TasNetworks
Delivering your power

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Chris Pattas
Australian Energy Regulator
GPO Box 520
Melbourne Victoria 3001

Attention: Andrew Ley

Dear Chris

RE Draft 2015 Annual Benchmarking Report for transmission network service providers

Thank you for the opportunity to comment on the draft 2015 Annual Benchmarking Report for electricity transmission network service providers. For those stakeholders who want to engage in the regulatory process, the availability of better information about the relative performance of regulated networks is a potentially useful tool.

TasNetworks is supportive of the use of benchmarking as a basic measure of productivity and efficiency. However, TasNetworks agrees with the Australian Energy Regulator (AER) that the ability to draw meaningful conclusions about the relative efficiency of transmission networks in Australia is restricted by the small number of networks, as well as the diversity of their operating environments. While the limitations of benchmarking are acknowledged in the body of the draft report, TasNetworks considers that statements advising caution when using the report to assess the relative efficiency of networks should be included in the report's overview and when outlining the AER's framework for efficiency measurement.

TasNetworks also believes that greater caution should be exercised in some of the commentary made in the Annual Benchmarking Report. The draft report contains a number of observations and details some assumptions made by the AER which potentially detract from the conclusions which can actually be drawn from the metrics presented in the report. A list of those observations is provided in Attachment A to this letter, while Attachment B details a number of drafting errors and discrepancies.

Once again, I thank you for the opportunity to comment on the AER's draft 2015 Annual Benchmarking Report for transmission network service providers. If you wish to discuss any aspect of the views expressed in this submission, please contact Kirstan Wilding, Leader Regulation, at Kirstan.Wilding@tasnetworks.com.au or on 0416 221 274.

Yours sincerely

Ben Wagner

Ben Wagner
Acting General Manager Strategy and Stakeholder Relations

Attachment A – TasNetworks' comments regarding content

Page no.	Subject	Draft report content	TasNetworks' comments
12	Voltage of entry and exit points	The summation of the voltages of the connection points is required so that the aggregate measure reflects the differing sizes of TNIs across transmission networks. ...higher voltage TNIs will typically require more assets as they will have a higher capacity.	TasNetworks does not agree that there is a link between voltages and the quantity of assets required to serve a particular connection point. Higher voltage connections do not necessarily require the use of more assets – just higher voltage assets. TasNetworks operates a comparatively low voltage transmission network that delivers a relatively small volume of energy, but has a high number of connection points (and therefore connection assets) because it connects around 30 generation sites, as well as a significant number of directly connected load customers. Focussing on the sum of connection point voltages as a network output also ignores the complexity of those connections, which is a significant driver of cost for TNSPs.
13	Circuit line length	Table 1 Transmission network outputs 2009–14 average	The average circuit line lengths published in Table 1 appear to be route line lengths, not circuit line lengths.
15	Operating environment factors	The output specification for the MTFP model we present in section 3.2 allows for some differences in network density, such as the number of connection points per kilometre of line.	While network density, in terms of customer connections per kilometre, is an appropriate measure for distribution networks, TasNetworks does not consider that the number of connection points per line is a relevant explanatory variable for the operating environment of a transmission network service provider (TNSP), given the small number of connections in absolute terms, relative to circuit or route length.
17	Partial performance indicators	This measure potentially favours more dense transmission networks rather than those that transport electricity over larger distances because denser networks tend to have more entry and exit points.	The term "dense" as it is used in this context has not been defined in the report, and could be taken to have a number of different meanings, such as energy density, network size, the number of connection points per kilometre or the level of meshing within the network. Assuming that density is being used as a reference to network length, TasNetworks does not agree that network length is a reliable indicator of the

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			level of connectivity provided by a TNSP, in terms of the number of entry and exit points, or that it has a causal relationship with TNSPs' connection related costs.
17	Partial performance indicators	Voltage weighted connection points	The title for Figure 8 suggests that average per kV network costs are being presented on the basis of the total kV of entry and exit points, yet the concluding remark made regarding Electranet's relative cost is presented in terms of cost per voltage weighted connection point. Further, no explanation of the derivation of weighted voltage per connection points is provided in the draft report or in the accompanying memorandum from Economic Insights Pty Ltd.
18	Total cost per MW of non-coincident maximum demand (Figure 10)	Under this measure TasNetworks has the highest total cost per MW of maximum demand... TasNetworks has the lowest maximum demand, which likely explains its high cost per MW of maximum demand.	Any measure of cost which uses maximum demand to normalise the performance of comparator TNSPs will inherently disadvantage transmission networks, such as TasNetworks, which rely on (and connect) intermittent renewable generation to service that demand. Care should, therefore, be taken in interpreting differences in the relative performance of each TNSP in relation to this metric. While maximum demand is a driver of cost for all networks, the intermittent nature of hydro and wind generation, along with their typically smaller capacity, means that connecting generation capacity is also a significant driver of cost for TNSPs like TasNetworks and, increasingly, ElectraNet (with the uptake of wind generation in South Australia). On the other hand, networks which connect large scale thermal generation using a comparatively small number of lines with high levels of capacity utilisation will always be better able to match the capacity of their networks with the demand that they service and, as a result, achieve lower costs per unit of demand and greater productive efficiency. The insights that this metric provides are, therefore, extremely limited. TasNetworks does not, therefore, agree with the AER's assessment that its high cost per MW of maximum demand is because it serves the lowest maximum demand. This explanation hints at diseconomies of scale as the driver of this

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			outcome, but is clearly only a partial explanation of the benchmarking results presented for TasNetworks in Figure 10. To avoid misinterpretation of this metric by stakeholders, Figure 10 should be accompanied by additional explanatory information which addresses the limitations of this metric.
22	Opex per km of circuit length	None of the transmission networks appears to be a standout performer on this metric.	This statement provides no meaningful insight and is open to interpretation (potentially implying that no TNSP is performing well on this metric, for example, given that a standout performance is typically associated with excellence, rather than mediocrity). TasNetworks recommends that it be deleted. In the absence of any analysis of why the results for each TNSP are closely grouped, it should be sufficient to note that "On this metric there is not a significant spread of annual opex across the period".
23	Opex per MW maximum demand served (Figure 17)	AusNet Services and TransGrid perform well and TasNetworks performs poorly, due to the demand characteristics of their networks.	To the extent that variations in the cost per MW of demand are due to the characteristics of the respective networks, then this metric is an indicator of those differences, not of efficiency or efficacy. TasNetworks' performance may be exemplary for a network with its particular 'demand characteristics', but it is not appropriate to draw this conclusion from the metric presented in Figure 10, just as it is inappropriate to characterise TasNetworks' performance as poor. It is also noted that no explanation of the demand characteristics of each network has been provided, leaving the reader with no basis on which to interpret the AER's assessment. It would be more accurate to state that TasNetworks' opex per MW of maximum demand is higher than other TNSPs, but this is clear from the graph. The AER's commentary also fails to provide any insights into the demand characteristics of each network and how they might influence performance against this metric. It is also noted that TasNetworks' performance against this measure has steadily improved since 2008, which is indicative of improving efficiency, at least as measured by this metric. The AER's 2014 Annual Benchmarking Report highlighted declining productivity across all transmission networks in recent

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			years. In the interests of balance, TasNetworks believes that it is appropriate to draw attention to material changes in the performance of TNSPs against individual benchmarking metrics over time. Further, this metric assumes maximum demand to be the sole, or at least principal, driver of TNSPs' costs. This ignores the avoidance of constraints on generation as an output which TNSPs are obligated to provide and which is a significant driver of their costs. In TasNetworks' case, a reliance on a large number of small renewable generators has a significant impact on the cost of meeting these obligations, yet this will not be apparent from Figure 10 or the accompanying explanatory material.
24	Asset cost per km of circuit line length (Figure 20)	Transmission assets must have sufficient capacity to service maximum demand.	Transmission assets must have sufficient capacity to service maximum demand, whilst minimising generation constraints to enable efficient operation of the National Electricity Market. The measurement of asset cost per kilometre of circuit line length ignores this important obligation which is placed on TNSPs, an obligation which is also a significant driver of asset costs. As such, the benchmarking presented in the draft Annual Benchmarking Report ignores the significant impact that connecting a large number of small renewable generators has on TasNetworks' asset costs and, therefore, the networks' relative performance against this metric.
25	Asset cost per MW of maximum demand (Figure 21)	Transmission assets must have sufficient capacity to service maximum demand. As such, the installation of assets to meet and manage maximum demand will increase asset costs.	TasNetworks maximum demand is low relative to the generation capacity connected to the network, due to the intermittent nature of that generation. It is the low utilisation factor of those generators (and the transmission lines connecting them) which is a major reason why TasNetworks has the highest total cost against this metric. Further, the capacities of TasNetworks' lines that connect generation are driven by the size of the generators, not just their average utilisation. This measure, therefore, favours smaller networks with large thermal generation and high utilisation levels, and explanatory material to that effect needs to accompany Figure 21 to aid interpretation of the results.

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26	Total cost metric	TransGrid and Powerlink incur the highest total costs, TasNetworks and ElectraNet incur the least. The total cost incurred reflects, in part, the size of each network.	TasNetworks acknowledges that it is not possible to normalise for every possible difference between networks when benchmarking. However, without a normalisation factor this metric provides no meaningful comparison between the performances of the respective businesses, given that total cost is largely, as the AER notes, reflective of the size of each network. As a time series for comparing a business's current performance to its own past performance, however, the metric has some value. Yet the draft report contains no such commentary or analysis, despite markedly different trends being observable in each TNSP's total expenditure over time (with TasNetworks' total expenditure appearing to have increased at a significantly lower rate than other TNSPs).

Attachment B – TasNetworks' suggested correction

Page no.	Subject	Draft report content	Correction
19	Total cost per MVA of transmission capacity (Figure 11)	Figure 11 shows that AusNet Services and TasNetworks have the lowest cost per MVA of downstream connection point of transmission capacity, while Powerlink has the highest.	The reference to TasNetworks as having the lowest cost per MVA of downstream connection point capacity is incorrect, and should be replaced with TransGrid.