

**Network Tasman Submission on the Commerce Commission's Reasons Paper: Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision**

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Dear Dane,

This letter constitutes Network Tasman's submission on the Commission's Reasons Paper *Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision*.

Network Tasman has read and contributed to the development of the ENA's submission and supports its conclusions and recommendations.

This submission focuses on three specific issues that relate directly to Network Tasman:

- The Commission's approach to forecasting capital expenditure.
- The treatment of operational expenditure for distributor acquired (spur) transmission assets.
- The treatment of recoverable costs and the term over which these cost must be recovered from consumers.

### *Forecasting capital expenditure*

The Commission is required to set a "forecast aggregate value of commissioned assets"<sup>1</sup> for each distributor so that it can set starting prices and apply the capex IRIS incentive during the DPP3 period. This forecast is material in determining the revenues distributors may earn; affecting their profitability, incentives to invest, and ability to deliver services.<sup>2</sup>

The accuracy of the Commission's capex forecasts is central to determining how successfully it achieves the outcomes described above.

The Commission proposed approach to capex forecasting for DPP3 uses the capex forecasts in distributors' own Asset Management Plan, to which the Commission applies its own scrutiny.

In scrutinising AMP forecasts, the Commission seeks to determine whether the AMP forecasts:

- Have previously proven an adequate guide to future expenditure;
- Are internally consistent – for example, that a forecast increase in expenditure is supported by a corresponding increase in activity, and/or a reasonable increase in costs;
- Identifies large step changes in the planned level of investment that may be more appropriate to be considered under a CPP.

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<sup>1</sup> Commerce Commission, *Electricity Distribution Services Input Methodologies Determination 2012*, clause 4.2.5.

<sup>2</sup> Commerce Commission, *Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision: Reasons paper*, 29 May 2019, page 153.

The Commission's proposed approach consists of five main components:

**Step 1 – scrutinise past forecast performance:** Scrutinise how accurate a distributor's AMP forecasts have proven historically as a guide to their future spending. Where a distributor's forecasts have been found to have persistent upward bias, the Commission considers the AMP forecast in its entirety to be unreliable and will instead draw on historical average expenditure to inform its capex forecasts.

**Step 2 – scrutinise forecast expenditure:** Where a distributor's AMP has historically proven reasonably reliable, the Commission proposes to scrutinise the AMP's three most significant categories of capex:

- Consumer connection
- System growth
- Asset replacement and renewals

The Commission assesses whether the expenditure for each category appears consistent with those cost drivers.

**Step 3 – fall back to historical expenditure where necessary:** Where the Commission considers the forecast for a capex category is disjointed from its cost drivers, it will use historical average expenditure for that category (or some relevant external cost driver).

**Step 4 – cap minor expenditure categories:** For minor expenditure categories, the Commission proposes to retain the approach used for DPP2.

**Step 5 – apply an aggregate cap:** The Commission caps the total amount of capex allowed for each distributor at 120% of historical levels.

The Commission's DPP3 capex forecast is 43% less Network Tasman's capex spend for DPP2

On first blush, the steps above appear to describe a reasonable approach for scrutinising each distributor's capex forecasts. However, a high level 'sense check' of the Commission's results indicate that the Commission's capex models are insufficiently robust to rely on as inputs to the Commission's capex forecasts

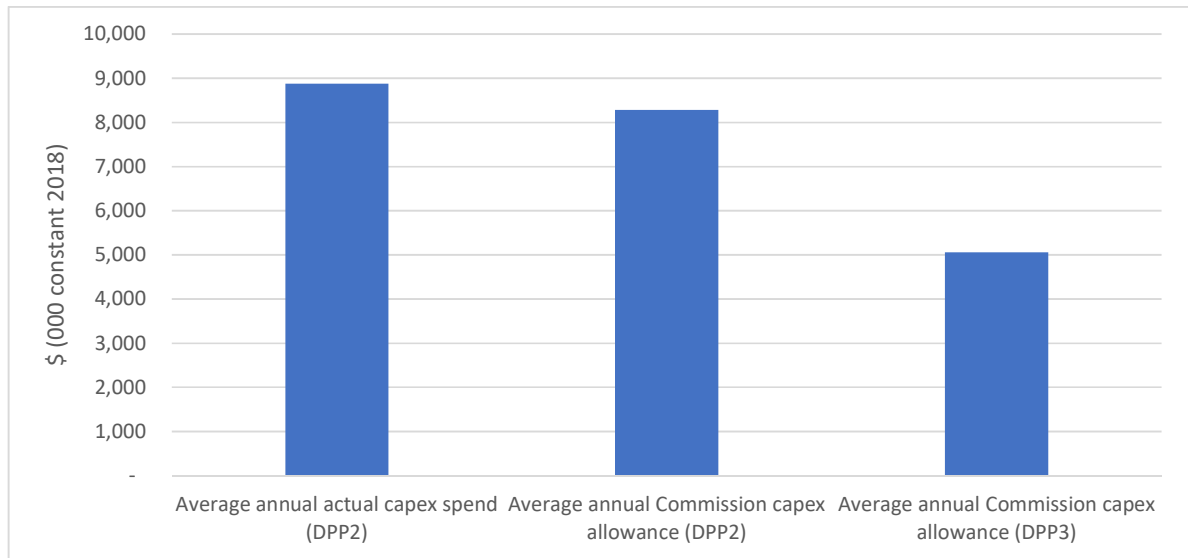
For example, Figure 1 compares the following three parameters (in 2018 dollars):

- Network Tasman's average annual capex spend over DPP2<sup>3</sup>;
- Network Tasman's average annual capex allowance over DPP2; and
- Network Tasman's average annual capex allowance over DPP3.

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<sup>3</sup> This figure includes Network Tasman's forecast expenditure for 2019/20.

Figure 1 Network Tasman actual capex spend vs Commission capex allowances



The Commission’s DPP3 capex allowance represents a 43% reduction from what Network Tasman spent in DPP2. It also represents a 39% reduction from the Commission’s capex allowance for DPP2. Network Tasman would be relatively comfortable if this reduction was in response to an objective assessment of Network Tasman’s capex needs, such as whether the Commission’s capex allowance is appropriate for Network Tasman to prudently invest in its network, or even whether Network Tasman’s capex needs have materially reduced from DPP2 to DPP3 (and therefore justify an almost 40 per cent reduction in capex allowance). It is not. Rather, the driver of this change is the Commission’s assessment of Network Tasman’s ability to accurately forecast its capex spending.

The Commission states that for distributors that fail the forecast accuracy test it will “draw instead on historical average expenditure to inform our capex forecasts”<sup>4</sup>. This implies that distributors that fail the forecast accuracy test will simply get a capex allowance that reflects its historical capex spending. Figure 1 above demonstrates that this is not the case. Rather than set capex based on historical expenditure, the Commission scales each relevant distributor’s current AMP capex forecasts based on the accuracy of that distributor’s historic capex forecasts relative to actual capex spend. That is, if a distributor has historically spent 70% of what they forecast to spend over a specified period, the Commission will grant them a capex allowance for DPP3 that is 70% of their current capex forecasts. This approach is only tangentially related to a distributor’s historical capex spend, in that the historical capex spend is one of the two variables used to calculate the scaling factor that the Commission will apply to a distributors existing capex forecast.

The presumed logic of this approach is that if a distributor has historically underspent their capex forecasts by 30%, then the same will be true for current forecasts. However, this approach fails to consider that distributors may improve their forecasting.

In the event Network Tasman, or any other distributor failing the Commission’s capex forecast test, now produces more accurate capex forecasts, the Commission’s approach to capex forecasting would still scale back that forecast, based on historical forecasting performance. A (presumably) unintended consequence of this approach is that the more accurate a distributor’s forecast

<sup>4</sup> Commerce Commission, *Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision: Reasons paper*, 29 May 2019, page 156, para B13.1.

becomes, the further away the Commission's capex allowance for that distributor will move away from the distributors (eventual) actual capex spend. This results in systemic under-forecasting of capex for distributors with a poor history of capex forecasting.

This approach also applies where a distributor fails one of the Commission's internal consistency tests. For example, if a distributor fails the Commission's test for internal consistency of its system growth component of its capex forecast, its capex allowance for system growth expenditure is not set on the basis of its historical system growth expenditure, rather its current forecast is scaled by the accuracy of its historical system growth forecasts. An approach that has the same shortcomings described above.

Worryingly, the results of the Commission's own capex projections feeder gating model suggests that distributors with poor historical capex forecasts have not only improved the accuracy of their forecasts, but have the most reliable forecasts of all distributors assessed. Only two distributors pass all four of the internal consistency tests applied in the gating model - tests designed to identify whether distributors' current forecasts are reliable - both of these distributors fail the Commission's forecast accuracy test and have their seemingly 'reliable' forecasts scaled back.

Not one distributor that passed the forecast accuracy test passes all subsequent internal consistency tests.

On the other side, five distributors fail half of the consistency tests - the worst performance against the internal consistency test. Each of these distributors passed the forecast accuracy test.

These results suggest that the Commission's presumption that past performance is a reliable predictor of future performance is incorrect and/or that the Commission's internal consistency assessments are unreliable. Network Tasman submits that both are correct.

[The risks of distributors over-forecasting capex are considerably less than the risks of the Commission under-forecasting capex](#)

The risk of the Commission's capex forecasts being inaccurate are that they provide distributors with an choice between underinvesting in their network (potentially degrading quality standards and incurring reliability penalties) or efficiently investing in the network and incurring capex IRIS penalties.

In Network Tasman's case, the consequences of forecasting error in the Commission's capex forecasts are significant.

If Network Tasman's current capex forecast is accurate (and we spend what we have forecast for DPP3) and the Commission retains its existing capex allowance for Network Tasman, Network Tasman would incur an average annual capex IRIS penalty of \$3.2m in years 2-5 of DPP4. This is more than 10% of Network Tasman's revenue cap in period 5 of DPP3.<sup>5</sup>

Should this eventuate, it would represent a considerable forecasting error on the Commission's part, the cost of which would ultimately fall on Network Tasman's consumers/owners.

While the risk of the Commission under-forecasting Network Tasman's capex is significant, the risk of Network Tasman over-forecasting its capex is negligible.

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<sup>5</sup> This assumes no capex wash-up, a retention factor of 26%, a WACC of 5.13%, cost of debt of 3.61% and an asset lifetime of 44 years.

In the draft DPP3 reasons paper, the Commission states that “Using supplier AMPs without challenge creates the risk of deliberate over-forecasting. Distributors have clear incentives to inflate forecasts, or to not apply rigorous practices when preparing their forecasts. We therefore must consider the risks that their forecasts may not be entirely reliable”.<sup>6</sup>

It’s important to note that assessing the risks of unreliable forecasts is different to assessing whether forecasts are unreliable. It’s not clear that the Commission has done as it has said it would and consider the risks that forecasts are unreliable.

As a trust owned network, Network Tasman’s objective is to run its network at the lowest efficient cost and as such does not seek to recover the full allowable revenue if it is not needed to achieve this objective. For the 2018/19 regulatory period, Network Tasman’s notional revenue was more than \$12m (40%) below its allowable notional revenue. Network Tasman forecasts a similar level of voluntary under recovery for the 2019/20 regulatory year. If Network Tasman wanted to increase its revenues, it has the ability to recover an additional \$12m before resorting to attempts to artificially inflate its revenues.

Given the Commission has explicitly stated that it considers there to be asymmetric consequences to consumers of regulated energy services, over the long term, of under-investment vs over-investment,<sup>7</sup> Network Tasman would expect the Commission to consider the magnitude of the risks of under/over-investment as a result of its specification of the DPP.

The Commission has taken a more detailed approach to scrutinising capex forecasts for DPP3. In principle, Network Tasman supports the Commission’s attempt to improve its capex forecasts. However, it is incumbent upon the Commission to ensure that in doing so, its approach is robust and free from unintended consequences.

Network Tasman encourages the Commission consider whether its current proposal for capex forecasts is sufficiently robust to use in DPP3. If the current approach is retained, Network Tasman submits that the Commission should apply an overarching risk based assessment of its capex forecasts that includes an explicit assessment of not only the risk of distributor over-forecast error, but also of Commission over/under-forecast error.

#### *Gate 1 - Scrutiny of past forecast performance*

Network Tasman has concerns about the merits of filtering distributors based on their past forecast performance. However, notwithstanding those concerns and in the event the Commission retains its existing approach, Network Tasman believes it faces exceptional circumstances that warrants the Commission adjusting the input data that feeds into its scrutiny of past AMP capex forecasts.

These exceptional circumstances relate to Network Tasman’s forecasting of and liability for a new GXP serving Network Tasman.

On current forecasts the load on the 33kV bus at the Stoke GXP is likely to exceed the firm capacity of the supply at around 2023. Due to the limitations in bringing further load out from the Stoke GXP in its valley site, a second GXP will be required.

Network Tasman has been aware of this risk for some time (land was purchased for the GXP in 2005). Until 2018, Network Tasman intended to construct the GXP, the cost of construction being

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<sup>6</sup> Commerce Commission, *Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision: Reasons paper*, 29 May 2019, page 165, para b45

<sup>7</sup> Commerce Commission, *Input methodologies review decisions – Framework for the IM review*, p.43, para 132

included in Network Tasman's AMP capex forecasts. This includes the 2014 and 2015 forecasts used by the Commission to assess distributor's forecast performance. Network Tasman no longer intends to construct the GXP.

Network Tasman submits that the Commission should remove the costs of constructing the GXP from its assessment of Network Tasman's forecasting performance for three reasons:

1. Network Tasman no longer intends to construct the GXP. This will now be undertaken by Transpower.
2. The Stoke 33kV bus serves approximately 2/3<sup>rds</sup> of Network Tasman's ICPs. The Stoke GXP critical importance to Network Tasman's operations means that we cannot rely on diversity of supply to mitigate supply risks as it could for assets further down the network. Accordingly, Network Tasman adopted forecasting approach to determining when the GXP would need to be constructed based on prudent maximum demand. Prudent maximum demand is that demand reasonably expected during a typical cold winter. Cold winter peak loads are generally 7-8% higher than mild winter loads. This approach is consistent with Transpower's forecasting approach.
3. The considerable cost of constructing the GXP – current forecasts are for a cost of \$35m – compared to Network Tasman's overall annual capex spend of around \$9m means that Network Tasman has/had atypically strong incentives, relative to other investments to defer construction.

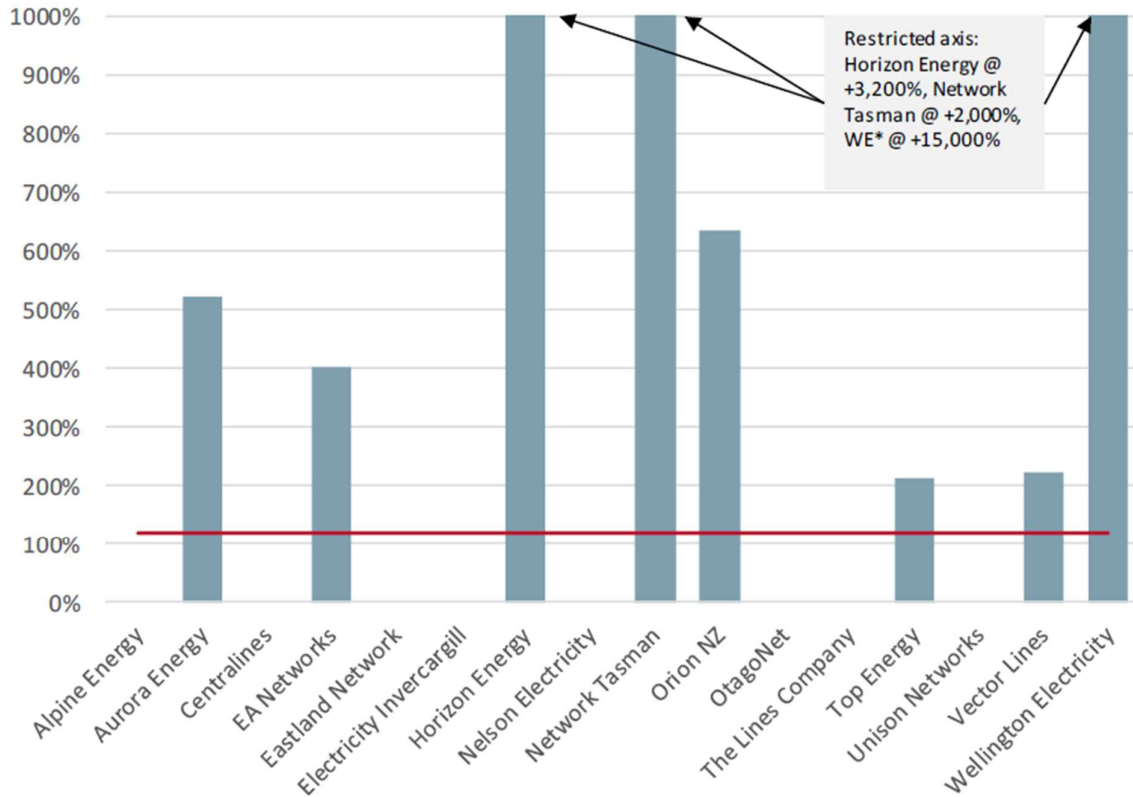
The second two points are particularly important to consider when assessing Network Tasman's capex forecast accuracy because prudent maximum demand forecasts represent a conservative approach that, while entirely appropriate for the circumstances and risks involved, provide more scope for deferment than if less conservative demand forecasts are used. When coupled with the considerable financial incentives to defer the investment, Network Tasman's deferral of the GXPs construction has been the economically efficient thing to do.

#### *Gate 4 – System growth*

The Commission proposes to assess distributor's capex for system growth determining whether forecast zone substation expenditure per MVA of capacity added over 2019-2023 is comparable to historical average expenditure on new capacity. A distributor fails this test if the forecast cost per MVA is 120% greater than the historical cost per MVA.

The Commission acknowledges in its draft reasons paper that it is uncertain whether the test as it has proposed, accurately indicates forecasting inconsistencies. Network Tasman submits that it does not.

Figure B7 in the draft reasons paper (reproduced below) illustrates the results of this test for each distributor. The only distributors that pass this test are those that are not forecasting an increase in zone substation capacity or forecasting expenditure on new capacity. Distributors for which the test would have any material mean, i.e. those forecasting system growth expenditure and zone substation capacity increases all fail the test. This is a clear red flag as to the veracity of the proposed test.



Using actual and forecast data for the period 2011 and 2025, we went through our actual and forecast system growth spending on zone substations to determine the proportion of spending in each year that specifically increased zone substation capacity. The variation was significant, in some years none of the expenditure for that year increased zone substation capacity, in other years 100% of the expenditure was on assets that increased zone substation capacity.

Having scrutinised Network Tasman’s historical and forecast expenditure on system growth for zone substations we have identified a handful of reasons why expenditure per MVA is a poor test, in addition to there being significant variability year-on-year in investments that affect zone substation capacity.

Firstly, not all system growth spending increases a zone substation’s capacity, only expenditure on transformers increases zone substation capacity. Expenditure on items such as switchgear have no effect on zone substation capacity.

Secondly, the cost of building a new zone substation is much more expensive than the cost of upgrading the transformer of an existing zone substation by the same capacity. In the Commission’s test, these two activities are assumed to be comparable.

Finally, the Commission’s accounts for all forecast expenditure, including the cost of new zone substations, but the total increase in zone substation capacity only accounts for changes in capacity for existing zone substations, it doesn’t account for new zone substations.

*Network Tasman would welcome the opportunity to discuss its capex forecasts with the Commission*

Network Tasman notes that the Commission has expressed an interest in other information that distributors can provide to assure it about the deliverability of their investment plans. Network

Tasman would welcome the opportunity to meet with the Commission to discuss how it could better assure the Commission of its ability to deliver its investment plans.

### *Operational expenditure allowance for spur transmission assets*

The Commission states that on 31 March 2015, Network Tasman and Eastland both purchased spur transmission assets from Transpower.<sup>8</sup>

In DPP2 Network Tasman and Eastland are entitled to recover the value of transmission charges that are avoided by purchasing the assets from Transpower for 5 years – the ACOT incentive mechanism. The Commission has stated that it considered the intention of the ACOT incentive mechanism was to cover the cost of asset purchase and any subsequent capex on the transferred asset until the next regulatory reset. In setting the opex allowance for DPP2 Commission excluded any opex associated with the purchased assets.

In the final DPP2 reasons paper the Commission stated the reason for excluding opex associated with the purchased assets was due to concern that providing distributors with an opex allowance for the purchased assets would likely over-compensate the distributors.

In its submission on the Commission's Issues Paper for DPP3, Eastland stated that the operating costs of these transmission assets are considered under the IRIS scheme to be an inefficiency and revenue losses will be incurred as a result.

Network Tasman endorses Eastland's view, Network Tasman will unquestionably incur opex IRIS penalties as a result of the Commission's decision to exclude opex costs relating to the purchased transmission assets.

From a principled perspective, Network Tasman submits that as the organisation solely responsible for specifying DPP regulation it is incumbent upon the Commission to ensure that its regulation is appropriately specified. If it considers that one aspect of its regulatory regime over-compensates distributors' then good public policy process suggests that the Commission should modify that aspect of the framework to directly address the issue rather than tinker with other aspects of the framework in an attempt to artificially engineer an offset. The risk engineering an offset is that it may create unintended consequences, as it will in this circumstance by creating opex IRIS penalties.

In considering options for addressing this issue, the Commission states that it could exclude the value of the transmission assets out of the opex IRIS mechanism, but expresses concern that this could set a precedent for other requests to ring-fence expenditure outside the IRIS mechanism.

Given the Commission has already ring-fenced Network Tasman and Eastland's opex costs relating to their transmission investments, the Commission has set a precedent for ring-fencing expenditure.

However, the Commission doesn't need to ring-fence opex costs relating to (former) transmission assets from the opex IRIS mechanism. Rather, it could amend that opex allowance specified, for the purposes of the opex IRIS mechanism, to account for the efficient costs that Network Tasman and Eastland have incurred in operating their newly acquired assets.

This approach requires no ring-fencing and accounts for genuine costs incurred by both distributors that should in principle (and practice) be accounted for in the DPP.

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<sup>8</sup> Commerce Commission, *Default price-quality paths for electricity distribution businesses from 1 April 2020 – Draft decision: Reasons paper*, 29 May 2019, page 225, para E56



### *Paying for Transpower investments*

As noted earlier in this submission, Network Tasman is expecting to have a new GXP serving its network within the next five years. Although Network Tasman is no longer planning to build the GXP, and therefore able to recover the costs of the investment over the life of the assets, we have considered how the cost of the investment could be minimised.

The cost of the GXP will be funded via an investment agreement with Transpower. The rate of return that Transpower requires on its investments is greater than Network Tasman's current cost of debt. Accordingly, Network Tasman has investigated the possibility of using debt to repay the entire cost of the investment agreement on the date of commissioning and repay the debt over the life of the asset.

However, preliminary discussions with Commission staff suggest that under the current DPP framework, recoverable costs must be recovered from consumers in the year that they are incurred, so in this example, the entire cost of the investment agreement would have to be recovered from consumers in a single year.

The GXP is currently forecast to cost \$34m. Our total lines revenue in 2019/20, excluding discounts but including pass-through and recoverable costs, is forecast to be \$34m. Recovering these costs in a single year would represent a 100% increase in our lines charges. This not only violates the Commission's newly proposed 10% cap on price increases, but would clearly be unsustainable in the absence of the cap.

The current specification of the DPP prevents Network Tasman from achieving outcomes that are in its consumer's best interests.

I am happy to discuss any further details, should the Commission have any questions.

Kind regards,

Daniel Vincent

Regulatory and Commercial Manager