

**Submission  
No 94**

**INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE  
VEHICLES IN NSW**

**Organisation:** Australian Energy Regulator

**Date Received:** 30 May 2025

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30 May 2025

Ms Lynda Jane Voltz MP  
**Committee Chair, Legislative Assembly Committee on Transport and Infrastructure**  
Parliament of New South Wales  
6 Macquarie Street  
SYDNEY NSW 2000

Dear Ms Voltz

**Re: Infrastructure for electric and alternative energy source vehicles in NSW**

The Australian Energy Regulator (AER) welcomes the opportunity to respond to the Parliament of New South Wales' (NSW) Terms of Reference on Infrastructure for electric and alternative energy source vehicles in NSW. We thank the Committee for the generous extension of time to provide this submission.

By way of background, the AER is the regulator of electricity and gas markets in Australia. Relevantly for this inquiry, the AER's functions under the national energy legislation and rules include:

- regulating energy network revenues
- administering the ring-fencing framework to prevent regulated energy networks from favouring their own competitive activities and using revenues from regulated services to subsidise contestable services, and
- administering the regulatory sandboxing function to grant time-limited waivers exempting innovative trial projects from complying with specified energy laws and rules.

The uptake of electric vehicles (EV) is expected to accelerate over the coming years. AEMO's 2024 ISP forecasts that by 2050, 97% of all vehicles are expected to be electric.<sup>1</sup> Infrastructure for EVs, including charging points and additional investment in electricity network infrastructure to support charging, is necessary to both respond

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<sup>1</sup> AEMO, Integrated System Plan for the National Electricity Market, June 2024, pp. 50–51

to, and support, this expected increased uptake. This submission outlines matters that the AER is considering in relation to EV charging infrastructure and services, which may be of relevance to the matters set out in the Terms of Reference.

### **DNSPs and EV charging**

EV infrastructure is usually connected to the electricity distribution network. Electricity distribution networks are owned and operated by monopoly entities known as Distribution Network Service Providers (DNSPs). The AER regulates the revenue allowance which DNSPs receive in return for providing regulated services. However, EV charging and metering are contestable services outside the remit of these regulated services. The energy rules by default prevent DNSPs from providing contestable services.

This is because DNSPs, as monopoly providers of regulated distribution services, could harm the development of competition in markets for other services in contestable markets, using the following powers to their advantage:

- in scale – DNSPs can spread their fixed costs across a large number of customers, reducing the average cost of production as output increases;
- in scope – DNSPs may be able to offer a wider range of related services because they have infrastructure and resources to do so;
- control over barriers to entry – DNSPs can create and maintain high barriers to entry for potential competitors;
- easier access to financing – DNSPs can often have better access to capital markets because investors see them as lower-risk due to revenue predictability; and
- information advantages – DNSPs have greater levels of, and access to, data and insights that can be used to improve services, anticipate customer behaviour and refine business strategies

DNSPs have a key role in enabling the rollout of EV chargers by facilitating pole access services. DNSPs hold unique data on network capacity, which is advantageous in investment planning for EV charging infrastructure. DNSPs are further responsible for imposing connection requirements and access fees, which could facilitate its involvement in EV charging and metering. Given this crossover, there has been considerable discussion over the past year, about the potential to expand DNSPs' role in the EV charging industry.

We note that Energy Networks Australia (ENA) in their Time is Now report, has argued that:

*“DNSPs can deliver public charging infrastructure (via kerbside chargers) at lower cost, faster, with more competition and less disruption than other operators, leading to an improved customer and community experience. This would involve DNSPs rolling out Electric Vehicle Charging Infrastructure (EVCI) on existing distribution assets (i.e. poles), while offering an ‘open access’ model for charge point operators to allow a competitive market for charging services. DNSPs would also maintain the EVCI to ensure uptime and availability, addressing a key EV owner pain point. (Energy Networks Australia referred*

*to international studies which suggests that at any point in time over 25% of public commercial chargers are inoperable or require maintenance).’’<sup>2</sup>*

The AER also considers there could be merit in DNSP’s provision of EV charging in some capacity. However, this needs a careful assessment of the benefits and costs to consumers, given the potential risk for DNSPs to leverage their monopoly advantages to crowd-out competition. This would ultimately harm consumer interest as it could lead to higher prices and poorer services in the long term.

There are two potential avenues under the current regulatory framework that DNSPs are exploring to permit them to operate EV charging infrastructure – a waiver under the Ring-fencing guideline (electricity distribution) or via an amendment to the classification of services they are able to provide customers. The AER has engaged with several DNSPs who are seeking to install, operate and maintain kerbside EV chargers or considering doing so in the future under either or both of these mechanisms. Both avenues are discussed further below in this submission.

### **Flexibility in the ring-fencing framework**

The regulatory framework contains several mechanisms, including the ring-fencing framework, to ensure that DNSPs do not harm the development of competitive markets, and that their role supports the long-term interests of consumers. Ring-fencing refers to the separation of regulated services provided by a DNSP (for example, installation/maintenance of network poles and wires) from the provision of other services (for example, the installation of smart meters) that could be provided by a contestable market.

The AER administers the ring-fencing guidelines, which stipulates a range of obligations on DNSPs to identify and separate costs and business activities of delivering regulated network services from the delivery of other services. DNSPs are permitted to provide distribution services, for which they receive a regulated revenue allowance and return on these services. However, DNSPs may only provide other services (i.e. those not classified as distribution services) if they receive a ring-fencing waiver from the AER. This aims to ensure competition is maintained in markets for contestable services, and that the long-term interests of consumers are supported.

### **AER current consideration of EV charging infrastructure**

The AER is currently involved in the following work to consider EV infrastructure:

#### **CPU ring-fencing waiver**

CitiPower, Powercor, and United Energy (collectively referred to as CPU) – three DNSPs in Victoria – have applied to the AER for a waiver from ring-fencing requirements, to allow them to deploy 100 kerbside electric vehicle chargers across CPU’s distribution areas on a trial basis. CPU is proposing to install and maintain the chargers. CPU is not proposing to operate the chargers and would instead provide

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<sup>2</sup> Energy Networks Australia, The Time is Now, 6 August 2024. p31

an unregulated third party with access to the EV charging infrastructure, with the third-party acquiring retail services from a licensed retailer.

This is the first ring-fencing waiver the AER has received from a DNSP for EV charging. The AER commenced [consultation on CPU's waiver application](#) on 15 April 2025 and is seeking stakeholder submissions by 13 June 2025. As part of the consultation the AER published a [consultation paper](#), which indicates how we are considering the benefits and risks of CPU's proposal.

### SA Power Networks (SAPN) decision

In December 2024, SAPN formally proposed to classify EV charging of last resort as an alternative control service (quoted service) for the 2025-30 regulatory period. The service was intended to include the provision, construction and maintenance of EV charging infrastructure requested by a third party, where these services are unable to be reasonably procured by the contestable market.

SAPN's proposal focused mainly on the delivery of kerbside EV charging using existing infrastructure (e.g. power poles and streetlight columns), but also noted potential for freestanding assets. For both configurations, SAPN proposed that the EV charging infrastructure assets be fully funded by the requesting party (e.g. local councils), with SAPN maintaining the asset over its expected five-year life. In support of its proposal, SAPN referenced its engagement with a limited number of local councils but did not provide analysis of the market failure its proposal would address, nor did it provide cost-benefit analysis.

With our final decision on SAPN's 2025-30 revenue determination, released 30 April 2025, we did not accept SAPN's proposal to classify EVCI of last resort services. As set out in our final decision, we consider the proposal would have benefited from earlier and wider stakeholder engagement, and better supporting information to enable us to make an informed decision in the long-term interests of consumers. For these reasons, we are open to SAPN exploring this potential service further by making an application through the regulatory framework's ring-fencing provisions. The ring-fencing process would allow both SAPN and the AER to consider more closely the underpinning need for SAPN to provide EV charging infrastructure services.

We also noted that trial waivers through the Energy Innovation Toolkit are available for innovative trials.

### Network visibility and utilisation

The AER released its low-voltage network visibility phase 3 report on 31 March 2025, which identifies the actions it will take to ensure distribution networks are transparently providing information to key stakeholders and the public. Network visibility allows non-network third parties to identify suitable locations to install EV chargers, which helps support the development of a competitive EV charging market.

Increased network visibility in combination with network tariffs (discussed below) can support siting and operation of EV charges to the benefit of networks and mitigate the need for additional network investment.

## Consideration of network tariffs for EV charging infrastructure

EV fast chargers, both at customer premises and in public spaces, are prime examples of appliances that, if used during peak periods, are likely to drive future network investment and therefore additional costs for customers. Alternatively, if use of these appliances can be successfully shifted into off-peak periods, future network costs will be lower than the counterfactual to the long-term financial benefit of all customers. There can also be emissions reduction benefits from charging EVs during the middle of the day when there is plentiful electricity supply from renewable generation.

Well-designed network tariffs, potentially combined with a level of external control and smart devices, can help to manage the impact of EV charging on our electricity networks, saving all electricity customers money in the form of lower bills than otherwise. EV charging trials have demonstrated good responsiveness of EV customers to price signals, because EV charging is a discretionary activity. Customers can vary the times they charge their vehicle, in response to price signals.

The network tariff reform program, administered by the AER, promotes the development and take-up of network tariffs that signal to retailers (and through retailers to customers) periods of network capacity and congestion. In this way, smart network price signals can help to push EV charging into off-peak periods, minimising the need for DNSPs to invest in building more network capacity for peak periods.

Even greater benefits can be achieved from blending smart price signals with a level of external control over EV chargers. For example:

- AGL's [Electric Vehicle Orchestration Trial](#) found that customers on time-of-use retail offers (that reflect cost-reflective network tariffs) were already responding to price signals by moving EV charging to off-peak periods. AGL also found that orchestration could reduce charging demand to nearly zero and have a significant impact during the evening system peak<sup>3</sup>
- Origin Energy's [EV Smart Charging Trial](#) found that providing incentives to participants through time-varying offers reduced charging consumption at peak times by 20% and adding external control gave a further 4% reduction.<sup>4</sup>

In addition to promoting efficient price signals for EV customers, the AER also supports cost reflective network tariffs for public EV charge point operators. Public charge points can draw large volumes of electricity from the local network in a short time, potentially putting significant pressure on local assets. Application of peak and off-peak pricing is particularly important for these customers. However, we are also conscious of the importance of a nation-wide network of public charge points to support the electrification of our road transport and the emissions reductions that will bring.

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<sup>3</sup> AGL, AGL Electric Vehicle Orchestration Trial Final Lessons Learnt Report, May 2023.

<sup>4</sup> Origin Energy, Origin EV Smart Charging Trial Lessons Learnt Report, May 2022.

We have approved consistent network tariff structures for EV charge point operators across the National Electricity Market (NEM) to facilitate the spread of an EV charge point network across the grid. Following our recent decisions on Queensland and South Australia DNSP revenue determinations, business customers with ‘peaky load’ (high demand but low consumption), such as charge point operators, will have access to a time-of-use tariff in all networks in the NEM (where previously some had access only to a demand tariff).<sup>5</sup>

In making our decisions on EV network tariff issues, we have had regard to the National Electricity Objective.<sup>6</sup> In particular, the achievement of emissions abatement targets set by the Australian and state and territory Governments and [published by the AEMC](#). We also considered that allowing EV charge point operators to access a similar network tariff structure NEM-wide could increase the confidence of charge point operators and their investors to extend their charging networks. It may further assist charge point operators to roll out more consistent pricing structures for their customers with flow-on benefits for the confidence of consumers in the prices they are likely to face to charge their EVs, which could further support EV uptake.

These outcomes are consistent with outcomes sought under the Australian Government’s National Electric Vehicle Strategy, to “make it easy to charge EVs across Australia” and “reduce road transport emissions.”

#### Plus ES sandboxing trial waiver

The AER has received significant interest in trials relating to EV charging infrastructure. This recently resulted in a trial waiver being granted to PLUS ES, a metering service provider, to install up to 1,000 novel EV chargers with altered metering conditions allowing a more compact kerbside installation. We hope this trial will generate learnings that could support a change to the existing metering requirements, allowing other operators to install more cost-efficient kerbside charging stations without any adverse outcomes for customers.

Interest in the intersection between metering and EV charging is also high with a number of other participants seeking technical waivers to support innovative metering installations.

Further information regarding these trials and their scope can be found on the AER’s [About Regulatory Sandboxing trials](#) webpage.

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<sup>5</sup> By being able to select away from demand tariffs, charge point operators may achieve electricity bill savings while the number of EV’s on our roads grows and their business case matures. However, they will still be assigned to network tariffs that signal periods of network congestion. After an individual charge point reaches a 160kWh threshold of annual electricity consumption, some DNSPs apply a compulsory demand tariff. We think this approach balances need for efficient network price signals with promoting efficient investment in the EV charge point sector.

<sup>6</sup> See section 7 of the *National Electricity Law*.

The AER welcomes any opportunity to assist in the work of this inquiry. If the Committee has any questions or would like to discuss the issues raised in our submission please contact [REDACTED]

Yours sincerely

[REDACTED]

Justin Oliver  
**AER Deputy Chair**