Submission No 82

INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE VEHICLES IN NSW

Organisation: Ampol

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The Legislative Assembly Committee on Transport and Infrastructure

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Infrastructure for electric and alternative energy source vehicles in NSW-Consultation Paper

Part 1 – Introduction:

Ampol Limited (**Ampol**) welcomes the opportunity to make a submission to the Legislative Assembly Committee on Transport and Infrastructure (**Committee**) consultation on Infrastructure for electric and alternative energy source vehicles in NSW (**Consultation Paper**).

Electric vehicle (**EV**) charging connection to network infrastructure is critical for Ampol to be able to support our existing customer base as these customers transition to electric mobility solutions. It provides opportunities for 'at-home,' 'at-destination,' and 'at-forecourt' charging options. Over time, Ampol envisions a scalable and sustainable network that meets growing demand, supports advancements in EV technology, and ensures equitable access across both urban and regional areas. This vision positions Ampol at the forefront of the nation's transition toward electric mobility.

Ampol believes that there is a valuable opportunity to create platforms for knowledge sharing of best practices among Distribution Network Service Providers (**DNSP**s) across Australia. Fostering such collaboration would promote greater efficiency and consistency in the sector.

In developing this submission, we consulted with internal stakeholders. We have limited our response to the issues in the consultation paper where we have specific comments.

About Ampol

As Australia's leading fuel supplier with over 120 years of operations experience, Ampol manages Australia's largest fuel and convenience network as well as refining, importing, and marketing fuels and lubricants. With our extensive experience, we have grown to become the largest transport fuels company listed on the Australian Securities Exchange.

Ampol believes we have an important role to play in Australia's transport energy transition, providing the transport energies our customers use now and in the future.

In May 2021, Ampol released its Future Energy and Decarbonisation Strategies. The Decarbonisation Strategy outlines our ambition to achieve net zero emissions from operations in Australia on an absolute basis by 2040 (Scope 1 and 2), with interim targets set for 2025 and 2030. Prior to the acquisition of Z Energy in May 2022, Z Energy had set its own target to reduce operational emissions in New Zealand by 42% by 2029 (Scope 1 and 2, and Scope 3 emissions associated with business travel, waste, and domestic fuel distribution). Following the acquisition, Ampol's operational emissions reduction goals remain in place for both Australia (2040) and New Zealand (2029). The Future Energy Strategy outlines our focus on developing energy solutions that will enable our customers to transition, including EV charging, and renewable fuels for heavy and hard-to-abate-sectors. As part of this, Ampol is actively expanding our AmpCharge Public EV charging network and has already

deployed over **154 fast** charging bays across 63 sites in Australia. Our ambition is to leverage our strong market position to build Australia's leading EV charging network by 2030.

Issue 1. Location of electric vehicle chargers or infrastructure for other potential energy fuel sources.

1.1 Grid Connections

It is important to note that often significant upgrades to the electricity network are required to deploy and operate fast EV chargers at their full capacity.

Most inner city Ampol service stations currently operate with an electrical connection similar to that of a standard residential home. However, to install a fast EV charger that operates at full capacity, requires approximately 05 to 10 times more power, and that is just for one fast DC charger. Ampol's largest EV DC fast charging site, for example, consumes on average the same amount of electricity per day as 75 four-bedroom homes.

This highlights the significant infrastructure challenge involved in scaling up fast-charging networks and reinforces the need for coordinated investment in grid capacity, planning approvals, and long-term infrastructure planning.

This is a key factor as to why EV fast charger deployment is often expensive and can take up to 18 months to two years to complete, especially in rural areas, where the networks often have more constraints.

Ampol is actively pursuing dynamic solutions for its EV charging deployments, to make more effective use of available network capacity, particularly during off-peak period times. This approach can reduce the level of investment required in electrical infrastructure and supports a more efficient outcome for all users.

Ampol also supports the levels of anticipatory investment identified by DNSPs, as well as the recent support for kerbside charging infrastructure. These measures are essential to enabling a scalable, flexible charging network that aligns with evolving demand and supports customer uptake.

To support the deployment of electric vehicle charging infrastructure and broader decarbonisation efforts, Ampol proposes the establishment of a national, uniform grid connections guideline that includes:

a) **Dynamic and Flexible Connection:** Enable dynamic and flexible connection arrangements that promote efficient grid utilisation and apply cost-reflective usage charges aligned with real-time demand and capacity consumed.

b) **Uniform DNSP Standards and Streamlined Processes**: Streamline the connection process through the adoption of consistent technical standards and requirements across all DNSPs, improving certainty and reducing delays for proponents.

c) **Review of Network Tariff Structures:** To enable greater utilisation of existing grid infrastructure, Ampol recommends a review of the current Network Tariff Structure. This review should aim to implement more supportive tariff arrangement, specifically, avoiding demand or capacity-based charges and instead offering competitively priced time-of-use (TOU). Fair and predictable pricing for Charge Point Operators (CPOs) will help facilitate the rollout of EV charging infrastructure, particularly in areas with lower EV uptake, and ensure the network can manage increasing demand efficiently.

d) **Reduced Time from Approval to Energisation**: Encourage DNSPs to minimise the time between inspection, approval, and energisation, reducing unnecessary delays to infrastructure rollout.

e) **Support for Anticipatory Investment:** Allow networks to invest ahead of demand in areas where capacity will soon be required to support e-mobility and the renewable energy transition, improving reliability and ensuring infrastructure is in place when needed.

1.2 Electricity Network Data and Infrastructure Planning

Ampol believes there should be clear guidelines for making network data available. Ampol embraces the requirement for the DNSP to publicly report their performance on connection times and data sharing, as it encourages transparency. The data would be far more valuable if updated frequently, making it reliable.

Ampol welcomes the initiative of the Network Opportunity Mapping (**NOM**) approach adopted by Essential Energy, which has been universally recognised as the best in class. This instrument provides consistent, transparent annual planning data to identify opportunities for distributed generation, energy storage, and other non-network solutions.

The Network Opportunity Maps make it easier for DNSPs and proponents of non-network alternatives to reach a common understanding of the potential value in reducing peak electricity demand across different parts of the network. At the set of Ampol's rollout, detailed maps showing local network capacity were not yet available.

Ampol supports the development of clear, nationally consistent guidelines to make **local network capacity data readily accessible**. Improved data transparency will significantly enhance **EV charging infrastructure planning**, reduce inefficiencies, and help alleviate pressure on DNSPs by decreasing the volume of ad hoc capacity requests they must respond to.

Ampol supports the creation of a centralised national database requiring all DNSPs to upload network capacity information in a standardised format. This would greatly improve visibility for proponents and planners across jurisdictions. In parallel, there should be standardised communication protocols for data transfer and electrical control between DNSP networks and customer assets. This will support greater integration, enhance demand-side management, and enable more flexible, efficient use of the grid.

The database should include detailed, location-specific information—particularly at the zone substation and local area level—to highlight existing constraints and available capacity. Access to more granular data enables proponents to identify viable sites and develop targeted solutions with greater accuracy and efficiency.

Finally, Ampol recommends **accelerating the rollout of smart meters** to improve access to low voltage network data, which is essential for accurately assessing available grid capacity and planning EV charging infrastructure.

Issue 2. The viability of alternative energy sources for freight, heavy vehicles, and other licensed vehicles in regional communities.

In Australia, we expect that battery electric vehicles (**BEV**), renewable fuels and in some cases hydrogen will all play a role in the future of transport fuels, with consumers and businesses seeking a range of available options. While BEV technology offers a promising pathway for decarbonisation of commercial vehicles, challenges remain, particularly, regarding technology cost and suitability in heavy-duty, high-uptime applications which are common in Australian freight sector. The electrification of heavy transport will drive a significant increase in power demand across the electricity grid and require the development of reliable and accessible charging infrastructure to support customer operations, both at depot locations and across public charging networks.

We expect to see an increased uptake of renewable diesel (**RD**) in heavy vehicle applications in the short to medium term. RD is a "drop-in" fuel that can be blended with conventional diesel and used immediately, without requiring significant modifications to existing engines or supporting refuelling infrastructure. Ampol continues to import RD to support customer trials, while broader policy and market signals continue to evolve to enable the development of a domestic supply chain, including Ampol's proposed Brisbane Renewable Fuels (**BRF**) project. Blending renewable diesel with conventional diesel may enhance affordability and support near-term adoption; however, fuel costs and uncertainty of long-term supply remain key barriers to large-scale development.

Issue 3. Utilisation of existing infrastructure and measures to ensure a competitive market, including 'ring-fencing' policies.

3.1 Additional or second points of electricity supply

Ampol believes there is a desire to see greater consistency across DNSPs in how second connection point requests are managed. While safety concerns are acknowledged and must remain a priority, interpretations of safety regulations and the resulting rules for second connections vary between DNSPs. This lack of uniformity creates confusion and inefficiencies in the process.

By standardising these practices across all DNSPs, it would be easier for both DNSPs and customers to navigate the requirements at a national level, ultimately leading to a more streamlined and predictable connection process.

Ampol believes that introducing a special clause allowing high-power EV charging to have a second point of supply should be considered. Reviewing similar cases in New Zealand, where this is allowed by Electricity Distribution Businesses (**EDB**s), may help evaluate the benefits and challenges.

3.2 Connections to Embedded Networks:

Similar to the issue of second points of supply, there is a clear need for greater consistency in the way DNSPs and Embedded Network Operators (**ENO**s) manage connections to sites with existing Embedded Networks. Such consistency is crucial to facilitate the rollout of electric vehicle EV fast chargers using existing infrastructure.

At present, DNSPs differ in their policies regarding a second point of connection or in permitting Charge Point Operators (**CPO**s) to directly connect wired tenancies on the same site as an existing Embedded Network. This lack of consistency complicates project planning and causes significant delays in some instances.

Additionally, ENOs lack uniformity in their approach to onboarding new embedded network customers, particularly in relation to the commercial agreements for large customers. For example, we have found that ENOs have an inconsistent approach to how they pass external DNSP network charges on to Ampol for EV fast charging, despite the frameworks set out in the Australian Energy Regulator's (**AER**) Electricity Network Service Provider - Registration Exemption Guideline.

Standardising connection practices would simplify the process for CPOs and other embedded network customers, making it easier to navigate connections with both DNSPs and ENOs, and effectively utilise existing infrastructure for EV fast chargers.

3.2 Financial support for Electrical Vehicle Charging Infrastructure (EVCI)

Our experience to date has highlighted that elements of the initial funding models have proven too inflexible in practice.

Ampol considers that New Zealand's Energy Efficiency and Conservation Authority (**EECA**) adopts a targeted and flexible funding approach to support the deployment of EVCI. The aim is to both incentivise investment and facilitate innovation and best practice in delivery. Funding is structured to help address known challenges in building electrical infrastructure—such as distribution network connections, load management, and other integration issues.

A key strength of EECA's model is the operational flexibility it provides to CPOs, who retain decision-making authority over hardware selection, deployment scheduling, and adherence to key reporting requirements. Additionally, the funding often allows for reallocations across various components of the build program, acknowledging that project scope and priorities may shift over time.

3.3 Telecommunications and National Broadband Network connectivity

Ampol is experiencing telecommunications-related challenges in regional locations where we are deploying our fast chargers, such as at our Pheasants Nest retail sites on the Hume Highway.

Currently, customers are required to use the Ampol app to initiate and pay for charging. However, we are finding that some customers are unable to access the app due to telecommunications black spots or because they are using a provider other than Telstra, whose network may have limited coverage in these areas. Many of our sites currently rely on Telstra connectivity via one or two 4G SIMs.

To address this issue, we are exploring alternatives to Wi-Fi, including upgrading to a hard-wired NBN connection where available. In some areas, however, the only NBN option is Fixed Wireless, which may have similar limitations.

This issue was further underscored in November 2023, when a national Optus outage resulted in a number of EV chargers operated by other industry partners being unavailable for use.

4. Any other matters

4.1 Owner's Consent

To ensure that all apartment residents—whether owners or tenants—can access EV charging, we strongly support the NSW Government's Right to Charge proposal.

We also note that the harmonisation of provisions for second points of supply to support EVCI should help reduce this resistance. The requirement for a separate meter and National Meter Identifier (**NMI**) enables clear and discrete billing for EV charger usage, separate from the building's general electricity consumption. Providing clear guidance for apartment owners, landlords, and renters in existing buildings—along with clarity on responsibilities, cost-sharing, and installation processes—can improve accountability and help address common concerns raised by strata and building managers regarding the introduction of EV charging infrastructure (EVCI).

Part 4 Conclusion

We would like to take this opportunity to thank the Legislative Assembly Committee on Transport and Infrastructure for the opportunity to provide this submission and would be pleased to support the review as needed.
Ampol supports measures to enable timely and cost-effective grid infrastructure upgrades necessary to support the growth of EVCI. However, clearer guidelines for second point of connection and project prioritisation, especially for public-serving projects, will foster a more predictable and faster connection process.

Ampol welcomes the opportunity for further discussions to explore additional ways to support and enhance the overall efficiency of network connections. We look forward to continued collaboration in advancing these efforts.

Should you wish to discuss this submission, please contact [redacted], General Manager Energy Value Chain at [redacted].