

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

Organisation: Essential Energy

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Ms Lynda Voltz MP
Legislative Assembly Committee on Transport and
Infrastructure
NSW Parliament
6 Macquarie St
SYDNEY NSW 2000

Dear Ms Voltz

SUBMISSION TO THE INQUIRY INTO INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE VEHICLES IN NSW

Essential Energy manages over 183,000 km of powerlines, covering 95 per cent of New South Wales, as well as parts of southern Queensland. The network serves more than 900,000 customers across regional, rural and remote communities, including homes, hospitals, schools, businesses, and community services.

Essential Energy is committed to playing an active role in supporting the transition to electric vehicles (EVs) across NSW. There is capacity across Essential Energy's network to dramatically increase the availability of electric vehicle charging infrastructure, particularly in regional, rural and remote areas. This could encourage more people to buy and use electric vehicles and deliver far-reaching benefits across NSW.

Essential Energy welcomes the opportunity to contribute to this Inquiry and to work with the Committee to identify the barriers to progressing the uptake of electric vehicles, the role the NSW Government can play in accelerating positive change, and the rewards this could bring.

There are clear benefits to accelerating the delivery of charging infrastructure outside of cities

Convenient and reliable charging infrastructure across regional, rural and remote areas is a major enabler of electric vehicle uptake. This is because one of the major hurdles to buying an electric vehicle – for people inside and outside of cities – is range anxiety or the concern that long-distance travel may not be possible due to limited access to convenient charging infrastructure. This challenge is particularly pronounced across Essential Energy's network in regional and rural NSW, where distances between towns and cities are substantial.

Expanding the availability of charging infrastructure will enable low and zero-emissions vehicles to travel further and more frequently across more of the state. This can have broad-ranging benefits, including reducing carbon emissions, improving air quality, and enabling electric vehicle drivers to visit more NSW towns across the state, delivering a boost in economic activity across the regions.

Another major benefit of improving charging infrastructure is the resulting reduction in household costs. Electric vehicles have demonstrably lower running and maintenance costs, so giving motorists the

confidence to make the switch from internal combustion vehicles opens a new pathway to reduce their living costs. Electric vehicle drivers that are able to charge their vehicles at home are already realising the running cost advantage, however there are many potential electric vehicle users who do not have the capability to charge a car from their home. Providing access to convenient, lower cost kerbside charging would help to make electric vehicles an easier, more affordable and equitable choice for motorists. In terms of energy costs, putting more chargers across electricity networks means making better use of existing poles and wires, placing downward pressure on network costs to all customers through their energy bills.

The density of regional charging infrastructure remains an impediment to electric vehicle uptake

Despite the benefits of building out the charging network outside of cities, the rollout of infrastructure remains slow. The competitive market has not initiated a large rollout of kerbside EV charging, or responded to financial grant programs to incentivise the installation of charging infrastructure in the regions because the economics do not currently stack up. Where private investment has been initiated, the lack of ongoing maintenance means that in some cases EV chargers are not operational when users attempt to charge. The tyranny of distance in the regions make ongoing maintenance uneconomic, resulting in low rates of EV charging 'up-time'. All of which compounds range anxiety for users outside of metropolitan NSW where, despite good planning around charging, may need to travel hours out of their way to locate a functional EV charging infrastructure.

Essential Energy, with its 96 regional depots, supporting around 3,600 staff has the presence and skill sets required to roll out and maintain EV kerbside charging, but as yet has only installed EV charging for some of its local fleet vehicles. This is a result of the current regulations, which constrain what Essential Energy and other network service providers are allowed to do to protect competition. Under ring-fencing rules¹, it is up to charge point operators to make decisions about where and what type of charger to install, with Essential Energy carrying the responsibility to inform these companies how they can connect to the network.

Working within these rules, Essential Energy has engaged extensively with communities, councils, charging providers, fleet managers, businesses and government departments to promote the benefits of new charging infrastructure, identify suitable site locations and collaborate on parking designations to accelerate growth in the availability of charging stations through the network. Essential Energy has developed an interactive tool to help charging providers to find cost-effective charging locations, including data on the estimated available capacity at each network distribution substation. . This service has been in place since FY2022-23, and has been celebrated as industry-leading, saving considerable time and effort for charging providers looking to deliver new infrastructure.

The unique characteristics of Essential Energy's distribution network require a tailored approach to EV infrastructure delivery

The scale, remoteness, and low customer density of Essential Energy's network distinguishes it from NSW metropolitan networks. Across Essential Energy's network, spanning 95 per cent of NSW, less than ten pole-mounted charging stations are installed by charging providers. Only three charge point operators have sought a Facilities Access Agreement for a pole-mounted charger on Essential Energy's network. This is despite CSIRO's forecast that 35,000 kerbside chargers are required in NSW by 2030, and Essential

¹ Australian Energy Regulator, Ring-fencing Guideline (Electricity distribution) (Version 3), November 2022

Energy having identified approximately 80,000 physically suitable timber poles in the network that are in proximity to roadways. Additionally, commercial providers can often experience challenges in securing appropriately qualified personnel to respond to faults, maintenance or emergency works in regional areas—factors that contribute to longer service downtimes.

These realities mean that solely relying on a market-led approach to the delivery of charging infrastructure is unlikely to result in timely outcomes for regional NSW. Commercial providers face higher costs, reduced utilisation, and lower returns on investment compared to urban centres. Without a proactive role from Essential Energy, the persistent under-delivery of charging infrastructure risks undermining wider objectives to accelerate EV adoption and entrenching an urban-regional divide. Considering the lower costs of owning and operating an electric vehicle, this could become an additional source of inequity between metropolitan and regional communities.

Supporting the rollout of regional charging infrastructure by Essential Energy is a no-regrets decision for the NSW Government to accelerate electric vehicle uptake and create a sustainable commercial market

The competitive market is not effectively facilitating electric vehicle uptake in regional, rural and remote areas of NSW. This is, in part, a chicken and egg problem. Commercial charge point operators are looking for locations that provide the highest commercial opportunity, but these are rarely in areas with low levels of electric vehicle ownership. Approximately 60 per cent of households would consider buying an electric vehicle,² but this may not be practical in large parts of the state where there are few charging stations and vast distances between towns. This is compounded by higher costs of maintaining infrastructure in regional areas, with reduced economies of scale for charge point operators.

As a regulated network, there are few levers Essential Energy can use to access funding for charging infrastructure. Electric vehicle charging is not an approved distribution service, and there is no mechanism to fund network upgrades for electric vehicle connections, except from individual parties seeking to connect to the network. Essential Energy has sought grants from governments to overcome this limitation, and ring-fencing waivers from the Australian Energy Regulator (AER) can provide regulatory clarity on a case-by-case basis. However, these time intensive workarounds to the existing regulations provide only short term and localised fixes, and do not address the underlying reasons for the delayed rollout of charging infrastructure.

The NSW Government has a role in encouraging a balanced deployment strategy for kerbside and fast-charging solutions. This would contribute to ensuring equitable access and pricing of charging solutions across all resident types, whether they can garage their vehicle or not. With some regulatory changes and direction from the NSW Government, Essential Energy can establish a network of charging infrastructure that private operators use to sell electricity to EV users.

Under this approach, all infrastructure, including the charger and meter would be installed, owned and maintained – but not operated – by Essential Energy. Essential Energy would act in its role as the network service provider, dramatically simplifying and derisking the process of establishing and operating services for charge point operators. Essential Energy estimates up to 6,500 chargers could be installed by 2030

² QBE 2024, *How are Australians feeling about EVs?*

through this approach, which would provide significant revenue opportunity for existing charge point operators that would transact energy through this hardware. Charging services for consumers would still be provided by charge point operators, who would access infrastructure provided by Essential Energy. Electric vehicle owners would have no retail relationship with Essential Energy and would be able to select a charge point operator of their choice at all Essential Energy deployed chargers. Prices would be set by the charge point operator, and payments for consumed electricity would be made directly to them.

This approach represents a win-win for customers and charge point operators. Chargers could be installed sooner, at large volume and at lower cost. By providing charge point operators with access to common hardware upfront, this would eliminate first mover disadvantage in the delivery of charging infrastructure regional areas. This approach can break the impasse between infrastructure supply and latent demand and enhance competition and choice at the point of service delivery to customers. The focus of this approach is on kerbside charging, as opposed to fast-charging services, where there is greater commercial appetite and capacity for charge point operators to invest in the infrastructure they need to offer services to motorists. However, there is nothing to prevent charge point operators from taking a more active role in infrastructure delivery across all types of chargers. Enabling networks to take the lead on infrastructure installation can bring forward the point at which regional charging infrastructure becomes a more readily investable, commercially-viable asset class.

Regulatory barriers need to be eased in order to facilitate this, an AER waiver from ring-fencing obligations that permits the delivery of EV charging infrastructure as a distribution service in rural and regional areas should be prioritised. This is more likely to be obtainable with the NSW Government's support for Essential Energy providing these services in rural and regional NSW, recognising that electric vehicle charging infrastructure is likely to form an integral part of the energy system over the coming years and decades. This waiver should at least cover the period up to 2030, when Essential Energy's next regulatory period will commence, and funding can be sought to further progress the rollout if still required.

Over the longer term, a more permanent solution could be enacted through a change to the *Electricity Supply Act 1995 (NSW)* or through a change to the conditions of Essential Energy's Distributor's Licence. This would provide greater clarity for Essential Energy in discussions with regulators – the AER and IPART – about the rollout of additional charging infrastructure, and to work with charge point operators, councils, businesses and communities to ensure all stakeholders are aligned with the long-term interests of electric vehicle owners and electricity customers.

Essential Energy welcomes the opportunity to provide additional information or evidence at the Committee's request. Please contact Hilary Priest, via [REDACTED] or [REDACTED].

Yours Sincerely

[REDACTED]

Annie Pearson
Chief Customer and Corporate Affairs Officer