February 2026

RE: EVC response to the AEMO DRAFT 2026 Integrated System Plan

The Electric Vehicle Council (EVC) welcomes the opportunity to contribute to the AEMO Integrated Services Plan (ISP) 2026 Draft.

The Electric Vehicle Council (EVC) is Australia's national peak body for the electric vehicle (EV) industry, representing nearly 80 organisations across the EV value chain. Our mission is to accelerate the electrification of transport to support a sustainable and prosperous future. We work closely with governments, regulators, and energy market stakeholders to ensure a coordinated, efficient, and equitable transition, enabling electric vehicles (EV) to play a central role in decarbonising Australia's economy.

Above the feedback we have already provided in the **Draft 2026 Forecasting Assumptions Update** relating to EV Projections, we offer the following points for additional consideration:

Light Vehicles

EVs represent a profound opportunity for the grid. The ISP rightly identifies that, under a scenario where up to 80% of Australia's vehicle fleet is battery electric or plug-in hybrid by 2050, EVs will materially increase electricity demand while also unlocking significant system flexibility. By mid-century, EV batteries could comprise around 80% of gross storage capacity in the National Electricity Market — a scale of distributed storage unparalleled in the system's history.

But this outcome is not automatic. It depends on sustained growth in EV uptake from today's levels, still less than 2% of the fleet to 80%, by 2050. That trajectory requires stable, predictable policy settings that reduce upfront cost barriers and maintain consumer confidence. Demand-side measures that broaden access across income groups and ownership models must work in tandem with supply-side reforms such as the New Vehicle Efficiency Standard (NVES) to drive fleet transformation at the pace assumed in the ISP.

Policy coherence also matters. Settings should avoid inadvertently favouring high-emitting vehicles or introducing reforms that dampen uptake at this formative stage of the transition. A coordinated approach will ensure that transport electrification delivers both the emissions reductions and the system flexibility benefits embedded in the ISP modelling. While the EVC recognises that it is not AEMO's role to set government policy, it is important for this review to acknowledge that several of the policies underpinning projected EV adoption are currently under consideration and therefore represent a material variable in delivery of the ISP's assumptions.

Charging

Above other forms of charging noted, the EVC welcomes the ISP's acknowledgement that workplace charging will be critical to reducing pressure on the grid and enabling greater utilisation of daytime solar generation. Facilitating charging during peak solar hours improves system efficiency, reduces evening peak demand, and enhances the integration of variable renewable energy. We believe consideration should also be given to the role of kerbside and commuter carpark charging in supporting daytime charging for drivers without access to off-street parking in future modelling exercises

Vehicle to Grid

The EVC welcomes the continued inclusion of V2G in the ISP, which anticipates that 80% of vehicles will be EVs by 2050, with 11% participating in V2G programs and contributing up to 9 GW of coordinated generation capacity. We also welcome the ISP's recognition that EVs could become an integral component of the future grid, with coordinated V2G reducing reliance on grid-scale storage and potentially avoiding up to $7.2 billion in additional utility-scale storage investment in the NEM by 2050.

This opportunity sits alongside the important role of distribution networks in unlocking up to 4 GW of latent CER capacity through improved voltage management, as well as accommodating up to 2 GW of grid-scale generation and storage within the network itself.

However, given current consumer sentiment and early-stage market dynamics, we consider it prudent for AEMO to model V2G separately from broader V2X applications and other forms of bidirectional charging that do not directly provide grid services. Distinguishing between these use cases would better reflect likely consumer behaviour, recognising that only a subset of EV owners with bidirectional capability are expected to participate in formal grid service programs.

Adopting a more differentiated modelling approach is likely to produce more robust estimates of EV contributions to local peak management and demand flexibility, distinct from their potential role in ancillary and system services.

Heavy Vehicles & Road Freight Demand

Overall, the EVC is concerned at the low profile afforded to heavy EVs and commercial road transport in the ISP. The draft currently attributes 30 TWh of additional demand to the electrification of *heavy* vehicles and yet this additional load is given only cursory attention on a single page of the document (p.35).

More broadly, the EVC remains concerned at the data projections and assumptions underlying this forecast energy demand for heavy BEVs and notes the reference documents to the IASR are already diverging strongly from real world outcomes:

- Total BEV trucks overestimated (2025-26 assumption is already 27% higher than actual sales)
- Very optimistic uptake of BEV trucks/charging demand, growing 220% in the next 12 months, then 75% annually on average for the rest of the decade

- Acceleration in PHEV uptake, despite the relative unsuitability of this technology to the heavy vehicle fleet and distinct lack of models available/announced for the Australian market
- Unclear correlation between this projected vehicle uptake and the aggregate forecast grid demand (GWh).

The EVC encourages the modelling assumptions underpinning these forecasts to be stress-tested in future iterations of the ISP. In particular, the IASR EV Workbook would benefit from a thorough-going review by experts in the *transport and logistics* industry (i.e. not just the energy sector).

In a similar vein, the EVC questions the significant electricity demand attributed to the use of hydrogen in Australia's domestic road transport industry. Given the significant losses in energy conversion to produce green hydrogen (i.e. relative to direct electrification), overestimating hydrogen's role in the Australian transport task is likely to have a major distorting effect on the ISP's projection of total electricity demand.

While predicting the evolution of hydrogen trucks has proven notoriously difficult, the IASR's central premise is that "*the primary contributors of forecast domestic hydrogen consumption are on-road transport, particularly for heavy vehicles*" – this claim is not well supported by the hydrogen industry's evolution throughout the 2020s so far. We understand hydrogen projections for *passenger* vehicles have been scaled back significantly in the ISP, partly due to "limited refuelling station development"; this is equally true for heavy vehicles but does not seem to have substantially altered demand forecasts.

Again, the ISP's underpinning forecasts would benefit from real-world stress testing from Australia's heavy vehicle sector, including that:

- Australia will have more than 140 hydrogen buses (FCEVs) on road by next year
- FCEVs will scale in both articulated and rigid trucks, numbering almost 600 within 4 years (i.e., more than the total number of heavy *BEVs* ever sold in Australia)
- Growth in heavy FCEVs will explode more than 200% between 2031 and 2032.

Finally, the EVC cautions against siloing assumptions around battery technology to the passenger vehicle space alone. While Australia's truck fleet often diverges strongly from the car market, developments in battery technology and charging innovation will disrupt both equally. The ISP devotes significant attention to how consumers will use EVs as CER, engage in load shifting and/or respond to pricing signals from the grid. Owners of *heavy* EVs should be considered equally responsive, if not more so given their commercial imperatives. Charging solutions are already emerging for heavy vehicle fleets looking to avoid costly grid connections or prohibitive tariffs. Going forward, there should be no assumption that owners of *heavy* EVs will charge exclusively – or even predominantly – from the grid.

If you have any questions on this submission, please contact Alina Dini, at alina@evc.org.au. Thank you for your consideration of our submission.

Yours sincerely,

Dr Alina Dini
Head of Energy, Infrastructure and Commercial
Electric Vehicle Council