9 February 2024

Mr Daniel Westerman
Chief Executive Officer
Australian Energy Market Operator
GPO Box 2008
MELBOURNE VIC 3001

Submitted via email: forecasting.planning@aemo.com.au

Dear Mr Westerman

Consultation – 2024 Forecasting Assumptions Update

Energy Queensland Limited (Energy Queensland) welcomes the opportunity to provide comment to the Australian Energy Market Operator (AEMO) on their Consultation – 2024 Forecasting Assumptions Update (the Update). This submission is provided by Energy Queensland on behalf of its related entities, specifically, distribution network service providers, Energex Limited (Energex) and Ergon Energy Corporation Limited (Ergon Energy), and retailer, Ergon Energy Queensland (Ergon Retail).

Energy Queensland agrees that electric vehicles (EV) are not yet considered an alternative to home batteries due to the limited vehicle-to-grid (V2G) options. In our view, the ability for customers to connect their vehicle to the grid via their premises is still evolving. However, over the longer term, as technology matures and customers adopt innovative retail tariffs, it is likely that consumers with V2G-capable EVs and bi-directional EV supply equipment (EVSE) will utilise their EV battery to reduce usage from the grid, especially during high priced periods. We encourage AEMO forecasting assumptions to therefore consider barriers to investment, such as initial cost and availability, for both V2G and home batteries, the credibility of them being overcome and the potential of these technologies to influence future demand.

We note that the Update states "(T)he lower assumed utilisation rate per vehicle helps drive a higher number of vehicles in the new forecast"[1]. Energy Queensland seeks clarity from AEMO on how the lower utilisation of EVs affects the expected uptake of EVs. Energy Queensland suggests that EV utilisation should impact the charging profile more than the uptake (number of units) and this should be reflected in the forecast.

Energy Queensland notes the assumptions underlying the EV charging type graphs (Figure 15, page 26) reflect a shift away from 'Unscheduled' charging towards more coordinated charging behaviour (incentivised by tariff or otherwise). However, AEMO's forecast shift towards 'TOU Grid

[1] AEMO, 2024, Draft 2024 Forecasting Assumptions Update - consultation paper p 23.

solar[2]' charging seems to be less than we anticipate based on the progressive adoption of cost-reflective network tariff structures by electricity retailers in their tariffs. Data from the Energy Queensland *EV SmartCharge Queensland Insights Report*[3] suggests that solar PV owners that are early EV adopters, actively time the charging of their EVs to align with their PV generation. However, with PV penetration differing by state and lack of clarity on what mass market adoption of EVs and the subsequent charging profile looks like, we expect different outcomes would be seen across each jurisdiction. This may be further impacted by implementation of policies to promote daytime charging to reduce the potential for EV charging during peak demand periods on distribution networks.

In Figure 15, we note the use of the previous charging type names in the legend. On the same page, in Table 6, we note the reference to 'Public L2 and fast charge'. We suggest that 'Level 2' only relates to household and small-scale private charging via EVSE rated up to 22 kW AC, and rarely to fee-attracting public charging. 'Level 3' typically covers most public charging via DC EVSE. However, in Australia, it is more technically correct to refer to charging Modes 1 to 4 in line with International Electrotechnical Commission 61851-21-2:2018. The Electric Vehicle Council provides guidance[4] on terminology.

While we recognise that initiatives, policies and other jurisdictional activities will continue to be rolled out independent of the Integrated System Plan, we will continue to support, where possible, the inclusion of state-based policies and programs like these in AEMO's forecasting assumptions. In one such example the Queensland Government has announced a Battery Booster program[5] for the installation of batteries in residential premises across the state in 2024.

Further, Energy Queensland notes the minor mention of dynamic operating envelopes in the Update, specifically regarding solar PV export management. We suggest it would also be useful for references to dynamic operating envelopes to be made in the virtual power plant section to recognise the benefits they can provide in the coordination of generation and import to the overall forecasts.

Should the AER require additional information or wish to discuss any aspect of this response, please contact me on 0429 394 855 or Laura Males on 0429 954 346.

Yours sincerely,

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[2] AEMO, 2024, Draft 2024 Forecasting Assumptions Update - consultation paper pp 26-27.
[3] Energex, 2024, EV SmartCharge Queensland Insights Report (energex.com.au)
[4] Electric Vehicle Council, 2024, https://electricvehiclecouncil.com.au/a-z-charging/
[5] Department of Energy and Climate (epw.qld.gov.au), 2024, Battery Booster program