Claire Preston
Director, Network Expenditure
Australian Energy Regulator
Melbourne VIC 3000

By email:

27 October 2021

Dear Claire

Feedback on the draft 2021 Annual Benchmarking Report

Jemena Electricity Networks (Vic) Ltd (**JEN**) welcomes the opportunity to provide feedback on the Australian Energy Regulator's (**AER**) draft 2021 Annual Benchmarking Report (**draft report**).

We welcome the AER's investigation into issues we raised through previous submissions, including an independent review of the output weights used in Multilateral Total Factor Productivity measure, consultation on the capitalisation differences between businesses and reliability of Translog models.

In our previous submission to the Economic Insights' (**EI**) preliminary 2021 benchmarking results, we recommended the AER to[1] –

- exclude Translog models from benchmarking assessment due to monotonicity violations for different businesses in different years, and
- update the industry labour proportion in the opex price index to reflect more recent and audited RIN data.

In this submission, we provide feedback on EI's report accompanying the draft benchmarking report in relation to these two issues –

1. Use of Translog models

EI in its report stated that it preferred to retain Translog models where there are few monotonicity violations because these models can better capture functional form that are not as well approximated by the Cobb-Douglas models. EI states that –

When the efficiency estimates derived using both specifications are averaged, this allows some of the benefits of greater flexibility to be reflected in the results without undue reliance on the TLG models.

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[1] JEN, *Response to 2021 preliminary benchmarking results*, 17 September 2021

However, while translog model may provide flexibility they deliver inconsistent results that we noted in our previous submission to the AER[2] –

In case of Ausgrid (AGD) where there is no monotonicity violation, 60% of its increase in opex is explained by the increase in customer numbers under the SFA TL model, but only 1% of its opex is explained by increase in customer numbers under the LSE TL model.

We do not consider that taking an average of two inconsistent results such as in the case of Ausgrid can provide reliable average. Even if one result is correct, averaging it with an incorrect result will result in an incorrect average.

EI also stated that the average efficiency scores of Distribution Network Service Providers (**DNSP**) when the Translog models are included in the averages are similar to when only the average of Cobb-Douglas models is estimated[3] –

An important point to note, however, is that the average efficiency scores of DNSPs when the TLG models are included in the averages are similar to the average efficiency scores obtained when only the CD models are included in the averages.

EI's observation is based solely on the latest sample dataset of 2006-2020. To be certain of this observation it needs be validated by taking a different sample set such as 2006-19. For this purpose we look at JEN's average efficiency score for 2006-19 and 2006-20 and estimate the average for only Cobb-Douglas models and average for all models that satisfy monotonocity requirement.

Figure 1: JEN's efficiency scores on AER's econometric models
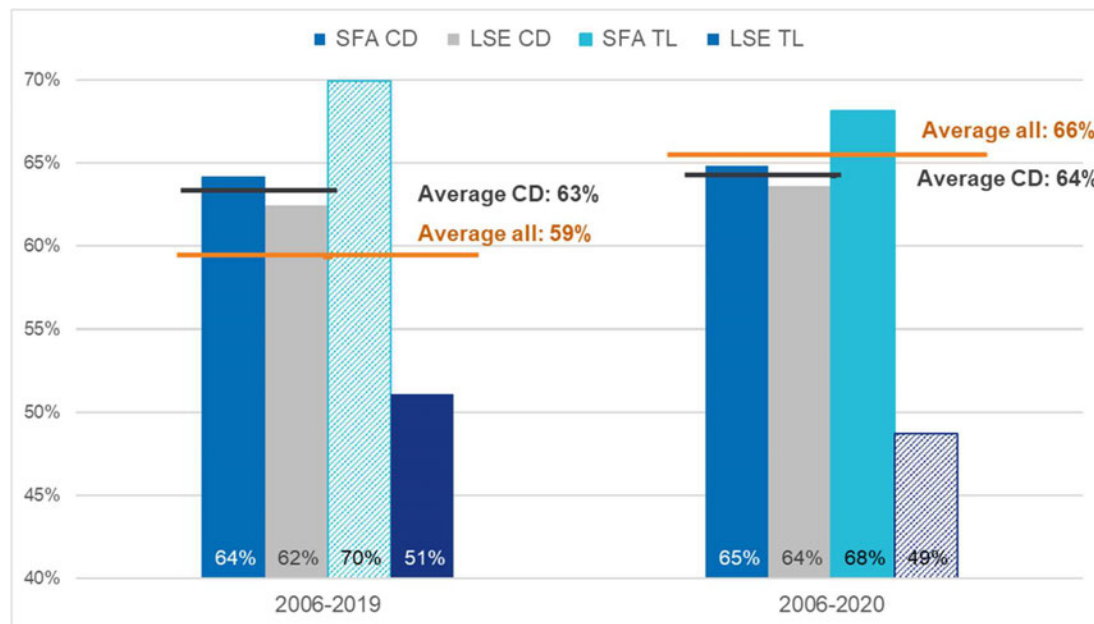
Note: The shaded columns represent models disregarded due to monotonicity violations

[2] JEN, *Response to 2021 preliminary benchmarking results*, 17 September 2021, Pg. 4
[3] Economic Insights, *Economic Benchmarking Results for the Australian Energy Regulator's 2021 DNSP Annual Benchmarking Report*, 11 October 2021, Pg. 6-7

As shown in Figure 1 we observe that –

- JEN's average Cobb-Douglas scores between 2019 and 2020 are very similar (63% and 64% respectively)
- However, JEN's average scores of all models changed significantly from 59% to 66% from 2019 to 2020 due to the inclusion of different Translog models in the two years on the basis of monotonicty requirement.

This demonstrates that the average for all models can be significantly different to the average of only Cobb-Douglas models. In our view, the problems associated with use of translog model outweigh the benefits of having second order approximation. Therefore we recommend that the AER rely on the use of only Cobb-Douglas models for consistent results and decision making.

2. Update to labour proportion in opex price index

EI in its report noted that the Regulatory Information Notice (**RIN**) data does not provide sufficient detail to estimate the labour/non-labour proportions for the industry and that a specific data request would be required for this calculation.

However, DNSPs have reported the labour proportion of opex in the New Historical Category Analysis RIN table 2.11.3 for years 2008 to 2020. This table provides opex in four categories – inhouse labour expenditure, labour expenditure outsourced to related parties, labour expenditure outsourced to unrelated parties, and non-labour expenditure. The labour proportion can be calculated as the sum of the first three categories divided by total opex. We recommend that EI utilise this audited RIN data to update the labour proportion to improve the accuracy of benchmarking results.

We welcome any further queries from the AER on this submission. Please contact Jerrie Li on ██████████████████████████████ if you would like to discuss this feedback.

Yours sincerely

[signed]

Sandeep Kumar
Group Manager Regulatory Analysis and Strategy