

**Submission
No 49**

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

Organisation: Ausgrid
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Ms Lynda Voltz MP
Chair
NSW Legislative Assembly
Committee on Transport and Infrastructure

24-28 Campbell St
Sydney NSW 2000
All mail to
GPO Box 4009
Sydney NSW 2001
T +61 2 131 525
ausgrid.com.au

Submitted electronically

Dear Ms Voltz MP and Committee Members,

Ausgrid submission to the NSW Parliamentary Inquiry on infrastructure for electric and alternative energy source vehicles

Ausgrid thanks the NSW Legislative Assembly Committee on Transport and Infrastructure for the opportunity to provide a submission to the Inquiry into infrastructure for electric and alternative energy source vehicles in NSW (**Inquiry**).

Ausgrid operates a shared electricity network that powers the homes and businesses of more than 4 million Australians living and working in an area that covers over 22,000 square kilometres through Sydney, the Central Coast and the Hunter Valley in NSW.

The transition to electric vehicles (**EVs**), alongside broader electrification efforts, will deliver immense economic, social and environmental benefits for NSW and will reduce overall household energy costs for all consumers. Reducing emissions from road transport will be a critical factor in NSW's and Australia's transition to net zero emissions by 2050.

Ausgrid is committed to supporting government and industry efforts to increase the uptake of EVs. There are over 52,000 EVs in our network area and we forecast this will grow to around 600,000 EVs by 2030. We currently manage and maintain 440,000 power poles across the Sydney Basin, Central Coast, Newcastle, and Upper Hunter. We believe that we can help deliver a significant portion of the 38,000 public EV charging ports the CSIRO estimates will be needed in NSW by 2030 by installing EV chargers on our power poles. Our existing network infrastructure, already readily accessible in kerbside locations, and expert workforce can be leveraged immediately to roll-out accessible and affordable public charging options across our network. If enabled to do so, we can dramatically and rapidly increase the availability of charging infrastructure, giving NSW consumers the confidence to invest in and benefit from EVs sooner and support NSW's broader decarbonisation efforts.

Ausgrid is actively working to support the transition to EVs through a range of investments and trials. We have introduced EVs into our fleet and will deploy more in the coming years, with up to 900 vans, utes, cars and trucks to be electrified by 2029. To support the electrification of our fleet, we have deployed EV chargers at our depots and staff are also able to use public charging networks. We are also supporting large customers, like Transport for NSW, who have complex needs in the electrification of their fleets.

Ausgrid is also working to enable charging infrastructure through a range of models. We are leasing access to our power poles and kiosks to third parties, though this model faces high costs for both operators and Ausgrid and is progressing slowly. Under the NSW Kerbside Charging Grants program, 226 chargers will be installed on our power poles by third party charge point operators by June 2025. We now have 170 kerbside

chargers on Ausgrid assets, and 31 on kiosks to date. However, we are prevented from scaling up the roll-out of these chargers by regulatory arrangements, in particular by ringfencing restrictions as discussed further below.

EV charging infrastructure (EVCI) faces a 'chicken and egg' problem

As is often the case with market transformation and the early stages of a technology adoption curve, electric vehicle charging infrastructure (EVCI) faces a 'chicken and egg' problem. Capital investment is needed to set up and maintain charging stations, but without a critical mass of EVs, business models for the competitive market are unsustainable and appetite to invest in infrastructure is limited. However, without more public chargers, consumers remain hesitant to switch to EVs, reinforcing a negative feedback loop. The result of this is that Australia is falling behind in providing EVCI – there are currently 68 EVs per public charge point in Australia, compared to a global average of 11.¹ Where private investment has been made, challenges with ongoing maintenance means chargers are often not operational when users need to charge, further undermining consumer confidence. While the global transition to EVs continues to accelerate, Australia is increasingly lagging in EV take up, with the limited availability of public charging a key factor.²

This is particularly problematic when considering the accessibility of charging options for those who are unable to install their own private EV chargers due to a lack of off-street parking, rental agreements or strata restrictions. Approximately 30% of customers³ in Ausgrid's network area have limited opportunities to charge their vehicles at home. NSW distribution network service providers (DNSPs) have the infrastructure and workforce to address this shortfall, short-circuit the chicken and egg challenge and accelerate the competitive market for charging services.

Distribution network led EVCI will deliver substantial benefits to NSW and its residents

The competitive market is not currently delivering the infrastructure needed to support EV take up. The NSW DNSPs are able to address this market failure in a way which maintains existing market structures and supports improved outcomes for consumers. Together with Endeavour Energy and Essential Energy, we could enable 22,500 kerbside AC EV chargers across our networks, dramatically increasing the availability of efficient and cost-effective charging options to residents right across NSW, including in regional and rural areas and to those who can't install private EV chargers like renters. Ausgrid is proposing to install 11,000 kerbside public AC EV chargers on our existing power poles in the next five years.

By installing chargers on our power poles, we can ensure the infrastructure installed on our network is deployed safely and efficiently and take advantage of the locational flexibility and accessibility offered by our widespread infrastructure already located in kerbside locations. Co-locating EVCI with existing assets results in cheaper installation costs for customers than if this rollout were led by other providers, while also preserving public amenity. We have already collaborated with commercial providers to develop pole-mounted chargers that drastically reduce the cost and disruption of installation and avoid excavation of streets and footpaths. As a business with durable long-term funding, we avoid the risk of chargers becoming abandoned or 'orphaned' assets. We can also better ensure their reliability as our field teams are setup and regulated to operate and maintain our infrastructure on a 24/7 basis and are geographically dispersed right across our network.

A large fleet of public kerbside chargers will enable the 30% of Ausgrid customers who can't install their own chargers to access affordable and local charging. Many of the residents who will benefit most from the savings EVs will bring, like renters, face additional barriers to taking up an EV due to a lack of accessible and low-cost charging, and as a result they may delay their purchase of an EV. However, a single charger on an Ausgrid pole could service the weekly charging needs of a small block of 10 apartments at a substantially lower cost than retrofitting an existing apartment building and be deployed much quicker as it would avoid the need for a potentially lengthy strata approval process.

¹ International Energy Agency, Global EV Outlook 2024

² ENA, [Street Smart: Scaling Up Kerbside EV Charging in Australia](#), 2025, p. 3

³ <https://www.nsw.gov.au/media-releases/ev-kerbside-charging-grants-to-reduce-charging-worries>

Ausgrid is proposing to install and maintain AC chargers, capable of providing up to 7kW. A 7kW charger can fully charge an EV overnight, or top-up an EV's daily use in a few hours, depending on the car. This is especially useful for overnight charging in locations where off-street parking is scarce, typical of a large proportion of Ausgrid's network which covers a range of urban and metro areas. By installing widespread kerbside EV chargers, we would also be able to avoid the need for dedicated EV charging parking spaces, which has been one of the major drivers of community objection to public EV charging to date.

There are currently no Australian operators providing this type of charging service, with the majority of public charging provider only delivering higher power 22kW chargers that target destination or convenience charging. There is significant appetite for EV charging close to home where drivers live. This is consistent with the use cases for public chargers seen in locations where EVs have higher uptake, such as London, where the majority of EV public charging is done overnight.⁴ More kerbside AC chargers, 'closer to home' can address this market failure and importantly offer similar pricing to home charging. We consider that the installation of these slower 7kW AC chargers are able to co-exist with fast charging (i.e. 22kW and above) and destination charging as they serve different needs. However, we note in regional and rural areas there may be a greater need for 22kW chargers as drivers travel longer distances and may require faster charging. Ultimately more EV chargers will support greater EV take up by providing confidence for EV drivers that they are able to charge when and where they need to, building the competitive market for all types of EV charging.

Ausgrid's proposed EVCI model will foster competition but ringfencing restrictions prevent us from delivering this infrastructure

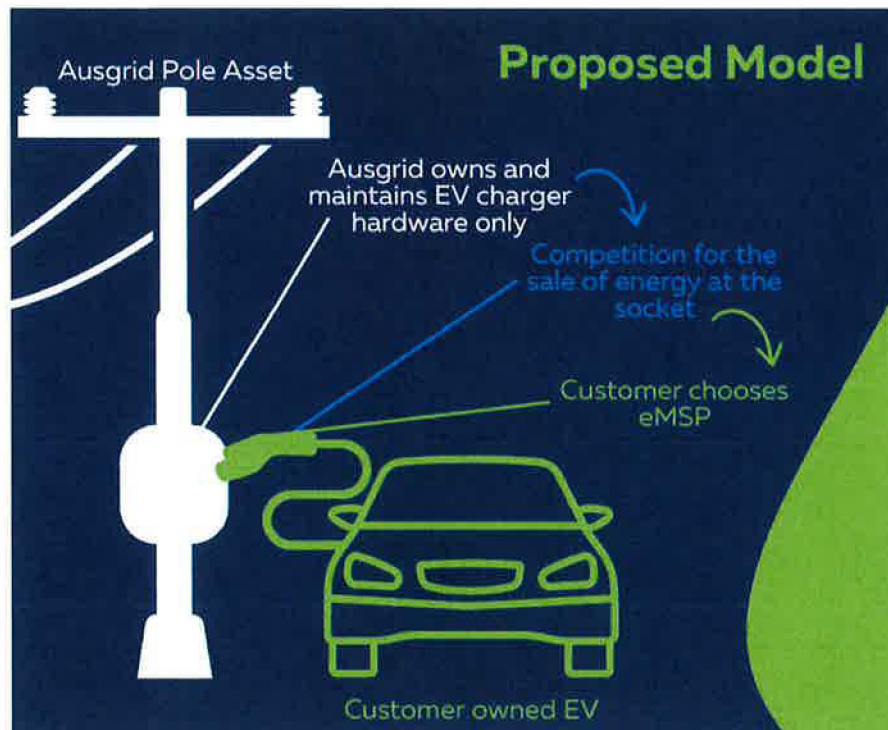
Ringfencing regulations under the National Energy Rules, which are enforced through a ring-fencing guideline by the Australian Energy Regulator (AER) currently prevent Ausgrid from owning and installing EV chargers on our network. To progress investments of this nature, we must either seek regulatory waivers from the AER, and/or rule changes from the Australian Energy Market Commission, or legislative solutions via the NSW Government. While ringfencing serves an important purpose in protecting competition, in many cases, such as EVCI, it is preventing DNSPs from addressing clear market failures where the competitive market is not responding, and it is disadvantaging NSW consumers. Further, the model we are proposing will foster competition in EV charging.

Under our proposal to install 11,000 chargers, Ausgrid would own and maintain the hardware and create a competitive landscape by enabling both retailers and e-mobility service providers (eMSPs) to compete to sell charge to customers through Ausgrid's installed infrastructure. Existing market structures would remain, with Ausgrid remaining a regulated infrastructure provider and private companies competing in the sale of retail charging offerings to customers. Figure 1 below outlines how the proposed model would work.

Charging hardware would be sourced through a competitive process, ensuring competitive pricing and innovation, and Ausgrid's chargers would be 'neutral hosts' allowing any EV charging service provider to use our chargers at no cost. Competition between charging service providers will drive competitive pricing across chargers deployed at scale, benefiting consumers and encouraging broader EV adoption. Under this model, the customer experience would also be improved as customers would be able to access any DNSP-owned charger using their retailer or EV charging company of choice, avoiding the need to sign-up to multiple platforms or charging apps. By increasing the pool of EVs, other public charging investments may become commercially viable for private operators. However, we still expect that the focus of those commercial operators is likely to be destination and fast-charging services.

Figure 1: Proposed kerbside EVCI model

⁴ Britainthinks, [Electric Vehicle Charging Research. Survey with electric vehicle drivers. Research report, April 2022, pp. 8-9](#)



To facilitate distribution network-led EVCI, we recommend the NSW Government amends the *Electricity Supply Act 1995 (NSW)* to enable installation of kerbside EV chargers as a Standard Control Service of NSW DNSPs. This change would allow us to use existing infrastructure, such as power poles, to deploy EV chargers efficiently across NSW and lead the nation in using existing infrastructure for public benefit. This legislative change would provide a derogation to the National Electricity Law and Rules, enabling the national restrictions we face in installing and maintaining EVCI to be alleviated. We note the NSW Government's Consumer Energy Strategy, released in September 2024, included a commitment to "investigate opportunities to facilitate the delivery of kerbside EV charging infrastructure by Distribution Network Service Providers where appropriate"⁵ and we look forward to continuing to work closely with the NSW Government as it considers our proposal further.

Funding and location of electric vehicle chargers

We understand the NSW Government is currently developing a refreshed NSW EV Strategy, which may include additional funding for EVCI. We are open to considering different funding models to support the roll-out of kerbside EV chargers under our proposal, which could include Government funding, cost recovery from EV users, cost recovery from electricity customers, or a mix of these models. Ausgrid would be happy to discuss these options in more detail with the Committee. Regardless of the funding model, the benefits to customers far outweigh the costs under our proposed approach. Benefits would accrue to all energy customers through the increased utilisation of our network. For instance, an increase to 600,000 EVs in our network area by 2030 (currently approximately 50,000), as estimated by the Australian Energy Market Operator, would enable a bill reduction of approximately \$18 per customer from 2030 through higher network utilisation.

⁵ [NSW Consumer Energy Strategy](#), September 2024, action 31.

Ausgrid proposes to work with the NSW Government, local councils, and local communities on the locations of kerbside charging infrastructure throughout our network. We plan to roll-out chargers to match EV uptake by choosing a suitable target ratio and remaining responsive emerging trends. Working in partnership will ensure priority locations are serviced, and chargers go where they are needed, not just where they are commercially viable.

An invitation to visit a kerbside EV charger in Ausgrid's network

Ausgrid would welcome the opportunity to discuss our submission further and provide more information to the aid the Committee in progressing their Inquiry. We would also like to invite the Committee to a site visit to one of the existing third-party kerbside EV chargers installed on our network and discuss our kerbside charging proposal further. If you would like to discuss our submission further or arrange a site visit, please contact Nick Black, Head of EVC and Infrastructure Development, at [REDACTED]

Regards,

[REDACTED]

Tim Jarratt
Group Executive, Market Development & Strategy