

19 September 2024

Attention: DCCEEW, Distributed Energy Policy Team.

Via email: DEDM@dcceew.gov.au

EVC response to:

Streamlining network connection processes for consumer energy resources (CER) and electric vehicle supply equipment (EVSE)

With reference to:

<https://consult.dcceew.gov.au/streamlining-network-connection-processes-for-cer-and-evse>

Prepared by: Ross De Rango, September 2024.

Preamble:

The Electric Vehicle Council (EVC) is the national body representing the electric vehicle industry in Australia. As the market is emerging in Australia, our work is particularly aimed at increasing certainty for investment through policy, knowledge sharing and education. The accelerated uptake of electric vehicles enables a more sustainable and prosperous future.

The DCCEEW team at a federal level have carriage of the National Electric Vehicle Strategy, which incorporates elements addressed by this consultation – see page 27 of this document:

<https://www.dcceew.gov.au/sites/default/files/documents/national-electric-vehicle-strategy.pdf>

The EVC looks forward to constructive engagement with DCCEEW and other stakeholders to move these important matters forward.

Executive summary:

The consultation paper is well done, and demonstrates very clearly that extensive and effective consultation with relevant stakeholders has been undertaken.

We note that this work falls within the purview of the National CER Roadmap, under section 5.4, subsection P.2. Critically, while this work has produced clear and useful recommendations, the National CER Roadmap has no clear timeline on when these recommendations will be actioned. The implementation phase of sub section P.2 has both the 'start' and 'completion' dates as TBC.

The vast majority of other actions in the National CER roadmap have clear timelines associated with them. Implementation of the recommendations considered in this report needs a clear timeline as well, or we are at risk of public EV charging deployments failing to keep up with uptake of the cars, and consequent poor consumer outcomes for drivers, leading to delayed uptake of EVs.

This has been covered in the press in recent times:

<https://www.afr.com/companies/energy/ampol-dials-back-ev-charging-target-slashes-dividend-20240812-p5k1q4>

We note that securing the actual outcomes necessary in this domain is not entirely within the remit of the federal government – much of the work will need to be done at state level. This is addressed in the 'next steps' section at end of this submission.

EVC comments on the specific recommendations:

Recommendation 4.2.1: Establish baseline data

The EVC agrees that this should be implemented by way of regulation. Ideally, there would be consistency across the jurisdictions in the manner in which the data is presented, but there is the risk of 'perfect being the enemy of good' if we seek consistency across DNSPs on this matter.

It is more important that those jurisdictions who do not publish this information, start publishing this information, than to ensure that the information is consistently presented across jurisdictions.

A sensible next step here would be an AEMC rule change, requiring the publication of the information described in this recommendation. This could be similar in nature to the rule change 10 years ago that required publication of zone substation data:

<https://www.aemc.gov.au/rule-changes/publication-of-zone-substation-data>

Recommendation 4.2.2. Require DNSPs to provide tools or processes that allow proponents to easily assess the available capacity at prospective sites

We note that multiple DNSPs have tools of various kinds, providing data to various levels of granularity.

The AEMC rule change noted above ensures that zone substation data is available, but for a proponent of public EV charging this is typically not sufficiently granular. What is needed is capacity data at the level of the feeder, or the level of the pole or pad mount transformer, depending on the nature of the charging equipment being deployed.

It is important to note that this data does not need to be perfect in order to be extremely useful, and it does not replace the formal connection process. What it allows is the rapid assessment of a large number of locations by a project proponent, without the need for engagement with the DNSP staff, so that the applications they put in to the DNSP are far more likely to be efficiently deliverable, with reduced requirement for augmentation of the upstream network.

This should also be progressed by way of a rule change, in a manner fundamentally similar to the rule change noted above, but clearly identifying that where actual data is not available at the level of granularity called for, an estimate is required to be made based on data that is available.

We note specifically that a ‘traffic light’ system to indicate availability of space capacity is not sufficient. The proponent of a public EV charging project will require an estimate of capacity measured in kW or kVA, in order to determine whether or not to proceed with a connection application for a project involving a given amount of EV charging equipment. The EVC understands the desire on the part of the DNSPs to refrain from publishing a number that turns out to be incorrect – but in this case, it will be better to publish the best estimate available, with a caveat that it’s an uncertain number, rather than to limit the information provided.

Essential Energy is an example of a DNSP that has executed extremely well in this area and has been held up as the gold standard by the EVC for their work.

Recommendation 4.2.3. Incentivise DNSPs to shorten the time required to connect and energise EVSE and large CER

The EVC notes the similarity of this proposal to the Service Target Performance Incentive Scheme (STPIS).

The STPIS rewards distributors where they exceed their reliability targets, and penalises them when they allow power supply to fall below the reliability targets. The reliability targets are typically based on the level of reliability achieved by a distributor over a recent period. The targets are typically amended for each distributor every five years as part of the regulatory determination process to take account of the most recent reliability performance of the distributor

In principle, a similar approach could work well with respect to improving the degree to which network connection processes are executed in a timely fashion, so the EVC supports this approach.

We note that design of this mechanism should be two sided, like the STPIS. It should feature both penalty and reward elements, such that a financial reward for improved connection timeliness is paid by customers while penalties to distributor for a reduction in connection timeliness mean customers get a price reduction.

Recommendation 4.2.4. Require DNSPs to provide clear requirements for the provision of a second connection

The EVC considers that the recommendation as provided is necessary, but insufficient. If implemented as written, this recommendation will help proponents better understand why their applications for second lines of supply are being refused, but it will not help them actually achieve efficient deployments of public EV charging equipment by utilising second lines of supply in those jurisdictions where DNSPs elect to set requirements that are unreasonably restrictive.

We present for consideration two jurisdictions by way of example, Victoria and Queensland, which have proven problematic in this respect.

Victoria.

The current state of play is that while the relevant regulations (<https://www.legislation.vic.gov.au/in-force/statutory-rules/electricity-safety-general-regulations-2019/001>, specifically section 218) and the safety regulator (ESV) are supportive of the establishment of second lines of supply for public EV charging equipment, the Victorian DNSPs follow a self-determined process around approval for connections of this type, developed by the Victorian SIRs committee. It does not appear to us that there are sufficient external checks or balances to ensure that this process is transparent, evidence based, or fit for purpose for parties other than the DNSPs in control of it.

The decision process around approving a second line of supply is based on size of supply and distance from the existing point of supply, and (we understand from correspondence with citipower) works as follows:

- If the requested second supply is above 200A, the proponent ***may*** be approved to have a second line of supply, irrespective of distance, subject to DNSP consideration. If there is capacity in the existing assets (Eg substation on site), or the existing asset can be augmented to provide the load, a second point of supply will not necessarily be provided. Our understanding is that cost or complexity borne by the customer of making use of existing assets on site, as an alternative to being permitted a second line of supply, is not a factor in the DNSP decision making process.
- If the requested second supply is below 200A, and the distance is above 225m, the proponent can have a second line of supply
- If the distance is less than 225m, and the requested supply is 200A or less, request for second supply will be refused.

For a premises like a suburban petrol station or small retail building with a car park, the distance will always be well under 225m, because of the typical dimensions of the commercial properties of this type. The requested supply will often be under 200 Amps, because 200 Amps is sufficient for a couple of 50-75kW DC chargers, and smaller connections are less likely to trigger requirements for upgrade of network assets. The

established process means that in the case of premises like petrol stations and small retailers, applications for second lines of supply will routinely be denied out of hand.

The EVC has advocated directly with the Victorian DNSPs to resolve this issue, brokering multiple meetings over many months with relevant stakeholders. Following failure to make progress through this approach, the EVC has approached the Victorian government, to request that government intercede in this matter in the interests of enabling the efficient rollout of public EV charging infrastructure, in line with state government policy.

We note that costs associated with establishing the second line of supply are borne by the proponent, not the DNSP – so, there's no good reason for DNSP refusal on commercial grounds. The reason proponents want the option is that covering the costs of the new connection will often be materially less than the costs of using/modifying the existing assets.

We note that the DNSPs have often advanced a safety argument to defend their refusal to support second lines of supply. To this we would note that electrical safety is explicitly addressed by the relevant regulations, and ESV (the relevant state level regulator) is supportive of second lines of supply. We note further that there are many buildings in Melbourne, with multiple separate points of supply below 200A, spaced as closely as one metre apart.

Queensland.

The QECM, which is the service and installation rules document in Queensland, is the instrument that imposes restrictions on second lines of supply. Unlike the case in Victoria, the document is clear and public - but, as with Victoria, the requirements act to prevent the efficient deployment of public EV charging stations, by blocking second lines of supply in cases where a second line of supply would be the optimal choice.

Engagement from the EVC in the QECM during its last review covered many issues, including this one. The response from Energy Queensland was to consult with charge point operators, to create a separate set of requirements that sit as an alternative pathway to the requirements in the QECM, with the intention of better supporting second lines of supply.

Unfortunately, the qualification criteria proposed by Energy Queensland include requirements for a 50 metre separation between service points, and 30 metre electrical separation zones between supplied areas. The effect of the first measure is that it rules out about 75% of commercial properties. The effect of the second is that the EV charging installation must be at least 30 metres away from the furthest extent of the site electrical installation – not just 30 metres away from established buildings, but 30 metres away from any existing car park lighting supplied from the existing building.

Not surprisingly, these thresholds rule out the vast majority of remaining potential locations where a second line of supply would be useful.

Detailed feedback of this nature, with supporting analysis, was provided to Energy Queensland in March this year by the EVC. This was provided immediately after a round table hosted by Energy Queensland, at which Energy Queensland presented this plan to a group of charge point operators. No progress has been made since that time on this issue.

What needs to be done in order that second lines of supply be made available to proponents of public EV charging equipment, to the benefit of consumers?

While there are examples in Australia of DNSPs actively supporting second lines of supply (DNSPs in NSW and South Australia are relatively good at this), from the examples above, it is clear that leaving DNSPs in sole control of conditions around approval of second lines of supply will not be likely to result in project proponents being able to consistently use this approach to secure more efficient deployment of public EV charging equipment.

It is definitely necessary that the conditions associated with enablement of second lines of supply be made clear – particularly in the case of Victoria, where the processes used by the DNSPs to assess connection requests are not public – but there is little practical value in clear processes that block sensible outcomes. Energy Queensland, for example, could make the case that they have already satisfied recommendation 4.2.4 in the paper, but this has demonstrably not actually solved the problem for proponents seeking to deploy public EV charging equipment in Queensland by using a second line of supply.

In addition to the specific requirements being clear, the requirements also need to clearly support the establishment of second lines of supply in settings where this technique is most likely to be useful for the purpose of efficiently deploying public EV charging – at premises like suburban petrol stations, retailing locations with small adjacent car parks, small council car parks, and the like.

We note that in parallel with this consultation effort led by DCCEEW, Energy Networks Australia has undertaken a review into harmonisation of connection requirements and service and installation rules:

<https://www.energynetworks.com.au/assets/uploads/Harmonising-EV-connections-Full-report.pdf>

The proposition from Energy Networks Australia is that the path forward on this issue is to:

- Engage with DNSPs in other countries
- Form a working group across DNSPs, involving collaboration of multiple teams within each DNSP
- Engage with industry stakeholders
- Implement these guidelines, inclusive of amending SIRs, state level safety regulations, the National Electricity Rules.

In response to this, the EVC notes that:

- Engagement with DNSPs in other countries shouldn't be necessary, as there are DNSPs within Australia that are supporting second lines of supply today.
- Engagement across multiple teams within multiple DNSPs, with CPOs actively participating, has already been attempted over the last two years in both Victoria and Queensland. These engagements have failed to deliver useful results, and it is not apparent that a new ENA-led process doing the same thing will achieve a different result.
- The fact that second lines of supply are already supported in some jurisdictions in Australia demonstrates that the National Electricity Rules aren't the problem, and the AEMC doesn't need to make any rule changes.

- State level safety regulations in Victoria already explicitly support second lines of supply and define how to do it safely. In Victoria, at least, state level regulations aren't the problem.

Resolution of this problem likely requires legislative change at a state level in jurisdictions where DNSPs are not adequately supportive, to require DNSPs to approve requests for second lines of supply at commercial premises, provided:

- 1) The project proponent meets the costs, as they would for any other new connection.
- 2) The relevant state government regulations, as distinct from DNSP-authored service and installation rules, relating to electrical safety are satisfied.

This approach would remove the ability of the DNSPs to block the reasonable usage of second lines of supply through internally defined processes (the current case in Victoria) and service and installation rules (the current case in Queensland). Safety would remain adequately protected by adherence to state government safety regulations.

If state level electrical safety regulations are themselves inadequately supportive of second lines of supply, they too will need addressing. The Victorian regulations can be used as a model where/if necessary.

The risk in adopting the approach preferred by the ENA is that it will predictably take years to execute and will likely fail, to the detriment of EV drivers.

Recommendation 4.2.5. An alternative approach specifically for EVSE projects

The approach considered here would reward the DNSP for every EVSE connection made, on the basis that deployment of more EVSE will lead to an associated amount of carbon reduction to be brought forward. Unlike the method suggested in 4.2.3, it does not appear to have an associated penalty mechanism, so it is pure upside for the DNSPs.

As noted in the paper, ***“this incentive approach would value getting projects in place and provide a financial incentive for DNSPs to maximise the level of emissions reductions achieved”***, based on assumptions relating to the predicted future utilisation of the assets. This measure would not necessarily be aligned with prioritising connection of assets that are needed to accelerate the uptake of EVs.

In terms of perverse outcomes, depending on the specific settings of this approach, it could potentially lead to massive over-deployment of EVSE of a nature that does not align well with consumer need, with the cost of the incentive payment being washed across all consumers in the form of increased energy bills.

On balance, the EVC considers that the incentive approach outlined in 4.2.3 is the better option.

Next steps

The EVC thanks the federal government for commissioning this work and recognises the Oakley Greenwood team specifically for doing a fantastic job in the consultation and presentation of the recommendations.

With relation to setting requirements around the creation of tools to enable analysis of capacity, this is largely within the scope of the market bodies (AEMC/AER) to deliver, and has been a live discussion for years at the level of market bodies and involved stakeholders:

<https://www.aer.gov.au/industry/registers/resources/reviews/network-visibility>

The EVC would like to understand from DCCEEW what the next step is towards actually achieving this outcome. We agree with the recommendation, and we've been talking about it for years - our question is "who is going to take charge of making it happen, in those jurisdictions where the DNSP is not doing it voluntarily"?

With relation to the incentive scheme, that will logically be a consideration for market bodies (AER, AEMC) in consultation with the DNSPs.

Second lines of supply is, in our estimation, not amenable to being solved at a federal level. Regulations and legislation relating to electrical safety are managed at state level, and the market bodies (such as the AER) do not typically involve themselves in matters relating to the nuts and bolts of electrical installations.

It's also clear that from our experience that engagement between industry and DNSPs is not likely to resolve this issue. On this issue, state governments will need to engage with DNSPs to remove the roadblocks holding back deployment of public EV charging equipment.

We note that footnote 25 on page 28 touches on tariffs, and that the tariff assignment process is part of the connection process. Network tariff assignment decisions are made by DNSPs based on a variety of different structures across jurisdictions. The outcome can impact the viability of investment in a public charging site. While assignment policies are published through Tariff Structure Statements, the operational rules applied by DNSPs are not always clear. The EVC understands that CPOs often find out which tariff has been applied when they receive their first bill, after a site is built and too late to make changes. Transparency of operating rules is required in this area, and evolution of these rules – to incorporate, for example, cases where a CPO may have many similar sites with similar utilisation profiles – would assist in achieving outcomes where appropriate tariff assignment can occur at the time of connection.

If you have any questions on this submission, please contact Ross De Rango, at office@evc.org.au.

Thank you for your consideration of our submission.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Ross De Rango', with a long horizontal flourish extending to the right.

Ross De Rango

Head of Energy and Infrastructure

Electric Vehicle Council