Submission to the AER's Consultation on CPU's ring-fencing waiver application for providing kerbside EV charging infrastructure

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Executive Summary

This submission is structured as follows:

1. Introduction
2. The successful rollout of kerbside chargers in NSW
3. Why the ring-fencing rules must be maintained
4. Other issues
5. Answers to the AER's 11 consultation paper questions

The AER should not grant Citpower, Powercor and United Energy (hereafter referred to as CPU) a waiver in order for CPU to conduct its proposed trial of kerbside EV charging infrastructure.

The reasons for the AER to refuse CPU's waiver application include:

- CPU should be able to achieve all of its stated trial objectives by partnering with a third-party charge point operator (CPO). There appears to be no need for CPU to legally own the charging infrastructure in order for it to achieve its stated trial objectives, hence there is no need for a ring-fencing waiver;
- There has been no "market failure" in the provision of kerbside charging infrastructure in NSW. CPOs in NSW have been able to roll out 432 kerbside charging ports at 343 sites as at the end May 2025. Of these, 286 sites / 375 ports have required access to DNSP pole assets. If there has been "market failure" in Victoria for kerbside charging, it is not due to the presence of the ring-fencing rules;
- If Distribution Network Service Providers (DNSPs) were permitted to own kerbside charging infrastructure on their own pole assets, it creates a fundamental conflict of interest which the AER should not allow to materialise. A DNSP pole can only ever host a single kerbside charger. Hence even for a trial, a DNSP could be one of a number of parties seeking access to a given pole, but the DNSP is also the decision-maker as to who gains access to that pole;
- Infrastructure competition is critical in order to spur investment and innovation. Any weakening of the ring-fencing rules, even for a trial, could have a chilling effect on third party CPO investment in kerbside charging, to the detriment of consumers; and
- The E-Mobility Service Provider (ESMP) model proposed in the application by CPU does not lead to true competition. For a number of reasons outlined in this submission, an ESMP model with a single infrastructure provider will lead to a monoculture service model, where the various components of the customer experience have to be homogenised to the lowest common denominator in order for it to function. I do not believe that this outcome would be in the interests of consumers, nor would the model be attractive to third party CPOs.

I am lodging this submission as an individual, providing a customer view as a long-term EV driver and advocate for kerbside charging.

About the Author

Dr. Brendan Jones is a professional electrical engineer with a Bachelors Degree from Newcastle University and PhD degree from Macquarie University. His household acquired its first battery EV in 2014 and has been EV-only since 2019.

Dr. Jones lobbied the NSW Government to add kerbside charging to its initial EV Strategy released in June 2021, which initially did not consider kerbside charging at all. In June 2022, the NSW Government announced that $10M had been allocated to co-fund 500 kerbside charge points to provide on-street charging in residential streets where private off-street parking is limited.

Dr. Jones does not have any affiliations with any DNSPs or any of the companies rolling out kerbside charging.

Dr. Jones lives in Sydney.

1. Introduction

The number of battery electric vehicles (BEVs) registered in Australia has increased rapidly every year and it is estimated that there approximately 260,000 BEVs in the country as at end March 2025[1]. This is a ten-fold increase in approximately 4 years.

One of the many advantages of BEVs is the ability to charge at home. But BEV owners who live in properties without off-street parking (or in apartments without on-site charging) need to rely on public charging. This is where kerbside charging comes in, as it replicates as closely as possible the convenience of charging at home for those who do not have off-street parking.

Based on NSW Government data, 18.6% of dwellings in NSW do not have off-street parking[2] but these are overwhelmingly concentrated in the inner-city areas of Sydney (see Table 4 later in this submission). It's likely the situation would be similar in Melbourne, Victoria. Hence there will be an increasing need for kerbside charging to enable residents, particularly those in the higher-density areas of the capital cities, to consider making the transition to BEVs.

Kerbside charges, being 'slow' AC chargers (7-22 kW), are also much cheaper to deploy than fast DC chargers (50-350 kW), rarely trigger grid upgrades, and can be deployed at scale much more quickly and much closer to where people live than fast DC chargers.

2. The successful rollout of kerbside chargers in NSW

One of the arguments presented by Distribution Network Service Providers (DNSPs) seeking to enter the kerbside charging business is that there has been market failure in this space, and that the solution is for the AER to approve ring-fencing waivers in order to permit DNSPs to deploy kerbside EV charging infrastructure (which they term "KEVCI").

Data from NSW does not support this argument. If there is "market failure" in Victoria for kerbside charging, it is not due to the presence of the ring-fencing rules. NSW has had a very successful kerbside charger rollout, with multiple networks competing for customers, and as at 31 May has over 340 kerbside sites with over 430 charging ports rolled out and operating (see Table 1).

2.1 NSW Government kerbside charging grant programme

Kerbside charging was not a component of the NSW Government's initial Electric Vehicle Strategy released in June 2021, but was added to it with $10M in funding in June 2022[3]. The NSW Government subsequently conducted two rounds of grants for public kerbside charging:

- Round 1: Opened July 2023, applications closed November 2023, results announced May 2024 (671 charging ports at 391 sites)
- Round 2: Opened July 2024, closed December 2024, results not yet announced.

The rollout of kerbside charging in NSW under this grant programme has been a great success:

- It is relatively low cost (both in terms of infrastructure deployment costs and charging costs for users). Kerbside charging grants have averaged just **$6,162** per charging port, compared to $80,267 per charging port[4] for the first two rounds of the NSW "Drive Electric" DC Fast Charging grants – 13 times higher per port.

[1] Australian Automobile Association Electric Vehicle Index – https://www.aaa.asn.au/research-data/electric-vehicle/

[2] Data downloaded and calculated by the Author from NSW Government "EV Kerbside Charging Grants Map" – https://is-transport.maps.arcgis.com/apps/instant/countdown/index.html?appid=ad95999da54b4fc0b03e5debe4494cac&locale=en

[3] EV kerbside charging grants to reduce charging worries – https://www.nsw.gov.au/media-releases/ev-kerbside-charging-grants-to-reduce-charging-worries

[4] Author's own calculations from individual grant results announcements – https://www.energy.nsw.gov.au/nsw-plans-and-progress/government-strategies-and-frameworks/electric-vehicle-strategy

- It can be deployed extremely rapidly as it mostly attached to existing power poles, with power fed from above, hence requires no expensive or disruptive groundworks. Kerbside charging provider EVX report that a kerbside charger can be installed in about 3-4 hours;
- It rarely requires any grid upgrade since the incremental peak load (typically 11 kW) is comparable to a single new dwelling;
- The charging units are small and have minimal impact on the streetscape;
- Kerbside charging can be deployed very close to the end users; and
- Vehicles spend a long time parked near people's houses, so it doesn't matter if charging takes a few hours, or even occurs overnight.

2.2 No evidence of 'market failure' for kerbside charging in NSW

To date, most kerbside chargers[5] in NSW have been deployed within the Sydney metropolitan area, as that is where the areas with the highest density of housing and the least availability of off-street parking are located (also see section 5.6 and Table 4).

There are six different kerbside charging networks/operators in Sydney. Most deployment has been under the NSW kerbside charging grant programme, but not all. Table 1 lists those operators, the size of their deployments to date, and their operating model[6].

Kerbside Network	Operating Company (ESMP)	Size of Deployment Sites / Ports (Sydney Metro)	Type of solution	Funding
AGL/Plus-ES	AGL	153 / 153	DNSP Pole Mounted 22 kW AC	Co-funded from NSW kerbside
EVX	EVX	80 / 160	DNSP Pole Mounted 2 x 22 kW AC	Mostly co-funded from NSW kerbside
Intellihub	Exploren	48 / 48	DNSP Pole Mounted 22 kW AC	ARENA co-funding
EVSE	Exploren	5 / 14	Bollard next to DNSP pole Up to 4 x 22 kW AC	Co-funded from NSW kerbside
Local Government	Chargefox	10 / 10	Council owned smart poles 7kW AC	Self-funded
Jolt	Jolt	47 / 47	Repurposed street transformer boxes 25 to 50 kW DC	Self-funded
TOTAL		**343 / 432**		

Table 1 – Summary of kerbside charging network in Sydney. Sites in operation as at 31 May.

The first three networks listed in Table 1 (AGL, EVX and Intellihub) are directly relevant to the consideration of a ring-fencing waiver, as their chargers are mounted on DNSP poles. The EVSE solution requires a trunk power feed cable on the adjacent DNSP pole which prevents that pole being used by any other kerbside charging provider, and so is also relevant.

The two largest networks – AGL and EVX – were mostly co-funded under the NSW kerbside grant programme, although EVX first commenced its kerbside charger deployment in 2022 and funded its initial rollout of approximately 12 sites.

Figure 1 shows example sites from each network listed in Table 1.

[5] Strictly speaking, kerbside AC "chargers" are not chargers at all, because the "charger" is actually inside the electric vehicle. The kerbside charger is more correctly termed "Electric Vehicle Supply Equipment" or EVSEs, which supply electricity to the EV under the control of the EV. EVSE (the equipment) should not be confused with EVSE (the company) which has rolled out a small number of kerbside chargers in Sydney.

[6] Table compiled by Author's own research from multiple sources including individual CPO Apps, Plugshare, and EVSE correspondence.

EVX – St Johns Rd, Glebe
(dual 22 kW AC ports)

AGL[7] – Annandale St, Annandale
(single 22 kW AC port)

Intellihub – Christie St, St Leonards
(single 22 kW AC port)

EVSE – Fowler St, Camperdown
(four 22 kW AC ports across two bollards)
Note the black power trunking cable on the adjacent DNSP pole

Council Smart Pole – Glenayr Ave, Bondi Beach
(7 kW AC)

Jolt – Treacy St, Hurstville
(25 kW DC with CCS2 and CHAdeMO plugs)
Note only one plug can be used at any one time

Figure 1 – Example sites for each of the kerbside charging networks in Sydney. All except Jolt are "BYO Cable". Photos from Plugshare[8]

[7] Note the Ausgrid branding on the separate metering box is arguably in contravention of the AER's ring fencing guideline 4.2.3

[8] Plugshare is a mostly crowd-sourced database of public EV chargers of any kind – https://www.plugshare.com

2.3 The importance of infrastructure competition

It has long been held in competition law in Australia that in certain industries infrastructure competition is just as important, if not more important, than service competition.

For example, in 2022 the ACCC rejected a proposal from Telstra and TPG to effectively consolidate their mobile phone networks in regional areas under Telstra ownership, with TPG effectively becoming a "virtual" mobile network provider on Telstra's infrastructure in those areas. In the ACCC's view, this would have substantially lessened competition due to the reduction in **infrastructure competition** and cause harm to Optus, even though **service competition** is still being maintained, if not enhanced[9].

In a way, this is similar to CPU's proposal to seek a ring-fencing waiver. Although CPU maintain that their kerbside charging trial would not prevent third parties from doing so (in the example above, Optus could still build their own mobile phone towers in regional areas in competition to Telstra), and that the concept of "E-Mobility service providers" (ESMPs) using DNSP infrastructure would allegedly increase **service** competition (similar to TPG, or other "virtual mobile network operators", using Telstra infrastructure), the fact is that DNSP entry into the kerbside charging market, even in a trial, would likely lead to a reduction in **infrastructure** competition.

Infrastructure competition enables different technology solutions to compete in the marketplace for customers, with the better solutions (in terms of their technology, design, reliability, cost or user experience) increasing their market share over time at the expense of the poorer solutions. It fosters innovation and the drive to serve customers better.

If DNSPs were allowed to be kerbside charging infrastructure providers and operators, they would most likely choose a single hardware partner. That choice may or may not turn out to be a good one, but without adequate infrastructure competition, there is no meaningful way for customers to test that proposition, or go elsewhere if they find the solution unsatisfactory for any reason (also see Section 3.3 of this Submission).

The three main providers of kerbside charging to date in Sydney have different hardware solutions, and it is reasonable to ask whether we would have seen the home-grown innovative solution developed by EVX if it was not for infrastructure competition in this business.

The EVX solution is the only one that was expressly designed for mounting on cylindrical timber power poles. It is the only solution that is a single box (AGL and Intellihub have separate EVSE and metering boxes). It is the only solution that offers two charging ports per pole rather than one. It is the only solution that is not a modification of an existing foreign-sourced product.

The AGL EVSE is an off-the shelf product from Etrel in Slovenia (the Etrel INCH Pro[10]). A bespoke stainless-steel mount had to be developed to enable it to be affixed to timber power poles. A separate metal metering box above this unit is required.

The Intellihub EVSE is a modified product from Schneider Electric in France (the EVlink Pro AC[11]). Similar to the above, a bespoke enclosure had to be developed to enable it to be affixed to timber power poles, and this solution also has a metal metering box installed above.

Infrastructure competition also needs to be meaningful on a geographic basis. Figure 2 shows a map of the pole-mounted, kerbside charging networks in Sydney. It can be seen that no single network has a geographic monopoly, with their sites interspersed with the other networks. The result is healthy infrastructure competition, there is no hardware or service "monoculture" that could result if DNSPs were allowed to enter this market.

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[9] "ACCC decides not to grant authorisation for Telstra and TPG regional network deal" – https://www.accc.gov.au/media-release/accc-decides-not-to-grant-authorisation-for-telstra-and-tpg-regional-network-deal

[10] See https://etrel.com/inch-pro/

[11] See https://www.se.com/au/en/product/EVB3S22N4/charging-station-evlink-pro-ac-ac-metal-22kw-32a-3p+n-t2s-socketoutlet-rdcdd-6ma-mnx-aux

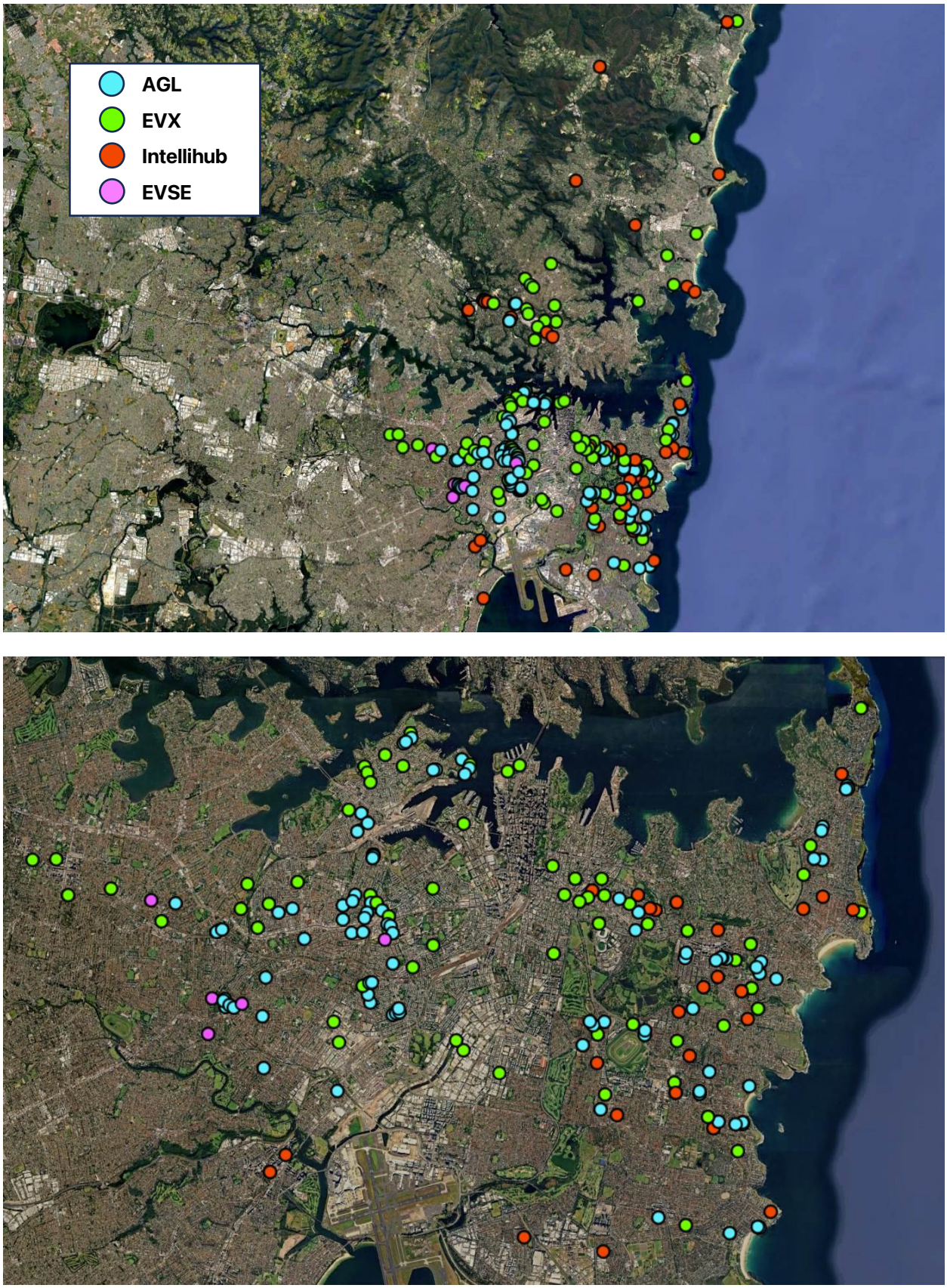

Figure 2 – Maps showing the locations of pole-mounted kerbside EV chargers in the metro area of Sydney, with a zoom-in to the high-density Inner West and Eastern suburbs. Areas have not been 'carved up' or dedicated to a single infrastructure provider, enhancing infrastructure competition. Image base: Google Earth. Geocoding of kerbside site locations by Author.

3. Why the ring-fencing rules must be maintained

Although CPU's application to the AER is for a time-limited waiver of the ring-fencing rules for the purposes of a trial, it is not unreasonable to view this as part of wider agitation by DNSPs to ultimately weaken the ring-fencing rules and enter the kerbside EV charging business full-time.

There are a number of concerns over this potential direction.

3.1 The fundamental concern is a DNSP conflict of interest

If a DNSP obtained a ring-fencing waiver and was permitted to install its own kerbside charging infrastructure on its own pole assets, it creates a direct conflict of interest.

Let's assume a DNSP set up a kerbside charging division called "KerbCo" which is 100% owned by or internal to the DNSP. Then consider the scenario where KerbCo and one or more third party kerbside charging providers applied to the DNSP for access to a specific power pole.

It is critical to appreciate that **only one kerbside charger can ever be installed on a single pole**. It can be seen in Figure 1 that the presence of one kerbside charging provider on a pole would prevent a second being added. There simply isn't the space to add a second.

Hence a DNSP pole becomes contested real estate, and for every DNSP pole that could host a kerbside charger, there can only be one winner and potentially one or more losers. And who makes that decision? **The DNSP**.

The DNSP is in the position where if it grants access to KerbCo to a particular pole, the DNSP will grow its own business and assist KerbCo in meeting its revenue and growth targets. Whereas not granting access to KerbCo will enhance a competitor's business, and hinder KerbCo in meeting its revenue and growth targets. That is a clear and unambiguous conflict of interest.

DNSPs may claim that there are tens of thousands of poles in their network, and hence any such conflict of interest is not material. But not all poles are created equal.

First, the most sought-after, lucrative poles for kerbside charging in the higher-density urban areas will be only a small proportion of the DNSP's total asset base of poles.

Second, not all poles are suitable for hosting kerbside chargers. In one of its "Knowledge Sharing" reports to ARENA, Intellihub reported[12] that a large number of poles are struck off as candidates for hosting kerbside chargers for reasons including:

- Steel or concrete poles, due to additional works required for equipment installation compared to timber.
- Poles with "Underground to Overhead" (UGOH) cable attachments – the poles with thick sheathed cable running down the pole, typically protected with a U-shaped steel cover in the lower part. These limit mounting points but more critically make it dangerous to drive in the ground stake for the EVSE because apparently there is an *"undocumented practice to run the underground portion of the UGOH cable around the base of the pole by the DNSP"*
- Poles with High Voltage air-break switches.
- Transmission/HV poles with earth down lead/cable.
- "Nailed Poles" which are poles with large steel brackets or covers around the lowest 1.5 metres to prolong the longevity/structural stability of the pole.
- Timber condemned poles which have an "X" painted on the pole and the pole is planned to be replaced.

[12] Intellihub *"Street Light Pole EV Charger Project 2021/ARP002 M2 Knowledge Sharing Report December 2022"* – https://arena.gov.au/assets/2022/12/intellihub-street-light-pole-ev-charger-project-ms2-knowledge-sharing-report.pdf

- Poles with pole top transformers.
- Stayed Poles, which are poles with anchor cables in one direction to prevent them from leaning in the other direction due to pulling force. Typically found on end of line poles or where overhead cables transition to underground, or there is a sharp turn in running angle.
- Termite Tagged poles – these are not condemned poles but poles being termite treated and considered otherwise structurally sound.

Therefore a DNSP cannot claim that if they reserve poles for a KerbCo deployment, a competitor network could simply deploy on the next pole down the street in either direction, and that the business opportunity would be identical. Nearby poles might not be suitable, or the location might not be appropriate for a kerbside charger due to parking, traffic, or access reasons.

I believe this conflict of interest risk could never be adequately mitigated, regardless of what controls, rules or regulations might be put in place.

3.2 Other concerns with a DNSP rollout of kerbside chargers

3.2.1 Knowledge asymmetry

There is a fundamental knowledge asymmetry between the DNSP and any third-party kerbside charging applicant, as acknowledged by the AER on page 13 of its Consultation paper.

The DNSPs have access to their own asset data that would inform them as to which power poles are likely to be suitable to host kerbside chargers and which are not, and what power limitations if any exist. Also the DNSPs will have closed information as to what their asset plans are in a given area which may impact a future kerbside charger rollout.

Third party applicants might not have unfettered access to the same range of information, at the same level of detail, ahead of making an application, and therefore are at a disadvantage.

3.2.2 Risk of DNSP 'land banking'

A DNSP could "land bank" suitable poles, meaning a DNSP could reject third-party applications on the basis that a specific pole has been reserved for their KerbCo's charger deployment.

It would be very difficult for a third-party applicant to know whether those reservations are genuine, and that KerbCo will actually deploy infrastructure on that pole within a reasonable timeframe (e.g. 3-6 months).

3.2.3 Maintaining network operational uptime

A DNSP will have little 'skin in the game' to ensure operational uptime and maintain its KerbCo charger network. Compared to a DNSP's entire business, revenue from kerbside charging is likely to be an asterisk or 'rounding error' in the balance sheet.

CPU's Supplementary Application[13] states that they expect no more than $2000 revenue per annum per pole-mounted EVSE. CPU's total annual revenue is approximately $1.4 Bn[14]. Even if 1000 DNSP-owned, pole-mounted chargers were deployed, a total revenue of no more than c. $2M p.a. would represent only 0.14% of CPU's entire business.

But for a third-party kerbside charging operator, kerbside charging might be their only business or a significant part of it, and every minute of downtime impacts their ongoing cashflow and business viability. Hence they would be incredibly motivated to repair faulty stations as quickly as possible.

[13] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project – Supplementary Application", page 7

[14] "AER revenue determination 2021-26: Victorian Electricity Distribution Businesses" – https://www.aer.gov.au/system/files/AER%20-%20Fact%20sheet%20-%20Victorian%20electricity%20distribution%20revenue%20decisions%202021-26%20-%20April%202021.pdf

Quite rightly, it is difficult to see a DNSP prioritising repair of a kerbside charging unit over any other kind of grid repair (e.g. restoring downed power lines or fixing other network faults), particularly when they argue their ability to reduce costs is partly due to leveraging existing DNSP workforce capability, hence the DNSP would inevitably have to prioritise work activities.

This means, in practice, that a DNSP would have to deprioritise repair and maintenance of kerbside charging units in order to extract the savings they claim they can achieve from their existing workforces. Kerbside charging unit repair would be done only when there is no other higher priority restoration activity waiting. And so that means delays – at least many hours, if not multiple days – before a kerbside charging unit would be restored, to the detriment of customers.

There is also a risk that maintaining a kerbside charging network would become an easy target for cost control and cost-cutting. KerbCo might not be treated as 'core business' by the DNSP due to its small revenue impact, and so any wider operational pressures in the DNSP's business could see kerbside charging becoming a casualty.

3.2.4 Risk of DNSPs cherry picking the best locations

Some DNSPs claim they would not cherry-pick the best kerbside charging locations, but would deploy kerbside charging in a mix of areas, including in less viable locations that would not be considered by third-party providers.

For example, in CPU's Application[15], they claim that they are better placed than third party providers to provide EV charging in *"regional and less-densely populated areas"* due to the financial viability of such investments for third party providers, implying DNSPs would be better placed to cross-subsidise kerbside charging operations, should they be permitted to do so.

However, CPU seemed to struggle with consistency in their positioning in this point. They claim in numerous places in their Applications their desire to serve lower density areas (addressing the alleged market failures of third party providers in those areas), while at the same time saying that the trial overall needs to be profitable *("This requires a trial that across the 100 locations can be self-sustaining"*) and they would have no interest in being the *"provider of last resort"* and only serving underserved areas[16].

In the context of kerbside charging, less viable locations would include suburban areas where most if not all residences have off-street parking and therefore BEV drivers who live in those areas have no need for kerbside charging at all. They would instead charge their BEV in their own carport or garage. It is difficult to understand CPU's stated rationale for wanting to deploy kerbside chargers in such areas.

3.3 Could DNSPs roll out kerbside charging faster and at less cost?

NSW is the only state in the nation, so far, to have rolled out kerbside AC chargers at scale that use existing DNSP power poles, and DNSP ownership of kerbside charging infrastructure was not required to achieve that outcome. This strongly suggests that the ring-fencing rules are **not** the cause of the *lack* of kerbside charging deployment in any other states.

Despite this, the DNSPs are increasing their advocacy that they be allowed to deploy kerbside EV charging infrastructure on their electricity assets, as evidenced by the CPU's application to the AER for a ring-fencing waiver, and by other advocacy in the industry, arguing that they would be able to roll out kerbside charging faster and at a lower cost, to the benefit of consumers.

For example, Ausgrid (a DNSP in NSW) presented at the **Everything Electric** exhibition in Sydney in March 2025 in a presentation titled *"Accelerating EV Uptake Through Ausgrid's Kerbside*

[15] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", page 9.

[16] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project – Supplementary Application", page 3.

Charging Program" advocating that DNSPs should be permitted to deploy such infrastructure on their assets, arguing they could do it more cost effectively and at a larger scale than commercial third-party providers.

Ausgrid also argued that kerbside charging infrastructure would not become part of their regulated asset base (RAB) but would be an "ancillary service" similar to the provision of street lighting.

In CPU's Application[17] they state:

> *"The networks [CPU] propose to use staff from the regulated business to maintain EVCI, which will deliver economies and expedite the rollout of more EVCI (particularly to under-serviced areas), for the benefit of electricity customers."*

As per Section 3.2.3 of this submission, I am of the view that using staff from the regulated business to maintain KEVCI in order to extract the predicted savings could only be achieved by delaying and deferring any KEVCI maintenance, as it would rightly be a lower priority than other grid maintenance and restoration activities for which the DNSP is responsible. As a result, kerbside charger availability would suffer, to the detriment of EV drivers in high-density areas who will start to rely on kerbside charging and for whom even a day of downtime could be serious.

This could be mitigated by CPU using separate staff for KEVCI maintenance in order to be able to guarantee service SLAs, but that of course would undermine CPU's premise and run counter to the proposition that CPU could achieve cost savings by leveraging their existing workforce.

In terms of cost savings, CPU's Application[18] states:

> *"We can utilise our existing assets for a quicker, more cost-effective deployment of EVCI, ultimately lowering installation costs and accelerating network expansion"*

This appears to be code for CPU would not charge itself a Facilities Access Agreement (FAA) fee to deploy its own KEVCI infrastructure on its own poles, thereby lowering total system cost and potentially passing those savings on to customers.

If a DNSP is giving itself preferential treatment for access to its own poles by charging itself $0, but all third parties some other amount, I would argue that is fundamentally anti-competitive, because no third party can ever competitively respond to such an advantage.

It needs to be remembered that DNSP poles are part of the RAB. DNSPs monetising poles via FAAs with third parties should either result in the AER regulating FAAs, as the DNSPs are already earning a regulated return on that asset, or result in part of the value of that asset being carved out as a now contestable asset, with a corresponding reduction in the RAB, and the reduced costs to DNSPs shared with electricity consumers that way.

I believe the AER must regulate the monetisation of poles that form part of a DNSP's RAB and regulate that all access to that pole must be offered on an equal and non-discriminatory basis for all applicants. The AER should regulate a maximum fee schedule for different types of access on different types of poles, to ensure there is transparent pricing for all parties.

I also contend that the commercial, third-party owned kerbside charging model in NSW has delivered good value for customers, and that the usage fees are quite reasonable. The costs charged by each of the four main networks are summarised in Table 2.

It can be seen that infrastructure competition has driven a diversity of operational models. EVX, for example, prefer to deploy where the Local Council agrees to provide two dedicated parking bays. This is intended to provide a superior customer experience – not only are all EVX sites dual-port (reducing the probability both bays are occupied) the dedicated, ranger-enforced parking

[17] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", page 5.

[18] ibid, page 9.

restrictions greatly improve accessibility for EV drivers. Therefore, many EV drivers are prepared to pay a slightly 'premium' price for this higher accessibility and likelihood of being able to charge.

AGL, on the other hand, do not have time-of-use pricing but charge the same price at all times. But they also have a higher minimum fee ($1) and only about 35% of their sites have "EV only while charging" parking restrictions, so accessibility by EV drivers to their network is lower. AGL also allow charger reservations, while none of the other networks do.

EVSE have a different approach again – two of their sites have 4 ports with dedicated parking (the largest kerbside sites so far in Sydney) and they charge a premium 60c/kWh fee during the afternoon peak, but a lower price than all the other networks outside of this period.

Network	Daytime charges (c/kWh)	Nighttime charges (c/kWh)	Minimum charge	Idle fees	Charger Reservations allowed	Dedicated EV-only while charging bays
AGL	38c	38c	$1.00	No	Yes – 15 mins	Approx. 35% of sites
EVX	50c 7am-8pm	39c 8pm-7am	$0.50	At some sites only during restricted parking periods $0.20/min after 20 mins	No	Almost all sites.
Intellihub	50c	50c	$0.50	No	No	At some sites.
EVSE	60c 4pm-8pm	35c 8pm-4pm	$0.50	No	No	All sites.

Table 2 – Fees charged by existing kerbside charging operators in NSW

This is where the ambition of DNSPs to own kerbside charging infrastructure falls down. DNSPs seemingly view kerbside charging as a homogenised, commoditised business where price per kWh is the **only** differentiator and the only priority for customers. I do not believe this is true.

If DNSPs were allowed to deploy their own kerbside charging infrastructure, but did not offer the service itself, much of this "competition of ideas" among the various components of the customer experience (time of use charging or not, minimum fees, idle fees, charger reservations, dedicated EV parking) would be destroyed and replaced with a monoculture service model.

The clearest problem that would arise would be regarding charger reservation. Under the proposed ESMP model, **all** Charge Point Operators (CPOs) with access to that pole would need to agree to allow charger reservation at that pole under identical terms (e.g. reservation period), which they may not wish to do. This is because charger reservations inherently reduce throughput and dilute revenue for **every** CPO. A reserved charger may result in a charging session never occurring because a reservation will reject another CPO's customer who may arrive at the charger during the reservation period, or the original reserver might not turn up.

So it would be untenable for one CPO under this ESMP model to want to implement charger reservation but not all the all others, because the actions of that one CPO would dilute the revenue of all other CPOs.

A similar issue would arise around idle fees. Any CPO imposing idle fees at a given pole, and their decision around the duration of the grace period, would impact the revenue opportunity for all other CPOs. The idle fee revenue goes to the CPO that imposes it, and none of the other CPOs can earn anything during that period. This is also commercially untenable.

Under the CPO infrastructure ownership model, each CPO can try their own ideas on each component of the customer experience, competing for customers who value a given component above the other components. The CPO also solely bears the business consequences of these decisions, and will gain or lose market share based on what customers most value.

This is the cornerstone of commercial competition: the battle of ideas, which ultimately benefits all customers.

4. Other issues

4.1 AER should make an unambiguous ruling that EV charging infrastructure is not a distribution service

In CPU's "Application for a Ringfencing Waiver"[19] they state:

> *"While we consider that the networks' provision of EVCI services may be 'distribution services', we are applying for a waiver from clause 3.1 to put any question of our compliance with clause 3.1 of the Ringfencing Guideline beyond doubt"*

The AER should make a ruling, by whatever means necessary, that EV charging infrastructure is **not** a distribution service. If DNSPs think ambiguity or uncertainty exists regarding this point, that ambiguity or uncertainty should be removed by the AER.

4.2 The EMSP service model does not lead to true competition

In CPU's supplementary submission on its proposed operating model[20], CPU claims the E-Mobility service provider (EMSP) model will *"enable greater competition for the consumer in the same way energy retailers compete today. This increased competition will lead to cheaper charging rates to consumers and increased accessibility to EVCI"*.

My understanding of the proposed ESMP model is that the CPU's kerbside charging network (if it was built) would be open to any CPO. All CPU kerbside sites could appear on any CPO's App if an agreement was entered into with CPU by that CPO, and the rates charged for use would be up to each CPO. Therefore the same kerbside site could have different pricing applied depending on which CPO the customer used to access the station.

While this superficially sounds attractive, it actually destroys private capital motivation for investment, because there is now less control by that CPO over the user experience, since they no longer own or control the hardware, and there is less scope for competitive differentiation by having a larger, or more reliable, or better located network.

Also, as outlined in Section 3.3 of this Submission, the ESMP model would inevitably lead to a monoculture service model, where various components of the customer experience as summarised in Table 2 have to be homogenised to the lowest common denominator in order for it to even function in the first place. I do not believe that this scenario would be in the interests of customers, nor would it be attractive to third party CPOs.

Finally, individual CPOs would not be able to brand kerbside charging sites as a result of this shared access model. The only thing a CPO would be able to control or differentiate on is price per kWh of electricity delivered, and not any other aspect of the customer experience.

The motivation for any CPO to invest in a differentiated network beyond what CPU has deployed would therefore be eroded over time, potentially to the point where it is no longer viable for them to continue kerbside charging operations.

Note this model is different to the current ESMP model where a single infrastructure owner chooses an EMSP to operate their network. For example in NSW, Intellihub and EVSE use the services of Exploren to operate their networks. But Intellihub and EVSE define the pricing and other parameters for their respective networks, it **only** applies to their networks, and Exploren merely implements it. There is no cross-contamination of their respective commercial decisions.

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[19] ibid, pages 2 and 5.

[20] CPU "Proposed Operating Model – Electric Vehicle Charging Infrastructure Project", page 4.

5. Answers to the AER's 11 consultation paper questions

5.1 Do the current dynamics of the markets suggest a thriving and competitive marketplace?

According to the Electric Vehicle Council's "State of Electric Vehicles 2024" report[21], as at October 2024, Victoria is home to 268 DC fast charging sites, compared to NSW's 294. On a per-capita basis, that indicates Victoria has approximately 1 DC fast charging site for every 26,700 residents compared to NSW's 1 for every 29,200 residents – hence Victoria is slightly ahead.

However that does not factor in the total number of stalls/EV charging bays per site, which is a more relevant statistic, and which appears to be higher in NSW.

It is harder to obtain detailed information on stall counts across all fast charging networks. Tesla Supercharger data[22], however, reveals that NSW has a total of 352 Tesla Supercharger stalls at 49 sites (an average of 7.2 stalls per site) compared to Victoria's 191 stalls at 35 sites (an average of 5.5 stalls per site).

The two largest fast charging sites in Australia are in NSW – Goulburn, with 20 stalls (a Tesla Supercharger open to all EVs that has completed construction and should open soon) and Albury with 16 stalls (also a Tesla Supercharger open to all EVs).

This suggests that government policy plays a role, as the NSW government's fast charging grant conditions required a minimum of 4 stalls / EV charging bays to be eligible for co-funding, hence encouraged the installation of larger stations over a higher quantity of stations. In contrast, there are a larger number of single-stall stations in Victoria.

Despite this, there appears to be a competitive marketplace for DC fast charging in Victoria. All the main DC charging operators (Tesla, Evie, Chargefox, BP, Ampol, Jolt) are present in both states. It is more difficult however to compare the situation for AC charging since that market is more fragmented.

We do know however, that Victoria does not have a thriving and competitive marketplace for kerbside AC charging, and that NSW does.

The presence of the AER ring-fencing rules cannot be the cause of this difference, however, as those rules apply to DNSPs in both states. The difference, therefore, must be for other reasons.

5.2 Do you agree a market insufficiency exists? What are your views on the cause any coverage gaps across 'metropolitan' (i.e. inner city urban areas), suburban and regional Victoria?

Comments in this section will be confined to the kerbside charging market.

There is clearly a market insufficiency in Victoria compared to NSW, as there are now over 380 kerbside AC ports in metropolitan Sydney (i.e. excluding the 47 Jolt DC kerbside ports which do not require DNSP pole access), but only a handful of similar AC kerbside sites in Melbourne.

CPU claim in their Application[23] that:

[21] Electric Vehicle Council – "State of Electric Vehicles 2024" page 21 – https://electricvehiclecouncil.com.au/wp-content/uploads/2024/12/1734312344781.pdf

[22] Calculated by Author from data at Supercharge Info – https://supercharge.info

[23] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", pages 10 and 11.

> *"Third-party operators aiming to establish EV charging networks face significant barriers, particularly due to regulatory delays and the complexity of obtaining necessary approvals. The lack of a streamlined process for deploying EV charging stations often leads to prolonged approval times and higher operational costs, as operators must navigate complex regulatory frameworks that can delay the rollout of infrastructure."*

And that:

> *"By using our extensive network assets, such as powerlines, poles, and substations, we can lower the capital investment required for EV charging stations, making the deployment process more efficient and cost-effective"*

These claims trigger questions as to what role, if any, CPU has played in creating or perpetuating any barriers or complexity in the first place:

- What "barriers" exist, and to what extent could CPU reduce or remove any such barriers that are within its control?
- Why is "obtaining necessary approvals" complex, and what if anything could CPU do to reduce that complexity?
- Why are processes not "streamlined" and are any of those processes under CPU's control?
- Why are approval times "prolonged" and is any of that delay due to CPU?

Those questions need to be adequately answered by CPU in order to assist the AER's assessment of the causes of kerbside charging market insufficiency in Victoria.

Further, in CPU's application they state[24]:

> *"Additionally, our involvement in the EV charging market would not only facilitate faster deployment but also encourage third-party operators to enter a more developed and less risky market, where they can focus on innovative services and customer-facing solutions, rather than being burdened with the complexities of infrastructure deployment"*

While third-party kerbside CPOs might be touched by CPU's concern for their business models and whether they are risky or not, that is not for CPU to arbitrate.

CPU also state in their application[25] that *"it is crucial that regulatory frameworks enable the timely development of charging infrastructure"* with which I agree.

I encourage the AER to adopt the following regulatory framework in the interests of public transparency:

- AER to regulate maximum FAA pricing for DNSP poles as those poles are part of the RAB.
- AER to regulate a schedule of rates for third party applications and assessments for access to DNSP poles. DNSPs could choose to levy fees under the AER regulated schedule of rates.
- AER to regulate SLAs (timing) for each step of a third-party application for access to DNSP poles. Delays longer than the SLA without reasonable cause should result in a deemed approval by the DNSP and the third party can progress to the next step in the process.

5.3 What are your views on the potential benefits that may be gained from CPU's trial, including for network learnings?

CPU's initial application was unclear as to exactly what objectives CPU had for their proposed trial, apart from general statements regarding increasing the speed of rollout and reducing costs for

[24] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", page 11.

[25] ibid, page 12

consumers. CPU however provided more detail on their proposed trial objective in their Supplementary Application[26]:

- *impact of EVCI charging on demand in local networks*
- *impact of customer charging on price elasticity during periods of both low and high demand*
- *application of new technologies on the networks*
- *understanding utilisation rates of local area identities, for instance utilisation of residential streets compared to commercial and no-off-street parking locations to inform demand forecasting*
- *impact of power quality on the network from customer charging behaviour*
- *development of processes and technical guidelines for ECVI connections.*

CPU further stated:

> *"It should not be underestimated the learnings derived from the data, in terms of utilisation, demand patterns and quality of supply measurement, and how this can be deployed into future network planning decisions. Such data greatly improves the ability to plan the network, something that we do not have today, and is not achievable based on the limited number of EVCI deployed today"*

I believe CPU's objectives could be achieved without CPU obtaining a ring-fencing waiver, but by CPU partnering with a third-party CPO and facilitating the rollout of a kerbside charging network just as quickly as has been achieved in NSW.

Nor does CPU need to legally own the kerbside charging infrastructure to achieve any of their trial objectives. CPU should apply the same appetite, motivation and intensity to improving its own processes and costs for third party rollouts as it would have done for itself.

CPU could also approach Ausgrid and the kerbside charging CPOs in Sydney and request that they share their learnings, which would satisfy the majority of CPU's objectives. There are unlikely to be any profound technical or usage differences between Australia's two largest cities.

The only objective identified to date by CPU for which there is no data from any of the networks currently operating in Sydney is the *"impact of customer charging on price elasticity during periods of both low and high demand"*, which I interpret as CPU wanting to **dynamically** adjust kerbside charging prices in order to understand customer demand responses as part of a longer-term grid balancing strategy.

Again, CPU would not need to legally own the kerbside charging infrastructure in order to achieve this objective, but could achieve it in partnership with a third-party kerbside charging provider.

5.4 What are your views on CPU's claim that they can provide kerbside EV chargers more cost-effectively than other third parties?

Please read the response to this question in conjunction with Section 3.3 of this Submission.

CPU claim in their Application[27] that [with some summarising and paraphrasing by the Author]:

1. *The networks [CPU] can use their scale to create efficiencies in their delivery of EVCI services, which will result in lower prices for EV charging services.*
2. *The networks have a wide base of experienced staff that can install and maintain the EVCI.*

[26] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project – Supplementary Application", page 4.

[27] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", pages 9-10.

3. *The networks do not face the same challenges in installing and maintaining EVCI as other potential suppliers, including using their own assets (i.e. poles) which will allow faster deployment and expedited uptake of EVs.*
4. *The networks are better placed to deploy charging infrastructure in regional and suburban locations*
5. *The private sector has less financial appetite to deploy in regional and less-densely populated areas*
6. *EVs can improve grid resilience and reduce network constraints by directing excess solar energy to charge EVs during peak solar production times, and one of the trial objectives is to dynamically test this.*

Propositions (1) to (3) were rebutted in detail in Section 3.3.

Regarding propositions (4) and (5), CPU's Application appears to argue its possible kerbside charging trial could provide a kind of social service by installing kerbside charging in areas that may be less attractive to commercial CPOs, addressing alleged "market failure" in such areas. But CPU's Application also states that the trial must be sustainable and profitable, which implies that any provision of likely loss-making kerbside charging in suburban, regional and less-densely populated areas would have to be quite limited in order to not put the overall trial viability at risk (also see commentary in Section 3.2.4 of this Submission).

It is difficult to reconcile these somewhat contradictory positions. In particular, the main purpose of kerbside charging is to replicate, at closely as possible, the convenience of home charging for EV owners who live in high-density areas without access to off-street parking.

Therefore there is arguably little or no need to provide kerbside charging at all in suburban, regional and less-densely populated areas. EV owners who live in those areas will charge their vehicles at home, utilising their off-street parking access. And EV drivers that do not live in those areas but are driving to or passing through those areas would generally use other charging options – mostly DC fast charging or destination AC charging.

Round 1 of the NSW Government's kerbside charging grants programme imposed an eligibility limit based on the percentage of dwellings in a given Local Government Area (LGA) that have access to off-street parking. Any LGA where more than 92% of residential dwellings have access to off-street parking was not eligible to apply for grants because there is simply little or no need for kerbside charging in those areas. That threshold, despite being very high at 92%, still eliminated 103 of NSW's 129 LGAs (including the Unincorporated Area of NSW) from consideration.

Under that logic it is difficult to understand CPU's rationale for wanting to trial kerbside charging in "suburban, regional and less-densely populated areas".

CPU also stated in their Supplementary Application[28] that they have no interest in being a "provider of last resort" for EV charging in areas that are not economic for commercial CPOs:

> *"The role of being EVCI provider of last resort is a social service and would require for privately owned entities, a subsidy from government"*

Proposition (6) was covered in Section 5.3 of this Submission.

Regarding the potential speed at which a DNSP could execute a kerbside charger rollout, it is instructive to again review the kerbside charger rollout in Sydney. For example, the Inner West Council (IWC) was the largest recipient in Round 1 of the NSW government's kerbside charging grants, with 103 sites / 136 ports funded.

Immediately following the grant announcement, the IWC conducted community consultation on the location of these chargers from July to September 2024. The IWC provided its final approval of this rollout including the locations and parking restrictions for each site on 12 November 2024. By

[28] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project – Supplementary Application", page 3.

Christmas Eve, just 6 weeks later, 26 kerbside chargers with 33 ports had been installed. A photo of a kerbside charger installation in shown in Figure 3.

As at 31 May 2025, a total of 78 kerbside sites and 104 charging ports had been installed in the IWC area.

Figure 3 – EVX kerbside site being installed in Taylor St, Annandale, Inner West Council, NSW, December 2024. The site was installed and commissioned in approximately 4 hours. Kerbside chargers can be installed by independent Licenced Electrical Contractors with Level 2 Credentials.

This demonstrates that DNSP ownership of kerbside charging assets is not required in order to achieve a rapid infrastructure rollout. More detail of the IWC's engagement process for the kerbside charger rollout can be reviewed on their website[29].

Finally CPU's Supplementary Application[30] states *"It is not in the interests of some industry participants for these economies to be accessed"*. The implication of this is that third-party kerbside charging providers do not want to be exposed to DNSP competition if DNSPs can indeed roll out a kerbside charging network more quickly and at lower cost (which in any event I dispute).

In my view that is a fairly offensive implication, and third-party kerbside charging providers are not scared of competition, as evidenced by the flourishing and competitive market that is developing in Sydney. However that competition needs to be fair and be based on a level playing field, with non-discriminatory pricing and on a non-discriminatory access basis, regardless of whether DNSPs end up being kerbside charging infrastructure providers or not.

[29] Inner West Council Proposed EV kerbside charging locations - https://yoursay.innerwest.nsw.gov.au/proposed-ev-kerbside-charging-locations

[30] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project – Supplementary Application", page 4.

5.5 What do you view as the potential risks to competition from CPU's proposed trial?

CPU's Supplementary Application[31] states:

> *"One hundred sites is a very small number of EVCI given Victoria's geographic size. It should also be noted that our trial is not the only trial in Victoria, and not the only trial operating within our networks today"*

As described in Section 3.1 of this submission, not all poles are created equal for kerbside charging, and the number of viable and suitably located DNSP poles will be considerably smaller than the total number of DNSP poles.

There is no guarantee that, if CPU was granted a waiver, that the 100 sites selected by CPU for this trial would not remove the 100 most attractive locations for potential third-party competitors, or materially impact their plans.

Given wider DNSP agitation for access to the kerbside charging market, there is also a risk is that CPU's trial, if permitted, could become the 'thin end of the wedge' and a mechanism by which that agitation increases over time, despite CPU's assertions to the contrary.

That would have a chilling effect on third-party investment appetite in the kerbside charging market in Victoria during the trial period, to the detriment of competition and consumers.

5.6 What are your views on CPU's proposed method of selecting EV charging sites based on areas with high EV ownership, and number of units (100 EV chargers)?

CPU's Application states[32]:

> *"The charging stations will be strategically located based on our analysis of current EV ownership data and customer demand in conjunction with the Victorian Government, ensuring coverage across both metropolitan and regional areas. This data-driven approach will allow us to identify the most suitable locations for maximum impact, focusing on areas where EV uptake is higher, or where infrastructure gaps currently exist"*
>
> *"As well as being high-demand areas, these locations take into consideration the availability of off-street parking and balanced coverage across both metropolitan and regional areas."*

CPU's Supplementary Application[33] did not provide any significant additional detail as to how the proposed locations would be identified or selected.

There is nothing inherently new or innovative in this approach – it is more or less the approach that the NSW Government and NSW Local Councils carried out in 2024 to determine the details of kerbside rollout, which I will summarise in this section.

CPU, however, needs to be careful about data-driven misdirection. Areas with the highest absolute numbers of BEVs are not necessarily the areas which should have the highest availability of public kerbside charging infrastructure.

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[31] ibid, page 3.

[32] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", pages 6-7

[33] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project – Supplementary Application", page 3.

First, the underlying geographic areas (postcodes or LGAs) are very different in terms of the total number of registered vehicles. A postcode or LGA with a large number of EVs might simply be a very large postcode or LGA with a very large number of registered vehicles in total. This does not reveal the **percentage** of all vehicles in that area that are battery-electric.

If the waiver was to be granted, CPU needs to consider BEV penetration data by area, not BEV count data by area. For example, the top 10 LGAs in NSW for total **number** of BEVs registered, and BEVs as a **percentage** of all registered vehicles are shown in Table 3[34].

It can be seen that LGAs that rank the highest on the total number of BEVs are **not** the same as the LGAs that have the highest penetration of BEVs. Only three LGAs appear in both lists. Sydney City is an exception because 62% of all BEVs registrations in that LGA are Business/Government, not private, hence likely have fleet parking and charging provision.

Rank	LGA	BEV Count	*Rank by %*
1	Sydney City	5305	*1*
2	The Hills	4739	*12*
3	Northern Beaches	4474	*16*
4	Blacktown	4163	*28*
5	Ku-ring-gai	3773	*2*
6	Parramatta	3566	*18*
7	Inner West	3473	*10*
8	Ryde	2819	*11*
9	Hornsby	2671	*14*
10	Sutherland	2656	*27*

Rank	LGA	BEV % penetration	*Rank by Count*
1	Sydney City	4.67	*1*
2	Ku-ring-gai	4.60	*5*
3	Mosman	4.39	*33*
4	Willoughby	4.38	*15*
5	Woollahra	4.26	*25*
6	Lane Cove	4.18	*29*
7	Hunters Hill	3.93	*47*
8	Waverley	3.69	*23*
9	North Sydney	3.29	*24*
10	Inner West	3.22	*7*

Table 3 – The top 10 LGAs in NSW for BEVs by Count (left) and Percentage (right). Only 3 LGAs appear in both lists. BEV penetration is calculated as the ratio of all battery electric vehicles (of any kind) registered in that LGA divided by the total number of vehicles (of any kind) registered in that LGA. Registered trailers are excluded as they have no motive power. Data as at 31 May 2025.

Second, BEV registration data might be a consequence of the "chicken and egg" problem, and so basing infrastructure decisions on this data might actually make the problem worse, not better.

High density areas with limited off-street parking are going to be under-represented in BEV purchases (Sydney City excepted due to its large government/business BEV fleet as noted above) since vehicle owners without off-street parking are less inclined to purchase a BEV in the first instance. A purely data-driven approach might conclude that these are not the highest priority areas to deploy kerbside chargers since there are not as many BEVs registered as there are in some other areas, perpetuating the barriers to EV adoption.

For example, in the left-hand table of Table 3, the LGAs of The Hills, Northern Beaches and Blacktown are all large, low-density LGAs with over 150,000 vehicles registered (in fact Blacktown has the second largest number of registered vehicles in the state with over 284,000). They are also LGAs where the vast majority of dwellings are freestanding homes with off-street parking (95%, 89% and 81% of dwellings have off-street parking availability respectively). The total number of BEVs is therefore quite misleading in this context.

The right-hand table is more instructive and suggests that BEV penetration as a percentage of all registered vehicles appears to be primarily influenced by a combination of high household wealth **and** the availability of off-street parking. The two highest density residential areas in the top 10

[34] Data extracted and calculated by Author from the real-time NSW Vehicle Registration dashboard - https://app.powerbi.com/view?r=eyJrIjoiMTkxOGRlYjctZjkxZi00MjVlLWJhYmYtMzk2ZGNiNTczNTJjIiwidCI6ImNiMzU2NzgyLWFkOWEtNDdmYi04NzhiLTdlYmNlYjg1Yjg2YyJ9&pageName=ReportSection

are Waverley and the Inner West, ranked #8 and #10 respectively. This strongly suggests that a lack of off-street parking is indeed a barrier to EV uptake, even in wealthy areas.

Kerbside charging location decisions therefore should be primarily driven by data on the percentage of dwellings in a given street segment that do **not** have off-street parking, and not just the number or percentage of BEVs registered.

This was the approach of the NSW government in its kerbside charging grants process in 2023-24. A number of tools were provided for grant applicants, including deep data sets such as an interactive map[35] (see snapshot in Figure 4) which showed, down to individual city blocks, what percentage of dwellings do **not** have off-street parking. This information guided decisions by applicants and Local Councils as to exactly where kerbside chargers would be most useful. It is unclear if a similar data set exists in Victoria.

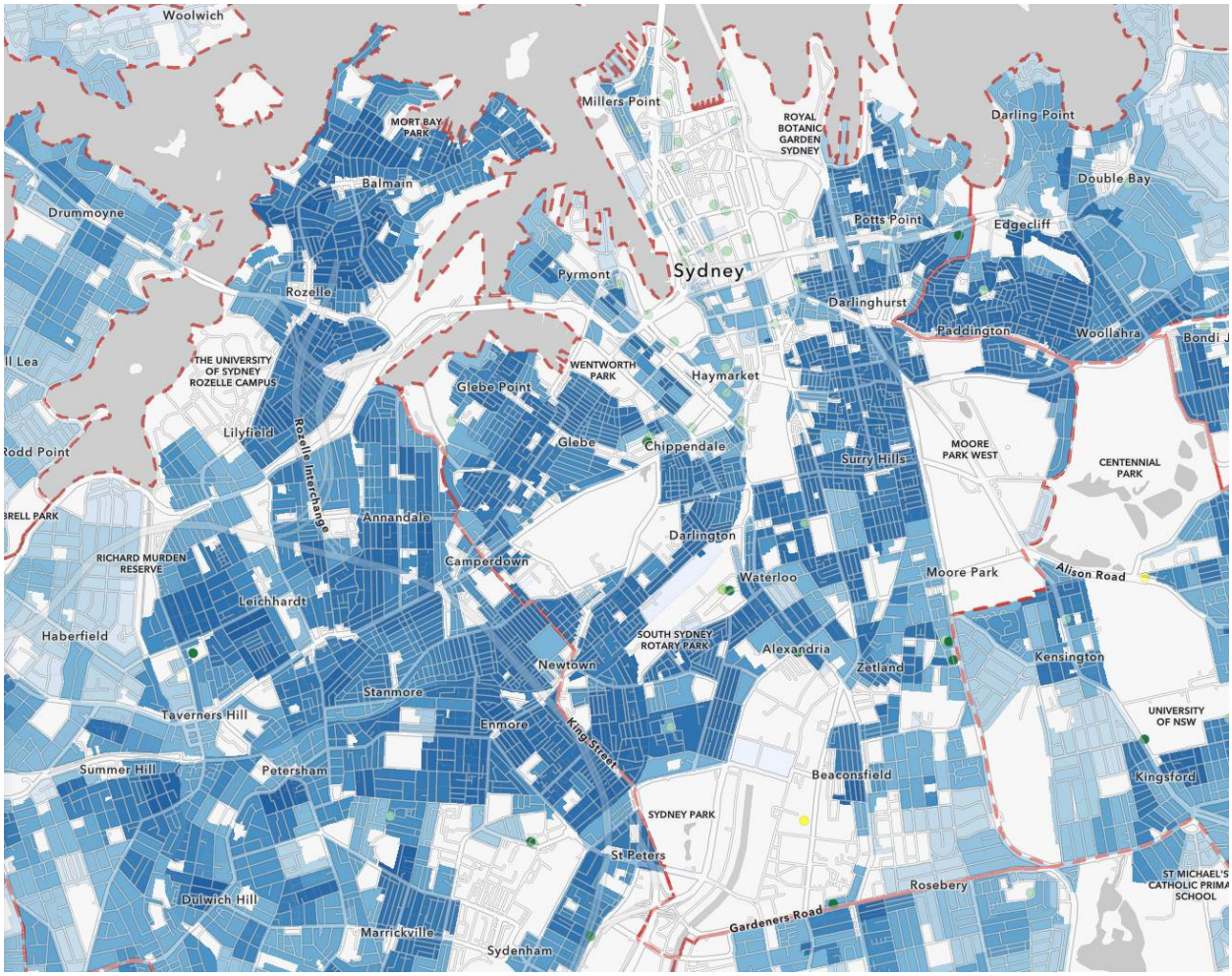

*Figure 4 – Partial snapshot of the NSW EV Kerbside Charging Grants Map. The percentage of residential dwellings **without** off-street parking is indicated by the blue colour gradient - ranging from light to dark blue (0% - 100%). This map is interactive with downloadable layers. The CBD, commercial areas, parkland etc. are shown as white and were not considered in this programme.*

Using the information provided by this mapping tool, the top 10 LGAs in NSW with the poorest access to off-street parking are listed in Table 4. Waverley and the Inner West LGAs are ranked #2 and #4 respectively and this partly explains why, despite their relative wealth, they are ranked only #8 and #10 in the top ten LGAs for BEV penetration (Table 3).

[35] NSW EV Kerbside Charging Grants Map – https://is-transport.maps.arcgis.com/apps/instant/countdown/index.html?appid=ad95999da54b4fc0b03e5debe4494cac&locale=en

LGA	Area (km^2)	Population	Total Dwellings	% of dwellings without off-street parking	BEV Penetration %
Sydney City	27	211 632	96 776	91.1	4.67
Waverley	9	68 605	26 964	82.5	3.69
North Sydney	10	68 950	32 249	73.1	3.29
Inner West	35	182 818	72 847	67.2	3.22
Burwood	7	40 217	13 967	61.5	2.04
Woollahra	12	53 496	21 666	52.3	4.26
Canada Bay	20	89 177	34 087	48.2	2.52
Georges River	38	152 274	51 992	43.4	1.67
Randwick	36	134 252	50 918	41.6	2.30
Lane Cove	10	39 438	15 383	38.8	4.18

Table 4 – The top 10 LGAs in NSW with the lowest access to off-street parking

5.7 What are your views on the depth of the market for kerbside AC EVCI?

The need for kerbside charging has been established. Lack of off-street parking in high-density areas is a barrier to BEV adoption, and lower BEV adoption would consequently make it more much more difficult to decarbonise transport in the required timeframes.

The number of kerbside AC chargers required depends on a number of difficult to estimate variables. For example, a percentage of EV drivers without off-street parking might take advantage of workplace EV charging, and hence might not use kerbside charging even if it were available. Other EV drivers might choose to continue using DC charging in their local area (e.g. at a local supermarket) even though it is more expensive, if that is more convenient.

According to the ABS[36] drivers in Australia travel an average of 12,100 km per annum. Assuming an average BEV efficiency of 175 Wh/km, each BEV requires about 5.8 kWh of electricity per day. Assuming of 11 kW kerbside charging, each BEV would utilise a kerbside charger for an average of 32 minutes each day. In practice BEV drivers would be unlikely to charge every day, but only every few days, hence have fewer but longer duration charging sessions.

CPOs would like to maximise kerbside charger utilisation and revenue per site. High utilisation, however, leads to queuing and charger unavailability and lost or deferred sessions. Hence utilisation needs to be balanced with customer experience. If utilisation is too high, customers become frustrated and demand more kerbside chargers which has the effect of lowering average utilisation. If utilisation is too low, CPOs will lose money and eventually go out of business.

Based on utilisation reported by EVX[37] dedicated EV-only-while-charging kerbside sites achieve a utilisation of approximately 20% (note this builds in all temporal factors, such as people who charge overnight). Based on this, and an average daily charging session of 30 minutes, it implies that one kerbside charger can serve approximately 10 vehicles. If we further assume that BEV drivers in this situation, on average, charge their vehicle only half the time at a kerbside charger (and at other chargers for the remaining half, such as at workplaces or DC fast chargers) then it implies that one kerbside charger at 20% utilisation can serve approximately 20 vehicles.

[36] ABS Survey of Motor Vehicle Use, Australia 2020 – https://www.abs.gov.au/statistics/industry/tourism-and-transport/survey-motor-vehicle-use-australia/latest-release

[37] NSW Legislative Assembly, Committee on Transport and Infrastructure, "Inquiry into Infrastructure for electric and alternative energy source vehicles in NSW", EVX Submission, 30 April 2025, page 7 - https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=3095#tab-submissions

If we next consider a 2-3 year planning timeframe for an initial kerbside charging network rollout, it is conceivable that BEVs could reach 2% of the fleet in that time. Based on NSW BEV registration data, the number of registered vehicles in each LGA, and the percentage of dwellings in those LGAs without off-street parking, the following estimates are produced:

- Number of registered vehicles in NSW (excluding trailers): **6,344,846**
- Number of vehicles without access to off-street parking (based on LGA data): **937,577**
- Number of BEVs without off-street parking at 2% of the fleet: **18,752**
- Assume 1 kerbside charger can serve ~20 vehicles: **940** kerbside charging ports required

This result appears consistent with NSW's ambition through its first two grant rounds for kerbside charging to deploy approximately 1000 kerbside charging ports in 2-3 years.

If these assumptions can be applied pro-rata to Victoria, it implies that Victoria would need approximately 780 kerbside charging ports over the next 2-3 years. Therefore, a CPU trial of 100 kerbside charging ports would represent 13% of the addressable market. This is not insignificant, and is arguably quite significant if this forms a head start on deployment of a kerbside charging network while third party CPOs continue to experience barriers to market entry.

5.8 What are your views on the potential for CPU to discriminate against third-party EV charging service providers?

I think the potential for CPU, or any DNSP, to discriminate against third-party EV kerbside charging service providers is very high.

As described in Sections 3.1 and 3.2 of this Submission, some of the risks include:

- An inherent conflict of interest;
- Knowledge asymmetry;
- Risk of DNSP 'land banking';
- Risk of DNSPs cherry-picking the best locations;
- DNSPs using procedural barriers to make it difficult and time consuming for third parties to seek access;
- Risk of DNSPs giving themselves preferential and lower-cost treatment compared to other access-seekers.

5.9 Would the conditions above be fit for purpose, if a waiver is granted? Which are higher or lower priority?

The AER's Consultation Paper listed these possible conditions:

- A requirement for CPU to develop and publish a robust method for justifying their selection of specific EVCI sites
- A requirement for CPU to lower or remove access fees for EV chargers in areas where this waiver, if granted, applies
- A requirement for CPU to provide evidence of its tendering and procurement strategies for EV charger equipment and services to the AER
- Cybersecurity requirements for CPU and its contracted charge point operator

These conditions should be the bare minimum imposed by the AER if the waiver is granted. Of these, the requirement for CPU to lower or remove access fees for EV chargers in areas where a waiver, if granted, applies should have the highest priority.

However, before the AER considers whether or not a waiver should be granted, the AER should require CPU to provide completely transparent and detailed information as to what has happened to date regarding third parties seeking access to CPU's poles for the purposes of deploying kerbside charging. This information should include, but not be limited to:

- The number of discrete third parties over the past 5 years who have sought access to CPU poles for the purposes of deploying kerbside charging, and geographically where such access has been sought;
- The total number of poles for which access has been sought, how many to date have been granted (commercial agreement reached), and how many AC kerbside charging facilities mounted on CPU poles have actually been installed and are operating;
- The highest, lowest, mean and median FAA annual fee sought by CPU for applicants;
- Details on all other charges CPU has sought to impose on third-party access seekers, such as for pole assessments, network load assessments, or any other steps CPU has imposed as a condition of considering a third-party access request (highest, lowest, mean and median fees imposed); and
- Details on the longest, shortest, mean and median time CPU has taken to progress each discrete step of the process CPU has required third-party access seekers follow in order to gain access to a CPU pole.

After receiving this information, the AER can judge whether CPU has contributed towards any market failure in the provision of kerbside charging infrastructure in Victoria, and if so, whether CPU should receive a waiver in such circumstances or other remedies would be more appropriate.

5.10 What other conditions should be placed on the waiver, if granted, to prevent discrimination or to preserve fair market competition, and maximise the benefits from the trial?

CPU's Application[38] requests the waiver be until 30 June 2031, i.e. circa 6 years. This duration is unreasonable and unnecessary. It should be possible for CPU to achieve its trial objectives within 12 months of full operation of all kerbside chargers. Hence the waiver, if granted, should be for no more than 2 years.

CPU also states[39]:

> *"The networks will execute an expression of interest (EOI) for charge point operators (CPOs) to gauge market interest and capability to manage DNSP EVCI. This process will improve market competition and is the most efficient way to ensure a cost effective and reliable CPO is appointed"*

However as argued in this Submission, I believe it is not necessary for CPU to legally own the kerbside infrastructure in order for CPU to achieve its claimed trial objectives. Instead, I believe CPU should partner with a third-party CPO who would retain ownership of the infrastructure, and CPU conduct its trial that way.

CPU could use the money allocated for the hardware acquisition component of their proposed trial to fund their selected vendor's equipment, with the partner CPO retaining ownership. It would also mean there is no need to transfer hardware ownership at the cessation of the trial, hence no delays with contractual negotiations, arguments over the value of the assets, or delays in transferring any assets.

[38] CPU "Application for a Ringfencing Waiver – Electric Vehicle Charging Infrastructure Project", page 9.

[39] ibid, page 6.

5.11 What data should CPU share as a minimum and are there specific metrics that should be used – for example, specific metrics for measuring connection times?

The AER's Consultation Paper listed these possible conditions:

- Detailed financial and contractual data for public understanding of DNSP costs to provide EV chargers and to enable building performance benchmarks in the future.
- Quantified network benefits to customers, to verify DNSPs' claim that they can provide lower-cost EV charging services to customers, and if this is achieved consistently.
- Usage of CPU's EV chargers, on a consumption and frequency of use basis.
- Performance of the EVCI, in terms of frequency and duration of outages (e.g. how quickly supply is restored in the case of faults), and type of fault.
- The time taken to connect EV chargers for its associated entities and other non-affiliated entities' EV chargers. This data would help to avoid discriminatory behaviour against competitors.

I agree with all of these conditions as a minimum, and further as per the answer to Question 10, CPU should provide detailed data regarding all approaches it has received to date regarding kerbside charging access, ahead of the AER considering CPU's ring-fence waiver application.

Existing kerbside CPOs who are already operating in Sydney, and who are potentially seeking entry into the Victorian market, would be best placed to provide advice to the AER as to what additional detailed data reporting obligations should be imposed on CPU should the AER grant it a waiver for its proposed trial.

- END OF SUBMISSION -