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Ms Stephanie Jolly
Executive General Manager, Consumer, Policy and Markets Division
Australian Energy Regulator

Submitted electronically via AERringfencing@aer.gov.au

Dear Ms Jolly,

SUBMISSION IN RESPONSE TO CONSULTATION PAPER ON CPU'S RING-FENCING WAIVER FOR ELECTRIC VEHICLE CHARGING INFRASTRUCTURE

Essential Energy welcomes the opportunity to comment on CitiPower, Powercor and United Energy's (collectively CPU) ring-fencing waiver application for an electric vehicle charging infrastructure (EVCI) trial.

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.

Getting EVCI right is essential to support Electric Vehicle (EV) uptake and meet government targets

CPU's ring-fencing waiver application comes at a critical moment in the transition to electric vehicles, and of the energy transition more broadly. Approximately 60 per cent of Australian households would consider buying an electric vehicle,[1] but concerns such as range anxiety, exacerbated by a lack of reliable charging infrastructure across much of the road network, are suppressing uptake. This challenge is particularly pronounced in regional, remote and rural areas, where distances between towns and cities are substantial. Convenient, affordable and reliable charging infrastructure can help overcome these concerns and so is a major enabler of electric vehicle uptake.

Governments across Australia have committed to ambitious targets for electric vehicle uptake and decarbonisation, and reducing transport emissions remains a major policy challenge. Despite efforts by governments, energy networks and other industry participants to accelerate delivery of EVCI by the competitive market, including through taxpayer-funded subsidies and other incentives, this rollout is not occurring fast enough to encourage electric vehicle uptake at the rates required to meet these

[1] QBE 2024, *How are Australians feeling about EVs?*

government targets. Without action to ensure sufficiently accessible, affordable and reliable EVCI is in place to give households confidence to make the switch to electric vehicles, these targets will continue to be challenging to meet.

Different forms of EVCI are being delivered at different rates, with each having distinct technical, commercial and economic characteristics. Consequently, the current and potential future role for Distribution Network Service Providers (DNSPs) differs between each form of EVCI:

- *Fast chargers:* These use Direct Current (DC), with power levels ranging from 25kW to 350kW and above, enabling compatible EVs to be suitably charged in as little as 10 to 15 minutes. Fast chargers are typically located at strategic points of the road network (for example, near major highways). With higher levels of demand, and users prepared to pay higher costs per kWh, Charge Point Operators (CPOs) are actively and best placed to invest in, operate and maintain fast chargers. In remote areas where there is a clear market failure in the delivery of fast chargers, there may be a role for more direct intervention by or on behalf of governments to deliver this infrastructure.
- *Destination chargers:* These can be found at many shopping centres, hotels, caravan parks and tourist attractions. Located on private land, businesses have a commercial incentive to engage with CPOs to deliver and maintain these assets. Many businesses offer these charging facilities at subsidised rates or even at no cost to their customers. These are designed to provide a top-up style of charge to an EV during a short stop or a full charge when staying overnight.
- *Kerbside or pole-mounted chargers:* These are attached to an existing kerbside utility pole, providing publicly accessible charging for EVs with similar usage scenarios as destination chargers although with a much lower cost of deployment due to the suitability of the infrastructure and located alongside existing public road parking locations. Kerbside chargers are typically powered by Alternating Current (AC), with power ranging from 7kW to 22kW. Kerbside chargers are lower cost to install and can be more readily rolled out at scale across the road network – including in regional areas, where existing contestable providers have found that public charging is largely uncommercial.

Of these forms of EVCI, pole-mounted charging has the strongest credentials as a public good and is least likely to reach the threshold of commercial viability across much of the road network. There is a strong case for DNSPs to play an active role in the delivery, operation and maintenance of pole-mounted, kerbside charging infrastructure in the near term to facilitate EV adoption, without crowding out private investment in other forms of charging infrastructure. DNSPs are well-placed to leverage their existing infrastructure and geographically dispersed, skilled workforce to roll out and maintain public chargers efficiently and at scale across large areas – as they already do with streetlights, for instance. This approach could provide greater access and dramatically reduces costs and time for CPOs to provide their services through this hardware, reducing barriers to market entry and promoting competition at the point of service delivery. DNSPs' role is limited to delivery and maintenance of the infrastructure.

On this basis, there is a need for greater clarity about how the rollout of kerbside EVCI can be accelerated, and whether it is necessary to amend or remove some regulatory barriers to enable this outcome. CPU's proposed trial could contribute to broader understanding among DNSPs, CPOs, retailers, and regulators of how to most effectively and efficiently accelerate EVCI rollout and support transport decarbonisation.

CPU's application provides an opportunity to explore DNSPs' potential role in delivering kerbside EVCI, and unlock its benefits

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

Another major benefit of improving charging infrastructure is the resulting reduction in household costs even for electricity customers that do not own an EV. Electric vehicles have demonstrably lower running and maintenance costs, giving motorists the confidence to make the switch from internal combustion engine (ICE) vehicles which opens a new pathway to reduce their living costs. EV drivers who can charge their vehicles at home are already realising the running cost advantage. However, there are many potential EV users who do not have the capability to charge a car from their home. Providing access to convenient, lower cost pole-mounted, kerbside charging in neighbourhoods and community centres would help to make EVs an easier, more affordable and equitable choice for motorists. Further, putting more chargers across electricity networks means making better use of network capacity and existing poles and wires. Moreover, under a revenue-cap form of regulation, once EV adoption has reached a critical mass, the electrification of transport will place downward pressure on electricity network costs for all customers through their energy bills.

If CPU's trial is approved, the knowledge gained and shared would help to provide a clearer path to unlocking these benefits. The learnings could be applied by DNSPs across several states that have signalled their interest in playing a greater role in this infrastructure rollout, with the potential to deliver more chargers more efficiently, cheaper and sooner. These outcomes align with the National Electricity Objective (NEO), balancing the interests of current and future EV users and, by unlocking broader economic, social and environmental benefits, advance the interests of all energy consumers.

Risks to competition are minimal, particularly in regional areas, and must be balanced against other objectives

Despite the benefits of building out the EV charging network outside of cities, the rollout of infrastructure remains slow. To date, the competitive market has not initiated a large rollout of kerbside EVCI, or responded in-scale to financial grant programs to incentivise the installation of charging infrastructure in the regions because of a lack of economic evidence to do so. 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.[2] The tyranny of distance in regional areas makes ongoing maintenance of infrastructure uneconomic, resulting in low rates of EV charging 'up-time'. These factors compound range anxiety for EV motorists outside of metropolitan NSW who, despite good planning around charging, may need to travel hours out of their way to locate functional EV charging infrastructure.

In Essential Energy's experience, EVCI in regional areas is characterised by a broad market failure. Essential Energy has at the time of writing fewer than 10 pole mounted EV chargers deployed by

[2] For example, this article suggests enforcement intervention to address the estimated 13 per cent of EV chargers that are "currently unavailable": EV lobby demands financial penalties as broken public chargers fail drivers

contestable providers on its network footprint, mainly clustered on the NSW North Coast. Only three CPOs have sought a Facilities Access Agreement for a pole mounted charger on Essential Energy's network. This is despite CSIRO's estimate that 2.8 million chargers are required in Australia by 2030.[3] 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.

To help facilitate CPOs ability to connect charging infrastructure, Essential Energy has:

- Identified approximately 80,000 physically suitable timber poles in its distribution network that are in close proximity to roadways
- Developed an Estimated Network Capacity Map[4] to assist CPOs identify locations with sufficient capacity and demand to support new kerbside EVCI. This map has been highly recognised by the Electric Vehicle Council and member organisations
- Resourced its connections team with specialist EV charging infrastructure personnel to support CPOs and other parties with their connections.

However, with no more than ten kerbside chargers across Essential Energy's footprint of more than 750,000 square kilometres, and fewer than one charger for every 90,000 customers across, it is clear that:

- The competitive market has not delivered kerbside charging to support demand from existing EV motorists and interested users, despite incentives and co-investment from governments and support from Essential Energy
- There is no evidence that the competitive market will deliver EVCI at the scale necessary to overcome range anxiety for current and prospective EV owners, or to meet the future demand of a growing number of EV motorists, within Essential Energy's network footprint, in the near to medium term
- The current approach of relying on the competitive market will be insufficient to deliver the EVCI necessary to enable EV uptake in line with government targets across several jurisdictions. Any commercially focused deployment of EVCI will inherently favour areas with existing EV user representation, rather than regional areas where the lack of EVCI is a barrier to EV adoption.

This last outcome – the likely failure of EVCI to enable achievement of government targets – contravenes section (c) of the NEO:

> *to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:*
>
> *a. price, quality, safety, reliability and security of supply of electricity; and*

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[3] CSIRO, 2022, Changing gears: your guide to low emissions transport

[4] Essential Energy has developed an interactive tool via its website to help CPOs 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.

b. *the reliability, safety and security of the national electricity system; and*

c. *the achievement of targets set by a participating jurisdiction—*

   i. *for reducing Australia's greenhouse gas emissions; or*

   ii. *that are likely to contribute to reducing Australia's greenhouse gas emissions.*

Essential Energy acknowledges that – at face value – enabling DNSPs as regulated monopolies to deliver infrastructure within the contestable market presents risks to competition, which the ring-fencing framework is designed to mitigate. However, in relation to EVCI, it is the monopoly characteristics of DNSPs that enable infrastructure and ongoing services to be provided more efficiently, more effectively and at lower cost to energy consumers and EV users than the status quo. Where DNSP-led EVCI is provided efficiently and with competition at the customer interface, it complements other forms of EV charging such as home and fast charging, and consumer choice improves. It is therefore in the long-term interests of consumers for DNSPs to have a role in the rollout of EVCI.

EVCI faces a 'chicken and egg' problem, with EV uptake limited by a lack of accessible chargers and little incentive for CPOs to invest ahead of the EV adoption curve, or to stimulate that adoption. Kerbside charging lags other forms of EVCI due its weak relative commerciality in comparison to other forms of charging. However, by enabling DNSPs to roll out kerbside charging sooner, this will accelerate adoption of EVs and enable greater competition among charging providers at the point of service delivery. This will also have the effect of bringing forward the point at which kerbside charging becomes commercially viable for CPOs across more of the road network. In this way CPOs will benefit from the increasing demand from a growing EV fleet.

Given the lack of commercial attractiveness of kerbside charging, there is little risk of crowding out private investment until the fleet of EVs reaches a critical mass. If and when EV uptake reaches critical mass, and private CPOs have sufficient commercial incentive to invest in their own public charging infrastructure, DNSPs can progressively step back or relocate services to enable greater competition. This could be given effect through service classification during the Framework and Approach process, conducted in the lead-up to the five-year regulatory review, which determines the services that DNSPs are allowed to provide. The AER can determine during this time whether distribution services should be directly regulated or subject to full competition. The AER most recently set this precedent during its implementation of the "Power of Choice" rule change, where DNSPs were required to no longer provide Types 1-4 metering and stopped providing these services over time.

In addition to this process, the AER also has oversight of DNSP investment business cases and can scrutinise the efficiency of DNSPs' planned investment in pole mounted charging through five-yearly revenue determinations. By using the existing resources and expertise of DNSPs to build and maintain EVCI, thereby stimulating EV adoption, the total costs of these efforts will be lower, EV adoption will be accelerated, and the period during which stimulatory expenditure is required will be shorter. Additionally, by making better use of existing DNSP assets through increased utilisation, this will offset costs for energy consumers and place downward pressure on prices for all electricity customers, whether they plan to drive an EV or not.

Essential Energy is not best-placed to comment on whether the same degree of market failure experienced across our footprint applies to the locations selected by CPU for its proposed trial. However, to the extent that competition risks exist or could exist, Essential Energy suggests that the AER should

work to mitigate these within a broader approach of enabling a solution that is likely to yield better outcomes for energy consumers and EV users. Trials such as the one proposed by CPU will enable DNSPs to test and to prove that a DNSP-led rollout of EVCI can provide improved consumer-focussed outcomes. If DNSPs can deliver EVCI faster, more efficiently, in more locations, and at lower cost than the competitive market, this presents a strong case for the regulatory framework to be amended to allow DNSPs to do so whilst upholding the NEO. Safeguards can be put in place to enable contestability once a viable market has been established, user demand has grown, and factors such as first mover disadvantage have been overcome.

Competition at the point of service delivery improves outcomes for EV drivers

Essential Energy notes CPU's evolving approach to its proposed operating model for this trial, including through information presented at stakeholder workshops and through a supplementary submission in May 2025.

Essential Energy generally supports the use of a delivery model that provides access to multiple charge point operators at each charging station. This approach is likely to encourage more market participants, now and in the future as demand grows from an expanding EV fleet. For charge point operators, this approach reduces upfront and ongoing costs, eliminating first mover disadvantage – particularly in regional areas where the costs to install, operate and maintain charging hardware are higher. Providing competition at the service delivery interface is also arguably better for motorists, who will have greater choice of charge point operators, with the potential for retail competition at the point of sale. Essential Energy also notes that there is nothing in CPU's proposed approach that would prevent charge point operators from taking a more active role in infrastructure delivery across all types of chargers, even in the same locations and regions in which the proposed trial is to be conducted.

As the AER considers CPU's proposed approach to the operating model for this trial, the most useful lens to apply is that of the customer. Aside from stimulating the faster rollout of reliable EVCI and promoting competition at the point of sale, customers will also benefit by having a choice of charge point operators. This will make it easier to compare prices, and promote competition through price transparency, while also reducing the administrative burden for customers.

Essential Energy welcomes further discussion on the regulatory barriers to the rollout of EVCI

Although CPU's proposal to deliver kerbside EVCI is relatively novel at this stage, it is unlikely to be the last. More DNSPs, including Essential Energy, are likely to propose solutions that seek to deliver similar outcomes to this application – but take a different form or scale – and thus confront similar but separate regulatory barriers.

For the reasons outlined above, Essential Energy is broadly supportive of the CPU waiver application and believes that, if approved, it will lead to an increased understanding of the costs, benefits, risks and practicalities of the rollout of EVCI by DNSPs and other market participants, ultimately benefiting both EV drivers and general electricity customers.

For this reason, Essential Energy welcomes the AER's comment in the consultation paper that it intends to 'design a more a fit-for-purpose regulatory framework' for EVCI. Essential Energy will work with the AER and industry stakeholders to help shape this in the context of this ring-fencing waiver application, the AER's ring-fencing guideline consultation, and more broadly. Essential Energy would welcome the review

of the ring-fencing guideline being prioritised to avoid delay in the delivery of EVCI, in line with government commitments.

Essential Energy welcomes the opportunity to provide additional information or evidence at the AER's request with respect to this submission. Please feel free to contact me on, [redacted]

Yours sincerely

[redacted]

Hilary Priest
Head of Regulatory Affairs