



# MAJOR ELECTRICITY USERS' GROUP

5 December 2012

Graeme Ancell  
Power System Planning Manager  
Transpower  
By email to [PMFeedback@transpower.co.nz](mailto:PMFeedback@transpower.co.nz)

Dear Graeme

## **Consultation Paper – Customer-facing grid performance measures**

1. This is a submission by the Major Electricity Users' Group (MEUG) on the Transpower consultation paper "Customer-facing grid performance measures" published 26<sup>th</sup> October 2012<sup>1</sup>. Members of MEUG have been consulted in the preparation of this submission. This submission is not confidential.
2. MEUG members appreciate the detailed discussions with Transpower preceding and since the publication of the consultation paper. Improving Transpower's performance across investment and asset management practices is essential to ensure end business customers are competitive. Two measures of success in our quest to improve Transpower's performance follow:
  - First, when Transpower staff members act recognising that they are an important part of end customers supply chains. Just like the people who work for those end customer companies, Transpower staff members' need to continuously innovate and improve against challenging targets; and
  - Second, the contractual and business relationship between Transpower and end customers' matches the interaction end customers have with their suppliers in competitive service markets and end power users' have with their customers.
3. With the above two measures of our success in mind, a central theme of this submission is to introduce financial or economic measures and targets because those are how MEUG member businesses and their contractor, suppliers and own customers incentivise efficiency improvements and measure success.
4. Responses to the questions in the consultation paper follow:

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<sup>1</sup> <https://www.transpower.co.nz/about-us/industry-information/customer-facing-grid-performance-measures-consultation>

Question	MEUG response
<p>Q1. What matters to customers (Section 2)</p> <p>Our preliminary views are that the following are important issues to consider in redeveloping our performance measures:</p> <ul style="list-style-type: none"> <li>• The number and duration of outages are the most important factor for customers.</li> <li>• Measures and targets should be meaningful to individual customers; system averages are of limited relevance to customers.</li> <li>• Customer expectations vary.</li> <li>• Customers' tolerance of an outage depends on the cause and how good we are at providing information.</li> <li>• Overall performance matters; grid performance is only part of the service delivered to consumers.</li> </ul> <p>Do you agree with these? (yes/no)</p>	<p>Yes for day to day operational service. A more holistic customer service philosophy across investment and asset management is more important for bedding in long term gains.</p> <p>Agree. Measures and targets also need to be meaningful to Transpower staff and contractors to be effective.</p> <p>Agree.</p> <p>Agree this is important; though not the only factor. For example customers may decide they have little tolerance and therefore will make changes on their side of the meter.</p> <p>Agree.</p> <p>See comments on each above</p>
<p>What other matters are important to you as a Transpower customer, or do you think are important to consumers?</p>	<p>Two other measures of service are important:</p> <ul style="list-style-type: none"> <li>• The cost to individual customers of unplanned outages and the cost of avoiding unplanned outages. With this information customers can first, compare the costs and benefits of options to undertake remedial work themselves or by Transpower. Second, assess if Transpower has appropriately prioritised issues at their GXP(s) with those at other GXP(s).</li> <li>• Measures of reduced security when transmission services at a GXP have security reduced from “n-1” to “n”. This metric is not discussed further in this submission though consideration should be given on measuring and reporting on number, duration and notification of changes in security as appropriate under Q3 to Q5.</li> </ul>

Question	MEUG response
<p>Q2. Different target categories (Section 3.1)</p> <p>Do you think it a good idea to set different targets for different categories of customers at the grid connection? (yes/no)</p>	<p>Yes.</p>
<p>Do you think our proposed categories make sense or do you have any other suggestions?</p>	<p>A good first step.</p> <p>In the longer term an economic metric should be used to rank the importance of GXP.</p>
<p>Q3. Number of power outages measure. Section 3.2</p> <p>Do you agree with the definition of the number of power outages measure including the proposed exclusions and the way we propose to set the targets? (yes/no)</p>	<p>No. We do not agree with the exclusion of outages less than one minute long.</p> <p>There is a need to include a measure for disruptions less than 1 minute or voltage sags that result in plant on customer premises tripping because these can have serious economic consequences. In discussions with Transpower we understand this has been a common feature of feedback to date.</p>
<p>Do you have any comments or suggestions?</p>	<p>An outage that is for example, 50 seconds long, will have significant financial impact to a business due to the downtime it causes and the steps required to get a business operation underway again.</p> <p>A possible solution is that Transpower measures all stoppages beyond a time that a well designed and managed industrial site should be capable of riding through, for example 200 msec.</p>
<p>Do you think we should include or exclude outages caused by extreme conditions such as earthquake or snow storm?</p>	<p>If Transpower plan to manage for extreme conditions, which is what we'd expect a reasonable and prudent grid owner to do, then performance measures and targets should include those events.</p>
<p>Q4. Duration of power outages, Section 3.3</p> <p>Do you agree with the definition of the duration of power outages measure including the proposed exclusions and the way we propose to set the targets? (yes/no)</p>	<p>No. We do not agree with the exclusion of outages less than one minute long.</p> <p>There is a need to include a measure for disruptions less than 1 minute or voltage sags that result in plant on customer premises tripping because these can have serious</p>

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	<p>economic consequences. In discussions with Transpower we understand this has been a common feature of feedback to date.</p> <p>Transpower should measure the time from when normal supply is lost to when it is (or is able to be) restored. Beginning the restoration, means when they start on the process of restoration – but that could take 60 seconds or several hours. The results would be misleading.</p>
<p>Do you have any comments or suggestions?</p>	<p>Transmission service outage duration does not necessarily equate to disruption to customers ability to use that service. A measure of the time transmission service was lost (as proposed in the consultation paper) and a new measure and target based on the time demand was curtailed because of the initial loss of transmission services would be useful to customers and Transpower to prioritise resources for remedial work.</p>
<p>What are your views on how we should measure durations where customers' backfeed or load manage during a transmission problem?</p>	<p>If customers incur an additional cost of backfeeding or load management as a result of a transmission service fault, then that cost should be measured. The measurement should be in economic terms; though a time lapsed measure could be designed initially.</p>
<p>Q5. Information provision, Section 3.4</p> <p>Do you think the information provision measures we propose will be useful? (yes/no)</p>	<p>Yes.</p>
<p>Do you have any comments or suggestions on the proposed measures and targets?</p>	<p>Both proposed measures would be useful. The accuracy of time to restore is a good measure as it can drive a lot of business decisions depending on how long the business thinks the power will be out for.</p> <p>RCP2 could be used to provide information on the economic impact on Transpower's customers and end consumers to align with the measure of time demand was curtailed discussed in the response to Q4.</p> <p>An estimate of the range of the economic cost on demand curtailed should be published. We accept the development of Un-Served Energy (USE) metrics, or as it is sometimes referred to, the Value of Lost Load (VoLL), is prone to wide error bounds. Nevertheless</p>

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	<p>publication of a dollar impact range even with wide probability distributions provides another measure to prioritise effort to reduce USE in the future.</p> <p>Use of USE and VoLL measures is an evolving science. The sooner we all gain experience in measuring and reporting economic impacts, the sooner improvements in how we can better make those assessments will be developed.</p>
<p>Q6. Transmission outages compared to distribution, Section 3.5</p> <p>Do you think a measure to compare transmission and distribution performance is useful? (yes/no)</p>	<p>Yes.</p>
<p>If so, which of the two measures is the most important?</p>	<p>Unsure. See no reason why both measures, that is proportion of outages and duration of outages, couldn't be reported. If these were reported over RCP2 that could inform parties about including this measure into incentive targets later.</p>

Yours sincerely



Ralph Matthes  
Executive Director