



**ALC** AUSTRALIAN  
LOGISTICS  
COUNCIL  
SUPPLY CHAIN EFFICIENCY AND SAFETY

# Submission to the National Electric Vehicle Strategy

Australian Logistics Council (ALC)

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# Introduction

The Australian Logistics Council (ALC) welcomes the opportunity to make a submission on the National Electric Vehicle Strategy.

ALC is the peak national body representing major companies participating in the freight logistics industry. ALC's policy focus is on delivering enhanced supply chain productivity, sustainability, efficiency and safety.

Freight affects every Australian, every day, everywhere. Common goods purchased by Australians such as food, clothing, household appliances and medicine all need to be transported by freight operators.

Australia's population is expected to grow by 10 million by 2040, an increase which must be supported through proactive investment in infrastructure. This will become increasingly important as climate change challenges the resilience of existing investments.

We particularly note that as part of the Glasgow Breakthrough on Road Transport the Australian Government has committed to make ZEVs 'the new normal by making them accessible, affordable and sustainable by 2030.

However, as Australia makes this transition, decision makers must not forget the need to ensure a resilient and efficient end-to-end supply chain to carry the Australian freight task.

Technology must perform a function – customers will not pay premium rates for freight carried by a zero-emission vehicle. In most environments electric vehicles have neither the distance, nor payload capacity to carry economic volumes of freight. Recognising this point must form a part of an Australian electric vehicle policy.

It is also more costly to purchase a ZEV than a diesel fuelled vehicle.

And as indicated in the **Hydrogen for Transport Report** prepared for the COAG Energy Council, there are only a few models of hydrogen fuel cell electric vehicles in production and available for purchase, and they are generally more expensive than petrol- or diesel-powered engines.

The incentive structure therefore needs to be right to encourage industry to invest in ZEVs.

ALC has had regard to the Discussion Paper and make the following general observations.

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<sup>1</sup> <https://racetozero.unfccc.int/system/glasgow-breakthroughs/#:~:text=decade%20of%20delivery-,With%20the%20Glasgow%20Breakthroughs%2C%20governments%20are%20committing%20to%20put%20in,with%20the%20Global%20Checkpoint%20Process.>

# Financing Alternatively Powered Heavy Vehicles

As the Grattan Institute's **Grattan Truck Plan** said:

*Old dirty trucks make up a large share of the fleet, because Australians hold onto trucks for a lot longer than owners in other countries. The average age of an Australian truck is 15 years compared to 6 years in Austria and 9 years in France, Germany and the Netherlands.*

*There are trucks on the road that are more than 40 years old and more than 14 percent of Australian trucks were manufactured before 1996. Another 12 percent were manufactured between 1996 and 2002. This means that **more than a quarter of the Australian fleet has not been required to satisfy any more than the most minimal pollution standards, or none at all**<sup>2</sup>.*

The heavy vehicle transport industry is very fragmented. Some operators have large fleets, others a single truck. There is a need for these operators to have a convenient source of capital to invest in ZEVs.

Freight is also a single digit margin industry, due to a competitive rates market and low operating margins.

This means that absent any support, the incentive is not there to invest in new equipment.

**There is therefore a role for government in encouraging the uptake of zero emission vehicles if the international commitments to Net Zero given by the Australian Government is to be met.**

## Creation of a Loan Facility

The Grattan Institute has suggested a voucher system as one way to encourage heavy vehicle operators to change to a ZEV<sup>3</sup>.

However, under this proposal a heavy vehicle operator would still need to provide 50% of the capital investment.

A better way of creating an incentive to purchase electric vehicles (over and above the provision of grants or subsidies) could be the provision of a loan facility.

The National Housing Infrastructure Facility<sup>4</sup> has been established to provide (in particular) equity finance to help support critical housing-enabling infrastructure products that may not have proceeded or would only have proceeded at a much later date.

**A provision of such a facility may create the business case that will encourage ZEV uptake.**

## Stamp Duty Relief

Stamp may also be necessary to encourage uptake whilst there is a price differentiation between fossil and ZEVs and a limited number of models available in the marketplace.

**An initiative like the NSW Government's abolition of stamp duty under its Electric Vehicle Strategy should be extended to vehicles over 4.5 tonne GVM<sup>5</sup>.**

## Fuel Security

ALC supports the approach of the Government contained in its Powering Australia policy paper<sup>6</sup> when it says it will:

<sup>2</sup> <https://grattan.edu.au/wp-content/uploads/2022/08/Grattan-Truck-Plan-Report.pdf>: 17

<sup>3</sup> Grattan Truck Plan: 46

<sup>4</sup> <https://www.nhifc.gov.au/media/1086/final-nhif-guidelines.pdf>

<sup>5</sup> <https://www.nsw.gov.au/initiative/nsw-governments-electric-vehicle-strategy/abolish-stamp-duty>. Stamp duty relief does not extend to vehicles over 4.5 tonne GVM

<sup>6</sup> <https://keystone-alp.s3-ap-southeast-2.amazonaws.com/prod/61a9693a3f3c53001f975017-PoweringAustralia.pdf>: 40

- work with states and territories to maximise EV charging infrastructure on federally funded infrastructure projects;
- work with industry to review the National Construction Code regarding boosting EV charging infrastructure; and
- ensure City Deals encourage EV charging facilities wherever possible.

**It is important that infrastructure for electric vehicles and, in particular, hydrogen fuel cell electric vehicles (which will carry the bulk of the freight task) are strategically located along key national freight routes.**

For instance, the commitment by the Victorian and NSW Governments to spend \$20million on hydrogen fuel stations along the Hume Highway is welcome<sup>7</sup>.

However, unless refuelling capacity is not freely available along of all Australia’s key freight routes the advantages that diesel fuel vehicles have both in terms of range and availability in refuelling outlets will mean there is a limited business case to invest in a ZEV.

## Back to Base Refuelling

**ALC members have indicated EV vehicle uptake would be enhanced if ‘back to base’ refuelling – the capacity to refuel or recharge at or very near the places where vehicles are based - is incentivised.**

This would include ensuring planning laws permit the incorporation of large-scale solar panels on the roof of warehouses and other facilities to recharge ZEVs.

## Integrity of the Electricity Grid

The electricity grid - particularly substations serving significant transport infrastructure where vehicles may be refuelled overnight - must be capable of handling increased demand if uptake of ZEVs is to be encouraged.

ALC Technology Summits feedback over the years emphasised the importance of maintaining efficient supply of electricity to ensure the grid can meet an increased peak in demand caused through the recharging of electric vehicles.

This is particularly the case at electricity substation level, where a substation is servicing a commercial precinct where electric vehicles are being recharged. This infrastructure must be fit for this important purpose, as unreliability of power supplies will prejudice the early uptake of ZEVs.

**An audit of substations serving places where fleets of battery powered transport vehicles are expected to be recharged should be conducted as a matter of priority.**

It is hoped that this can be achieved as part of the Powering Australia program.<sup>8</sup>

Information that can be harnessed as electric vehicles are being refuelled (both at home and at publicly available charging stations) can also be used when planning for the creation of a sustainable electricity grid.

<sup>7</sup> <https://www.theguardian.com/environment/2022/jul/18/hydrogen-fuel-stations-to-be-built-between-sydney-and-melbourne-under-20m-plan> 17 July 2022

<sup>8</sup> The current parameters of Powering Australia is conveniently set out in Budget Paper No.2 at p.72: [https://budget.gov.au/2022-23-october/content/bp2/download/bp2\\_2022-23.pdf](https://budget.gov.au/2022-23-october/content/bp2/download/bp2_2022-23.pdf)

## An Australian Hydrogen Industry

Finally, the uptake of fuel cell electric vehicles may be influenced by the establishment of a hydrogen industry in Australia to provide assurance of fuel security, should international supply chains suffer disruption in the future.

As indicated in the Government's Australia's National Hydrogen Strategy document:

*Using locally made hydrogen can help reduce Australia's heavy dependence on importing liquid fuels, especially for transport. This would potentially **strengthen Australia's strategic security and maximise our energy resilience**. The Australian Government has considered the opportunity for hydrogen along with other alternative fuels to improve Australia's resilience to disruptions in fuel supply through the Liquid Fuel Security Review. Reducing fuel imports could also improve Australia's terms of trade<sup>9</sup>.*

And as the Australian Renewable Energy Agency has said:

*Like the rest of the world, the main use of hydrogen in Australia is as a raw material for industrial processes.*

*Renewable hydrogen use in Australia would help us to reduce emissions in those high-temperature industries as well as some transport sectors.*

*Several scientific and government reports have also found that hydrogen produced in Australia could be sold to the world. One report produced for us, Opportunities for Australia from Hydrogen Exports, calculated that global demand for hydrogen exported from Australia could be over three million tonnes each year by 2040, which could be worth up to \$10 billion each year to the economy by that time.*

*Researchers at the CSIRO have produced a National Hydrogen Roadmap for the development of a hydrogen industry in Australia, and the nation's energy ministers are developing a National Hydrogen Strategy<sup>10</sup>.*

The creation of an onshore hydrogen industry will remove supply chain vulnerabilities that may currently exist through Australia's reliance on overseas liquid fuel sources. The country currently imports 90% of its needs<sup>11</sup>.

The production of hydrogen for fuel should be encouraged and is particularly necessary to support other initiatives such as ARENA's recently launched Future Fuels program, designed to encourage fleet owners to shift to new zero emissions vehicle technology over the next four years<sup>12</sup>.

**ALC believes that Australia a hydrogen production capacity for transport fuel should:**

- be a goal of the National Hydrogen Strategy; and
- hopes that hydrogen fuel production is an integral industry encouraged to develop in the 'hydrogen hubs' being created under jurisdictional hydrogen strategies<sup>13</sup>.

## Supporting an Australian ZEV Industry

As indicated on page 12 of the Discussion Paper, government and industry can further unlock growth and innovation in the EV supply chain through (amongst other things) developing, designing and manufacturing EV components, control systems and batteries, and expanding existing heavy vehicle and bus manufacturing capability.

<sup>9</sup> <https://www.dcccew.gov.au/sites/default/files/documents/australias-national-hydrogen-strategy.pdf>: 17

<sup>10</sup> <https://arena.gov.au/renewable-energy/hydrogen/#:~:text=Hydrogen%20in%20Australia&text=Renewable%20hydrogen%20use%20in%20Australia,be%20sold%20to%20the%20world.>

<sup>11</sup> <https://www.energy.gov.au/government-priorities/energy-security/australias-fuel-security-package>

<sup>12</sup> <https://arena.gov.au/news/future-fuels-funding-round-open-for-fleets/>

<sup>13</sup> Relevant programs include the NSW Government's hydrogen hub initiative: <https://www.energy.nsw.gov.au/business-and-industry/programs-grants-and-schemes/hydrogen-hubs-nsw#what-are-hydrogen-hubs>

Such a capacity is being developed, as explained in this case study:

### **SEA Electric**

**Since 2012, SEA Electric has been forging a path of market leadership in the commercial eMobility space, with the brand assembling a range of pure-electric powered trucks locally, with the offering now available nationwide.**

**After releasing its first commercial products to the market in 2017, in 2021, SEA Electric entered the OEM space, assembling new electric trucks at its facility in Melbourne. The facility has recently doubled in size, with a footprint now covering 7,000m<sup>2</sup> of manufacturing space, complemented by over 500m<sup>2</sup> of office area.**

**The yearly current production capacity stands at 2,080, with the manufacturing capability to be upscaled further across the region via additional industry collaborations and other ventures.**

**The SEA Electric base at Dandenong South in Melbourne employs 59 people in production, engineering, and other support functions.**

**More recently, SEA Electric has grown its reputation as the market leader in the electric commercial vehicle space. Truck, bus and van products are deployed across five continents, with a focus on Australia, the USA, Canada, Europe, South-East Asia, and New Zealand.**

**The products have already been proven, with over two million kilometres of real-world use to date.**

**At the heart of the local offering are the SEA 300 EV and the SEA 500 EV models, which are available via a dedicated network of 15 Hino dealerships and supported by over 50 parts and service outlets nationwide, backed up by full factory warranties, roadside, and phone support.**

**The company's proprietary SEA-Drive<sup>®</sup> power-system leads the sector in terms of performance, efficiency, and value for money.**

**The platform has been developed as a direct replacement for use in previously large diesel-powered applications. It is capable of being updated remotely, while the prospect of range-extending hydrogen solutions is emerging.**

**With innovative funding solutions in place, the price premium of the vehicles can be recouped over a four-year period, assisted by the deletion of diesel and other servicing expenses.**

**Driven by government policy intervention, the Australian transport industry is looking to transition to a sustainable future, and through SEA Electric, the country has a proven range of homegrown innovations that are ready for deployment today.**

**The company is currently partnering with large corporations, such as Woolworths, IKEA, and BP to transition their fleets to electric and help them achieve their stated emissions reduction mandates.**

**As with fuel security (discussed earlier), investment in an Australian ZEV industry in Australia should form a part of the National Electric Vehicle Strategy to ensure the resilience of the Australian Freight and Supply Chain.**

# 'Back To Base' Operation of Electric Vehicles

Page 11 of the Discussion Paper said:

*Heavy vehicles currently account for 22% of road transport emissions and are increasing. **We need to identify ways to reduce emissions in this sub-sector.** BEV technology is less advanced for heavy than light vehicles, and FCEVs are entering production at increasing scale. Opportunities vary across different segments of the heavy vehicle fleet. For medium rigid delivery trucks and buses that utilise 'back to base' style trips, BEVs could be suitable to adopt in the short term. For larger vehicles, new biodiesel and renewable diesel standards could support a transition fuel. This could be effective in cases where BEV and FCEV will likely take longer to commercialise<sup>14</sup>.*

Electric vehicles have the capacity to service low range tasks in dense urban environments such as garbage services, beer pallet and parcel delivery where the vehicles travel around 200 km a day on a 'back to base' basis, particularly when they can be 'topped up' by conveniently located charging stations.

The Australian Government has recently published Draft National Urban Freight Planning Principles<sup>15</sup> that are intended to be included in the planning documentation generated by States and Territories. They are one of the important outputs from the National Freight and Supply Chain Strategy – a process championed by ALC.

The Principles are now due to be renewed as part of the review of the National Freight and Supply Chain Strategy.

**The next iteration of these Principles should ensure jurisdictional planning instruments permit:**

- a) a spread of charging and refuelling stations in urban areas;
- b) that 'back to base' charging and fuelling infrastructure is not impeded; and
- c) infrastructure for the movement and storage of hydrogen is permitted.

<sup>14</sup> DISER (2021) Australia's Emissions Projections 2021. 2019 emissions in heavy vehicles subsector: Articulated trucks (12 Mt CO<sub>2</sub>-e), Rigid trucks (8 Mt CO<sub>2</sub>-e) and Buses (2 Mt CO<sub>2</sub>-e)

<sup>15</sup> <https://www.freightaustralia.gov.au/sites/default/files/documents/draft-national-urban-freight-planning-principles.pdf>

## Standardisation

Page 4 of the Discussion Paper provides examples of potential actions by Governments including:

*Align treatment of EVs in national and state government systems – road revenue, taxes and re-use, recycling, disposal, security and safety standards, design standards and approvals.*

As such a small market, Australia cannot expect to develop specific standards or requirements without finding that either manufacturers will not enter into the market or that the additional compliance costs will mean that vehicles will be too costly to purchase.

Costs are also exacerbated by Australia being a right-hand drive country<sup>16</sup>.

ALC has consistently argued that Australia is one national market and so should have one national rulebook.

Differences of standards between governments can impede the pickup of new technologies by companies because of the compliance costs involved in having to do different things to satisfy differences in jurisdictional rules.

**The regulation of operation of EVs must be uniform across Australia.**

**In particular, the Australian Design Rules for vehicles must incorporate international standards.**

ALC is therefore pleased that since the publication of the Discussion Paper, the Government has announced the phasing in of Euro VI standards over 12 months from 1 November 2024<sup>17</sup>, which is an important first step in the movement from fossil powered vehicles towards ZEVs.

## Road User Charging

Finally, one of the most important areas to achieve harmonisation is how ZEVs contribute to funding the maintenance and construction of the Australian road network.

With the predicted transition to alternative fuels and exponential increase in the uptake of ZEVs, the consequential impact on fuel excise means we need to start planning now for alternative road funding methods. Put simply, less petrol and diesel use mean less fuel excise revenue collected.

This source of funding is tied to road transport funding, and less revenue will mean less investment in road infrastructure.

The ongoing viability of the funding model for the Australian road network will come under threat at the very point in time when the freight task is growing, urban infrastructure is under greater strain and cities are expanding.

States and Territories are also going in different directions as to whether, or when, they will implement a road user charge for electric vehicles.

The resilience in the road network is at risk and Australia can no longer rely on the fuel excise to adequately fund the roads this country needs.

The expectation is that road users will pay some form of per kilometre charge for road access, regardless of their vehicle class.

If this does not happen, there will be insufficient investment in new road infrastructure and maintenance, increasing congestion, reducing safety, hampering efficiency and negatively impacting productivity.

<sup>16</sup> <https://energyministers.gov.au/sites/prod.energycouncil/files/publications/documents/nhs-hydrogen-for-transport-report-2019.pdf>  
: 21

<sup>17</sup> <https://minister.dccew.gov.au/bowen/media-releases/joint-media-release-cleaner-emissions-standards-trucks-and-buses>



Reforming road funding by implementing a road user charge in place of excise and other road-related charges such as licensing and registration has been recognised by groups such as IA<sup>18</sup>, Infrastructure Victoria<sup>19</sup> and the Productivity Commission<sup>20</sup>.

In its 2022 document *Towards a Sustainable Australian Supply Chain – A Pathway for an Incoming Government*, ALC recommended:

1. For the reasons generally set out in the NSW Review of Federal Financial Relations<sup>21</sup>, design a RUC based on a model of distance-based and location charging and so provide a sustainable revenue stream to invest in transport infrastructure.
2. For National Cabinet (or any successor process that may be created) to authorise the development of a report establishing a pathway for the immediate development of a RUC capable of being applied to all classes of vehicle.
3. To phase out jurisdictional electric vehicle charging schemes that would duplicate a national RUC to remove confusion, provide a consistent cost basis for businesses to plan and encourage the adoption of ZEVs.
4. To transfer any relevant work developed under the HVRR process to any newly created process established to create a national RUC mechanism<sup>22</sup>.

**The national cabinet should adopt as a priority the development of a single structure of road user charging for all forms of vehicle.**

**Australian Logistics Council**

**October 2022**

<sup>18</sup> Infrastructure Australia, 2021 Implementation Pathway, 2021 Australian Infrastructure Plan

<https://www.infrastructureaustralia.gov.au/sites/default/files/2021-09/Implementation%20Pathway%20%28IP%29.pdf>  
: 38 and 57-58 15

<sup>19</sup> Infrastructure Victoria, Victoria's infrastructure strategy 2021-51, Volume 1, <https://www.infrastructurevictoria.com.au/wp-content/uploads/2021/08/1.-Victorias-infrastructure-strategy-2021-2051-Vol-1.pdf> - recommendation 53

<sup>20</sup> Productivity Commission, Shifting the dial, 5 year productivity review, supporting paper 9, funding and investment for better roads, 3 August 2017 <https://www.pc.gov.au/inquiries/completed/productivity-review/report/productivity-review-supporting9.pdf>

<sup>21</sup> Department of Treasury, New South Wales, Final Report, NSW Review of Federal Financial Relations: Supporting the road to recovery: <https://www.treasury.nsw.gov.au/sites/default/files/2020-10/FFR%20Final%20Report%20-%2020200828%20%281%29.pdf>: Chapter 8

<sup>22</sup> <https://austlogistics.com.au/wp-content/uploads/2022/09/Incoming-Government-Brief-ALC-2022.pdf>:15