21 January 2021

AEMO Energy Forecasting
Submitted via email: energy.forecasting@aemo.com.au

Dear Energy Forecasting team,

Re: FORECASTING APPROACH - ELECTRICITY DEMAND FORECASTING METHODOLOGY ISSUES PAPER

CitiPower, Powercor and United Energy welcome the opportunity to respond to Australian Energy Market Operator's (AEMO) issues paper on the electricity demand forecasting methodology.

Our submission highlights:

- the need to better define the purpose of the AEMO demand forecasts, particularly with regard to distribution network planning

- the importance of a reliable, consistent and transparent methodology in providing investor certainty, particularly during the current energy market transition to renewables

- support for further work in incorporating the impacts of climate change in forecasting.

1.1   A forecasting methodology that is fit for purpose

Electricity demand forecasting is inherently complex, and given its significant role in network reliability, safety and stability it is crucial any adopted forecasting methodology is fit for purpose when used for network planning. Using an unsuitable methodology for the purpose of network planning can lead to significant electricity supply disruption for our electricity customers.

We note the forecasting methodology is for use in publications such as the Electricity Statement of Opportunities (ESOO) and the Integrated System Plan (ISP). AEMO also use these forecasts as the basis for their Victorian terminal station demand forecasts. Some stakeholders, such as the Australian Energy Regulator, consider the AEMO terminal station forecasts are a valid basis for the local distributor's zone substation demand forecasts.

We do not consider AEMO's electricity demand forecasting methodology is suitable for the planning of localised and distributed network growth areas. We remain concerned with the tendency for regulators and policy makers to routinely apply AEMO's terminal station forecasts (which are derived from the state-wide forecasting methodology) for the purposes of distribution network planning. This occurs through the regulatory reset process or as part of the regulatory investment tests for distribution (RIT-D).

Like other distributors, we do not use AEMO's forecasts. We have developed our own network-specific demand forecasts that inform our network planning. The most important and critical difference between our demand forecasts and AEMO's forecasting methodology is the granularity of our forecasts. Our forecasting methodology incorporates localised requirements at the feeder and zone substation level, capturing growth corridors and distributed generation, and accounting for differences between various parts of the network. Conversely, AEMO's forecasts are disaggregated to the terminal station level only.

Unfortunately many policy makers and regulators seek to take AEMO's terminal station level forecasts and equally apportion them across all zone substations and feeders. As such, we encourage AEMO to provide further confirmation about the purpose of their demand forecasts, and provide better guidance to regulators and policy makers as to the appropriateness of using AEMO forecasts for distribution network planning purposes.

An additional reason we cannot rely on AEMO forecasts are the highly volatile year on year forecasts of new technologies such as solar PV, electric vehicles and batteries (discussed further below). Conversely, our forecasts

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of these technologies on our networks are based on actual data and ability to track new connections in real time. This makes our forecasts more reliable and stable for distribution planning purposes.

1.2   AEMO's forecasts need to provide investor certainty

AEMO's electricity demand forecasts, particularly as drivers of the ISP, must be reliable, consistent and transparent to provide investment certainty at a time of need for investment in capacity, renewables and new technologies.

However, AEMO's forecasts over the last few years have been demonstrable volatile year on year, particularly in relation to forecasts of new technologies. This includes solar PV capacity, electric vehicles and batteries, as AEMO seeks to incorporate various policy announcements and changeable government incentives. These large movements in forecasts year on year create uncertainty. This uncertainty undermines investor confidence in the Australian energy market, and can be used opportunistically to deflate necessary investment in grid.

It is also unclear how the AEMO terminal station demand forecasts reflect underlying customer demand in the presence of large embedded generation, and this issue will be exacerbated as the energy market continues to transition. Further clarification on this would be appreciated.

We also recommend AEMO develop a more consistent and reliable approach to forecasting the impact of new technologies on demand. This includes the appropriateness of using post-model adjustments rather than updating the structure of the model.

1.3   Capturing the impact of climate change

We support AEMO's incorporation of climate change impacts into demand forecast. We encourage AEMO to continue to work with the Bureau of Meteorology and CSIRO to continue to improve its climate change methodology. Climate change is likely to have a material impact on future of the electricity network and supply. Given the strong emphasis policy makers and regulators place on AEMO, it is critical AEMO play a lead role in highlighting the impact of climate on the grid.

Should you have any queries about this letter please do not hesitate to contact Sonja Lekovic on (03) 9683 4784 or slekovic@powercor.com.au.

Yours sincerely,

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