

Transpower IPP 2020-25

Comment on Issues Paper

NZIER report to MEUG

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Key points

Transpower's development of its proposed revenue incentives for improving service quality has included consultations with customers (grouped according to economic impact of an outage) about a selection of price/service level options and about the value of lost load. However, it is not clear how much of the consultation on economic impact on customers and value of lost load (VoLL) has been carried through into the recommendations on the revenue at risk. In particular:

- the modelling used to allocate the incentives both between customer groups and within customer groups between number and duration of outages is unclear; and
- the proposal to increase the revenue at risk is not supported by an explanation of either what Transpower can do to change the number/duration of outages or how the incentive encourages that action to be taken.

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1. Quality standards

1.1. Introduction

This report comments briefly on questions asked in ‘Quality standards and grid output measures’ - Chapter 5 Commerce Commission Issues Paper.

1.2. Commerce Commission questions

The issues paper introduces nearly every set of questions with a ‘lead’. In the following tables the lead is put in a separate row that spans the columns for the questions and my responses.

Table 1 Proposed service measures

Issues paper questions

Lead	
Question	Response
5.81.1: Transpower has proposed seven service performance measures, plus asset health measures in five asset classes.	
5.81.1.1 In your view, do the proposed measures cover the main dimensions you expect to see in measuring Transpower’s performance in RCP3?	Yes. The measures cover the key areas of grid reliability and carry over the key aspects of the measures from the measures for RCP2.
5.81.1.2 Is anything missing?	A more detailed explanation of how the classification of the diverse customers and nodes in ‘Service and Engagement Health Paper June 2018, Appendix 4’ was rolled-up to calculate the proposed incentives in ‘Securing our Energy Future 2020–2025 Regulatory Control Period 3, Table 16. A clear roadmap for the development of asset health and asset criticality measures over RCP3.
5.81.1.3 Do all of the proposed measures add value for consumers?	

Source: NZIER

Table 2 Realistic targets

Issues paper questions

Lead	
5.81.2 Transpower considers that the proposed service performance measures should be challenging but realistic, and it notes that the RCP2 targets have proved too challenging.	
Question	Response
5.81.2.1 Do you agree that it is appropriate to move away from aspirational targets to targets that are based on historical performance?	This issue needs to be analysed further. The relevance of historical performance to RCP3 needs to be explained and compared to the work Transpower has done linking grid performance standards to economic impact on customer and value of lost load (VoLL). Also, as RCP3 seems to be positioned as the foundation for a more challenging work programme in RCP4. it would be useful to start discussing now what rate of change in Transpower 'productivity' would be required to deliver the RCP4 programme and how this could be reflected 'stretch targets'.
5.81.2.2 If so, is there any additional reporting that you would want disclosed each year in RCP3 to monitor how Transpower is tracking against its targets?	Accessible reporting on the number, duration and cause of planned and unplanned outages.

Source: NZIER

Table 3 Increased revenue at risk

Issues paper questions

Lead	
5.81.3 Transpower has proposed increasing total revenue at risk in its proposed RCP3 performance measures from the 1.5% of the forecast allowable revenue that applies in RCP2 to 2.8% of forecast revenues in RCP3.	
Question	Response
5.81.3.1 Do you agree that increasing the proportion of revenue at risk for the service performance measures and asset health measures is appropriate?	No. The link between the increase in the incentive for service performance and asset health measures and the effect of the incentive on Transpower's capacity to improve performance is not clearly evidenced in the proposal. In addition, the verifiers assessment of Transpower' asset health measures suggest they need refinement before they satisfy Good Electricity Industry Practice (GEIP).
5.81.3.2 If so, why?	

Source: NZIER

Table 4 Additional information

Issues paper questions

Lead	
<p>5.81.4 We are considering whether we should determine additional reporting requirements that would apply if Transpower breaches a quality standard in RCP3 or if its performance on a performance measure goes outside of the expected range (ie, if Transpower underperformed a measure such that the reported value is below the collar value). That reporting might include, for example, the type of information that we currently seek from industry experts when a breach currently occurs in a regulated sector, but in this case a publicly available report would be proposed by Transpower.</p>	
Question	Response
<p>5.81.4.1 Do you consider that such a reporting requirement would add value for Transpower’s customers?</p>	<p>Any additional reporting should be linked to an intention to monitor and take corrective action and pass a cost benefit test.</p> <p>Accessible reporting on the number, duration and cause of planned and unplanned outages could meet this test if it is applied to refining the setting of revenue at risk incentives.</p>
<p>5.81.4.2 Are there any specific features of such reporting that you would want us to consider?</p>	

Source: NZIER

Table 5 Symmetric incentives

Issues paper questions

Lead	
<p>5.82.1 Each of the proposed RCP3 revenue-linked measures is a symmetric incentive mechanism, with target, cap and collar values. The result is that good performance against a measure rewards Transpower at the same rate that under performance is penalised, with limits on the extent of the financial impact being applied at the cap or collar respectively.</p>	
Question	Response
<p>5.82.1.1 Do you agree that the service performance measures and the asset health measures should be symmetric incentive mechanisms in all cases?</p>	<p>The design of an incentives scheme should be based on a definition of the change in behaviour that is expected and an explanation of how the incentive is expected to secure that change. Allocating the incentives evenly over the target range is administratively simple. However, it does not consider that customers preferences for changes in reliability or Transpower's capacity to deliver different levels service may be asymmetrically distributed around the mean. It would be useful to have more detailed discussion of:</p> <ul style="list-style-type: none"> • Transpower's capacity to deliver performance above or below the threshold. Transpower's limited reporting on the cause of service interruptions suggests that most interruptions are not due to equipment failure.¹ • Customer preferences for a lower fault rate and tolerance for a higher rate than the standard. These preferences are likely to be asymmetric with customers less willing to pay for improved reliability above current levels.

Source: NZIER

¹ 'Most interruptions are caused by highly unpredictable factors such as weather, birds, animals, and human behaviour.' See 'SERVICE PERFORMANCE: BASELINE TARGETS FOCUS GROUP SESSION 21 JUNE 2018, slide 36

Table 6 Target, cap, collar and other values

Issues paper questions

Question	Response
5.82.2 Do you have any comments on the target, cap, collar or other values proposed by Transpower for the RCP3 service performance measures or for the asset health measures (for example, the four-hour buffer in proposed measure AP3)?	<p>The rationale for the relativity between the incentive for avoiding an interruption and the duration of the interruption is unclear for each of the GP1/GP2 customer categories. For example, the incentive rates for avoiding an outage seem to be equivalent to the incentive rate for avoiding an outage with a duration:</p> <ul style="list-style-type: none"> • 8.9-minutes for a ‘N-1 Security high economic consequence’ customer • 1.5 minutes for a ‘N-1 Security material economic consequence’ customer • 51.5 minutes for a ‘N Security high economic consequence’ <p>It is not clear from the proposal how these differences in preference for outage frequency have been compared to the work on VoLL.</p>

Source: NZIER

Table 7 Quality standards set at revenue linked output measures

Issues paper questions

Lead	
5.82.3 In RCP2 we set Transpower’s quality standards at the same target values as the revenue-linked grid output measures	
Question	Response
5.82.3.1 In respect of the proposed revenue-linked service performance measures GP1, GP2, AP1 and AP2, should the applicable quality standards for these measures be the collar values, or something else? If so, why?	This needs further analysis to clarify the difference in impact on Transpower delivery of quality standards set under the Act and incentives set as part of the IPP.

Source: NZIER

Table 8 Asset health measure linked to revenue

Issues paper questions

Lead	
5.82.4 Transpower has proposed that the asset health indices for five asset classes should be revenue linked.	
Question	Response
5.82.4.1 Do you agree that the asset health measures should be revenue linked?	This issue needs further analysis. The verifier was not able to confirm that this was GEIP because of the challenges around measuring changes in asset health. Transpower's RCP ³ proposal does not provide detail on when and how these issues will be addressed
5.82.4.2 Should the applicable quality standards for these measures be the collar values, or something else?	This needs further analysis to clarify the difference in impact on Transpower of quality standards set under the Act and incentives set as part of the IPP.
5.82.4.3 If so, why?	

Source: NZIER

Table 9 CS1 quality standard

Issues paper questions

Lead	
5.82.5 Transpower has proposed that measures AP3, AP4 and CS1 should have no revenue at risk. However, it appears that proposed measure CS1 is a sufficiently mature measure that it could be set as a non-revenue linked quality standard.	
Question	Response
5.82.5.1 Do you consider that this proposed non-revenue linked measure should be set as a quality standard?	Yes.

Source: NZIER

Table 10 AP3 and AP4 treated as trial measures

Issues paper questions

Lead	
5.82.6 Transpower has proposed that measures AP3 and AP4 should be trial measures for RCP3 that are not treated as quality standards. These proposed measures are new and do not have a sufficient track record to justify making them quality standards this time around.	
Question	Response
5.82.6.1 Do you agree that these proposed service performance measures should be output measures for reporting purposes only?	Yes.
5.82.6.2 If so, what reporting features would you like to see each year to show the effectiveness of the trial measures?	For AP3 cause of the outage, POS affected, duration of the outage.

Source: NZIER

Table 11 Normalisation of reliability measures

Issues paper questions

Lead	
5.82.7 We are considering whether to include a form of normalisation mechanism in the proposed grid performance (reliability) measures to deal with, for example, the impact of a force majeure event at our discretion.	
Question	Response
5.82.7.1 Do you agree that we should consider such a normalisation approach?	Yes, subject to both defining the problem with current methods for dealing with abnormal events and applying a principle- based approach to the design of the normalisation mechanism. The objective of the normalisation mechanism should be to make the revenue incentive more effective and efficient. This requires the design to focusing on the reliability improvements Transpower can make at lower cost than the benefit to customers and considering which parties are best placed to manage reliability risk.
5.82.7.2 If so, what features should that normalisation mechanism include?	
5.82.7.3 What features should not be normalised for this purpose?	
5.82.7.4 What limitations, if any, should there be to the Commission's annual discretion in this respect?	The Commission should suggest some principles that it would follow for the scope and exercise of the discretion.

Source: NZIER

Table 12 Recalibration of asset health

Issues paper questions

Lead	
Question	Response
5.82.8 There are two main things that could influence the results of the proposed asset health measures: Transpower's management of the assets and Transpower's work on improving the state of knowledge about its assets.	
5.82.8.1 Do you agree that there should be a mechanism to recalibrate the proposed asset health targets during RCP3 (either annually or periodically) to take account of the ongoing work that Transpower is proposing to continually improve the asset data used in the measures, so that the proposed measures reward Transpower principally for its management of the assets?	Yes.

Source: NZIER