Submission No 32

INFRASTRUCTURE FOR ELECTRIC AND ALTERNATIVE ENERGY SOURCE VEHICLES IN NSW

Organisation: Heavy Vehicle Industry Australia (HVIA)

Date Received: 1 May 2025

HEAVY VEHICLE INDUSTRY AUSTRALIA

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HVIA Submission

Infrastructure for Electric and Alternative Energy Source Vehicles in NSW

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Contact:

Todd Hacking, Chief Executive Officer 1 May 2025

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1. Background

Heavy Vehicle Industry Australia (HVIA) is the peak industry association for Australian manufacturers of trucks and trailers (collectively referred to as heavy vehicles), as well as the dealerships, repairers, suppliers, and service providers that support the entire industry. We represent almost every major truck manufacturer/importer, all of Australia's major trailer manufacturers, and an ever-growing list of their component, equipment and technology providers.

Our 300-plus corporate members collectively employ a local workforce of over 70,000 staff. Our member's interests cover an extensive range of vehicles, starting with 3.5-tonne light commercial trucks, and extending all the way up to Australia's unique 50-metre long, 100-tonne road trains.

Our industry provides some of the world's most efficient, safe, innovative, and technologically advanced vehicles. HVIA seeks to work with government and stakeholders to promote an innovative and prosperous industry that supports a safe and productive heavy vehicle fleet operating for the benefit of all Australians.

2. General Comments

HVIA recognises that the transition to net zero is complicated for the heavy vehicle industry due to the unique nature of Australia's heavy vehicles, the age of our fleet, as well as the extreme weather fluctuations we face, and the hard to abate nature of many freight tasks. We also face challenges from the expected growth in the freight task in coming decades, complicated international supply chains, and widespread shortages of skilled workers.

HVIA members are at the forefront of innovations that can assist in lowering emissions including:

- Encouraging High Productivity Freight Vehicles through the PBS Scheme that produce lower CO2 emissions per tonne than conventional vehicles.
- Providing a broad range of low and zero emission heavy vehicles (LZEHVs) to the Australian Market
- Providing energy, charging and refuelling solutions for these vehicles
- Provision of Low Carbon Liquid Fuels (LCLF)
- Development of innovative technical solutions such e-Axles.

Implementing these solutions requires:

- An access regime which supports differentiated mass and dimension limits for LZEHVs and other innovative vehicles which allow them to access the required parts of the road network without incurring a reduction in payload, and enables trials of innovative vehicles and technologies
- Road infrastructure investment to support access to critical origin and destination points
- Investment in energy supply infrastructure to support the full range of innovative vehicles
- Creating industry standards that underpins the heavy vehicle charging and refuelling infrastructure investment.
- Adequate supply of feedstock for LCLF, and investment in the infrastructure required to refine these fuels.

For our customers, the truck operators who need to operate these vehicles, it is important to recognise that they are low margin businesses which are likely to need support to make the business case for these vehicles work. This will need assistance from Government to address the business case barriers, address the infrastructure issues, and provide a consistent approach to policy and regulation.

3. Terms of Reference Responses

a. Funding and location of electric vehicle chargers or infrastructure for other potential energy fuel sources

The development of the infrastructure for electric and alternative energy vehicles across New South Wales requires funding mechanisms which must be strategic, futureproof, and underpinned by safety, interoperability, and performance. HVIA would like to make the following suggestions for the various energy and vehicle types:

Electric Vehicles

1. Strategic Co-Investment for Network Expansion

Public funding should aim to bridge market gaps through co-investment with the private sector, ensuring that infrastructure is deployed in both commercially viable and under-served locations. Priority areas should include key national or strategic freight routes, depot-based fleet hubs, multi-residential developments, shopping centre car parks, where LZEVs may deliver, and transport interchanges.

2. Open-Access and Interoperable Charging Infrastructure

To ensure a competitive and consumer-friendly EV ecosystem, funded infrastructure must be openaccess and built using non-proprietary, interoperable communication protocols such as OCPP (Open Charge Point Protocol) and OCPI (Open Charge Point Interface). This prevents vendor lockin and allows for greater user flexibility and infrastructure compatibility.

3. Hardware from Proven OEMs with Local Presence

Funding must be tied to the use of hardware from **proven original equipment manufacturers (OEMs)** with a strong track record of performance in Australia and internationally. Preference should be given to OEMs that:

- Have reliable onshore references, including existing commercial or government deployments.
- Offer local technical support, training, and warranty fulfilment.
- Provide documentation of compliance with Australian standards and grid requirements.
- Maintain an onshore inventory of OEM parts and other warranty or maintenance consumables for the expected lifespan of the hardware, ensuring commitments to reasonable supply timeframes or at the very least commit to a minimum performance or usability standard such as level of uptime/downtime or response/repair time.

These conditions minimise risk and will ensure that infrastructure is robust, well-supported, and suitable for local environmental and regulatory conditions.

4. Certified Installation and Independent Commissioning

All installations must be carried out by appropriately licensed contractors who are trained in EV infrastructure standards, with post-installation commissioning completed independently to validate compliance, and OEM requirements. This approach ensures safety, functional performance, and consistency across the state.

5. Smart Software Platforms with Shared Access and Monetisation Capabilities

Funded infrastructure should include smart charging software that enables site hosts to manage, monitor, and share their chargers with third-party users (such as fleet partners or the public) through a **monetised**, **managed platform**. This approach increases asset utilisation, reduces idle infrastructure, and promotes a sustainable return on investment for site operators.

6. Locally Hosted Software and Data Security Compliance

Given the critical nature of EV infrastructure and its integration into public and private energy networks, the software platforms used must be hosted within Australian data centres or via locally held instances. This ensures:

- Data sovereignty and compliance with Australian privacy laws.
- Reduced cybersecurity risks, particularly in sensitive or government-owned infrastructure.
- **Rapid technical support**, service continuity, and alignment with national digital security frameworks.

Software vendors must also demonstrate secure API integration, end-user data protection, and audit-ready reporting features.

7. Futureproofing and Site Readiness

Where immediate charger installation is not feasible, funding should still support the preparation of "EV-ready" sites, including conduit installation, load assessments, digital metering, and the integration of dynamic load management (DLM) systems. This minimises retrofit costs and supports scalable infrastructure as demand grows.

8. Heavy Vehicle Friendly Charging/ Refuelling Sites

It is important that the charging network supports not only passenger vehicles but also support heavy vehicles. Appendix 1 outlines some of the key considerations in designing heavy vehicle friendly charging stations. The importance of providing this certainty is paramount.

Hydrogen Vehicles

The principles outlined for electric vehicles also apply for hydrogen vehicles with the obvious caveat that relevant hydrogen safety standards should be used. It is important to recognise that Hydrogen may be used as part of a Fuel cell/ EV or directly as a combustion fuel. It is also important that Hydrogen truck refuelling facilities support 700 Bar pressures as the preferred level.

Low Carbon Liquid Fuels

Renewable diesel already largely has available infrastructure in place to distribute the fuels either through adding dedicated renewable diesel bowsers in existing service stations, or through incorporating it into blended fuels. This provides a potential advantage over BEVs and hydrogen in remote locations.

However, the impact of renewable diesel on CO2 emissions will be determined by its cost and availability.

HVIA notes DoITRDCA's estimation that renewable diesel may be twice the cost of conventional diesel. The only operators likely to be willing to use pure renewable diesel at these costs are likely to be a limited number of operators that have strong net zero targets or whose customers have strong net zero targets. Importantly, blends containing small percentages of renewable diesel are only marginally more expensive than conventional diesel (but also provide only a correspondingly small CO2 reduction).

HVIA strongly supports policy to encourage the urgent development of local LCLF feedstock production and refining industries, noting the CSIRO findings that highlight Australia's natural geographic and other existing advantages. In that context, it would be a considerable missed opportunity if Australia were to remain a limited LCLF feedstock producer and exporter, only to continue to import both conventional fuels and LCLFs in the future.

Of the various policy options available to government to accelerate the development of a local LCLF feedstock and refining industry, HVIA is open to a wide range of supply and demand side mechanisms, including production/supply incentives and rebates, non-binding targets, and standards such as a low carbon fuel standard.

Notwithstanding, HVIA recommends that any standard expressly consider availability and cost for the end user. A standard enacted or mandated while supply remains low, and cost is high, risks adding undue operational and financial pressures to the sector. Setting targets that are impractical and/or unachievable will undermine confidence. Additionally, standards enacted whilst supply is limited reduces the flexibility of the industry to offer tailored solutions.

HVIA supports the introduction of a guarantee of origin scheme and certification arrangements to provide the end user with certainty on how the fuel will contribute to their reduction targets.

HVIA notes that the Federal Government recently announced a \$250m Future Made in Australia (**FMA**) Innovation Fund and in particular how it can support Low Carbon Liquid Fuels. HVIA advises the NSW Government to take note of the eventual NSW recipients of this funding to support these projects in other localised regulatory ways, such as through land use planning, development approvals etc.

b. the viability of alternative energy sources for freight, heavy vehicles and other licenced vehicles in regional communities

Electric heavy vehicles may be unlikely to replace conventional diesel heavy vehicles for line-haul operations between major population centres in the short-term. However, for operations within those centres, charging infrastructure availability will be important. Though charging will often occur at transport depots or receiving locations, options will be required for charging away from base. As a result, it is important that there is a focus on establishing charging facilities or upgrading existing facilities on key national and strategic freight corridors, such that it can be safely used by LZEHVs.

It is likely that for the foreseeable future the energy sources for freight vehicles are likely to be provided by a mixture of alternative energy sources and more conventional energy sources. One of the key determinants of which energy source will be used is the reliability of supply.

Recent concerns over the ability of the Australian electricity grid to cope with the existing level of intermittent renewable energy raises concerns over the ability of the grid to cope with large scale transition of the freight task to electric vehicles. It is important for these fleets to be able to reliably charge overnight because they are frequently on the road during the day. Incentives encouraging depots to have battery stored solar energy would also be advantageous for these situations.

It is critical that the heavy vehicle industry has a guaranteed supply of energy to ensure supply chains remain robust.

c. use of existing infrastructure and measures to ensure a competitive market, including 'ring fencing' policies.

HVIA is not able to comment on this item. Some individual HVIA members may choose to comment on this item if it directly affects their business.

d. measures to ensure the transition of workers from affected industries and industry standards.

HVIA would encourage the NSW Government to place courses related to the Certificate 3 in Automotive Electric Vehicle Technology along with relevant individual skill sets on the subsidy list for priority skills, and more generally promote skills development related to maintenance and production of EVs.

In addition, in time it will be crucial to develop and promote a corresponding set of courses and skill sets to cover skills related to hydrogen fuel cell technologies.

Complementary to the above, is the need to fund all RTOs that deliver heavy vehicle training to cover capital investment in training products (including low and zero emissions vehicles) to support the delivery of electric and hybrid vehicle training.

Lastly and importantly the NSW Government should simplify the licensing and accreditation requirements for relevant skill sets. HVIA already is on the AUSMASA SWAP and contributes at the national level and would be willing to contribute expertise to support the NSW Government.

It is also important to mention that the NSW licensing framework is out of step with the rest of the nation. Additional burdens increase uncertainty and make working in NSW less attractive then in other Australian states. NSW should ensure any regulatory effort is in lockstep with the rest of the nation.

e. any other related matters.

Access

In order to encourage the uptake of LZEHVs it is essential that they have access to the road system which does not put them at a disadvantage with respect to payload in comparison to conventional ICE vehicles. Given that LZEHV vehicles are likely to be heavier and wider than their traditional ICE counterparts this may require that additional mass and dimension exemptions should be made available to these vehicles. Some of these issues have been addressed as part of the Safer Freight Vehicles package and as part of the EURO VI emission requirements implementation under ADR 80/04. However, further work will be required to address the needs of LZEHVs. HVIA is keen to facilitate the discussions with Government.

4 Conclusion

HVIA thanks the NSW Government for the opportunity to provide comment on the Inquiry into the Infrastructure for Electric and Alternative Energy Source Vehicles in NSW and would be happy to expand on any points as part of the Committees deliberations.

5 Appendix 1

Key issues to be considered in developing a plan for Electric Vehicle Charging Stations:

- Initial focus should be on developing charging stations in key transport nodes which have the greatest potential for back to base operations of vehicles using existing technology (e.g. ports or major industrial areas)
- Progressively expand the network to additional nodes which will allow the range of vehicles and the number of tasks they can undertake to be expanded and extend the scope of back to base operations
 - \circ $\;$ The focus of the expansion should be on key freight routes
- Include planning for the charging sites covering:
 - Minimum numbers of charging points based on the likely volume of usage (road capacity multiplied by the projected initial percentage of uptake of electric vehicle)
 - The charging stations need to have sufficient space to meet projected growth in the number and types (rigid and articulated) of vehicles accessing the site
 - o Where space is limited, identify alternative sites to meet the projected growth
 - Facility design needs to allow for bays large enough to accommodate heavy vehicles and trailers and include consideration of turning circles, queueing issues (both inside the charging station and in the surrounding roads), and pavements need to accommodate the required axle loads and sheer forces when manoeuvring these vehicles at low speeds
 - Capacity of the electricity grid and on-site energy generating and storage capacity to reliably provide the required energy