24 May 2017

Mr Evan Lutton
Assistant Director, Networks Branch
Australian Energy Regulator
GPO Box 520
Melbourne VIC 3001
By email: evan.lutton@aer.gov.au

Dear Evan

Re: REVIEW OF ECONOMIC BENCHMARKING OF TRANSMISSION NETWORK SERVICE PROVIDERS

CitiPower and Powercor Australia welcome the opportunity to comment on Economic Insights' Review of Economic Benchmarking of Transmission Network Service Providers (**TNSP**) – Issues Paper prepared for the Australian Energy Regulator (**AER**).

We support the use of benchmarking as one of the tools in the AER's toolkit for assessing the efficiency of expenditure. We consider however there is room for further improving the AER's benchmarking approach.

The AER's total factor productivity (**TFP**) benchmarking model for TNSPs is based on a model specification which is similar to that applied for benchmarking distribution network service providers (**DNSP**). Our submission comments on aspects of the TNSP model which are also relevant to the DNSP model specification.

Our submission covers the following key points:

- the current physical measure of capital inputs based on MVAkms of line disadvantages rural networks for operating the network efficiently to minimise electricity losses;
- employing a physical measure of capital inputs with a financial measure of operating expenditure (**opex**) distorts business decisions in relation to capitalisation policy and the choice between capital-based or operating expenditure solutions;
- we recommend the AER investigate benchmarking approaches which mitigate these distortions, for example using financial measures of capital and moving to total expenditure benchmarking which captures both opex and capex efficiency; and
- we support incorporating reliability in the TFP model. An improvement on the current approach would be to smooth the reliability output quantity variable over time to reduce annual variation in benchmarking performance and better reflect underlying network productivity.

Should the AER have any queries regarding this submission, please do not hesitate to contact Megan Willcox on (03) 9236 7048, or mwillcox@powercor.com.au

Yours sincerely,

Brent Cleeve
Head of Regulation, CitiPower and Powercor

1.1 Capital measure

In the TFP models for both DNSPs and TNSPs, capital is measured based on physical measures of asset stock, including the MVAkms of line. The MVAkm input variables are established by multiplying circuit length by line capacity for each voltage rating. When circuit length and capacity are multiplied, the MVAkm variables significantly magnify in size for networks with proportionally more high capacity lines. The multiplicative nature of the MVAkm variables:

- disadvantages rural networks which generally require longer and higher capacity lines to transport electricity over longer distances; and
- results in the MVAkm input variables becoming disproportionately large relative to the financial capital cost of providing network services to customers.

For example, the capacity of lines for CitiPower and Powercor range between 0.2MVA for low voltage lines to 60MVA for 66kv lines. Powercor has more km of higher voltage lines than CitiPower and consequently Powercor's MVAkm input variables sum to 22 times CitiPower's. Conversely, Powercor's total RAB and total capex are only 2 times CitiPower's. The MVAkm variable therefore disproportionately magnifies the capital input.

Importantly, it is efficient for rural networks to employ high capacity lines to minimise losses when transporting electricity over long distances. However, this efficiency is not reflected in the benchmarking when MVAkm variables are included.

Further, using a physical measure of capital inputs for benchmarking creates distortions in business behaviours. Since the TFP model includes a financial measure for operating expenditure but a physical measure for capital inputs, DNSPs benchmarking positions can be improved by adopting more aggressive capitalisation policies and/or choosing business solutions which are capital-based rather than incurring operating expenditure. Consequently, there is real potential for the benchmarking outcomes to be highly influenced by these distortions rather than reflecting underlying productivity performance.

We recommend the AER investigate benchmarking approaches which mitigate these distortions, for example using financial measures of capital instead of physical measures and moving to total expenditure benchmarking which captures both opex and capex efficiency.

Nevertheless, if the AER retains its approach to measuring capital inputs based on MVAkms, it is necessary to adjust the benchmarking results to remove the disadvantage to rural networks from operating high capacity lines, particularly because they are an efficient means of transporting electricity over long distances.

1.2 Reliability

In the DNSP TFP model, reliability is incorporated using a similar approach to the TNSP TFP model. In the DNSP model, the reliability output quantity is measured as minutes off supply and price is measured based on the value of customer reliability.

The number of minutes off supply varies annually based on factors, such as weather, which are not related to underlying network productivity performance. The annual variation in reliability outcomes flows through to annual variations in relative productivity performance.

We support incorporating reliability performance in the TFP model, however we consider the approach could be improved by smoothing the impact of reliability on annual productivity performance, for example by using an averaging approach for minutes off supply.