



TRANSPOWER

Waikoukou
22 Boulcott Street
PO Box 1021
Wellington New Zealand
Telephone +64-4-590 7000
www.transpower.co.nz
catherine.jones@transpower.co.nz
04 590 8624 0275646976

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Matthew Lewer
Manager, Price – Quality Regulation
Regulation Branch
Commerce Commission, Wellington

By email: regulation.branch@com.com.govt.nz

Dear Matthew

Amendment to Transpower's pilot asset health requirements

We appreciate the opportunity to submit to the Commission's consultation on our proposal¹ for changes to our pilot reporting for *asset health grid output measures* under our price-quality regulation (the IPP).

The Commission's attention to the issues we identified under the existing asset health pilot policy (specifically clauses 17.2 and 28.1 of the IPP) was necessary because the existing regime does not reflect how we model for asset health.² These issues required administration to initiate an exemption process and this consequential extra-ordinary (specific) consultation process to amend the IPP within-period.³

Ultimately the role for the pilot development of asset health measures is to link interventions for asset health with incentives on revenue. As the measures are new and untested, the IPP provides for a pilot to enable investigation and development of a meaningful construct. We support the role of asset health modelling. We remain committed to developing an effective and efficient way to link asset health with revenue incentives.

Flexibility is required during the pilot so that ongoing development is not constrained unintentionally and to remove the risk of further administrative intervention. This submission supports some of the Commission's proposed additional requirements. However, we propose amendments for clarity, efficiency and to allow for further development in the pilot phase.

The level of detail in the drafting proposed is not supported with cost-benefit rationale, including any assessment of the potential compliance cost, or an explanation of the benefit to be achieved by the Commission's use of this information. Our preference for flexibility means drafting should enable fit for purpose information to be developed during the pilot.

¹ Our proposed [asset health pilot report](#), 31 July 2017.

² Refer appendix B in this submission for background.

³ Due to very tight timeframes to seek exemption from imminent compliance with rules, our issues with the existing rules were advanced by bi-lateral discussion and email with the Commission.

Our views on the Commission's additional requirements

We have examined the Commission's proposed amendments in sections 4.11 to 4.17. Our response to the Commission's proposed amendments follows.

1. For the proposal for clause 17.2 described at 4.17.1:
 - a. we support the asset health **scores** being codified as the scores are what drive the investment decisions. However, to allow further development of appropriate asset condition/health descriptors through testing with stakeholders, we request the descriptors are removed (see appendix A for drafting).
 - b. for 17.2.2 the asset class *Tower foundations – other* should be removed. Its inclusion in our July 2017 proposal tables was in error. This asset class does not meet our criteria for inclusion⁴. The removal will mean five asset classes remain as described in the text of our proposal.
2. We appreciate the Commission providing flexibility to:
 - a. amend our live models. However, for the live model requirements at proposed clause 28.1.11, we propose amendment to allow flexibility instead of prescribing detail (see appendix A for drafting).
 - b. decide what constitutes materiality thresholds for changes between forecast and actuals. As we suggested in our July 2017 proposal,⁵ asset portfolios should be treated as being 'on target' if they are within a reasonable threshold. The threshold will avoid compliance reporting caused by minor volatility in asset health scores.
3. We support the use of the tables 5.2 – 5.5⁶ to provide quantitative data. At appendix A, we provide re-drafting for the column headings for table 5.5 to ensure clarity of the data inputs, and to remove the descriptors consistent with our view above at 1a.
4. For the *explanatory notes* 28.1.7 – 28.1.10 we request re-drafting to remove detail and allow fit for purpose development of explanations for differences between forecast and actuals (proposed amendment in appendix A).

Finally, for the 2017 disclosure we cannot comply with the October date under proposed clause 28.1. We will submit as soon as practicable after the final decision in December 2017.⁷

Please contact me about any points made in this submission.

Yours sincerely

Catherine Jones
Regulatory Affairs and Pricing Manager

⁴ Section 2.3 in our proposal. The rationale for including selected asset classes in pilot includes, for each respective class, the maturity of the asset health model and data inputs; the importance of asset health as an investment driver; the size of the asset class by expenditure and asset population.

⁵ Section 3.3.2 in our proposal.

⁶ The drafting does not show a table 5.1.

⁷ Timing to be agreed between ourselves and the Commission.

Appendix A Drafting proposals

Asset health index under 17.2.1

In our July 2017 proposal to the Commission, we described in our draft table an asset health index using the descriptors Good, Fair, Poor and Very Poor. On reflection, we would like to have time to further develop, during the pilot, appropriate descriptors. Once developed and discussed with stakeholders, the descriptors can be included in our disclosures.

Rather than codifying the descriptors now, the rules could instead state how to read the scores. We propose the table below for rule 17.2.1.

Asset Health Index							
1-4	>4-5	>5-6	>6-7	>7-8	>8-9	>9-9.5	>9.5
Good			Fair		Poor		Very poor
Read scores from left to right: left-hand side scores mean better condition than right-hand side scores.							

The descriptors would also need to be removed from table 5.2, 5.3 and 5.4.

Column headings for table 5.5

Column 4 heading should read

Forecasts of the rate of asset replacement and refurbishment expressed as a percentage of the asset population (total RCP2 replacements divided by the total population)

Add % sign

Column 5 add a dollar sign (\$) to complement the percentage sign (%) in column 4.

Column 6 heading should read

Actual rate of asset replacement and asset refurbishment, expressed as a percentage of the asset population (being total RCP2 replacements divided by the total population)

Add % sign

Column 7 Add a dollar sign (\$)

Explanatory Notes (proposed alternative clauses)

Our re-drafting removes detail and allows fit for purpose development of explanations for differences between forecast and actuals.

28.1.7 an explanation of differences between the forecasts and actuals in the tables 5.2 and 5.5

..... (remove 28.1.8, 28.1.9, 28.1.10)

28.1.11 an explanation of any material changes to the live models.

Appendix B The existing ‘asset health’ framework in the IPP

After our RCP2 proposal was submitted in 2014, the Commission raised concerns with Transpower on its ability to deliver proposed work in some key portfolios e.g. tower painting. A key concern was that under-delivery in these areas would give rise to ‘unearned’ credits via the base capex incentive mechanism.⁸ The Commission suggested that Transpower should propose a *grid output measure*⁹ that *could be framed* as an asset health measure, with an objective to back out (or cancel) base capex incentive credits from any under-delivery.

The following design features of the Grid Output Measure were:

1. The measure would put at risk \$35m of base capex (2012/13 prices), via a revenue-linked Grid Output Measure.
2. A significant number of portfolios would be covered, but not 100%.
3. The mechanism would back out 110% of the base capex incentive in the case of under-delivery – to incentivise delivery over non-delivery.
4. Substitution between portfolios would be possible, but there would be no net revenue gain.

Six portfolios were chosen, covering 68% of base capex spend over RCP2. Three portfolios (outdoor to indoor conversions, grillages and insulators) had insufficient asset health data for models, so the base capex incentive would be backed out using a volume-of-delivery approach. The other three portfolios (tower painting, outdoor circuit breakers and transformers) had data and models so we agreed that an asset health-like measure could be used. The key requirement for the measure was that there should be a strong correlation between the ‘health’ measure and volume of work done. That correlation was necessary because the primary objective of the measure was to back out the base capex incentive relating to any under-delivery. *This is an important point. We were looking for a ‘health-like’ measure that correlated to volume. We were not looking for the ‘health’ measure that was the best representative of asset health.*

The asset health-like measure was *change in average remaining life*. From our asset health models for the three portfolios we calculated the average remaining life. Then using our investment plan at that time, we calculated the year-on-year change. Together, the calculations gave the change in the average remaining life (for each portfolio). Dividing by the number of units (the volume) from the plan gives a ‘years per unit’ figure to be used to calculate the incentive rate. The ‘years per unit’ is a proxy for the volume-based incentive rate¹⁰ i.e. **still a volume-based measure**. The Grid Output Measure we had proposed had very little (in practice) to do with asset health.

⁸ Capex IM Schedule B1.

⁹ As defined in the [Capex IM](#), a **grid output measure** mean measure that quantifies the output or benefit (where benefit may include reduction in risk) delivered by the **grid** or investment in the **grid**.

¹⁰ The \$ per year per unit incentive rate combined with the ‘change in average remaining life’ measure (in years) gives an amount equivalent to \$ per unit.