



Submission to the Northern Territory Discussion Paper 2019

Preparing the Northern Territory for Electric Vehicles

The Electric Vehicle Council (EVC) is the national peak body representing the electric vehicle industry in Australia. We represent members involved in providing, powering and supporting electric vehicles.

We are a cross sectoral organisation whose engagement with a wide range of stakeholders supports the advancement of a strong domestic electric vehicle industry.

We welcome the opportunity to make a submission to the Northern Territory Discussion Paper 2019 *Preparing the Northern Territory for Electric Vehicles* to assist the development of an Electric Vehicle Strategy and Implementation plan.

Why does the Northern Territory need an electric vehicle strategy and implementation plan?

Electric vehicle sales continue to increase globally with 2.1 million electric vehicles sold in 2018.¹ This trend will continue as consumers are provided with more electric vehicle models at lower price points, and charging infrastructure becomes ubiquitous. In high uptake markets, policy direction from national, state, and local governments are already sending strong signals that the shift to electric vehicles is happening now.

Despite this trend, a lack of national strategy in Australia has so far led to uncertainty, restricting investment in our domestic market. Australia's unique advantage in the electric vehicle supply chain presents a significant opportunity for our economy and for state, territory and local governments to prepare for and capture value from the global transition to e-mobility.

The adoption of electric vehicles in Australia and the Northern Territory will:

- reduce noxious pollution and associated health impacts
- create new jobs, including in the mining, manufacture, sustainability and renewables sectors
- encourage sustainable transport and energy choices
- reduce fuel costs for consumers and businesses
- provide increased fuel security
- lower Australia's carbon emissions and contribution to climate change.

The Northern Territory Climate Change Response identified that climate change will continue to adversely affect Territorians. Climate change impacts include increasing extreme weather events, diminishing freshwater availability, risk to human health, impacts to primary industry, loss of biodiversity, risk to natural ecosystems and rising sea levels.² Given that 18% of Australia's carbon emissions come from transport, transitioning to electric vehicles will also help to reduce emissions.

At a Territory level, the transition to electric vehicles will provide the opportunity to develop and contribute to the global lithium supply chain. With large deposits of lithium and the mining industry already looking to invest, the Northern Territory is one of a few places uniquely placed to develop an onshore lithium battery supply chain, as is outlined in the Territory *Critical Minerals plan*. This will provide jobs and investment for local communities.

Territory local councils will also need to consider their own strategies for electrification. Local councils can support the uptake of electric vehicles through committing to fleet targets, investing in charging infrastructure, and consumer awareness programs. These actions will in turn signal to the electric vehicle industry that Australia and the Northern Territory is ready for electric vehicles.

¹ Climate Council (2018) *Australia's Rising Greenhouse Gas Emissions*.

² Northern Territory Climate Change Response (2019)

Electric vehicle uptake

Through providing policy and regulatory certainty, governments play a vital role in presenting Australia as a viable market for electric vehicles, which increases the variety and volume of vehicle supply. This is particularly important to increase the supply of lower priced/more affordable EV models.

Without adopting appropriate policies and regulations to support electric vehicle uptake, as has occurred in other comparable economies, Australia will continue to be a laggard and risks becoming a dumping ground for old technology. The Northern Territory Government must develop a holistic electric vehicle strategy that will demonstrate certainty to carmakers and consumers.

Policy measures to increase electric vehicle uptake include:

- Government fleet targets
- Collaborative fleet procurement opportunities with councils
- Short-term exemption of stamp duty
- Consumer incentives (financial/non-financial)
- Investment in electric vehicle charging infrastructure
- Incentives to encourage industry investment

Knowledge and exposure

Government has a role in providing credible and accurate information, to allow consumers to make informed vehicle purchase decisions. It is necessary that the Government provides measures to give Territorians a better understanding of electric vehicles.

Promoting electric vehicle benefits are necessary to give consumers a well-rounded understanding of electric vehicles. Attention should be drawn to:

- Transport cost savings, including fuel, maintenance and running costs³
- Public health benefits, including preventing deaths and lowering public expenditure
- Environmental benefits, including reduced carbon emissions and air pollution

Studies have shown that consumer familiarity with electric vehicles increases the likelihood that they will consider an electric vehicle in their next vehicle purchase⁴.

³ NT climate change response towards 2050

⁴ State of Electric Vehicles 2019

Charging infrastructure

A public fast charging network is necessary to alleviate range anxiety. Range anxiety is one of the main barriers to electric vehicle adoption, despite that between 85-95% of charging is done in the home. International research shows that successful EV uptake is not possible without prominent availability of charging infrastructure.⁵

Recognising that the Northern Territory is home to many remote communities, towns and cities, it is extremely important that a territory-wide fast charging network is built to give electric vehicle drivers the confidence to travel to where they need to go.

The strategic placement of fast chargers will allow for an electric highway that can support the minimum range of electric vehicles, as has occurred in Queensland, New South Wales, Victoria and South Australia.

Policy measures to support the installation of public charging infrastructure include:

- Charging infrastructure targets
- Matched funding/co-investment models for local government and private industry
- Financial incentives to reduce the cost of home chargers
- Expedited charging infrastructure approvals processes

The Northern Territory Government should work with industry to identify locations for fast charging along key routes, with consideration given to how public investment may support tourism and local economies.

Heavy vehicles, trucks, and buses

Under current regulation, payload requirements limit the load capacity of buses and heavy vehicles. Electric buses and trucks require large lithium ion batteries, making the vehicles heavier than their petrol and diesel equivalents. Due to current regulation this results in a reduced payload for an electric truck or bus.

A reduced payload (as a result of battery weight) discourages the transition to electric buses and trucks, as companies require more vehicles to operate as normal.

Payload exemptions should be made for electric trucks and buses to encourage their uptake in the public transport and road freight sectors.

Now is the time to catalyse electric bus adoption in Australia. There are already governments trialling the use of electric buses in the public transport sector including:

- New South Wales is currently conducting a trial of four electric buses, and announced intentions to electrify the whole bus fleet
- Victoria is trialling the first Victorian produced electric bus to shape future zero emissions transport programs
- The Australian Capital Territory recently completed an electric bus trial to inform their plan for a zero emissions public transport fleet by 2040

⁵ *The influence of financial incentives and other socio-economic factors on electric vehicle adoption*, Sierzchula et al., 2014 <https://doi.org/10.1016/j.enpol.2014.01.043>

Built environment

Electric vehicles at home and in the workplace will be installed on private or leased land. In the case of renovations or new developments, the Northern Territory should adopt an 'EV ready' development policy.

EV ready provisions should be included in the Northern Territory's electric vehicle strategy to future proof the Territory and avoid costly upgrades to buildings in the future. It should be noted that there is already work underway to include EV ready provisions in the National Construction Code.

Building & development policy should include:

- A provision that mandates the necessary circuitry for EV charging infrastructure be installed or upgraded at the time of development (or renovation where appropriate)
- Expedited planning and approvals processes for public charging infrastructure

Integration with electricity grid

Electric vehicle charging will see a significant new source of demand on the electricity grid. At a macro level, the addition of electric vehicle charging is not expected to require significant new generation; however, challenges at the local network level may arise if charging times are left unmanaged and occurs during peak times.

With the right incentives and regulations in place, electric vehicle charging can ultimately provide benefits to the grid, such as matching demand to supply of renewable energy, maximising utilisation of existing infrastructure and generation, and providing ancillary services to the grid such as voltage and frequency control.

The Electric Vehicle Council is working with the EV industry, electricity sector and energy market bodies to identify issues, opportunities and actions needed to ensure both the grid enables EV charging and is positioned to benefit from EV charging.

Industry development

The uptake of electric vehicles presents unique opportunities for the Northern Territory. Electric vehicle batteries require lithium, cobalt and nickel, which are in vast supply in the Northern Territory. The global demand for lithium ion batteries is expected to increase by 32.4%.⁶

There is opportunity for the Northern Territory to capitalise on this demand by incentivising investment in the lithium mining and recycling industry. The creation of EV specific industry programs will attract potential investors by demonstrating government support for EV industries, supporting the development of a skilled workforce, and ensuring adequate infrastructure.

A coordinated and cohesive electric vehicle strategy, which includes support for an onshore electric vehicle battery mining and manufacture industry, would attract investment and provide secure jobs to the area.

Opportunities for industry development include:

- Climate vehicle testing
- Lithium mining and battery manufacture
- Lithium recycling plant development
- Vehicle and component manufacture
- E-mobility technology development

Concluding comments

We would like to commend the Northern Territory Government for their discussion paper for their Electric Vehicle Strategy and Implementation plan. State government leadership will have a significant impact on electric vehicle model supply and demand, consumer attitudes and industry development.

⁶ Australia trade and Investment Commission (2018)