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*Chair*

*Energy Security Board*

Submitted via email: [info@esb.org.au](mailto:info@esb.org.au)

## ENA Response to Electric Vehicle Smart Charging – Issues Paper

Dear Ms Collyer

Energy Networks Australia (ENA) welcomes the opportunity to provide input to the Energy Security Board's (ESB) Electric Vehicle Smart Charging Issues Paper.

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.

Electric Vehicle (EV) integration is critical to our members. EV uptake represents a substantial portion of expected load growth as adoption becomes ubiquitous. Changes to policy and regulatory frameworks must carefully balance the needs of customers, industry, and the energy system throughout this transition.

Achieving this will require good governance and transparent decisions, grounded in the national electricity objective and well-established market principles and objectives. It will also be important to place customers and their choices at the heart of decisions.

### Key messages

- » Electricity networks support customers' choice to adopt EVs and we are a critical enabler of their uptake. We will continue to deliver safe, reliable and efficient services to customers now and into the future.
- » ENA continues to strongly support the principles of efficient network management and cost-reflective prices:
  - Cost-reflective tariffs continue to be the most efficient mechanism for cost recovery, as opposed to technology-specific tariffs that prioritise specific business models.
  - Governments may choose to have a role in supporting EV adoption, but the costs of policy subsidising EVs should not be borne by electricity consumers through network costs.
  - Procuring network services from EVs, or other forms of Customer Energy Resources (CER), should be an option for consideration if demonstrated to be efficient, not an obligation in managing the network.
  - As always, the holistic costs of any transition must be evaluated and compared to the benefits it provides for customers.

- » ENA supports Electric Vehicle Supply Equipment (EVSE) with capability of remote management or similar 'smart' functions. Further to this:
  - We support customers having the choice to opt-in or out of arrangements where their devices are managed by a third party.
  - The technical standards by which this capability is delivered should be open (such as OCPP 1.6J), nationally coordinated and consistent across all jurisdictions.
  - The ESB should further explore the issue of cybersecurity that will be needed to protect customers and the energy system.
- » Networks continually look to improve the connections process. At this time we consider that preferential treatment of Charging Point Operators (CPOs) would come at the expense of other customers.
- » Visibility of EVs for networks is crucial to the continued safe, efficient and reliable operation of network and the wider power 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 plan for this changing customer behaviour whilst 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 that have a greater impact on the shared network than ever before. The requirement to balance these differing needs is best illustrated by the comprehensive customer consultations that networks conduct with their customers across Australia. Networks are best placed to continue to meet the needs of their customers by engaging and collaborating with them.

## Network efficiency and cost-reflectivity principles continue to be fundamental

During this period of transition, we continue to anticipate new technologies connecting to electricity networks. As these new technologies and business models emerge, it is important that we continue to adhere to the principles of efficiency and cost-reflectivity that have underpinned the market since its inception. We maintain that cost-reflective network tariffs are the most appropriate mechanisms for network efficiency and minimisation of cross-subsidisation, including in the case of public EV charging stations.

Moving away from these principles, to develop technology-specific tariffs that prioritise specific business models, would result in cross-subsidisation and preferential treatment for particular technologies, which may create perverse investment incentives and decisions.

ENA acknowledges the role governments (state and federal) play in promoting the adoption of technology, including EV and EV infrastructure. However, there should be clear distinction between what is subsidised or supported by governments and what is appropriate to be incorporated into network charges and paid for by the wider customer base.

The issues paper notes the merit of distribution network service providers (DNSPs) as a 'service buyer' of services provided by EVs. We believe this is in reference to current work exploring the Distribution

System Operator (DSO) implementation. While we acknowledge that in the future it might be viable for a DNSP (or DSO) to procure services from a CER market (sourced from EVs), we stress that this should only be another option for DNSPs to consider on its own merits in consultation with their customers, not an imposed obligation to procure. We strongly oppose enshrining this concept within the regulatory framework because it could lead to significant additional costs in some regions where customers will see little benefit.

Noting that the industry at large continues to grapple with the wider issues and costs of the energy transition, networks continue to strongly recommend a thorough analysis of the costs and benefits of any proposal.

As highlighted above, on the mechanics of how network services might be procured in the future is still a subject of debate. We suggest a pragmatic approach to reform is to wait for and consider the outcomes of current trials such as EDGE and Project Edith. When making major reform decisions, benefits should well exceed costs, whilst providing optionality and flexibility for an uncertain future.

## Technical standards

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 generally considered to be *minimum requirements*, not best-practice requirements. This allows 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 ecosystems) and support 'smart' capabilities (i.e. able to respond to an external signal or stimuli). At present we believe the OCPP 1.6J standard mentioned in the paper to be best placed to deliver these desired outcomes.

While we 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 also consider there should be a nationally coordinated and consistent implementation of EV/EVSE standards. This will strengthen market confidence, reduce barriers to competitive businesses to participate, provide customer choice as well as regulatory/government certainty to all parties. The worst outcome to be avoided is to have a deeply fragmented collection of standards that conflict, are contrary and are unique to individual jurisdictions.

One area not explored extensively in the paper is the issue of cybersecurity. A future where a significant proportion of energy demand and use is not directly controlled by market or system operators has the potential to be a significant risk to the power system and national security. ENA would welcome further engagement and consideration of this topic from the ESB in future consultations.

## Network connections

The paper notes that the network connections process is 'too slow' and 'not fit-for-purpose' for public EV charging points. We accept these comments as useful feedback. Networks must consider new connections for public EV charging infrastructure in the context of all customers, not just in the interests of CPOs.

DNSPs are responsible for serving all customers in their network in a manner that is agnostic to the type of technology for which connection is sought. Networks must adequately assess the technical requirements for connection given the specific needs of the network and system and based on the profile of the load that is sought for connection. Networks are best placed to do this in a manner that achieves the standards required to fulfil their network and license obligations and meet the needs of customers through consultative engagement.

In most regions today the large majority of customers do not have and will not purchase an EV for some years yet. Networks are continually conscious of this customer spectrum and how the various segments may change over time. Networks are also conscious that EV uptake could occur quite rapidly, and this requires careful monitoring of lead indicators to ensure network readiness to meet customer needs.

We consider that at this time preferential treatment of CPO connections would come at the expense of most customers who would not benefit and does not serve their interests.

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

For the foreseeable future, the electricity system will be the primary source of energy for EVs. It is therefore critical that networks have the information necessary to plan, invest, build and operate a network that accommodates customer choice in accordance with the NEO. We reiterate the need for networks to have access to this visibility above those with purely commercial interests.

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

Accordingly, ENA supports a minimum requirement to capture installation of 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.

We also support default (cost-reflective) tariffs being offered at the point of connection. It is important these tariffs are set at the time of connection, to preserve the right of each network to implement their own tariffs and structures.

ENA notes that the paper does not extensively cover the issue of EV visibility, but we are aware of complementary work by the ESB Data Strategy workstream that we hope will explore these issues and solutions more deeply.

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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