2 December 2021

Submissions
Electricity Authority
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CONSULTATION PAPER – PROPOSED TRANSMISSION PRICING METHODOLOGY

Network Waitaki welcomes the opportunity to provide comments to the Authority on the consultation paper titled "*Proposed Transmission Pricing Methodology*".

As you are aware from our previous submissions and related conversations with Authority staff, we are deeply concerned about the long-term implications of Transmission related costs on our region.

Network Waitaki appreciates that the Authority has highlighted issues with the current Transmission Pricing Methodology (TPM) and has worked for many years to find a durable and workable alternative without success and so is eager to conclude this work. However, we have significant concerns that what has been proposed does not (in our view) achieve the outcomes the Authority is seeking, nor does it provide a durable and robust methodology for allocation of transmission costs.

We do not view the proposed TPM as the most efficient model and to the long-term benefit of all consumers. In essence it is reallocating the burden of cost recovery to different users. The residual charge is disproportionately large, the benefit-based charge spread over seven investments and allocated on a questionable basis to beneficiaries, and the transitional cap being paid for by electricity consumers to support large industry. As a summer peaking network in the winter peaking Lower South Island region, we also strongly oppose the move from Regional Coincident Peak Demand (RCPD) to Anytime Maximum Demand (AMD) based allocations, as this does not recognise our efficient off-peak use of the wider national grid when constraints are not present.

Throughout the development of the TPM over the past decade or more Network Waitaki has submitted our comments and concerns on numerous occasions, and through various consultations, to the Authority and Transpower. At this point we view the proposed TPM as a fait accompli and remain highly concerned about the following issues:

- The proposed transitional cap does not provide a level playing field for customers in terms of transitional measures benefiting some (large direct connect customers) and not others (large customers connected within distribution networks). In our case, the North Otago Irrigation Company (NOIC) as the sole user of the Black Point GXP is a case in point and the situation and price shock this company will experience are detailed in Appendix 2.

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- The proposed TPM contains relief mechanisms that appear to be almost unachievable, e.g. the very high threshold to qualify for prudent discounts.

- No evident consideration of the overall impact on communities that will be left with large increases in charges with no extra benefit, for example the TPM changes for Network Waitaki increase transmission charges by 25% for the use of the wider national grid, however, still leaves us with an already constrained local transmission grid which requires further investment in the medium term. A case in point is the additional investment required to address the ongoing Transmission constraint into Oamaru that will necessitate an investment which in addition to the new TPM charges will impact consumers in the Waitaki area severely.

- The Authority regularly refers to 'winners and losers' in the process but yet has taken very little action to address the concerns of the 'losers'.

- Application of judgment and the use of assumptions in areas such as the design of the beneficiary charge. In particular, the selective choice of seven pre-2019 investments to be socialised across customers while other investments remain in the residual charge component and thus not fully exposing all grid users to benefit payment.

As a distribution network located in the heart of the Waitaki hydro generation area, with over 800MW of local hydro generation and the Benmore HVDC station on our doorstep, the significant increase in grid costs to pay for the 'rest of the grid' for our 69MW of peak demand does not sit well with us or our customers.

Our response to the consultation is contained in Appendices 1 and 2 and cover the following areas:

- Appendix 1: Responses to several of the Authority's questions.
- Appendix 2: Outline of the situation surrounding and the severe impact on our largest customer, NOIC.

In addition to our overall disapproval of the proposed TPM, our detailed responses and recommendations are listed in Appendices 1 and 2, and in summary we request the Authority to favourably consider especially the following matters:

- To either a **phase in** of the new charges and/or the **extension of the transitional price cap to embedded load** subject to "pass through" arrangements in relation to their transmission charges.

- To allowing a mechanism to re-evaluate the calculation of gross AMD for purposes of the residual charge, i.e. to remove the double-counting of AMD due to load transfers between Grid Exit Points (GXPs).

- For Transpower to prepare a prudent discount practice manual. This will provide transparency and clarity to prospective applicants on what is expected in these applications.

- That a prudent discount be allowed to automatically renew unless conditions have materially changed to trigger pre-specified reopeners.

- That connection of a distributor to a new (and additional) GXP and the upgrading of a transformer at a distributor's GXP should qualify as an adjustment event.

- That there be allowance for an adjustment to the residual charge where a large customer closes plant.

- To further engage with us over specific non-standard transitional arrangements for the Black Point GXP to address a perverse outcome which leads to a significant increase for one large user in our area.

As we have offered in many of our previous submissions, we again extend an invitation for you to visit us so that you can understand first-hand the unique circumstance within our supply area and discuss our transmission issues and the impact on our community.

For any questions or clarifications on this submission please contact myself, or our Regulatory Manager Cornel van Basten.

Sincerely

Geoff Douch
Chief Executive

Appendix 1

The Authority welcomes feedback on any aspect of the proposals set out in this document, and comment, analysis and evidence on alternatives that would be consistent with the Guidelines and may better meet the Authority's statutory objective. Without limiting the scope of feedback that we are seeking, we have set out some specific questions below.

Chapter 2 A new TPM	
	Do you have any comments on the content of this chapter?
Response	Network Waitaki notes the Authority's view that the current TPM is not durable. It appears that the Authority has accepted most of the TPM proposals from Transpower. We have previously expressed our concerns regarding the proposed TPM and the impact on customers such as ourselves in numerous forums and through various consultation. We do not believe a move from an RCPD to an AMD based allocation is the best model for allocation of transmission charges. We can only reiterate what was said in our introduction above that the proposed TPM is, in our view, not the most efficient model and not to the long-term benefit of all consumers. In essence it is reallocating the burden of cost recovery to different users. The residual charge is disproportionately large, the benefit-based charge spread over seven investments (and not others based on questionable exclusion) and allocated on a questionable basis to beneficiaries, and the transitional cap being paid for by electricity consumers to support large industry. Network Waitaki's consumers will be severely impacted through this proposed TPM.
Chapter 3 Grid asset classification	
	Do you agree with the proposed approach to treat connection assets as interconnection assets for a limited time if the assets will ultimately be interconnection assets when fully commissioned? Do you agree with the proposed reclassification power? Should there be any further conditions on Transpower's use of this discretion? Do you have any other feedback on Grid Asset Classification in the proposed TPM?
Response	No particular recommendation, although we are concerned about the proposed discretionary power that Transpower will have to classify and reclassify connections. We do note that there is criteria listed in clause 25 of the proposed TPM that limits the discretion somewhat.
Chapter 4 Connection charges	
	Do you agree that the proposed TPM should specify that connection asset replacement values be regularly updated to promote cost-reflective charges and certainty? Do you have any comment on the proposed approaches to address first mover disadvantage issues, including on: • the proposed FAC mechanism for Type 1 FMD • the alternative option of an upper limit on application of the benefit-based approach for Type 2 FMD • the approach to applying 'above-limit costs' under this alternative option? Do you have any other feedback on the proposed TPM in relation to connection charges?

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Response	**The alternative option of an upper limit on application of the benefit-based approach for Type 2 FMD** We note the Authority's concern that under the proposed benefit-based approach to fund anticipatory capacity, that charges could fall on a few parties only and that additional costs might be disproportionately large. Therefore, the Authority suggest an upper limit. We agree with the Authority's concern, but as we refer to later in this document it is surprising that there is concern about the impact here on this matter in par. 4.45 of the consultation paper but no regard to the impact on embedded customers (in distributor networks) facing higher than 10% increases as a result of the new TPM charges (our example is discussed in Appendix 2). **Network Waitaki agrees with the merits for a limit and support Transpower's preference for socialisation of the extra costs associated with anticipatory investments across all transmission customers.** We note the Authority's discomfort with this socialisation approach specifically with reference to cross-subsidisation from all consumers and promotion of over-investment. Due to the long-term nature of the transmission business, any perceived benefit or cross-subsidy when socialising the cost of over-capacity will be offset eventually as other areas also go through new investments over time and over new generations that benefit from the transmission investments of today.
Chapter 5 Benefit-based charges: allocation	
	Do you have any comment on the proposed standard and simple benefit-based allocation methods? Do you have any comment or additional evidence on the proposed weighting of benefits between load and generation customers under the simple method, or with respect to the proposed review of the allocation?
Response	We maintain our concerns as raised in our response of October 2019 to the Transmission Pricing review consultation relating to the proposed benefit-based charge and its make-up. To recap, these were: • The benefit based charge being made up of seven major historical investments of which five are in the North Island with the allocation of cost disproportionately allocated to South Island consumers. In addition, three qualifying investments have been excluded (but included in the residual charge) to the detriment of South Island consumers despite the benefits largely being attributable to North Island consumers. • It is our contention that socialising some investments but not others appear to be a selective approach and that it would be worth considering converting all transmission assets for inclusion in benefit-based charges, to ensure all grid users are fully exposed to benefit payments (properly depreciated for each case) with the average residual price at a minimum. We note the Authority's view that this will be resource-intensive and the difficulty for Transpower to obtain the required information, but assumptions already had to be made with regard to the seven major investments currently proposed to be included. This full introduction of the whole benefit picture would result in more averaged prices across the country, with better price stability and an opportunity to test the benefit/effort equation of the proposed TPM right from the outset. • As Network Waitaki, it will be very hard for us to explain and justify this charge to consumers in our area of supply while they still have to face an investment to solve a Transmission capacity constraint that will amount to millions of dollars. The perception is they will be paying for projects which benefit North Island consumers, but yet still have to pay for local grid projects as they are required.

Chapter 6 Benefit-based charges: covered costs	
	Do you have any comment on the proposed approach to covered costs, including on: • whether overhead opex should be recovered through the BBC or residual charge, and any evidence to support your view? • the recovery of opex on fully depreciated assets through the residual charge?
Response	No comment
Chapter 7 Residual charges	
	Do you have any comment on how the proposed TPM implements the residual charge provided for in the Guidelines? Do you agree with the application of the residual charge to generation with embedded load, or can you suggest a better way to mitigate charge avoidance incentives and risk of an uneven playing field? Do you have any comment on the proposed approach to application of the residual charge to battery storage to avoid double-counting of load?
Response	The intention of the residual charge as per the consultation paper is to be allocated based on a customer's size (as a proxy for ability to pay). The residual allocator is intended to capture a load customer's final electricity demand and is based on a customer's historical gross AMD, averaged across 2014-2017. **Using 2014-2017 as the base for allocation of residual charge** We understand that the reason for using 2014-2017 as the base years for the fixed-like residual charge allocation is to not provide any signals and to prevent customers changing their use of the grid purely to reduce the size of the residual charge, i.e. it must be based on historical gross AMD to represent a tax like charge. We also acknowledge the expectation that the residual charge would reduce over time with an increasing share of transmission charges being recovered via the benefit-based charge. As in our previous submissions we still recommend that a co-incident demand-based allocation method is more appropriate and will send the correct signals around the size of a customer at peak demand periods. **Furthermore, noting all the reasons by the Authority, we contend that using 2014-2017 as the base allocation years is not a true reflection of a customer's size for implementation of a charge on 1 April 2023 and that this period be updated to at least 2018-2021.** We are further mindful of par. 7.6 of the consultation document that initial allocations will be updated annually based on the lagged four-year rolling average of gross energy usage (with this gross energy usage four-year period commencing the financial year seven years prior). We agree that the residual charge allocation must be updated to provide a fair representation of a customer's usage of the transmission grid that might arise from growth, decline or new technology application – especially in view of rapid growth in the Auckland region and decarbonisation activities already underway in some areas. We support a change in the residual charge allocation to cater for changes in growth rates and changing demand profiles. **Our position remains that using customers' gross annual energy usage (MWh) is not an effective mechanism to annually update the residual charge allocation.** Persisting with using energy volumes as the mechanism for adjustment is still of significant concern as it goes against the Electricity Authority principle of moving to service-based pricing. Even though this makes provision for adjustments to residual charges we are concerned that using energy volumes could incentivise for example customers to reduce current energy consumption (or deferring decarbonisation initiatives) by investing in other technologies to lower

their portion of the residual charge, leaving the remaining users to carry the burden – even though it will take seven years to fully realise the gains from this reduction.

The seven-year delay between demand and pricing impact is a measure that might look reasonable on average but could have a big impact for specific users at certain times and from which it will not be easy to recover from.

Gross AMD

We note the definition of Anytime Maximum Demand (Residual) Baseline as per clause 71(1) in the proposed TPM. It is defined as a load customer's maximum gross demand for grid point of connection "P" at connection location "l" and financial year "n".

In Network Waitaki's case and as apparent from the proposed TPM Excel model the gross AMD for the purpose of the residual charge is set at 69MW which includes four GXPs, namely Black Point, Oamaru, Twizel and Waitaki.

Deeper analysis based on our information shows that this AMD of 69MW is made up as illustrated in the table below.

Gross Anytime Maximum Demand	kW				Average
	2014	2015	2016	2017	
BPT	10,892	10,902	10,734	13,834	11,591
OAM	41,820	41,768	38,644	39,832	40,516
TWZ	4,594	6,152	3,464	2,950	4,290
WTK0111	0	10,392	11,600	11,836	8,457
WTK0331	4,152	5,038	2,996	5,064	4,313
	61,458	**74,252**	**67,438**	**73,516**	**69,166**

Our concern relates to the use of WTK0111 plus WTK0331 to arrive at a gross AMD. In our view this is misrepresentative of the size of our network as due to a historical network configuration, supply from Waitaki GXP can be from either the 11kV or 33kV supply point, however we are only ever supplied from one or the other (except for transfer periods <5min). A more accurate calculation would look at the co-incident demand across the GXP rather than the AMD of each node.

Likewise, in some of these periods we have transferred load between Oamaru and Waitaki GXPs and between Waitaki and Twizel GXPs for operational or fault reasons resulting in the AMD of the transferred load potentially being double counted.

This issue would not be unique to Network Waitaki, and therefore the coincident AMD of all interconnected GXPs supplying a distribution network should be used rather than taken individually.

The table below illustrates a true representation of Network Waitaki's size between 2014-2017 resulting in a 10MW difference, or an 18.6% overstatement of our demand on the grid. Specifically, the coincident demand on Waitaki GXP is approximately 10.2MW compared to the Gross AMD of 12.8MW as indicated by the Authority.

Coincident Network Anytime Maximum Demand (kW)					
Pricing year	**2014**	**2015**	**2016**	**2017**	**Average**
Date	19/02/2015	11/03/2016	17/01/2017	7/12/2017	
Time	1530-1559	1530-1559	1500-1529	1630-1659	
All GXPs - coincident demand	**56,756**	**58,718**	**53,740**	**63,966**	**58,295**
Contribution of each GXP					
BPT	10,650	9,710	8,864	13,626	10,713
OAM	41,210	38,838	32,518	36,854	37,355
TWZ	2,290	2,620	3,040	1,650	2,400
WTK0111		7,550	9,318	11,836	9,568
WTK0331	2,606	0	0	0	652
	56,756	**58,718**	**53,740**	**63,966**	**58,295**

Recommendation:

It is recommended that the Authority consider allowing a mechanism to re-evaluate the calculation of Gross AMD to remove the effect of AMD being double-counted due to load transfers between GXPs and use coincident AMD of all interconnected GXPs supplying a distribution network rather than summing each GXP's demand individually.

Chapter 8 Adjustments

Do you agree with or have any other feedback on the proposed provisions for adjusting transmission charges?

The Authority welcomes feedback on any aspect discussed or proposed in this chapter, including whether:

- the proposed TPM should provide more detail on the method for determining new entrants' benefits
- the charges for a new entrant should be the same as an equivalent incumbent each year (as in the proposed TPM), on a whole-of-life basis as in the Guidelines
- the proposed thresholds for 'large' and 'substantial sustained' change in grid use are appropriate
- the connection of a distributor to a new (and additional) GXP and the upgrading of a transformer at a distributor's GXP should be adjustment events
- the plant disconnection provision should be extended to plant de-rating
- the relevant provision should be further extended to cover a substantial sustained decrease in grid use not related to a plant disconnection or de-rating
- the residual charge for a new entrant and an expanding customer should adjust with a lag and a gradual ramp-up, as proposed
- the proposed 'related entity' provisions deal appropriately with avoidance concerns, and whether there is a case for a broader or more general 'related entity' provision to deal with other, potentially unforeseen, avoidance opportunities?

Response

Connection of a distributor to a new (and additional) GXP and the upgrading of a transformer at a distributor's GXP should be adjustment events

Yes, in principle the allocation of charges should always change to reflect consumer size. These should include adjustment events for both the benefit-based and residual charge components. Network Waitaki has been considering for years how to solve the Transmission constraint on the non-core grid in the most cost-efficient way possible for its consumers and have pursued whatever measures possible to alleviate the challenges. Now, in addition to paying for this solution our consumers are facing a 25% increase in transmission charges in total for no added benefit or no increase in service level and we are still working on solving the constraint (which is becoming very urgent with the decarbonisation drive).

Different solutions to this transmission constraint are being considered which might lead to a large part of the network being reconfigured. If this is the case it would mean that:

- The benefit-based charge would need to take into account the changes in offtake from all our GXPs and the impact that has on the overall benefit-based charge allocated to Network Waitaki.
- We will be stuck with a residual charge which will still be allocated based on a gross AMD (2014 – 2017) that has potentially little relationship with the actual configuration and size of the network.

This would be a material change and should trigger an adjustment event. This is likely to be more prevalent as the grid is expanded to accommodate decarbonisation across the country.

	The proposed TPM should include a specific provision for the adjustment of the residual charge of a large customer that closes a plant (either to allow its adjustment immediately or in some other way), or should the standard lagged adjustment of the residual charge apply? If the former, should the provision be extended to deratings? If the latter, should it apply to embedded parties and should there be a related entity provision? The proposed TPM should allow for an immediate adjustment to the residual charge where a large, embedded customer closes its plant. This will prevent other customers having to carry the increased residual charge. The lagged adjustment of the residual charge should not apply here. As in our response to questions relating to Chapter 7 using energy volumes as the mechanism for adjustment goes against service-based pricing. A lot can change within a seven-year time frame in terms of volumes used. For example, in an area where large decarbonisation and electrification takes place the residual charge for a customer could increase exponentially over time due to volume changes with not necessarily an increase in the gross AMD and thus not a representation of the customer's size but a large increase in the customer's residual "tax".
Chapter 9 Prudent discounts	
	Do you have any comments on the proposed PDP provisions? The Authority welcomes comment on any aspect of the proposal, including whether: • Transpower should have to prepare a PD practice manual, and if so when, and should it be binding on Transpower • 15 years should be the default maximum period with a longer term possible on proof • prudent discounts should be funded via the residual charge and as appropriate the benefit-based charge • customers should be able to terminate a prudent discount agreement before the end date of the agreement?
Response	**Transpower should have to prepare a PD practice manual, and if so when, and should it be binding on Transpower** In our view, Transpower must prepare a prudent discount practice manual. This will provide a guide, transparency and clarity to prospective applicants on what is expected in these applications. At present, there is considerable uncertainty around the prudent discount process. Material changes to the prudent discount practice manual should be consulted on to ensure an impartial, predictable and consistent approach, to minimise uncertainty during the process. **15 years should be the default maximum period with a longer term possible on proof** In our opinion, 15 years is a short time for an investment into Transmission assets (or alternatives) and creates uncertainty which is not to the benefit of NZ Inc. This could incentivise earlier inefficient bypass because of the risk that a prudent discount might not be renewed after 15 years, while the benefit of the bypass would continue to exist. A project being evaluated for an "inefficient bypass" could have a life of 50 years or more. A prudent discount should preferably automatically renew unless conditions have materially changed to trigger pre-specified reopeners. Assessment of conditions having changed materially should take into account conditions relating to Transpower, the customer and the process. A case in point is the impact of the proposed TPM on our largest customer, NOIC (discussed in Appendix 2) for whom its Notional Embedding Contract is at risk due to a change of the TPM. If NOIC at the time anticipated this huge regulatory change and consequential price impact on them, their decision to enter a Notional Embedding Agreement rather than bypassing the grid in 2006 might have been different. We have been considering the feasibility of applying for a Standalone Cost Prudent Discount and/or an inefficient bypass prudent discount but our understanding is that there will be a very

	high threshold applied and a very small chance for success. We considered these mechanisms as potential solutions for: • Resolving the current Transmission constraint into Oamaru plus the increase in Transmission charges which could potentially make a SACPD application feasible. A SACPD application will apply to the whole of Network Waitaki bypassing the grid (including Black Point). • In the event that a SACPD is not feasible, there could be the possibility of applying for an IBPD for Black Point. This has not been looked at in any detail at this stage. However, considering he cost involved in preparing an application as well as the possible high application fee and the risk that the application will not be successful, it creates a significant barrier for applicants.
Chapter 10 Transitional congestion charge	
	Do you have any feedback on the proposal not to include a TCC in the proposed TPM, for the reason that widespread risk of congestion from removing the RCPD charge is unlikely and that, if necessary, the grid owner and system operator have effective tools to manage the power system quickly and efficiently? If not, how should a TCC be designed to be consistent with the Guidelines? Under what situations should it be applied and how should its size and allocation be determined?
Response	Our opinion has been that a Transitional Congestion Charge (TCC) is necessary to avoid unintended consequences of removing the RCPD charge and we saw a TCC as important to maintain security of supply while spot market measures such as Real Time Pricing and demand response are tested and refined. We understand though that Transpower had the ability to introduce a TCC but concluded that there are sufficient tools available to remove short-term congestion risk as a result of removal of the RCPD.
Chapter 11 kvar charge	
	Do you have any comment on the proposal not to include a kVAr charge in the proposed TPM?
Response	No comment
Chapter 12 Indicative prices	
	Do you have any comments on indicative pricing or the application of the transitional cap?
Response	***Indicative pricing*** We have on numerous occasions relayed our concern and disappointment to the Authority with regard to the design of the benefit-based charge, the residual charge and the transitional cap and the impact on our community without any visible benefit to them of this high increase. Our response to question 7 contains Network Waitaki's concern relating to the size of the residual allocator because of the flawed way of calculating the gross AMD. **Recommendation:** **As per our recommendation in question 7, we request the Authority to consider the gross AMD calculation for allocation of the residual charge** ***Transitional cap*** The proposal includes a cap of 3.5% on the increase in the total electricity bill of an average electricity consumer, including directly connected large industrial customers. Network Waitaki (at an overall level) falls under this 3.5% threshold and thus consumers will be required to

	contribute approximately $80,000 to the surcharge to fund the transitional cap to large industrial customers who otherwise would experience total electricity cost increases above 3.5%. This is in effect a socialisation of charges to ensure some consumers don't end up with price shocks. However, even though this cap goes against the intended move to service based and cost reflectivity it also discriminates against customers embedded in distribution networks. An example, is our largest customer, NOIC (see Appendix 2) who as the sole user of the Black Point GXP will face a transmission charge increase of 126% but also have to contribute to the transitional cap for other large users which is a very perverse and unintended outcome. It is grossly unfair that captive EDB end use consumers must cross-subsidise large industries that have managed to avoid RCPD charges in the past.
Chapter 13 Other provisions of the proposed TPM	
	Do you have any comment on or suggestions for the preliminary provisions cl1-18?
Response	No comment
Chapter 14 Regulatory statement	
	Do you have any comments on the regulatory statement, or the assessment of wider factors?
Response	Clause 14.3 and 14.5(e) in the Regulatory Statement refers to the Authority seeking to limit and avoid price shocks. These clauses are in conflict with the significant price shock impact that will be experienced by NOIC – Network Waitaki's largest customer (see Appendix 2). Why should NOIC's operations be impacted by a 126% increase in transmission charges (estimated 15% in final retail bill) and not be eligible for the transitional cap? NOIC will pass this increase to its 166 shareholders who will each separately face the impact of the new TPM on their individual retail bills as well. Par. 14.34 gives the impression that consumers will experience benefits through no distributor requiring a transitional cap as price increases are lower than the threshold of 3.5% plus 1.5% inflation. We still contend that this is a very simplistic method of averaging and not taking into account the impact on individual consumers within distributor areas that might face a completely different reality of a much higher increase, particularly in unique cases where one customer is the sole user of a GXP. The increase in charges because of the proposed TPM will have no apparent benefit to consumers in our community but will have a significant negative flow-on effect in the local economy. **Recommendation:** **It is recommended that the regulatory statement at least acknowledges the potential unintended consequences, such as discrimination against large customers embedded in a distributor's network, facing massive increases and price shocks and not able to qualify for the transitional cap as a minimum.** **An alternative transitional arrangement needs to be included for these circumstances.**
Chapter 15 Next steps	
	Do you agree that 1 April 2023 is an appropriate commencement date for the proposed TPM? Do you agree with the proposed transitional measure for any standard method investments for which allocation is not completed?
Response	The timing is appropriate, however we believe there may be some further transitional arrangements required to soften the impact for some customers.
Appendix: Proposed TPM	
	Do you have any feedback that would improve the drafting of the proposed TPM?

Response	No comment
Appendix: Cost benefit analysis	
	Do you have any comment on the cost benefit analysis?
Response	No comment
Other	Is there anything else in relation to the proposed Code amendment that you wish to comment on? Do you have any other feedback on any other aspect of the proposed TPM?
Response	No comment

APPENDIX 2

PRICE SHOCK OF PROPOSED TPM ON NORTH OTAGO IRRIGATION COMPANY

Background

The North Otago Irrigation Company (NOIC) is Network Waitaki's largest connected customer, and the sole user of the Black Point GXP. It has demand of around 11.5MW as determined by the calculations in the proposed TPM.

In 2005, NOIC constructed an Irrigation Scheme in the Waitaki Valley and required transmission of electricity to the Scheme from Transpower. Transpower determined that bypass of Grid Assets was viable and therefore agreed to a Notional Embedding Contract (dated 11 April 2006 and expiring in April 2026).

According to the Notional Embedding Contract (NEC), Transpower treats the NOIC load as embedded behind Meridian Energy Limited's generation assets at Waitaki Power Station. Our understanding is that Transpower did not want to contract directly with NOIC, hence Network Waitaki became a party to the contract.

The main purpose of this agreement was primarily to set nonstandard transmission charges for the supply of electricity to NOIC (i.e. a discount to standard pricing due to the potential to otherwise bypass the grid).

Additionally, NOIC is a summer peaking load, which means its demand occurs at times when the rest of the lower South Island is not at peak demand, thus improving utilisation of the grid.

Under the proposed TPM, Network Waitaki has been advised that the NEC will be terminated due to material change of regulations, and secondly the move from an RCPD based charge to and AMD based charge will have a significant increase in the charges payable by NOIC (126% increase).

From NOIC's perspective:

- NOIC uses the grid at a time when it is not constrained as it has a summer load in a winter peaking region.
- NOIC had a choice of connection configurations when it was established in 2006, and consequently Network Waitaki was able to enter into the NEC with Transpower which reflected that choice, constructing long life assets which will remain in service for at least another 30 years.
- The NEC is based on the current structure of transmission charges and so it is unlikely to have any meaningful effect when the new TPM is adopted.
- The combined effect of the new charges and the early termination of the existing NEC is a 126% indicative increase in transmission charges relating to NOIC's load.

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From Network Waitaki's perspective:

- As Network Waitaki we are very concerned about the size of the increase that NOIC will face, with the 126% increase in transmission charges resulting in an estimated 15% increase in the final retail bill. This is well outside the 3.5% increase threshold indicated by the Authority as a trigger for the transitional cap.
- Network's Waitaki's transmission charges increase under the proposed TPM (including a contribution to the transitional price cap), however the charges at Black Point increase disproportionally to the rest of the network.
- Network Waitaki is not in a position to provide any kind of phase in arrangement for NOIC as this will mean our other consumers will be cross-subsidising NOIC. Any phasing-in arrangement will be counter to clause (a)(i) of the Authority's distribution pricing principles[1], namely that "…prices are to signal the economic costs of service provision, including by being subsidy free…"

Authority's mandate

- The Authority regulates the whole electricity industry.
    - Section 4 of the Electricity Industry Act 2010 (**the Act**) says "the purpose of this Act is to provide a framework for the regulation **of the industry**"
    - Section 15 refers to the promotion of competition in, reliable supply by, and the efficient operation of "**the electricity industry**."
- Section 15 also refers to the overarching objective of "the long term benefit of consumers". This includes all consumers: mass market, small businesses and larger companies such as NOIC.

Authority's analysis to date

- The Authority's analysis to date has focussed on the impact of its various proposals on distributors, grid connected industrials, and generators.
- Network Waitaki notes that in the proposal to address the First Mover Disadvantage issue, the Authority express a concern that its proposal might create risk of rate shock for some connected parties and thus propose a complementary alternative (par. 4.42). Par. 4.45 use the example of a limit of a 10% increase on an individual customer's charges as an example of where the benefit-based approach might not apply, i.e. where additional capacity costs are unusually large.
- However, the Authority has not considered the impact of the proposed TPM on larger companies within a distribution network whose load size is such that distributors have no option but to pass on any transmission charges they incur as a result of the presence of this load.
- NOIC is one example but there will be others right across the country. We are unsure if the Authority is aware of the extent of this problem.
- Allowing grid connected industrials to have capped transmission charges but not extending this cap to large companies within a distribution network who face individual

[1] Electricity Authority. 2019 Distribution pricing principles.
https://www.ea.govt.nz/operations/distribution/pricing/

pass through transmission charges is discriminatory and not consistent with the Authority's statutory objective and requires a solution.

Transitional cap

The transitional cap surcharges are calculated by considering how the proposed TPM will change transmission charges for the pre-July 2019 grid, and the subsequent impact on end consumer delivered electricity bills. It limits load customers' transmission charge increases due to benefit-based charges and residual charges relative to the interconnection charge under the current TPM.

A transitional cap of 3.5% will apply on the increase in the total electricity bill of an average consumer to limit the impact of price increases arising from the new TPM. As Network Waitaki is under this threshold, there is no relief and Network Waitaki consumers will contribute approximately $80k towards a pool of funds to balance this up with other users who will have an increase greater than 3.5%.

This illustrates the consequence of simple averaging, as the impact on individual customers will differ from customer to customer. NOIC will face a 126% increase[2] in transmission charges and a 15% indicative increase on its retail bill which will impact its shareholders and these shareholders who are farmers will also be impacted again through their individual electricity bills.

The unfairness is well illustrated when NOIC's 15% increase is compared with cap qualifying direct connects in par. 12.41 in the consultation paper. Par. 12.41 shows that six direct connects to the grid will qualify for the transitional cap based on their indicative notional electricity bill increases. The highest of these increases will be experienced by GTL Energy NZ Ltd at 123%, with KiwiRail Holdings Ltd at 16%. The other four will experience increases of 13% and less.

As a consequence of the transitional cap and as illustrated in Table 10 in the consultation paper these six direct connects will experience reductions in their indicative TPM prices of 55% (GTL Energy NZ Ltd), 52% (Wharerora Cogeneration Ltd), 52% (Norske Skog Tasman Ltd), 28% (New Zealand Steel Ltd and Pan Pac Forest Product Ltd) and 19% (KiwiRail Holdings Ltd) respectively. The total reduction across all six direct connects amount to a total of $11.5 million to be paid by amongst others consumers of Electricity Distributors.

However, because NOIC is embedded within Network Waitaki's network due to historic commercial decisions taken in 2006, it does not qualify for the transitional cap.

The difference of a direct connect's new TPM charge and its current interconnection charges in the 2019/20 pricing year is limited to no more than a 3.5% increase, 1.5% inflation

[2] Difference between new charges and current charge (including New Investment Charge)

adjustment, gross energy usage increase and a formula involving the years that the cap has been implemented.

NOIC Black Point is very similar to a direct consumer as it is the only customer at a GXP.

In the proposed TPM *a direct supplied load customer means, for a connection location and trading period, a connected asset owner who—*
(a) owns or controls a local network or consuming plant connected to the grid at the connection location; and
(b) has embedded electricity at the connection location of the type defined in paragraph 5(1)(b) during the trading period

Our calculations show that if Black Point was treated as a stand-alone direct connect the estimated impact of the new TPM would be reduced as Black Point would be eligible for a transitional cap reduction which would result in a 5% final bill increase[3] (compared to current indicative 15%) and a 50% Transmission price increase (compared to the current 126%).

The detailed indicative workings are available should the Authority require it.

Proposed amendment to TPM

- Network Waitaki notes that under the previous TPM Guidelines it was not possible for Transpower to vary charges to the degree proposed for NOIC currently.

- Guideline 19 of the 2006 TPM Guidelines provided:

  "Overall transitional arrangements should be proposed where revision of the methodology leads to large increases or decreases in current charges."

- Load customers do not expect large increases in their charges after their capital has been sunk. With long term assets spanning a period of 50 years, it was reasonable to expect that the NEC would be extended for a further period. If there was any suggestion of a change to the methodology at the time, NOIC and Network Waitaki might have determined that the prudent option would have been to build the assets and to by-pass the transmission grid. NOIC has been paying the costs associated with the GXP for 15 years, if they bypassed the grid initially, they would be well on the way of paying for those assets.

Recommendation:

- Network Waitaki requests the Authority to consider either a phase in of the new charges and/or the extension of the transitional price cap to embedded load subject to "pass through" arrangements in relation to their transmission charges.

[3] In addition to the 3.5% limit there is also a CPI change of 1.5% that becomes part of the formula. Calculation based on Network Waitaki understanding of the Transpower TPM spreadsheet.