3 September 2021

Mr Sebastian Roberts
General Manager
Expenditure
Australian Energy Regulator

Via email:

Dear Sebastian

re: AER Draft Annual Benchmarking Results 2021

ElectraNet appreciates the opportunity to provide feedback on Economic Insights' Draft Economic Benchmarking Results, prepared as an input to your forthcoming 2021 TNSP Annual Benchmarking Report.

As noted in previous submissions on the AER's benchmarking measures, there remain several limitations with the current economic benchmarking approach. While we note the AER's responses to these concerns in its final 2020 report, and look forward to progress in these areas in this year's report, we were concerned at the lack of acknowledgement of those issues in Economic Insights' report. We discuss these concerns further below.

Sample size and diversity

Five TNSPs are discussed in Economic Insights' report. Those five TNSPs operate networks that vary substantially. South Australia's network is the oldest on the mainland and is longest when measured in 'per MW of peak demand' terms. Powerlink's network in Queensland is similar in (normalised) length, but is much younger. AusNet's network in Victoria is nearest to South Australia in network age, but is much shorter in normalised terms with much greater customer density. In summary the networks are diverse and the sample size is small. We have raised these issues previously and, in doing so, noted that Economic Insights agreed with us, describing the process as being 'in its infancy' and stating that it has 'always been cautious' in interpreting the benchmarking outcomes as a result.

However, we are concerned that this caution appears to have disappeared from this year's report, noting that Economic Insights repeats from previous years, for example, that its analysis "allow[s] comparisons of productivity levels as well as productivity growth to be made"[1] but does so without the cautionary notes of previous reports. It is important that the limitations of the benchmarking analysis continue to be clearly acknowledged.

[1] Economic Insights, draft report p.15

ElectraNet Pty Ltd
ABN 41 094 482 416 ACN 094 482 416
Postal Details: PO Box 7096, Hutt Street Post Office, Adelaide, South Australia, 5000
Telephone: +61 8 8404 7966 **Toll Free:** 1800 243 853 **Facsimile:** +61 8 8404 7956
Email: enquiry@electranet.com.au **electranet.com.au**

Model specification

We have previously raised concerns about the lack of basis for Economic Insights' chosen model specification. We note that there has been no change since 2020. We also note that the AER's response to this issue in its 2020 report was to acknowledge that the current specification is the best available to it at present. While this may be the case, we remain concerned that it is not producing a robust set of measures. We urge the AER to give further consideration to the future of the transmission economic benchmarking exercise, and whether it is adding any meaningful value to the transmission sector in its present form.

Flaws in output measurement

Our primary concern with the analysis presented in Economic Insights' report is with the output measures used.

Two of the four measures currently in use, namely energy throughput and end use customer numbers, bear little or no relationship to the output of a transmission network. In simple terms, if maximum demand is held constant, it does not cost any more to serve more customers at an existing connection point. Equally it does not cost more to deliver more energy to the same number of customers unless this increases maximum demand.

The AER responded to this concern in appendix D of its 2020 report by drawing attention to section 2.2 of that report. In section 2.2 the report notes that the AER has "collected data on all major…outputs for TNSPs…".

We acknowledge that Economic Insights' model is based on outputs that are readily available to the electricity sector and that are convenient from a modelling perspective. However, in our view, it does a poor job of measuring ElectraNet's current output and will do an increasingly poor job of measuring our output in future years as we bring the synchronous condensers online, which are not captured at all in the output measures. Equally Project EnergyConnect will not be captured in most output measures. Both investments are fundamental to the energy transition and, importantly, assist in driving down total delivered energy costs for customers.

We are also implementing special protection schemes to protect the power system from disturbances in an increasingly complex operating environment and other measures to manage the challenges of declining minimum demand levels.

With the ever-increasing uptake of variable renewable generators, we will be called on to provide even more of these services in the future. However, from the perspective of the 'output measures' this activity does not exist. Holding other things constant, these investments will add appreciable value for customers and yet the current transmission benchmarking model will conclude that our efficiency has fallen because we are spending more and producing the same output.

We also note that the Synchronous Condensers were built in response to our service obligations under the National Electricity Rules (Rules) to provide system strength and inertia. The failure of the output measures to capture this increase in output shows they are not well aligned with the Rules.

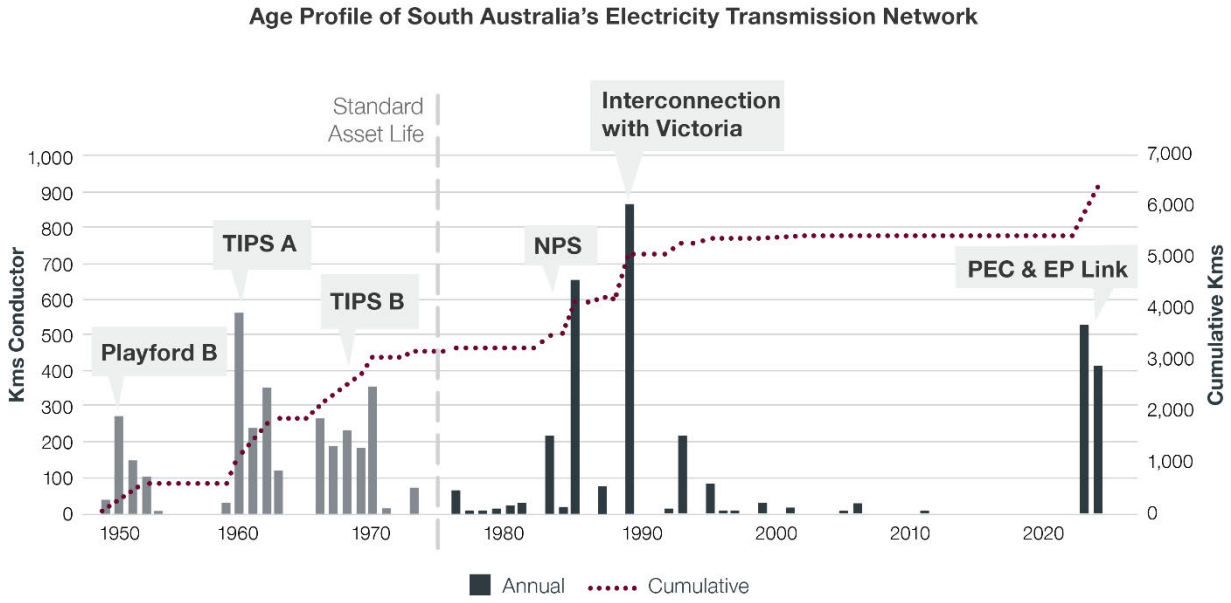
Similarly, the output measures do not reflect increases in the complexity of South Australia's electricity transmission network. South Australia is characterised by world leading levels of Variable Renewable Energy (VRE). According to the AER's 2021 State of the Energy Market report, South Australia has been the main focus of interventions to increase frequency control services and maintain system strength.

This report also notes that South Australia has recently experienced periods where 100% of electricity demand is met by solar resources and that we will soon be home to the world's largest Virtual Power Plant.

Consequently, the network of 2021, with approximately 4.2 GW of VRE is a substantially different and more complex network than it was when the output measures were first chosen in 2014, with approximately 1.7 GW of VRE at that time. While the Rules require ElectraNet to manage this much more complex network, the existing output measures simply do not reflect this. To this extent as well, the output measures are poorly aligned with the Rules.

These all point to recent growth in the complexity of South Australia's transmission network and, therefore, to ElectraNet's output. None of them are captured in the existing output measures.

To illustrate this, the figure below shows the growing circuit length of South Australia's transmission network, which is the most heavily weighted output measure in Economic Insights' current model. The figure shows that, as far as circuit length is concerned, the model will assume that our output has barely changed in the last 30 years and that it will only increase marginally in the next few years as the Eyre Peninsula link and Project EnergyConnect are commissioned.



As before, we encourage the AER to further develop the output measures before any weight is placed on the benchmarking results. In the meantime, appropriate caution should be applied to the use of benchmarking results given its inherent limitations.

Our specific concerns on the current measures were outlined in further detail in our response to the draft 2020 report, including the use of end users and energy throughput as output measures and the treatment of costs such as network support costs. While these concerns were acknowledged in the final 2020 report, it appears the underlying issues will remain in this year's report.

We look forward to engaging further on these issues in future. Should you wish to discuss any aspects of this response, please contact me in the first instance on [redacted]

Yours sincerely

D. L. Appleby

Simon Appleby
Manager Regulation and Investment Planning