2021 on the proposed TPM (which in turn built on the Authority's previous consultation and decision on the TPM guidelines); and the Authority therefore considers that all relevant views should have been raised and considered, and it is now simply proposing minor amendments to ensure that the policy that was consulted on is achieved.

The above means the amendments can be made without the Authority meeting the requirements for reviewing the TPM in the Code, and the requirements in the Act to publicise a regulatory statement and consult on the statement and proposed amendment.

The Authority is nevertheless consulting on the amendments for feedback. As noted above, the policy underlying the relevant aspects of the TPM has been consulted on previously, hence the Authority is focusing on the technical drafting at this stage.

The Authority intends to address the following ten issues by amendment of the TPM:

1. Minor changes to the TPM (such as typographical errors).
2. Resolve a workability problem with the cap recovery charge calculation.
3. Clarify that Transpower can change the Benefit Based Charge (BBC) allocation method for post-2019 Benefit Based Investments (BBIs).
4. Apply the most appropriate benefit factors to calculate starting BBC allocations for new customers.
5. Allow Transpower more flexibility in the calculation of regional Net Private Benefit (NPB) under the price-quantity method for BBC allocation.
6. Change the treatment of non-asseted commissioned assets in calculation of BBC covered costs.
7. Ensure the most relevant information about the BBC simple method allocators is published.
8. Corrections to reduction event adjustment factor formula for the residual charge
9. Apply the BBC simple method to high-value transmission investments that change classification from interconnection to connection.
10. Clarify that assessment of prudent discounts requires consideration of settlement residual rebates.

Next steps

Following consideration of submissions, the Authority will decide whether to make these Code amendments.

Contents

1 Introduction

Background

1.1 The new TPM came into force on 1 April 2023.[1]

1.2 The TPM is a long and technically complex piece of the Code and so it was recognised that minor issues may arise, requiring correcting amendments. In June 2022 the Authority amended the Code to clarify that certain provisions of the Act apply to amendments to the TPM just as they would to any other Code amendment, and that it can amend the TPM, for limited reasons, without needing to meet the full Code change process or the process requirements for reviewing the TPM otherwise contained in the Code.[2]

1.3 Clause 12.94A of the Code clarifies that the Authority may amend the TPM where it is satisfied on reasonable grounds regarding any of the matters in section 39(3), or that section 40 of the Act applies.

1.4 The matters in section 39(3) are:

(a) the nature of the amendment is technical and non-controversial (section 39(3)(a)); or

(b) there is widespread support for the amendment among the people likely to be affected by it (section 39(3)(b)); or

(c) there has been adequate prior consultation so that all relevant views have been considered (section 39(3)(c)).

1.5 Section 40 provides that the Authority may amend the Code without complying with section 39(1) if the Authority considers it is necessary or desirable in the public interest that the proposed amendment be made urgently.

1.6 The Authority made a first tranche of correction amendments in November 2022 and an urgent amendment on 28 March 2023 so these amendments could apply in the transmission charges for pricing year 23/24 starting on 1 April 2023.[3] The correction amendments in this consultation paper would take effect immediately. Several may apply to charges during pricing year 23/24.

Issues identified

1.7 Several issues have been identified that require minor corrections to the TPM. Issues 1 to 9 were identified by Transpower. Transpower provided suggested drafting to correct these issues. The Authority developed the proposed response and drafting to

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1 In 2020, the Authority issued new TPM guidelines for development of a proposed new TPM following completion of a review and consultation process. Transpower subsequently developed a proposed TPM consistent with the TPM guidelines. The Authority consulted on this proposed TPM and in April 2022 it amended the Code to incorporate a new TPM into the Code.

2 Refer to: www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/development/decision-on-tpm-related-code-amendments/

3 Refer to https://www.ea.govt.nz/projects/all/tpm/ and www.ea.govt.nz/documents/2470/Electricity_Industry_Participation_Code_Amendment_Residual_Charge_Adjustment_F_8nIS1m9.pdf

address issue 10 following a clarification request from Transpower on whether prudent discounts should be factored into settlement residue allocations.

1.8 The Authority assessed the identified issues and the proposed drafting against the policy intent underlying the TPM as consulted on to determine whether it agreed the amendments should be made. The Authority is satisfied that all the proposed amendments in this paper need to be made to correct issues where the TPM as currently drafted contains clear errors or does not otherwise adequately implement the consulted on, and decided upon, policy intent.

1.9 The Authority considered, in respect of each of the proposed amendments, whether it was satisfied on reasonable grounds regarding any of the matters set out in section 39(3). The Authority is satisfied that all of the amendments proposed in this paper are technical and non-controversial (section 39(3)(a)) and have been subject to adequate prior consultation (section 39(3)(c)). This is because all the proposed amendments are corrections to ensure the drafting of the TPM accurately reflects the policy underlying it as consulted on.

Consultation being undertaken

1.10 Where the requirements of section 39(3) of the Act are met, the Authority is not required to publicise a regulatory statement, or to consult on the relevant amendments or a regulatory statement.

1.11 The Authority nevertheless is consulting on these amendments for feedback, noting that scrutiny of the drafting may result in improvements. However, the policy underlying the relevant provisions has been sufficiently consulted on previously, with the relevant issues addressed in the Authority's final TPM decision.[4] Hence the focus of this consultation is on the technical drafting of the particular provisions identified as potentially requiring clarification/correction. A regulatory statement has also been provided for completeness.

1.12 Each of the proposed amendments are set out below along with an explanation of the issue that the amendment seeks to correct.

Making a submission

1.13 Please see Appendix A for details on how and by when you can make a submission on this proposal.

1.14 Any feedback on the proposed amendments would be greatly appreciated. Submissions are due by **5pm, 31 May 2023**.

1.15 Please direct any further questions related to this consultation by email to network.pricing@ea.govt.nz.

Supporting information

1.16 Alongside this consultation document we have published:

(a) a version of the TPM marked up with proposed amendments[5]

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4 Refer to www.ea.govt.nz/development/work-programme/pricing-cost-allocation/transmission-pricing-review/development/final-tpm-decision/#c19159

5 Refer to: Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)

(b) Transpower's Code amendment proposal forms for issues 1 to 9.[6]

2 Issue 1: Minor changes to the TPM

2.1 This section explains the Authority's proposal to correct various minor issues with the TPM (such as typographical errors).

Issue and basis for the amendment

2.2 In applying the TPM, Transpower has identified several minor amendments that are desirable to make to the TPM. These minor amendments are detailed in the form *Other technical and non-controversial* submitted by Transpower to the Authority.

2.3 The Authority considers all the proposed amendments satisfy section 39(3)(a) (technical and non-controversial and/or adequate prior consultation).

Proposed amendments

2.4 The proposed amendments are described in Transpower's proposal form: *Other technical and non-controversial*.

2.5 These amendments will correct typographical errors in, and make some other minor improvements to, the new TPM.

2.6 Please refer to the marked-up version of the TPM and Transpower's proposal form published alongside this consultation paper for the full details of the amendments.

Q1. Do you agree with the proposed amendments for issue 1?

3 Issue 2: Workability problem with the cap recovery charge calculation

3.1 This section explains the Authority's proposal to resolve a workability problem with the cap recovery charge calculation.[7]

Issue and basis for the amendment

3.2 There is a circularity issue with the cap recovery charges[8] and calculation of cap reductions[9], which results in the calculation being unworkable.

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6 Refer to: [Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)](https://www.ea.govt.nz)

7 The TPM includes a transitional cap on the amount customers' total electricity bills may increase relative to 2019/20 charges as a direct result of the new TPM being implemented (after allowing for inflation and volume growth).

8 A cap recovery charge is a redistribution of transmission charges that would otherwise be payable by capped customers who are receiving cap reductions. It is calculated under clause 112 for a customer and pricing year.

9 A cap reduction means the total reduction in a capped customer's transmission charges for a pricing year under subclause 110(1).

3.3 As the TPM is drafted currently there is a circularity problem:

(a) a capped customer's cap reduction is a function of its capped charges[10] (i.e., a cap reduction is calculated using the customer's capped charges as an input);[11]

(b) a customer's capped charges are a function of its cap recovery charge; and

(c) a capped customer's cap recovery charge is a function of its cap reduction.

3.4 This circularity makes the calculation of cap reductions and cap recovery charges infeasible if there are any capped customers who qualify for a transitional cap. A related issue is that the payment of a cap recovery charge by capped customers who receive a cap reduction effectively reduces the size of their cap reduction.

3.5 The proposed amendments, explained at para 3.7, address this problem (in brief) by removing the requirement for capped customers to pay cap recovery charges. This will better achieve the intent of the transitional price cap by allowing capped customers to receive the full benefit of the cap reductions they are entitled to and to fix the workability problem.[12] This amendment is detailed in Transpower's proposal form *Cap recovery charges*.

3.6 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial).[13] The proposed amendments ensure the cap charges are calculated accurately and fix the workability problem with the cap charges calculation.

Proposed amendments

3.7 The proposed amendments to the Code are to:

(a) delete paragraph (c) of the definition of 'capped charges' in clause 3;

(b) delete subclause 110(4) (which seeks to alleviate a calculation problem where cap recovery charges are included as a component of capped charges);

(c) add a new subclause to clause 112 of the TPM to correct the above issue and to provide greater clarity; and

(d) make a consequential change to current subclause 112(1) so that the formula fully allocates the total cap reduction for a pricing year.

3.8 Please refer to the marked-up version of the TPM and Transpower's proposal form published alongside this consultation paper for the full details of the amendment.[14]

Q2. Do you agree with the proposed amendment for issue 2?

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10 Capped charges are relevant to determining whether a customer benefits from the cap. A capped customer's capped charges are the customer's annual benefit-based charges for the Appendix 1 BBIs, annual residual charge and annual cap recovery charge for the pricing year.

11 Simply put, a capped customer is a transmission customer that gets a reduction in transmission charges due to the workings of the transitional price cap specified in the TPM. For the formal definition of 'capped customer' refer to the TPM.

12 For 2023/24 pricing Transpower implemented a workaround that is consistent with the proposed Code amendment, by not assigning a cap recovery charge to the four capped customers who received a cap reduction. For further detail refer to proposal form "*Cap recovery charges*".

13 Refer to paragraph 1.9 – We consider that all amendments in this paper also satisfy section 39(3)(c) (adequate prior consultation) of the Act in that all the proposed amendments are corrections to ensure the drafting of the TPM accurately reflects the policy underlying it as already consulted on. Note that we do not repeat this for each amendment throughout this paper but consider it applies in all cases.

14 Refer to: [Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)]

4 Issue 3: Changing the BBC method for post-2019 BBIs

4.1 This section explains our proposal to amend the Code to clarify what happens if Transpower's expectation changes as to whether a post-2019 BBI will be high-value or low-value. The amendment clarifies the timing milestones up to which Transpower may switch from simple method to standard method or from standard method to simple method if its expectation regarding the value of the post-2019 BBI changes.

Issue and basis for the amendment

4.2 The Code currently is silent on what happens in situations where new information becomes available for post-2019 BBIs that are close to the maximum value for low-value investments (that is, the base capex threshold – which is currently at $20m). In some cases, Transpower's expectation as to whether the BBI will be high-value (above $20m) or low-value (below $20m) when fully commissioned may change, due to receiving new information.

4.3 The Authority is proposing an amendment that clarifies that Transpower may change the BBC allocation calculation method it applies provided the charges for the first pricing ('start pricing year' as defined in the TPM) BBI have not already been notified to at least one customer, and provided this happens:

(a) before the BBI's final investment decision date; or

(b) before the BBI's commissioning date, if the BBI's final investment decision date was before the start of the first pricing year (ie, before 1 April 2023).[15]

4.4 The change clarifies what happens if a BBI's expected commissioned value changes. For example, if an investment changes from high-value to low-value after consultation, Transpower may apply the simple method for BBC allocation instead of the standard method. Similarly, if a project changes from low-value to high-value it may instead apply the standard method.

4.5 The proposed amendment will clarify an issue not addressed in the TPM that has the potential to generate disputes. A dispute may arise if Transpower changes its high-value/low-value expectation for a post-2019 BBI having already indicated a different expectation. Avoiding the potential for disputes will support the efficiency limb of the Authority's statutory objective by avoiding the cost of disputes.

4.6 This amendment is detailed in the form *High-value low-value expectation changes* submitted by Transpower to the Authority.

4.7 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial).

Proposed amendments

4.8 The proposed amendments to the Code include adding a new subclause (2A) to clause 43 declaring that Transpower may change from a standard method to the simple method (or vice versa) for calculating starting BBC allocations for a post-2019 BBI if Transpower's expectation changes as to whether the BBI will be high-value or low-value when fully commissioned.

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15 'Commissioning date' here means the date the first investment comprised in the BBI is commissioned.

4.9 Please refer to the marked-up version of the TPM and Transpower's proposal form published alongside this consultation paper for the full details of the amendment.[16]

Q3. Do you agree with the proposed amendment for issue 3?

5 Issue 4: Benefit factors to calculate starting allocations for new customers

5.1 This section explains the Authority's proposal to amend the Code to allow Transpower to apply the most appropriate benefit factors to calculate starting BBC allocations for new customers.

Issue and basis for the amendment

5.2 Transpower has identified a need to amend the Code to include benefit factors that more accurately reflect the underlying logic of the Appendix A BBC allocations.[17]

5.3 Benefit factors are used to adjust BBC allocations for the seven historical BBIs in Appendix A of the TPM when there is an actual or notional new customer.[18] Benefit factors are only calculated in respect of the customers listed in Appendix A, and they are static and do not change even if there are adjustment events affecting the BBC allocations for the Appendix A BBIs.

5.4 When a new customer arrives, Transpower must apply the relevant benefit factor(s) for the same type of Appendix A customer. 'Type' means either a generator or a connected asset owner, the latter being either a distributor or direct consumer.

5.5 Typically, a generator will have net injection and a connected asset owner will have net offtake at each of its connection locations. However, at some connection locations an Appendix A customer that is a generator in fact had net offtake over the period relevant to calculating benefit factors (capacity measurement period D or CMP D), or an Appendix A customer that is a connected asset owner[19] in fact had net injection over CMP D.[20] The TPM currently does not enable Transpower to either:

(a) apply a benefit factor based on net offtake for a generator; or

(b) apply a benefit factor based on net injection for a connected asset owner.

5.6 There are nine connection locations and Appendix A customers for whom this is the case.

5.7 The amendment ensures that benefit factor calculations can reflect all relevant offtake and injection situations.

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16 Refer to: [Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)]

17 We note that Transpower has already published benefit factors calculated in line with the proposed changes. Refer to the benefit-based charges assumptions book v1.1 published in March. www.transpower.co.nz/our-work/industry/grid-pricing/transmission-pricing-methodology/tpm-benefit-based-investment

18 The costs of the seven historical BBIs in Appendix A of the TPM are recovered through BBCs.

19 The Code defines connected asset owner as a direct consumer, or a distributor in its capacity as the owner or operator of a local network

20 The TPM defines CMP D as the period from the first trading period of financial year 2014 to the last trading period of financial year 2017.

5.8 The proposed amendments will help ensure the BBC allocations for the Appendix A BBIs will more accurately reflect the underlying logic of the calculation of the BBC allocations in Appendix A after a new actual or notional customer arrives.

5.9 This amendment is detailed in the form *Calculation and application of benefit factors* submitted by Transpower to the Authority.

5.10 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial). The amendment is a workable solution to a technical problem, which ensures BBC allocations are calculated as intended.

Proposed amendments

5.11 The proposed amendment involves adding new subclause (7A) to clause 83, which provides that if certain conditions are met then Transpower must:

(a) calculate the benefit factors for these customers and connection locations under subclause 83(7) as if each relevant connected asset owner customer were a generator customer, and vice versa, because this is a truer reflection of each customer's type at these connection locations over CMP D; and

(b) apply those benefit factors under paragraph 83(6)(a) based on the deemed customer type instead of the actual customer type.

5.12 The proposal also includes consequential and minor clarifying changes for the definition of variable E (paragraph 83(7)).

5.13 Instead of the customer's average annual net injection or net offtake, Transpower will use as variable E whichever value is larger:

(a) the customer's average annual injection (over CMP D) at the connection location;

(b) the customers' offtake (over CMP D) at the connection location.

5.14 This approach will ensure the magnitude of these benefit factors is not distorted by having a significantly lower denominator value relative to 'normal' benefit factors, which would be an issue if offtake and injection were netted off.

5.15 Please refer to the marked-up version of the TPM and Transpower's proposal published alongside this consultation paper for the full details of the amendment.

Q4. Do you agree with the proposed amendment for issue 4?

6 Issue 5: More flexibility in the calculation of regional net private benefit

6.1 This section explains the Authority's proposal to amend the Code to allow Transpower more flexibility in the calculation of regional net private benefits (NPB) under the price-quantity method for BBC allocation.

Issue and basis for the amendment

6.2 The proposed amendment contains three changes to the price-quantity method (standard method):

(a) making the calculation of market regional NPB[21] for a market BBI[22] discretionary for Transpower; making the calculation discretionary aligns the calculation for market BBIs with the calculations for BBIs with other types of benefit (ancillary service regional NPB, reliability regional NPB, other regional NPB); for further discussion refer to paragraphs 6.3 to 6.6);

(b) in cases where dollar and MW-denominated values of regional NPB need to be combined, not requiring Transpower to calculate market regional NPB under clause 52 based on price; for further discussion refer to paragraphs 6.7 to 6.9; and

(c) clarifying clause 50(1)(a) by adding that Transpower must determine a market BBI's modelled regions based on the outcomes of the modelling under clause 49 *except to the extent Transpower determines basing the modelled regions on those outcomes would not support the objective in paragraph (e);*[23] for further discussion refer to paragraphs 6.10 to 6.12.

Making the calculation of market regional NPB for a market BBI discretionary

6.3 The Authority proposes changing clause 44 (which relates to the types of regional NPB calculated under the price-quantity method) to make the calculation of market regional NPB for a market BBI discretionary, as is already the case for ancillary service, reliability and other regional NPB for the corresponding types of BBI.

6.4 In setting the TPM, the Authority's expectation was that if a BBI is a market BBI its market regional NPB would always be significant, so calculating it would always be appropriate and worthwhile. However, based on experience the Authority now considers there could be a situation in which a BBI has market regional NPB but this is only a small proportion of total regional NPB; that is, other benefit types are more significant. For example, an enhancement to an interconnecting transformer would typically be undertaken to avoid interruptions to supply (a reliability benefit) but may also have some relatively minor market benefits due to reduced losses.

6.5 In that case, the administrative effort of calculating market regional NPB (and potentially applying subclause 51(9) to combine it with reliability regional NPB) may not be justified in the context of the end goal of achieving allocations that are broadly proportionate to positive NPB.

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21 Benefits are allocated between regional groups of beneficiaries under the quantity method for BBC allocation based on the quantity of load or generation during periods of benefit. Modelled prices are also used to allocate between regional groups of beneficiaries (that is, the price-quantity method is used) if Transpower concludes that quantity alone would not result in an allocation that is broadly proportional to expected positive net private benefits (NPB). Market regional NPB means regional NPB (benefits allocated to a regional group of beneficiaries) arising from changes in prices or quantities in the wholesale market for electricity. Market regional NPB is calculated for market BBIs.

22 Market BBI means a post-2019 BBI that is expected to have a material impact on prices or quantities in the wholesale market for electricity relative to the post-2019 BBI's counterfactual. A market BBI may also be an ancillary service BBI or a reliability BBI but cannot be a resiliency BBI.

23 Paragraph (d) is the objective of ensuring the BBI customer allocations for the market BBI are broadly proportionate to positive NPB from the market BBI.

6.6 Specifically, the Authority proposes changing ‘must’ to ‘may’ in subparagraph 44(2)(b)(i) and making a consequential change to subclause 44(3) to limit Transpower’s discretion in the same way as it is limited for the other types of regional NPB, i.e. by specifying that Transpower must calculate market regional NPB if it is necessary to do so to produce BBI customer allocations for the market BBI that are broadly proportionate to NPB from the market BBI. The effect of these changes would be to bring the treatment of market regional NPB into line with the treatment of the other types of regional NPB in clause 44.

Flexibility for method for combining MWh-denominated and dollar-denominated regional NPB

6.7 We also propose deleting the last part of subclause 51(9) so that Transpower is not required to calculate market regional NPB under clause 52 based on price in cases where dollar and MW-denominated values of regional NPB need to be combined.[24]

6.8 The requirement to apply clause 52 could result in significant duplicated effort in cases where market regional NPB has already been calculated under clause 51 based on quantity. The Authority agrees with Transpower’s view that:

(a) it is appropriate to leave open the exact method used to convert the MW quantities from clause 51 to dollars;

(b) there are other feasible and reasonable methods which result in allocations that are broadly proportionate to positive NBP, such as taking into account observed changes in price from the wholesale market.

6.9 Transpower would consult on the appropriate method when undertaking consultation on the starting BBC allocations for the relevant BBI.

Clarifying rules for determining modelled regions

6.10 The Authority also proposes clarifying clause 50(1)(a) by adding that Transpower must determine a market BBI’s modelled regions based on the outcomes of the modelling under clause 49 except to the extent Transpower determines basing the modelled regions on those outcomes would not support the objective in clause 50(1)(e) i.e., that the BBI customer allocations for the market BBI are broadly proportionate to positive NPB from the market BBI.

6.11 In Transpower’s experience at times it has been difficult to determine modelled regions based on price in highly meshed areas of the network (such as the central North Island) for the factual and counterfactual.[25] In these areas, price changes may be very sensitive to small differences between the factual and counterfactual.[26] In such situations, Transpower may need to use prices only from the counterfactual, and determine modelled regions by grouping connection locations into regions based

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[24] As discussed in the 2021 TPM consultation paper (para 5.3), a standard method BBI may provide one or more of the following benefit types: market NPB, ancillary service regional NPB, reliability regional NPB, other regional NPB. The market NPB may in turn be based on quantity or based on quantity and price. The different benefit types need to be aggregated into a single set of allocations.

[25] The factual is the expected future grid state that will result from the completion of the BBI. The counterfactual is the expected future grid state that would result should no part of the BBI be completed (i.e. the BBI is not commissioned).

[26] For example a single new generator or a local minimum found by stochastic dual dynamic programming (SDDP) when optimising hydro operation.

on comparing them to the prices at adjacent connection locations. Transpower considers this correlation may provide a sounder basis for determining regions that result in customer allocations that are broadly proportionate to positive NPB than comparing against the factual.[27]

6.12 Transpower also raised in its proposal that:

(a) the proposed approach would be simpler, and probably more reliable in terms of achieving the proportionality objective, than the time-consuming and detailed work required to moderate the model under subclause 49(6) to eliminate the sensitivities that are causing the model to indicate regions that are not supported by observation in the counterfactual)

(b) the drafting under the current TPM is not entirely clear (and possibility that the outputs of the clause 49 modelling would conflict with the proportionality objective at clause 50(1)(e) was not anticipated.

Basis for the proposed amendments

6.13 The amendments are detailed in the form *Calculating regional NPB under the price-quantity method* submitted by Transpower to the Authority.

6.14 The TPM requires Transpower to undertake complex modelling. Transpower's experience of applying the standard method for BBC allocation helped to inform the Authority's decision-making on the TPM (including its decision on 1 April 2022). Since then, Transpower has acquired significant additional experience in applying the standard method. We consider it appropriate for the TPM to be amended to address technical challenges encountered by Transpower in applying the TPM, including where it is not clear or likely that the requirement contributes to the objective (in this amendment clause 50(1)(e)).

6.15 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial). The proposed amendments will help ensure Transpower is not bound to calculate regional NPB under the price-quantity method in ways that involve unnecessary administrative effort and to clarify how the TPM is applied to ensure its application results in allocations that are broadly proportionate to positive NPB. This supports the efficiency limb of the Authority's statutory objective.

Proposed amendments

6.16 The proposed amendment to the Code includes changing clause 44 to make the calculation of market regional NPB for a market BBI discretionary, as is already the case for ancillary service, reliability and other regional NPB for the corresponding types of BBI. Additionally, the Authority proposes deleting the final part of subclause 51(9) and clarifying 50(1)(a).

6.17 Please refer to the marked-up version of the TPM and Transpower's proposal published alongside this consultation paper for the full details of the amendment.[28]

Q5. Do you agree with the proposed amendment for issue 5?

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27 Transpower notes in its proposal that the counterfactual (the status quo) focuses on how prices in the actual wholesale market are observed – e.g. it is common to see how prices in regions of the grid are impacted by a transmission constraint in relation to other prices elsewhere in the grid.

28 Refer to: [Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)]

7 Issue 6: Treatment of non-asseted commissioned assets

7.1 This section explains the Authority's proposal to amend the Code to change the way assets comprised in a BBI that have been commissioned but not asseted are factored into the covered cost calculation for the BBI.

Issue and basis for the amendment

7.2 The covered cost of a BBI (the total amount of BBCs in a pricing year for the BBI) includes a capital charge, which is required to reflect the opening RAB value for the BBI in the preceding financial year (paragraph 39(2)(a)). If an asset comprised in the BBI was commissioned during that financial year, the capital charge is required to be adjusted to reflect the part year for which the asset was commissioned (paragraph 39(2)(b)).

7.3 There is often a delay in the availability of information about a commissioned asset, before it is entered into Transpower's fixed asset register. Delays may occur where assets are commissioned near the end of a financial year and also due to the sheer number of individual assets commissioned by Transpower annually. Such delays mean it is sometimes not possible to accurately calculate covered cost because the fixed asset register information is not available by the end of the relevant financial year. [29]

7.4 There is a provision for simple method BBIs that allows Transpower to delay commencing BBCs for the BBI until a later pricing year (36(2)), but there is not an equivalent provision for standard method BBIs.

7.5 The TPM requires Transpower to estimate the value of covered cost (for commissioned but non-asseted) without using fixed asset register information. Such estimates are likely to be inaccurate to some extent, and depending on the magnitude of the inaccuracy may necessitate a wash-up of BBCs later when verified asset information becomes available. Further, the estimates would need to be factored into BBC calculations using a manual process.[30]

7.6 To avoid this administrative effort and related cost, and the inherent risk of an additional manual process, Transpower's preferred approach is to wait until the asset's fixed asset register information is available before incorporating it in the covered cost calculation for the BBI. A commissioned asset for which fixed asset register information is available is referred to as being 'asseted'.

7.7 The downside of Transpower's preferred approach is that a commissioned but non-asseted asset will not be included in the covered cost of the BBI for a period, and instead its covered cost components will fall into residual revenue to be recovered through residual charges. However, this will be time limited because it only occurs until the asset is asseted (one or two years out of a BBI's total economic life of 50 or so years). As well as being time limited, the effect on residual charges is not likely to

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29 Covered cost means the amount of recoverable revenue allocated to a BBI for a pricing year calculated under subclause 39(1)

30 Transpower explains in its proposal form that it would not populate the fixed asset register with unverified asset information.

be material for any single customer (including by comparison with the consequences of inaccurate inputs being used to calculate the BBI's covered cost).

7.8 Neither the status quo approach of estimating covered cost, nor the approach of ignoring particular assets until they are asseted, are expected to have significant impact on individual customers' BBCs or total covered cost over the life of the BBI.

7.9 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial). The proposed amendments proposed amendments would reduce the risk of estimates for non-asseted commissioned assets being materially wrong, and avoid the associated administrative effort and cost incurred in creating the estimates and subsequently reversing those estimates once the asset is asseted. This would support the efficiency limb of the Authority's statutory objective.

7.10 The amendment is detailed in the form *Treatment of non-asseted commissioned assets for covered cost* submitted by Transpower to the Authority.

Proposed amendments

7.11 The proposed amendment:

(a) adds to clause 3 a definition of 'asseted'

(b) deletes subclause 39(6) and replaces it with new clause 40A. This new clause would require Transpower to ignore any non-asseted commissioned asset in its calculation of covered cost. Once the asset is asseted it will be given an appropriate opening RAB value for the next financial year in the normal way, which will be used to calculate covered cost for the relevant pricing year (and similarly for future pricing years until the end of the asset's economic life)

(c) deletes subclause 36(2) as it is not required as new clause 40A will apply to the covered cost calculation for both low-value and high-value post-2019 BBIs; and

(d) makes consequential changes to subclause 36(1) and clauses 39 and 40.

7.12 Please refer to the marked-up version of the TPM and Transpower's proposal published alongside this consultation paper for the full details of the amendment.[31]

Q6. Do you agree with the proposed amendment for issue 6?

8 Issue 7: Publication of simple method allocators

8.1 This section explains the Authority's proposal to amend the Code to ensure the most relevant information about the BBC simple method allocators is published and to allow flexibility as to where the information is published.

Issue and basis for the amendment

8.2 The BBC simple method is the method to be applied to post-2019 low-value investments. The simple method involves calculating largely fixed allocations at the start of each simple method period (usually five years) which apply to all low-value post-2019 BBIs commissioned during the simple method period. Transpower must calculate or re-calculate the allocations if certain BBC adjustment events occur during

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31 Refer to: [Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)]

the simple method period, which will then apply to low-value post-2019 BBIs commissioned later in the simple method period.

8.3 The TPM currently requires Transpower to publish inputs to the simple method BBC allocations (modelled regions, regional NPB, simple method factors and any new or re-calculated simple method factors) but there is no obligation to publish the actual BBC allocation that results from the use of these inputs.[32]

8.4 Transpower has received feedback from customers that their BBC allocations are what is of most interest to them and publishing just the inputs is causing confusion.

8.5 The Authority is proposing amendments that would:

(a) make the simple method allocator publication provisions easier to understand

(b) require the publication of the BBC allocations themselves and any changes to them during the simple method period (and remove the requirements to publish the simple method factors and any changes to them during the simple method period, noting that full information about the inputs to the starting BBC allocations calculated at the start of each simple method period will be made available to customers through the consultation required under subclause 15(2)). This change reflects customer feedback to Transpower that they are more likely to be interested in their allocations than their simple method factors (which are merely an input to the allocations)

(c) remove the requirements to publish the simple method allocation information in the assumptions book specifically. This will provide flexibility for Transpower to publish the information in a form and location most likely to be useful for. customers (which may be – and currently is – the assumptions book).

8.6 Transpower signalled in its proposal form that it also intends to engage individually with affected customers if there are changes to their simple method factors and allocations during a simple method period.

8.7 The amendment is detailed in the form *Information about simple method allocations* submitted by Transpower to the Authority.

8.8 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial) as the publication of the BBC allocations allow customers to have access to relevant information and allow transparency in the TPM.

8.9 As an alternative option, the Authority has also considered whether it should require publication of BBC allocations *in addition to* the current requirements to publish changes to inputs during the simple method period. Some customers may find information on changes to inputs during a period useful while also valuing the additional information on allocations themselves. However, this is not our preferred option – as it is our current view that it is unnecessary to keep the current requirements, given that full information about the inputs to the starting BBC

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32 Simple method factor (SMF) has the meaning in subclause 61(2) of the TPM. For details on the calculation refer to the BBC assumptions book https://tpow-corp-production.s3.ap-southeast-2.amazonaws.com/public/uncontrolled_docs/BBC%20Assumptions%20Book%20v1.1.pdf?VersionId=Mt.iiWEcM9obssTlikybOu3n.sgMNO7g

allocations calculated at the start of each simple method period will be made available to customers through the consultation required under subclause 15(2)).

Proposed amendments

8.10 The Authority proposes to amend the TPM to by:

(a) consolidating the simple method allocator publication provisions in new clause 64A rather than having them dispersed across clauses 61, 62 and 64 (and making consequential changes to those clauses);

(b) replacing the requirements to publish the simple method factors and any changes to them during the simple method period with requirements to publish the BBC allocations themselves and any changes to them during the simple method period (clause 64A);

(c) removing the requirements to publish the simple method allocation information in the assumptions book specifically.

8.11 Please refer to the marked-up version of the TPM and Transpower's proposal published alongside this consultation paper for the full details of the amendment.[33]

Q7. Do you agree with the proposed amendment for issue 7?

Q8. Do you prefer the alternative approach to publish both the changes to simple method inputs during a period as well as changes to allocations?

9 Issue 8: Corrections to reduction event adjustment factor (REAF) formula

9.1 This section explains the Authority's proposal to make a Code amendment to correct errors in the formula for calculating the reduction event adjustment factor.

Issue and basis for the amendment

9.2 The TPM provides for a customer's initial residual charge (when the TPM first takes effect) to be adjusted to accommodate circumstances where a customer has experienced a substantial reduction in its demand prior to the TPM coming into effect.

9.3 The TPM includes a formula for calculating the Reduction Event Adjustment Factor (REAF). The Authority amended the formula in November 2022, as it was not working correctly (an issue raised by Northpower). However, the formula in the November amendment included errors.

9.4 On 23 March 2023, the Authority made an urgent amendment to this formula to correct the errors, under section 40 of the Electricity Industry Act 2010, so that it could be in force at the time the TPM commenced (1 April 2023). Amendments made urgently are only in place for up to 9 months.[34]

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33 Refer to: [Transmission pricing methodology | Our projects | Electricity Authority (ea.govt.nz)]

34 https://www.ea.govt.nz/documents/2470/Electricity_Industry_Participation_Code_Amendment_Residual_Charge_Adjustment_F_8nIS1m9.pdf

Proposed amendments

9.5 The Authority now proposes to make the urgent amendment permanent. The amendment now proposed corrects the formula, ensuring the reduction event works as intended, consistent with the purpose of the changes made in November. We consider the amendment to be technical and non-controversial as it corrects an identified error to the REAF.

9.6 Please refer to the marked-up version of the TPM and Transpower's proposal form *Correcting errors in reduction event adjustment factors* published alongside this consultation paper for the full details of the amendment. Transpower's proposal form (published alongside) is identical to the one we published on 23 March 2023.

Q9. Do you agree with the proposed amendment for issue 8?

10 Issue 9: Allocations of high-value investments that are expected to change from interconnection to connection

10.1 This section explains the Authority's proposal to amend the Code to apply the BBC simple method to high-value transmission investments that change classification from interconnection to connection shortly after commissioning.

Issue and basis for the amendment

10.2 Transpower must shortly calculate the BBC allocations for the Bombay-Otahuhu Regional Major Capex Project.[35] Transpower has informed the Authority that the classification of some grid assets involved in this investment is expected to change shortly after the assets are commissioned, from interconnection to connection. That is, the relevant assets will only be interconnection assets for a short period. Following planned permanent decommissioning of certain related assets, the investments will become connection investments (from pricing year 2024/25).

10.3 Therefore, the benefit-based charge for this subset of investments that will become connection assets would only apply for a short period.[36]

10.4 The amendment is detailed in the form *High-value post-2019 BBIs changing the connection investments* submitted by Transpower to the Authority.

10.5 The proposed amendment would allow the cost for Bombay-Otahuhu Regional Major Capex Project and any similar future projects that are also expected to change from interconnection to connection shortly after commissioning, to be allocated based on the BBC simple method, rather than via the BBC standard method. Using the simple method would involve lower administrative costs for Transpower, compared to the standard method.

10.6 The Authority agrees with Transpower's assessment and proposed resolution. The potential costs required for developing a standard method allocation can be expected to be significant. The BBCs would only apply for a short time (up to 3 years) until the

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35 Refer to https://comcom.govt.nz/__data/assets/pdf_file/0022/226255/Transpower-BOBOTA-major-capex-proposal-15-May-2020.pdf

36 Note that several of the BOB-OTA BBIs will remain interconnection assets.

charges would become connection charges.[37] So the benefits of applying the standard method allocation (in particular, better engagement on investment proposals and more accurate pricing signals for future investment decisions) are expected to be limited for investments in these particular circumstances. In our view, for such projects the opportunity costs of deploying the scarce specialised resources required for developing a standard method allocation are not justified by the benefits of applying the standard method, given the short time span for which it would apply.

10.7 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial). This amendment aligns with the TPM policy intent by addressing a situation where asset reconfiguration leads to a BBI changing from high to low value, accordingly, warranting a simpler and more efficient method of calculating allocations.

Proposed amendments

10.8 The proposed amendment to the TPM is amending clause 43 by adding, as a further exception to subclause 43(2), new subclause 43(4A) which requires Transpower to apply the simple method to a high-value post-2019 BBI if:

(a) interconnection investments comprised in the BBI are expected to change to connection investments within three years of the BBI's full commissioning date; and

(b) the BBI would be low-value if those interconnection investments were disregarded in assessing the expected value of the BBI when fully commissioned.

10.9 Please refer to the marked-up version of the TPM and Transpower's proposal published alongside this consultation paper for the full details of the amendment.

Q10. Do you agree with the proposed amendment for issue 9?

11 Issue 10: Consideration of settlement residue payments in prudent discounts

11.1 This section explains the Authority's proposal to amend the Code to clarify that assessment of prudent discounts requires consideration of settlement residue payments.

Issue and basis for the amendment

Background

11.2 The TPM provides for a customer's transmission charges to be discounted in certain situations through the prudent discount policy. There are two types of prudent discount:

(a) inefficient bypass prudent discount

(b) stand-alone cost prudent discount.

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37 The Bombay-Otahuhu Regional Major Capex Project has already been consulted on and has been approved by the Commission. As such we do not expect any benefits from additional scrutiny of the investment decision.

11.3 The purpose of the prudent discount policy is to allow Transpower to discount the transmission charges of a designated transmission customer if the customer:

(a) would find it viable to inefficiently bypass the grid (including inefficiently disconnecting from the grid in favour of alternative supply); or

(b) would otherwise pay more than the stand-alone cost of transmission lines services equivalent to the services it receives from the interconnected grid (calculated based on a hypothetical investment to supply that customer).

11.4 An inefficient bypass prudent discount requires an assessment of the commercial viability of an alternative project that involves disconnecting from the grid. A customer may be granted such a prudent discount to discourage it from disconnecting from the grid (where that would be inefficient). The customer's avoided transmission charges are compared to the costs of the alternative project to determine whether disconnection would be commercially viable – and to determine the size of the prudent discount required to prevent disconnection.

11.5 A stand-alone cost prudent discount requires determining the costs of an efficient stand-alone investment to provide transmission services to the customer. The customer's transmission charges are compared to the efficient stand-alone cost to determine whether a discount should be paid – and to determine the size of the required prudent discount.

11.6 In November 2022 the Authority amended the Code to require settlement residue[38] to be paid by Transpower to its customers (clause 14.35A).[39] Under clause 14.35A, the Authority considers all designated transmission customers, irrespective of whether they receive a prudent discount, are entitled to receive payments of settlement residue from Transpower. These settlement residual rebates are paid to transmission customers as a rebate on their transmission charges.

11.7 The TPM is currently silent about how any payments of settlement residue made to a customer should be taken into account in the prudent discount assessment.

Analysis: SRAM and prudent discount applications

11.8 For an inefficient bypass assessment, in determining (a) whether disconnection would be commercially viable for a customer and (b) the size of the prudent discount required to prevent disconnection, the costs of the alternative project should be compared to the customer's transmission charges *net of settlement residual rebates* that the customer would expect to receive.

11.9 This is because, if expected rebates are not taken into account, a discount might be provided in circumstances where disconnection was not commercially viable – and the size of the prudent discount required to avoid disconnection might be over-estimated.

11.10 An alternative way to think about this issue is to consider the loss of settlement residual rebates as a cost of the alternative project – as a customer that disconnects

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38 The wholesale electricity market produces surplus funds – the loss and constraint excess (LCE). Most (but not all) of the LCE is currently used to fund the financial transmission rights (FTR) market, which collects FTR auction revenue and uses LCE to support FTR payments. The balance of LCE and FTR auction proceeds after FTR payments have been made is called the settlement residue.

39 The decision paper and Code amendment are available on the Authority's website: https://www.ea.govt.nz/projects/all/sram/

from the grid would no longer be a designated transmission customer and would no longer be entitled to receive payments of settlement residue. To correctly determine the commercial viability of the alternative project, the assessment needs to take into account all costs of the alternative project including the loss of rebates. This way of thinking about the issue results in the same solution. This is because treating the loss of settlement residual rebates as a cost of the alternative project, and then comparing the total costs of the alternative project (including lost rebates) to the customer's transmission charges (gross of rebates) is arithmetically equivalent to comparing the costs of the alternative project to the customer's transmission charges net of expected settlement residual rebates.

11.11 Similarly, for a stand-alone cost assessment, in determining (a) whether a discount is justified and (b) the size of the required prudent discount, the efficient stand-alone cost should be compared to the customer's transmission charges *net of settlement residual rebates* that the customer would expect to receive.

11.12 This is because, if expected rebates are not taken into account, a discount might be provided in circumstances where the net amount paid by the customer to Transpower (transmission charges less settlement residual rebates) did not exceed efficient stand-alone cost. In this case, the purpose of the prudent discount policy would not be achieved – and the size of the prudent discount would be over-estimated.

11.13 The Authority considers the proposed amendments satisfy section 39(3)(a) (technical and non-controversial). This amendment aligns with the TPM policy intent by ensuring prudent discount assessment reflects the actual position of the prudent discount applicant, taking into account all relevant costs and rebates as well as transmission charges. The Authority considers the proposed amendments satisfy section 39(3)(c) (there has been adequate prior consultation) – noting consultation papers released by the Authority in 2019, 2020 and 2021 which consulted on the prudent discount policy. The Authority is proposing a minor adjustment to ensure that the policy intent of the proposal consulted on is accomplished.

Analysis: settlement residual rebates for customers with prudent discounts

11.14 Linked to the proposed TPM amendment, the Authority has also considered whether there are any implications for the SRAM itself.[40] Under clause 14.35A of the Code, all designated transmission customers, irrespective of whether they receive a prudent discount, are entitled to receive settlement residual rebates from Transpower. We consider cl 14.35A appropriately gives effect to the SRAM policy intent: customers that are granted prudent discounts are also exposed to the transmission costs that the SRAM payments aim to compensate for,[41] and as such should also receive these payments (noting that the size of any prudent discount applied would have been reduced by the expected settlement residual rebates, as per the discussion above).

11.15 We do not consider that any Code amendment is required in respect of clause 14.35A (as the Code does not currently require any change to a customer's

40 Transpower has asked the Authority to clarify whether the effective customer allocations brought about by a prudent discount should or should not be used to allocate settlement residue.

41 These transmission costs are the transport component of nodal prices in the wholesale market.

settlement residual rebates that depends on whether or not the customer receives a prudent discount).

11.16 Note that Transpower has advised that currently no prudent discounts apply under the new TPM.

Proposed amendments

11.17 The proposed amendment to the Code is to amend the definition of 'avoided transmission charges' (in the TPM) to make it clear that the transmission charges if the alternative project did not go ahead must be net of settlement residue payments.

11.18 Please refer to the marked-up version of the TPM published alongside this consultation paper for the full details of the amendment.

Q11. Do you agree with the proposed amendment for issue 10?

12 Regulatory statement for the proposed amendments

Objective of the proposed amendments

12.1 The objectives of the proposed amendments are described against each of the issues set out in this paper.

The proposed amendments

12.2 The proposed amendments are described against each of the issues set out in this paper and shown as tracked changes in a marked-up version of the TPM included in Appendix B.

The proposed amendments' benefits are expected to outweigh their costs

12.3 The Authority has assessed the benefits and costs of the proposed Code amendments against a counterfactual of no Code amendment and considered whether there were any feasible alternative means of addressing the identified issues.

12.4 The changes are expected to have low administrative and technical costs associated with the changes to the Code, the benefits are expected to outweigh the costs as the technical clarifications will enhance the effectiveness of the TPM, promote clarity in the law, and ensure alignment with the policy's original intent.

12.5 The Authority concludes that the benefits of the proposed Code amendments outweigh the costs of making no Code amendment or choosing an alternative means of addressing any of the issues.

Counterfactual

12.6 Making no Code amendment has no benefit and comes at the cost of the TPM not fully achieving its intended policy intent as consulted on. The proposed amendments are all to correct issues in the TPM where the consulted policy intent is not fully achieved due to minor drafting issues, mistakes in formulae, or small omissions.

12.7 The Authority has considered whether there are readily available alternatives to the TPM amendments it has proposed but considers that there generally are not. This is because the amendments are generally in the nature of corrections to things like existing formulae or addressing a minor point which has been omitted. There are therefore no clear alternatives to address the issues without getting back into substantive policy issues which have already been consulted on and addressed.

Efficiency

12.8 The Authority agrees with Transpower's view that all of the proposed amendments support the efficiency limb of the Authority's statutory objective by correcting issues to bring the TPM drafting in line with the consulted policy intent of the TPM. The amendments achieve that policy intent which itself the Authority determined was necessary or desirable to promote the efficient operation of the electricity industry. The Authority considers that it further promotes efficiency by providing greater clarity in the TPM thereby supporting its successful implementation.

Competition

12.9 The proposed amendments are not expected to have a material impact on competition in the electricity market.

Reliability

12.10 The proposed amendments are not expected to have a material impact on the reliable supply of electricity to consumers.

Appendix A How to make a submission

A.1 The Authority's preference is to receive submissions in electronic format (Microsoft Word). Submissions in electronic form should be emailed to network.pricing@ea.govt.nz with 'Consultation Paper— Amendments to correct issues in the new TPM' in the subject line.

A.2 If you cannot send your submission electronically, please contact the Authority at network.pricing@ea.govt.nz to discuss alternative arrangements.

A.3 Please note the Authority wants to publish all submissions it receives. If you consider that the Authority should not publish any part of your submission, please:

(a) Indicate which part should not be published.

(b) Explain why you consider that part should not be published.

(c) Provide a version of your submission that can be published (if the Authority agrees not to publish your full submission).

A.4 If you indicate there is part of your submission that should not be published, we will discuss with you before deciding whether to not publish that part of your submission.

A.5 However, please note that all submissions received, including any parts that are not published, can be requested under the Official Information Act 1982. This means the Authority would be required to release material that was not published unless good reason existed under the Official Information Act to withhold it. The Authority would normally consult with you before releasing any material that you said should not be published.

A.6 Please deliver your submissions by **5pm** on **Wednesday 31 May 2023**.

A.7 We will acknowledge receipt of all submissions electronically. Please contact the Authority at network.pricing@ea.govt.nz or if you do not receive electronic acknowledgement of your submission within two business days.

Appendix B Questions to assist submitters.

B.1 You are welcome to comment on any matter relevant to the Authority's proposal.

B.2 We have posed questions throughout the consultation paper to help prompt responses to specific aspects of the proposal. These are repeated here.

B.3 Please do not feel that you need to limit your responses to the consultation questions or that you need to answer them all. Please explain your answers in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010.

	Question
Chapter 2	Do you agree with the proposed amendments for issue 1?
Response	
Chapter 3	Do you agree with the proposed amendment for issue 2?
Response	
Chapter 4	Do you agree with the proposed amendment for issue 3?
Response	
Chapter 5	Do you agree with the proposed amendment for issue 4?
Response	
Chapter 6	Do you agree with the proposed amendment for issue 5?
Response	
Chapter 7	Do you agree with the proposed amendment for issue 6?
Response	
Chapter 8	Do you agree with the proposed amendment for issue 7?

	Do you prefer the alternative approach to publish both the changes to simple method inputs during a period as well as changes to allocations?
Response	
Chapter 9	Do you agree with the proposed amendment for issue 8?
Response	
Chapter 10	Do you agree with the proposed amendment for issue 9?
Response	
Chapter 11	Do you agree with the proposed amendment for issue 10?
Response	