

1 March 2024

*National Vehicle Efficiency Standard*

*Department of Infrastructure, Transport,*

*Regional Development, Communications, and the Arts*

Submitted via website: <https://www.infrastructure.gov.au/have-your-say/new-vehicle-efficiency-standard-cleaner-cheaper-run-cars-australia>

## **ENA Response to National Vehicle Efficiency Standard – Impact Analysis.**

Energy Networks Australia (ENA) welcomes the opportunity to provide input to the Department of Infrastructure, Transport, Regional Development, Communications and the Arts' Cleaner, Cheaper to Run Cars: The Australian New Vehicle Efficiency Standard – consultation impact analysis.

ENA is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

ENA welcomes efforts to increase the uptake of efficient vehicles (such as Electric Vehicles or “EVs”) in Australia in line with global trends and meeting our national emissions commitments. The effective integration of EVs into the electricity grid is arguably the most critical issue for the delivery of clean, reliable and affordable electricity to customers in coming decades.

ENA and our members believe that EVs is the wedge issue that opens an enormous opportunity to build customer trust, strengthen the grid and increase energy affordability for all customers. If we miss the chance to realise this future, then we are likely to fall significantly short on all three fronts.

We are supportive of the Department's preferred approach as we believe EVs will drive a substantial portion of expected electricity load growth as adoption becomes more widespread. Changes to policy and regulatory frameworks must carefully balance the needs of all customers, industry, and the energy system throughout this transition.

Achieving this will require good governance and transparent decisions for electricity infrastructure, grounded in the National Electricity Objective (NEO) and well-established market principles and objectives. It will also be important to place customers and their choices at the heart of decisions.

Consistent with this, we recommend technology neutral approaches to supporting efficient vehicle uptake, including considering both electricity and hydrogen infrastructure needs, particularly for heavy vehicles.

## Key messages.

- » ENA supports the move to bring Australia in line with global vehicle efficiency standards and meeting our national emissions commitments.
- » Energy networks support customers' choices to adopt EVs and are a critical enabler of their uptake. We will continue to deliver safe, reliable and efficient services to customers now and into the future.
- » The potential impact of EVs on electricity networks cannot be overstated and we must ensure that the infrastructure is there and ready to support the rapid adoption envisaged in the paper. We highlight a number of areas where improvements can be made:
  - Visibility of EVs for networks and the energy market operator - specifically when and where they charge - is crucial to enable the continued safe, secure, efficient and reliable operation of network and the wider power system.
  - Cost reflective tariffs will ensure fair pricing and better utilisation of the network so that costs are lower for all customers, not just those who invest in an EV
- » ENA strongly supports arrangements that require Electric Vehicle Supply Equipment (EVSE) to have the capability of remote management or similar 'smart' functions.
- » Cybersecurity implications should be prioritised as "smarter" EVs and charging arrangements form an increasing proportion of the electricity system.

## Networks are an EV-enabler.

Electricity networks are and will continue to be a critical enabler of customer choices. As EV adoption increases, networks will need to ensure their infrastructure can accommodate changing customer behaviour while continuing to deliver safe, reliable and affordable power to all customers, regardless of how they use the shared network.

This means that networks will be delivering services to a wider spectrum of customers who also have a greater impact on the shared network than ever before. Balancing the needs of a broader spectrum of customers is best managed through the comprehensive customer consultations that networks conduct with their customers across Australia.

Part of this wider spectrum of services may include electricity networks playing a larger role in the rapid roll out of EV charging infrastructure (EVCI). Networks' expertise in operating and maintaining electrical assets, delivery speed, lower cost of capital and strong safety track record positions them naturally to be a provider of widescale charging services at much lower risk than many 3<sup>rd</sup> parties.

To ensure lowest cost and best outcomes for customers, we stress the importance of consistent Standards for EVs and smart chargers across Australia.

Many of the points we make later in the submission arise as learnings from those consultation processes and reiterate that networks are best placed to continue to meet the needs of their customers by engaging and collaborating with them.

## EV visibility for networks will support efficient network operation, investment, and pricing arrangements.

The electricity system will be the primary source of ‘fuel’ for EVs. It is critical that networks have the information necessary to plan, invest, build and operate a network that accommodates customer choice while maintaining reliability, security and affordability. We reiterate the need for networks to have this visibility as a public good above those with purely commercial interests. It will also be important for the market operator to efficiently operate the power system.

Accordingly, ENA supports a minimum requirement to capture information on the installation of Electric Vehicle Supply Equipment (EVSE) – for example, through development of an EV register – to assist with not only effective planning and operational management, but also to encourage the widespread adoption of efficient pricing signals. We encourage the use of existing solutions where practicable, instead of creating new instruments to meet the need.

Increased visibility of EVs would also drive better-informed design of cost-reflective tariffs for EV and other network customers, result in better utilisation of the shared network and lower costs to serve for all users of the shared network.

## ‘Smart’ charging and technical standards.

The Department should also consider the underlying technology and technical standards that will support rapid EV adoption.

ENA and its members have extensive experience and involvement in the Standards Australia process and as a peak body we have published many industry Guidelines.

An important aspect of technical standards is that they are considered to be *minimum requirements*, not best-practice requirements. Standards play an important role setting core functionalities that should allow customers to express their desired capabilities, products and services for the market to efficiently provide. Mandating specific capabilities through standards must be considered carefully.

With this in mind, ENA considers that EVSE standards should be open (not locked within specific eco-systems) and support ‘smart’ capabilities (i.e. able to respond to an external signal or stimuli). Requiring smart capabilities is a no regrets action that will provide significant value in a future with a high penetration of variable renewable energy, and a near ubiquitous penetration of EVs. At present we believe the OCPP 1.6J standard is best placed to deliver these desired outcomes.

While we strongly support mandating this minimum technical function in devices, we do not support the mandatory participation of EVSE devices until such time as there is sufficient evidence to justify it. This preserves the customer's right to opt-in and out of their participation in such programs.

ENA and its members believe it would be preferable to have a nationally coordinated and consistent implementation of EV/EVSE standards. This will strengthen market confidence, reduce barriers to competitive businesses to participate and innovate, provide customer choice as well as regulatory/government certainty to all parties. The outcome to be avoided is a deeply fragmented collection of standards that are conflicting, contrary and vary significantly across individual jurisdictions.

### Cybersecurity.

One area not deeply explored in the paper is the issue of cybersecurity. Cybersecurity risks relating to the control of EVs have the potential to pose significant risks to the broader power system. Recent cybersecurity events have highlighted how easily vulnerabilities can be exposed. In an area such as EVs, where a significant proportion of energy use is dynamic and remotely controllable, cybersecurity risks should be seen as national security risks.

ENA would welcome further engagement and consideration of any topic in our submission from the Department.

If you have any questions or would like to discuss specific topics further, please do not hesitate to contact Dor Son Tan, Head of Distribution [dstan@energynetworks.com.au](mailto:dstan@energynetworks.com.au).

Yours sincerely,



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