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30 August 2017

Mr Evan Lutton  
Assistance Director – Networks Branch  
Australian Energy Regulator  
GPO Box 520  
MELBOURNE VIC 3001

Dear Evan

**Review of Economic Benchmarking of Transmission Network Service Providers  
Position Paper - Submission**

Powerlink Queensland (Powerlink) provides this submission to the Australian Energy Regulator's (AER's) Review of Economic Benchmarking of Transmission Network Service Providers (TNSPs). Specifically, this submission is made in response to the Position Paper (the paper) prepared by the AER's benchmarking consultant, Economic Insights (EI), dated 9 August 2017.

**Summary**

Overall, EI recommends the following three changes to the TNSP economic benchmarking model:

- substitution of jurisdictional end-user numbers for the current voltage-weighted connections output;
- application of a cap of 5.5% of gross revenue on the output share of energy not served. The cap is achieved by changes in the price of energy not served rather than its quantity; and
- adoption of revised output cost share weights derived from a Leontief cost function model applied to data for the 2006-2015 period.

In addition, EI supported expansion of the TNSP Economic Benchmarking Regulatory Information Notice (RIN) data collection to include the MVA rating of each TNSP entry and exit point to allow the eventual development of a more TNSP-specific specification or operating environment factor.

Powerlink does not consider that end-user numbers provide an appropriate measure of transmission output and, consequently, does not support its adoption for benchmarking purposes.

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## **Review of Economic Benchmarking of Transmission Network Service Providers Position Paper - Submission**

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In relation to the revised output weightings, Powerlink suggests that this technical debate may usefully be informed by an independent third party.

Finally, Powerlink considers that a cap to reduce the influence of unserved energy on the benchmarking results would be a reasonable addition to the framework.

Each of these matters is discussed further below.

### **Voltage-Weighted Connections vs End-User Numbers**

A material change proposed to be implemented is that end-users (ie. customers serviced directly by a *distribution* network) be used as an output of transmission networks in place of voltage-weighted connection points. EI's<sup>1</sup> reasons in support of its adoption include that it:

- has the advantage of focusing on the service provided to electricity consumers;
- it uses robust data that is currently readily available (ie. through distribution network service provider (DNSP) RIN returns);
- provides a direct measure of the scale of the transmission task and a good proxy for the complexity of the task facing the TNSP; and
- leads to the two smaller TNSPs (TasNetworks and ElectraNet) having similar productivity levels to the larger TNSPs.

Powerlink recognises that ultimately, the cost of works undertaken on the shared transmission network to meet the requirements of directly connected customers such as DNSPs will flow through to end-users. However, Powerlink does not consider that end-user numbers provide any direct measure of the scale or complexity of the transmission task. This is illustrated in the attachment to this submission.

Powerlink also strongly questions whether the removal of outlier productivity performance of the two smaller TNSPs under the existing voltage weighted connections measure provides a sound basis for moving to end-user numbers as an output measure for transmission. The current performance of TasNetworks and ElectraNet could presumably be explained by the basis upon which their RIN data is prepared and may well be a function of the specific connection configurations delivered in each state.

Powerlink understands that the fundamental driver for the use of end-user numbers is due to concerns with identifying the number and adequacy of connection points in reflecting the service provided by each transmission network. Perhaps it would be more practical to workshop the different connection configurations to enable stakeholders to better understand the reasons for these in the first instance. This may go some way to resolving the identified concerns of some stakeholders and avoid the need to change to end-user numbers which, virtually all TNSPs including Powerlink, do not support.

### **Reliability Output Weighting**

The reliability output measure captures energy not supplied as a result of network outages and is a negative output variable.

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<sup>1</sup> EI Position Paper, piii.

## Review of Economic Benchmarking of Transmission Network Service Providers Position Paper - Submission

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The problem identified by AusNet Services<sup>2</sup> under the current benchmarking framework is that major transmission outages can significantly impact or ‘swamp’ the Multilateral Total Factor Productivity results in a given year and do not reflect the underlying productivity of the business. To lessen the effects of these rare circumstances, it was proposed to cap these impacts. Powerlink and other TNSPs generally agreed to such an approach in responding to EI’s Issues Paper (April 2017).

To address this issue, EI considers that a cap of 5.5% for the share of the reliability output in total revenue should apply. In reaching this view, EI considered two options: a cap on the reliability share or a cap on energy not supplied at a specified value. Given that EI’s analysis shows very little difference between the two options, Powerlink recognises why EI has proposed this approach.

### Remaining Output Cost Share Weights

In its Position Paper, EI proposes to amend the weights assigned to the remaining output cost shares used in the AER’s productivity measures, namely:

Output	Current Weighting	Proposed Revised Weighting
Energy	21.4%	23%
Ratcheted Max Demand	22.1%	19%
VW Entry/Exit Connections	27.8%	End-users 20%
Circuit Length	28.7%	38%

The current weights were based on translog estimates using up to 2014 data, whereas the proposed weightings are based on a Leontief cost function using data up to 2017. Despite the change in specification, EI consider that the results are relatively stable and plausible<sup>3</sup>.

Powerlink understands that the primary purpose of revising the estimated weights is to ensure that they reasonably reflect the significance of the outputs actually delivered by the industry in recent years. Further, it is noted that while the estimates derived using the Leontief function up to 2014 were not considered to be sufficiently robust at that time, they are now and, could potentially become less robust again in the future. Given that this appears to be a technical benchmarking/econometric exercise, perhaps this matter could be usefully informed by a third party benchmarking expert.

Notwithstanding the technical debate, Powerlink considers that testing the stability of the estimates from time to time (say, every five years) appears to be consistent with a reasonable benchmarking framework.

### Outstanding Matters

In its previous submission of 24 May 2017, Powerlink considered there would be merit in extending the scope of the review to test stakeholder views on the fundamental direction of benchmarking for transmission. Further, at the AER’s Stakeholder Forum, it was posed that there may be potential to seek input from or review of some of the more technical benchmarking matters from an independent third party. Powerlink notes that EI’s paper does not appear to respond to these matters.

<sup>2</sup> EI Position Paper, p24-25.

<sup>3</sup> EI Position Paper, p33.

**Review of Economic Benchmarking of Transmission Network Service Providers  
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If you have any questions in relation to this submission, please call me on (07) 3860--2667 or via email at [jharris@powerlink.com.au](mailto:jharris@powerlink.com.au).

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Jennifer Harris', is written above the typed name.

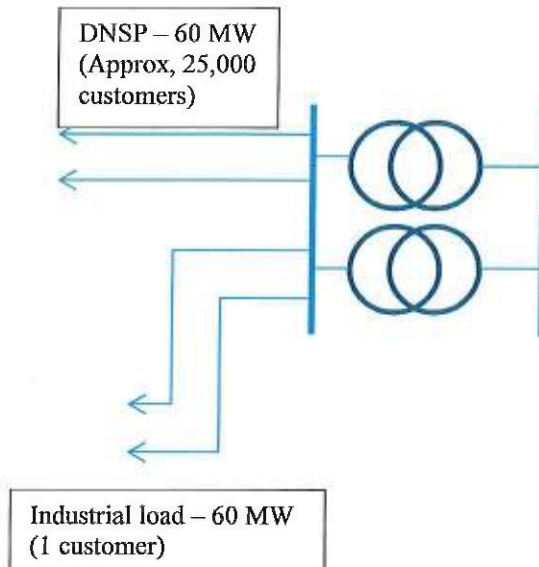
Jennifer Harris  
**General Manager, Network Regulation**

Attachment

## Review of Economic Benchmarking of Transmission Network Service Providers Position Paper - Submission

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### Attachment 1



From the transmission connection perspective the DNSP and the industrial load look the same. It can be seen from this example that the use of end-user numbers can give widely differing results depending on whether the connection is to a DNSP or an industrial load. Depending on the configuration, the two different 60 MW loads could represent any of:

- 2 end-users (2 x industrial loads); or
- 25,001 end-users (1 x DNSP + 1 x industrial load); or
- 50,000 end-users (2 x DNSPs).

In each case the transmission network connection arrangement is the same. Thus, it is difficult to reconcile the use of end-user numbers with the scale or complexity of the transmission task.

Alternative formulations could potentially be:

- 2 customers;
- 4 meters (one on each outgoing feeder); or
- number of connections x busbar voltage (existing benchmarking formulation).

