

# ALC ELECTRIC VEHICLES WORKING GROUP

Submission to the  
Select Committee on Electric Vehicles

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## Members of the ALC Electric Vehicles Working Group



## Recommendations

1. The Commonwealth take a national leadership role and seek to influence national consistency in electric vehicle registration schemes. This includes ensuring that heavy vehicles (as defined by the *Heavy Vehicle National Law*) are included in any registration system which incentivises the uptake of electric vehicles.
2. The Commonwealth further expand its Green Vehicle Guide ([greenvehicleguide.gov.au](http://greenvehicleguide.gov.au)) to include heavy vehicles (as defined by the *Heavy Vehicle National Law*).
3. The Commonwealth further expand its Green Vehicle Guide to identify and highlight State and Territory electric vehicle registration incentives.
4. The Commonwealth Government utilise the Clean Energy Finance Corporation to provide low interest finance to companies in order to install electric vehicle charging stations.
5. The Commonwealth Government leverage City Deals to further develop charging infrastructure and encourage planning regimes favourable to electric vehicle use.
6. The Commonwealth Government continue the *Smart Cities and Suburbs Program* and actively look to fund electric freight vehicle trials under this program in the future.
7. The Commonwealth ensure that any plan developed to increase the use of electric vehicles in Australia is consistent and enhances existing State/Territory and Local Government based electric vehicle policies.
8. The Commonwealth ensure that all aspects of the electric vehicle chain – from manufacture to maintenance – are capable of obtaining funding through the Clean Energy Finance Corporation.
9. The Commonwealth waive the \$25 fee issued for a National Heavy Vehicle Plate when the vehicle registered is an electric vehicle.
10. The Commonwealth Government ensure that market participants engaged in the research & development of electric vehicle batteries are eligible and to receive, and are aware of, the research and development tax incentive.
11. The Commonwealth Government ensure that electric vehicles are adequately depreciated for tax purposes.
12. The Commonwealth Government review the *Australian Design Rules*, given the unique size and shape of light commercial electric vehicles.
13. All Australian governments must work collaboratively to ensure a consistent and reliable source of energy to power electric vehicles.

## About the Australian Logistics Council

The Australian Logistics Council (**ALC**) is pleased to make this submission to the Select Committee on Electric Vehicles.

By way of background, ALC is the peak national body representing the major and national companies participating in the freight logistics industry. We have a focus on national supply chain efficiency and safety.

ALC members include Linfox, Coles, Woolworths, Australia Post and DHL – companies that share a commitment to decreasing the carbon footprint of the logistics industry. These companies, plus many others, have recently formed the **ALC Electric Vehicles Working Group**. This Working Group has been created to inform the national discussion around the benefits of electric vehicles.

While this Committee will focus on the uptake of private electric vehicles, it is inevitable that electric vehicles will impact Australian freight operations. The Commonwealth Government must be cognisant of the fact that electric freight vehicles are operating in Australia.

Given our experience in the freight logistics industry, ALC believes that this submission provides a unique perspective for this Committee. A point we like to emphasise is that the freight logistics industry has a relatively inelastic demand for road transport – and so freight operators are vital to reducing Australia's transport emissions.

ALC is further prepared to make an appearance before this Committee during the Public Hearing process.

### ALC Electric Vehicles Working Group

In June 2018, the ALC Board agreed to form the ALC Electric Vehicles Working Group.

Membership of the Working Group is open to ALC members and interested parties who share the aims of:

1. Collaborating with government and industry to promote the financial, social and environmental benefits of electric vehicles.
2. Working with government to increase the manufacture and production of electric vehicles.
3. Establishing targets for emissions reductions and the number of electric vehicles in fleet.
4. Positioning the logistics industry as a leading sector in the drive for enhanced environmental outcomes by demonstrating positive correlations between reduced environmental impacts, operational efficiency and business profitability.
5. Engaging with government to explore ways to incentivise electric vehicle use.
6. Provide case studies to improve the social licence of the logistics industry;
7. Disseminating information to the logistics industry about the benefits of electric vehicles.

## The Benefits of Electric Vehicles

Electric vehicles are an alternative to vehicles powered by internal combustion engines. Their research and development is closely linked with the desire to reduce greenhouse gases and particulate emissions to mitigate the effects of climate change and pollution.

The current and potential effects of climate change and particulate emissions – including temperature rises, sea level rises and air pollution – are causing logistics operators to identify ways to reduce their carbon footprints.<sup>1</sup> Logistics consumers and investors are also conscious of these effects and are encouraging logistics operators to improve their environmental performance.

Electric vehicles offer an effective and visible way for logistics operators to reduce greenhouse gas emissions. Studies have found that an electric vehicle using electricity generated from a coal fired power plant is only using two-thirds of the energy a petrol/diesel vehicle would use to travel the same distance.<sup>2</sup>

Of course, the greenhouse gas and particulate emissions are further decreased when electric vehicles are fuelled by renewable energy.

In 2017 renewables generated 16.94% of Australia's total energy generation. Furthermore, more than 700 MW of renewable energy products were completed and began generation in 2017.<sup>3</sup> The Commonwealth Government currently has a Renewable Energy Target (**RET**) of 23.5% of total electricity generation by 2020.<sup>4</sup> The Australian Capital Territory (**ACT**) Government currently has the highest legislated RET – at 100% by 2020.

Outside environmental considerations, electric vehicles are also quieter than conventional internal combustion engines, and so reduce noise pollution.<sup>5</sup> This is important for supermarket operators, such as Woolworths, who are often not able deliver produce to their stores at night due to curfews enforced by local governments.

It is also acknowledged that electric vehicles avoid Fuel Excise Tax – which is currently levied at \$0.409/litre.<sup>6</sup> While capital costs for electric vehicles are higher than for petrol/diesel vehicles, it is also often cheaper to maintain and operate an electric vehicle. The ALC Electric Vehicles Working Group believes that, in the long-run, it is cheaper to purchase an electric vehicle.

Finally, it must be noted that electric vehicles produce fewer particulates than internal combustion engines, and so can lead to improved air quality. While Australia's major metropolitan areas usually experience good air quality, at least by global standards, it should be noted that it is becoming evident that there is no longer a safe level of pollutant concentrations<sup>7</sup>.

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<sup>1</sup> See <https://climate.nasa.gov/effects/>

<sup>2</sup> See <https://www.theguardian.com/football/ng-interactive/2017/dec/25/how-green-are-electric-cars>

<sup>3</sup> See <https://www.cleanenergycouncil.org.au/policy-advocacy/reports/clean-energy-australia-report.html>

<sup>4</sup> See <http://www.environment.gov.au/climate-change/government/renewable-energy-target-scheme>

<sup>5</sup> Tom Gotsis, *Electric Vehicles in NSW* (2018), p 4.

<sup>6</sup> See <https://www.ato.gov.au/business/excise-and-excise-equivalent-goods/fuel-excise/excise-rates-for-fuel/>

<sup>7</sup> Tom Gotsis, *Electric Vehicles in NSW* (2018), p 3.

It is clear from this analysis that:

1. Internal combustion engines produce greenhouse gases and other particulates which contribute to climate change and pollution.
2. Logistics operators, investors and customers are looking for ways to reduce their greenhouse gas emissions to mitigate the effects of climate change and air pollution.
3. Electric vehicles provide an effective and visible way for logistics operators to reduce their emissions of greenhouse gases and other particulates. These emissions are further reduced by using renewable energy to power electric vehicles.
4. Outside of environmental benefits, electric vehicles:
  - are quieter, and could be a game changer for supermarket operators who are currently restricted from accessing some stores with heavy vehicles at night due to curfews; and
  - have a cheaper lifecycle cost than a petrol/diesel vehicle.

## Electric Vehicles in Australia

By international standards, Australia has had a sluggish uptake of electric vehicles. In 2016, just 0.1% of new vehicles sold in Australia were electric vehicles.<sup>8</sup> This is in contrast to a global market share of 1.1%.<sup>9</sup>

This is not surprising given the greater distances travelled in Australia and the lack of electric vehicle manufacturers.

However, Australian logistics providers are beginning to see the advantages of electric vehicles. The following section outlines how some of Australia's largest logistics providers – including DHL, Australia Post and Linfox, are incorporating electric vehicles into their delivery models.

### DHL Australia

In 2008 DHL became the first global logistics service provider with a quantified carbon dioxide efficiency target with the launch of the *GoGreen* program.<sup>10</sup>

DHL set a target to improve its carbon efficiency by 30% by 2020. In 2016, and four years earlier than expected, DHL achieved that target.

DHL now has now launched *Mission 2050* – DHL's global target of zero carbon emissions by 2050.

To achieve this target, DHL is aiming to deliver 70% of its first and last mile services with clean pick-up and delivery solutions by 2025. DHL is currently using two electric vehicles – the **Renault Kangoo ZE (zero emissions) Van** – to pick-up and deliver parcels in Melbourne and Sydney. In 2019-2020 DHL plans to extend its electric vehicle fleet using different vehicle manufacturers and expanding their use throughout Australia.

As an example, DHL will shortly begin to use the **DHL Cubicycle** for freight deliveries in Australia.



#### **DHL Cubicycle**

The DHL Cubicycle weighs 59kg and has a cargo weight capacity of 150kg.

DHL is now looking to roll-out the Cubicycle for deliveries in CBD areas, pending relevant permissions.

<sup>8</sup> Tom Gotsis, *Electric Vehicles in NSW* (2018), p 1.

<sup>9</sup> Tom Gotsis, *Electric Vehicles in NSW* (2018), p 1.

<sup>10</sup> See <https://www.dpdhl.com/en/responsibility/environment-and-solutions.html>



DHL is also now planning to investigate the manufacture of electric vehicles in Australia. These electric vehicles could be similar to the **StreetScooter** currently manufactured by DHL in Germany.



DHL StreetScooter manufactured in Germany

### Australia Post

In 2010, Australia Post set a target to reduce its Scope 1 and 2 carbon emissions by 25% by 2020 (with a year 2000 baseline). Through a focus on the electricity to power their buildings and transport operations, they are on track to achieve this target, seeing a reduction in total emissions of over 20%.

This result is notable given the Australia Post network continues to grow, with domestically delivered parcels up 15.9% in 2017.

#### **Australia Post e-vehicles**

In March 2017, a program was run in Hobart trialling five, **three-wheel Electric Delivery Vehicles**. The electric delivery vehicle (**e-vehicle**) has a capacity of up to 100 small parcels and 1,200 letters – almost three times the capacity of a traditional motorcycle. It is therefore well-suited to addressing the challenges imposed by increasing parcel delivery demands, fuelled by online shopping and e-commerce. The e-vehicle has a run-time of approximately nine hours – a full day's work.



As a further benefit, the e-vehicles have also proven much safer than older motorcycles.

Australia Post is now rolling-out 150 e-vehicles in New South Wales. A national roll-out of 1,000 e-vehicles is also being planned.

Australia Post is also using the Renault Kangoo ZE Van for larger deliveries.



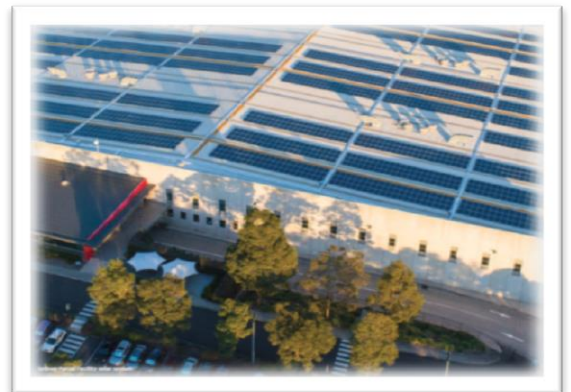
#### **Australia Post Renault Kangoo ZE Van**

For larger deliveries, Australia Post has also trialled the **Renault Kangoo ZE van**.

Four Renault Kangoo ZE vans were trialled over three years in the Melbourne and Sydney CBD's. Pleasingly, this trial has shown both carbon and energy savings, which have helped to reduce operational costs.

Australia Post has also installed solar panels capable of producing 2.1 megawatts of energy at its Sydney Parcel Facility. At the time of installation, in November 2017, it was Australia's largest commercial solar system on an industrial roof.

In its first year of operation, this installation will reduce greenhouse gas emissions by 2,260 tonnes and provide \$800,000 in savings.



### Linfox Logistics

Linfox Logistics is Asia-Pacific's largest privately owned logistics company with more than 24,000 employees across 12 countries.

In an article from *The Australian Financial Review*, published on 29 January 2018, Linfox Chairman Peter Fox AM indicated his desire to see Linfox be "the first mover" on electric trucks.<sup>11</sup>

**'We will be the first mover' on electric trucks, says Linfox chairman Peter Fox**



As a leader in the logistics industry, Linfox is looking to progress the number of electric vehicles in their fleet. This includes:

- Trialling electric vehicles at their purpose built facilities.
- Investing in renewable energy solutions to power electric vehicles in the future. This includes 500kW of solar panels installed at their warehouses to date, with plans to increase this energy generation across Australia; and
- Implementing electric vehicle material handling equipment at their sites and building electric vehicle requirements into their new sites.

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<sup>11</sup> See <https://www.afr.com/business/we-will-be-the-first-mover-on-electric-trucks-says-linfox-chairman-peter-fox-20180124-honppl>

## Uptake of Electric Vehicles for Commercial Purposes

The ALC Electric Vehicles Working Group held its inaugural meeting in Sydney on Wednesday 25 July 2018.

During this meeting, all participants gave their support to increasing the use of electric vehicles for freight deliveries.

The Senate Select Committee on Electric Vehicles should note the enthusiasm of the freight logistics industry to adopt electric vehicles as part of their businesses.

Companies are already factoring in an uptake of electric vehicles on their operations. For example, Qube Logistics is installing electric vehicle charging stations at its Moorebank Intermodal Terminal, now under construction.

In the short-term, freight operators believe that high volume; short distance freight would be the first to benefit from electric vehicles. It is envisaged that residents living in larger metropolitan areas, who purchase consumer goods online, may be the first to receive their orders from electric vehicles.

## Supporting Electric Vehicles

The ALC Electric Vehicles Working Group provides the following recommendations to increase the use of electric vehicles in the Australian logistics industry. It should be noted that some of these recommendations can also be applied to electric trains as well as electric vans, bikes, cars and trucks used for freight delivery.

### Commonwealth Government Incentives

Electric Vehicles are already incentivised because they avoid paying Commonwealth Fuel Excise.

However, there are other government charges which can be reduced to improve electric vehicle uptake. Registration fees are one obvious example.

Motor vehicles are required to be registered in order to lawfully use Australian roads.

Registration fees are designed to:

1. Recover money used to maintain roads to a safe standard;
2. Fund new road infrastructure and road upgrades; and
3. Provide a revenue source for State and Territory Governments.

The Commonwealth does not levy registration fees. It is therefore primarily the responsibility of State and Territory Governments to use their vehicle registration systems to incentive electric vehicle uptake.

State and Territory Governments can provide incentives, such as reduced registration fees, when a new electric vehicle is registered. For example, the NSW Government currently provides for reduced registration fees for the Renault Kangoo ZE Van.<sup>12</sup>

Unsurprisingly, there are inconsistencies across State and Territory Governments in relation to electric vehicle registration. ALC has long advocated for harmonisation between State/Territory heavy vehicle laws, and believes this harmonisation can further extend to the registration of electric vehicles.

#### Recommendations:

- The Commonwealth take a national leadership role and seek to influence national consistency in electric vehicle registration schemes. This includes ensuring that heavy vehicles (as defined by the *Heavy Vehicle National Law*) are included in any registration system which incentivises the uptake of electric vehicles.
- The Commonwealth further expand its Green Vehicle Guide ([greenvehicleguide.gov.au](http://greenvehicleguide.gov.au)) to include heavy vehicles (as defined by the *Heavy Vehicle National Law*).
- The Commonwealth further expand its Green Vehicle Guide to identify and highlight State and Territory electric vehicle registration incentives.

<sup>12</sup> See <http://www.rms.nsw.gov.au/roads/registration/fees/index.html>



### Charging Infrastructure

Two thirds of motorists indicate that a lack of adequate charging infrastructure is the greatest barrier to purchasing an electric vehicle.<sup>13</sup> This “range anxiety” will need to be addressed in order to significantly increase the number of electric vehicles in Australia’s logistics fleet.

As an example, in June 2017 there were just two charging stations in the Northern Territory – and just 476 charging stations across Australia. When compared to an estimated 6,400 petrol stations in Australia, that’s 1 charging station for every 13.4 petrol stations.

Put simply, there is insufficient charging infrastructure in Australia to facilitate any widespread change in electric vehicle use in logistics – particularly outside major metropolitan areas.

According to the *Electric Vehicle Council*, charging infrastructure comes in three broad forms:

1. Home charging
2. Public charging; and
3. Rapid/fast charging.<sup>14</sup>

Home charging and public charging can further be grouped as *destination charging* – a slow charge designed to help motorists travel in metropolitan centres.

Rapid/fast charging is analogous to highway petrol stations and is known as *journey charging*. As its name implies, it is designed to rapidly charge an electric vehicle for longer journeys.

All governments have a role in promoting all three forms of charging infrastructure.

For the Commonwealth Government, this could involve providing incentives for freight operators to install charging equipment at their distribution centres and warehouse facilities. These incentives could include, for example, a low interest loan and rebates on electricity used to power the vehicle. Such a loan could be issued by the Clean Energy Finance Corporation.

#### **Recommendation:**

**The Commonwealth Government utilise the Clean Energy Finance Corporation to provide low interest finance to companies in order to install electric vehicle charging stations.**

State and Local Governments could also be incentivised to provide adequate charging infrastructure. This could include providing Commonwealth funding to a State or Territory on the proviso that they install charging stations, including both public charging facilities and rapid/fast charging facilities in an identified area.

Similarly, funding could also be provided to incentivise modification of planning regimes so that any new multi dwelling developments are required to have electric vehicle charging infrastructure installed. For example, in April 2018, the ACT Government released its *Zero Emission Vehicle Action*

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<sup>13</sup> *Recharging the Economy*, Electric Vehicle Council (2018) p 4.

<sup>14</sup> *Recharging the Economy*, Electric Vehicle Council (2018) p 4.

*Plan*, which proposes that all new multi-unit and mixed use developments install electric vehicle infrastructure.<sup>15</sup>

Over the last couple of years, the Commonwealth Government has developed and implemented a *Smart Cities Plan*. This initiative, which fosters collaboration between the Commonwealth, State/Territory and Local Government, is designed to help Australian cities succeed in the 21<sup>st</sup> century economy.

ALC posits that in order to succeed, Australian cities will need to provide for the efficient delivery of freight by electric vehicles.

The *Smart Cities Plan* involves two relevant outcomes – *City Deals* and the *Smart Cities and Suburbs Program*.<sup>16</sup>

### City Deals

The Commonwealth has concluded three City Deals – Townsville, Launceston and Western Sydney. Four cities have also agreed a Memorandum of Understanding to develop a City Deal – Geelong, Hobart, Perth and Darwin.

City Deals provide an unprecedented ability for the Commonwealth to engage in planning issues, which have long been the responsibility of State/Territory and Local Governments.

ALC believes that the Commonwealth should use City Deals to encourage fund recipients to plan for the future use of electric freight vehicles, notably with regard to recharging infrastructure. City Deals may also be used to incentivise the provision of electric vehicle only loading facilities in metropolitan areas, allow electric vehicles to utilise bus lanes and/or transit lanes and to establish adequate recycling facilities for used electric vehicle batteries.

### **Recommendation:**

**The Commonwealth Government leverage City Deals to further develop charging infrastructure and encourage planning regimes favourable to electric vehicle use.**

### Smart Cities and Suburbs Program

The *Smart Cities and Suburbs Program* is a Commonwealth grants based initiative designed to lead innovative technological solutions to urban challenges.<sup>17</sup>

In November 2017, the Commonwealth announced that 49 projects would receive total funding of \$27.7 million under Round One of this program. Projects provided funding included *Smart Move Newcastle* – a project designed to deliver (amongst other things) solar and battery powered electric vehicle charging points. Importantly, this infrastructure will be used as an Australian benchmark, with results of the project publicly available.

<sup>15</sup> *New action plan to drive growth in electric vehicles*, ACT Government (2018), see [http://www.cmd.act.gov.au/open\\_government/inform/act\\_government\\_media\\_releases/rattenbury/2018/new-action-plan-to-drive-growth-in-electric-vehicles](http://www.cmd.act.gov.au/open_government/inform/act_government_media_releases/rattenbury/2018/new-action-plan-to-drive-growth-in-electric-vehicles)

<sup>16</sup> See <https://cities.infrastructure.gov.au/>.

<sup>17</sup> See <https://cities.infrastructure.gov.au/smart-cities-program>

Funding for electric vehicle charging infrastructure was also provided to Light Regional Council (South Australia) under Round One of the program.

On 2 May 2018, the Minister for Urban Infrastructure, Hon. Paul Fletcher MP, announced the opening of applications for Round Two of the program. ALC looks forward to seeing how Round Two funding will help to further progress electric vehicle charging infrastructure.

#### Recommendation:

The Commonwealth Government continue the *Smart Cities and Suburbs Program* and actively look to fund electric freight vehicle trials under this program in the future.

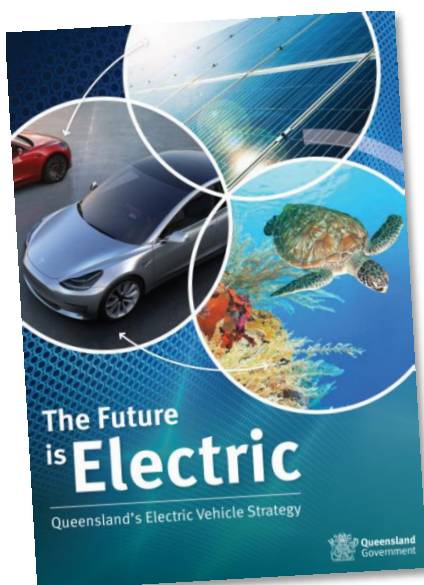
#### National Consistency

As a federation, Australia faces many challenges in aligning priorities between our three levels of government – Federal, State/Territory and Local. States such as New South Wales (through its *Future Transport Strategy 2056*), Queensland (*The Future is Electric – Queensland's Electric Vehicle Strategy*) and Victoria (*Inquiry into Electric Vehicles*) have already investigated the potential uptake of electric vehicles.

In particular, the Queensland Government has been active in developing a **Queensland Electric Super Highway** – a plan to install a number of fast charging stations from Coolangatta to Cairns. To encourage the uptake of electric vehicles, these charging stations will be provided for use at no cost during an initial phase.<sup>18</sup>

In many other areas of advocacy ALC has consistently called for greater national consistency across governments in relation to logistics policy.

It is important that, in any national plan developed by the Commonwealth, existing State/Territory and Local Government electric vehicle plans are not contradicted or undermined.



Map of the Queensland Electric Vehicle Super Highway

<sup>18</sup> See <https://www.qld.gov.au/transport/projects/electricvehicles/super-highway>



**Recommendation:**

The Commonwealth ensure that any plan developed to increase the use of electric vehicles in Australia is consistent and enhances existing State/Territory and Local Government based electric vehicle policies.

Clean Energy Finance Corporation

The Clean Energy Finance Corporation (CEFC) implements the Commonwealth Government's objective of investing in clean energy projects. The Commonwealth should ensure that all aspects of the electric vehicle chain, from manufacture to maintenance and charging infrastructure, are eligible for loans through the CEFC.

**Recommendation:**

The Commonwealth ensure that all aspects of the electric vehicle chain – from manufacture to maintenance – are capable of obtaining funding through the Clean Energy Finance Corporation.

Heavy Vehicle National Law

The Heavy Vehicle National Law (HVNL), and associated regulations, applies in all Australian States and Territories, with the exception of the Northern Territory and Western Australia.

Combined, the HVNL and associated regulations are designed to provide one nationally consistent rule book for the operation of heavy vehicles in Australia.

The National Heavy Vehicle Regulator (NHVR) is also increasingly working to promote consistent heavy vehicle regulatory reform.<sup>19</sup>

In participating jurisdictions, the NHVR has released a National Heavy Vehicle Plate.<sup>20</sup> These plates are issued whenever:

- a new heavy vehicle is registered;
- an unregistered vehicle is re-registered;
- a state or territory registration is transferred to a participating jurisdiction; or
- a lost, damaged, destroyed or stolen number plate is replaced.

The National Heavy Vehicle Plate is currently charged at \$25. The Commonwealth should consider waiving this fee for electric heavy vehicles in the future.

**Recommendation**

The Commonwealth waive the \$25 fee issued for a National Heavy Vehicle Plate when the vehicle registered is an electric vehicle.

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<sup>19</sup> See <https://www.nhvr.gov.au/road-access/registration>

<sup>20</sup> Participating jurisdictions are the Australian Capital Territory, New South Wales, Queensland, South Australia, Tasmania and Victoria.

## Tax Incentives

Tax incentives can be provided to increase the uptake and improve the performance of electric vehicles in Australia.

### Research & Development Tax Incentives

As expected, research & development of electric vehicles is currently taking place in Australia. This research & development is designed, for instance, to find ways to build more convenient and longer lasting batteries to power electric vehicles.

The Commonwealth Government currently provides a research and development tax incentive for eligible research & development activities.

Such an incentive could be crucial in reducing the size and weight of a battery required to power a light commercial electric vehicle.

For instance, section 6 of the *HVNL* defines a heavy vehicle as a vehicle with a Gross Vehicle Mass (**GVM**) or Aggregate Trailer Mass (**ATM**) or over 4.5 tonnes.

One barrier to the adoption of light commercial electric vehicles is that, due to the size and weight of the battery, the payload for a light commercial electric vehicle is smaller than the payload for a traditional light commercial vehicle operated by an internal combustion engine.

This issue underscores the importance of tax incentives for research and development. The sooner technology is able to advance to equalise electric vehicle payloads with internal combustion payloads, the sooner we will witness greater uptake of commercial electric vehicles in Australia.

### **Recommendation:**

**The Commonwealth Government ensure that market participants engaged in the research & development of electric vehicle batteries are eligible and to receive, and are aware of, the research and development tax incentive.**

### Depreciation

In his brief entitled *Electric Vehicles in NSW*, developed for the NSW Parliamentary Service, Tom Gotsis identifies that electric vehicles depreciate at a faster rate than conventional vehicles. This is due to:

1. The ongoing rate of development in the electric vehicle industry; and
2. Concerns regarding the longevity of the lithium-ion batteries.

In the brief, it is estimated that a conventional vehicle retained 55% of its value after five years, while an electric vehicle retained just 43% of its value.<sup>21</sup>

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<sup>21</sup> Tom Gotsis, *Electric Vehicles in NSW* (2018), p 8.

Logistics companies can invest in electric vehicles to fulfil contracts with more confidence if they believe the vehicle is being adequately depreciated for tax purposes. In this sense, it is essential that the Commonwealth ensures that depreciation profiles for electric vehicles are accurate.

**Recommendation:**

**The Commonwealth Government ensure that electric vehicles are adequately depreciated for tax purposes.**

Australian Design Rules

The *Australian Design Rules* are intended to provide a set of national standards for vehicle safety in Australia.<sup>22</sup>

While the *Australian Design Rules* play a vital role in ensuring vehicle safety, ALC members have found it difficult to ensure their electric vehicles conform to their rules.

It may be advisable for the Commonwealth Government to review the *Australian Design Rules*, noting the unique size and shape of light commercial electric vehicles.

**Recommendation:**

**The Commonwealth Government review the *Australian Design Rules* given the unique size and shape of light commercial electric vehicles.**

Guarantee of Reliable Energy

One factor that may limit the uptake of electric vehicles in the freight logistics industry is a lack of confidence by industry in having a guaranteed and reliable source of electricity.

From September 2016 to February 2017, South Australia experienced three large black-outs. Load shedding by the Australian Energy Market Operator (**AEMO**) over the 2016-17 Australian summer also forced temporary black-outs.

Freight and logistics companies wish to invest in electric vehicles. However, companies will only do so if they have confidence that they have access to a reliable and affordable source of electricity.

**Recommendation:**

**All Australian governments must work collaboratively to ensure a consistent and reliable source of energy to power electric vehicles.**

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<sup>22</sup> See <https://infrastructure.gov.au/vehicles/design/>

### Manufacturing Electric Vehicles in Australia

During discussions with industry, ALC has been made aware that companies are looking to begin the domestic manufacture electric vehicles for logistics purposes.

There is enormous potential for innovative Australian companies to undertake the manufacture of electric vehicles in Australia, producing economic and employment benefits, as well as contributing to enhanced environmental outcomes.

In this respect, ALC is eager for Australian industry to begin manufacturing electric vehicles that can be used for freight logistics purposes – in particular, the manufacture of electric vehicles suited to Australian operating conditions, which by their nature entail longer travelling distances than many of those in Europe.

ALC believes that Australian-based companies have the ability to play a leading role in improving the endurance of batteries used to power electric vehicles.

However, ALC equally understands companies will also import electric vehicles for their operations if they can find fit-for-purpose electric vehicles being manufactured outside Australia.

In keeping with ALC's commitment to supply chain efficiency and safety, we do not support the use of tariffs or domestic subsidies in order to generate the manufacture of electric vehicles in Australia.

This is not to say that it is impossible for electric vehicles to be manufactured in Australia. It could be the case that Australian companies undertake the manufacture of particular components used to build an electric vehicle.

## Conclusion

ALC believes that there is a clear role for the Commonwealth Government in supporting logistics companies that seek to increase the number of electric vehicles in their fleet.

The ALC Electric Vehicles Working Group would welcome any opportunity to further engage with the Senate Select Committee in the course of its inquiry into this important issue.

If you have any questions or queries about this submission, please contact Lachlan Benson, ALC Interim CEO

**Australian Logistics Council Electric Vehicle Working Group**  
August 2018