

Briefing: A regional approach to planning for electric vehicles

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Summary

The Northern Councils Alliance (NCA) is a collaboration formed in 2019 by seven councils across northern metropolitan Melbourne – Banyule, Darebin, Hume, Merri-bek, Mitchell, Nillumbik, and Whittlesea. It advocates for projects and objectives that have regional impact, are designated regional priorities and align with Council goals. See our earlier briefing exploring lessons in partnership with the NCA [here](#).

In October, the NCA and its partners launched the [Community Electric Vehicle Transition Plan](#) (the Plan), a comprehensive strategy that will prepare communities and businesses across Melbourne's north for transition to electric vehicles (EVs). It is the result of a collaborative effort to develop an evidence-based, detailed plan for supporting lower-emissions transport options for the community, businesses and Councils.

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Transport is a major source of greenhouse gas emissions across Australia, including in Melbourne's north. The transition to sustainable transport modes (including walking, cycling, buses, and EVs) provides a significant opportunity to decarbonise transport across the region and improve liveability. EVs will play a critical role in decarbonisation and the NCA recognised the significant benefits of taking a regional approach to planning for EV transition.

The Plan was commissioned by the NCA in an effort to align government and stakeholders in planning for the transition to EVs.

The Plan notes shared challenges such as:

- high emissions from many newer cars
- current accessibility to charging infrastructure
- convenience of recharging an EV
- potential need for upgrades to the electricity distribution network
- need to provide and promote active transport options.

It offers a comprehensive list of recommendations for local, state and federal governments that will advance the transition to EVs and reduce emissions across Melbourne's north. The next step is advocating to federal and state governments for support and funding to achieve the plan's goals.

This briefing will be of interest to councillors, senior executives, transport, and land use planners, and all those involved in enabling transition in their communities.

Briefing in full

Need for urgent action on transport emissions

Australia has legislated a 43% emissions reduction target by 2030. Transport is the fastest-rising source of emissions, having grown 60% since 1990. New vehicles sold today have higher emissions than those sold in 2016 due to the growth in large petrol and diesel utes and SUVs.

Given the scale of the emissions challenge, a rapid shift towards zero-emission vehicles is required. This must extend beyond EVs to include the implementation of enhanced public transport services, powered by zero-emission technology.

A rapid increase in the scale of investment in active transport (walking and cycling) networks is also essential, as EVs will be beyond budget for many residents for years to come. Infrastructure to support walking and cycling can have a faster, more

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affordable impact and offer a range of additional health and well-being benefits.

Barriers to EV adoption

While Australia has among the lowest levels of EV adoption in the OECD, it nevertheless increased rapidly from around 2% of new vehicle sales in 2021 to 3.4% by September 2022. A [number of surveys have found](#) around 50% of consumers are considering an EV for their next vehicle purchase.

In 2021, the Australian Government released its [Future Fuels and Vehicle Strategy](#). The objective of the Strategy is to accelerate the uptake of new technology, including hybrid, hydrogen, electric, and bio-fuelled vehicles. The [Commonwealth Fleet Vehicle Selection Policy](#) has set a target of 75% low or zero-emission vehicles by 2025[2].

While around half of consumers say they are considering an EV for their next vehicle purchase, according to a survey by the [Australian Vehicle Council](#), there are still significant barriers that will impact their decision, including purchase cost, accessibility of charging infrastructure, range of models, driving range and the convenience of EV charging.

A regional approach to transition to EVs

Community sentiment about EVs is evolving rapidly, and some local governments are receiving requests from residents for public EV charging. The provision of a charging network and other initiatives intended to speed the transition to EVs will help decarbonise the transport system and provide more climate-friendly transport choices.

The NCA's plan offers the necessary research to provide a coherent, strategic response that will enable the community to transition to lower-emission forms of transport. In addition to the emission reduction benefit that comes from shifting towards EVs, there is also a potential economic benefit to local businesses located in close proximity to a well-used EV charging station.



Figure 1 Merribek EV charging station. Source- Northern Councils Alliance

Opportunity for local governments as early EV adopters

There is a real opportunity for local government to lead the way in terms of EV adoption in the community by moving municipal fleets to EVs. Currently, it is still more affordable for councils to purchase internal combustion or hybrid vehicles, particularly for heavy vehicles. Government funding would support rapid-fleet transition, with council reliance on carbon offsetting to achieve climate goals.

In addition, local governments transitioning to EV fleets now will generate more EV cars in the second-hand market over the next three to four years, supporting affordable community-wide transition in the future.

A coordinated response to ready the electricity network for EV transition

With the introduction of EV charging stations, many parts of Melbourne's north (especially the peri-urban/regional areas) are likely to need upgrades to the electricity network to accommodate this forecast growth – not just in EV stations but in electricity demand more broadly.

Working with distribution network service providers was highlighted as one of the biggest barriers to rolling out a public EV charging network. The report cited high application fees (solely on a site-by-site basis), no ability to discuss plans outside the application process, no public knowledge of an area's electricity charging capacity, and no public plans to consider public EV charging holistically, as key barriers.

There is an opportunity to work constructively and strategically with the Victorian

Government and distribution network service providers to drive innovation in public charging, improve processes and deliver a public charging EV network.

Role of the public and private sectors in charging delivery

All levels of government – and the private sector – must plan a response to the need for public charging.

To meet community requirements, a charging network must be developed in the north, with a focus on equality of coverage and availability. The Plan indicates that 570 charging points need to be established across the 64 activity centres in the region by 2030.

The public EV charging market has grown substantially in the last 12 months. Several private operators have national networks of public chargers and provide charging services for government EV fleets and private home installations. Through the stakeholder engagement conducted in the development of the plan, EV charging operators expressed a willingness to invest in a charging network provided there is long-term financial viability.

EVs alone cannot deliver sustainability goals

The NCA Plan highlights that simply fuel-switching cars is not going to meet overall transport emissions reduction goals. New vehicles sold today have higher emissions than those sold in 2016- simply because the type of car sold tends to be of the larger variety. The average lifespan of vehicles is 20 years. Even if all new vehicles purchased from 2023 onwards were zero-emission, Australia would not reach the 43% target in the transport sector.

A key opportunity identified in the plan is the delivery of a comprehensive active transport network – including walking, cycling and micro-mobility e-bikes and e-scooters – that must play a part in creating a sustainable transport future. Active transport needs to be promoted and infrastructure provided that will encourage people to choose to walk and cycle rather than drive.

Key takeaways

While an important part of the transition, EVs are not in themselves a silver bullet.

Firstly, if powered by standard Victorian grid electricity, EVs only provide very marginal reductions in transport emissions. This highlights the importance of creating a charging network that is powered by renewable energy. It is now

commonplace for commercial EV charging networks to purchase an equivalent amount of electricity from certified renewable energy. To support the NCA's commitment to reducing emissions, it is paramount that the electricity is sourced from renewable means.

Secondly, a straight shift to EVs does not address the broader impacts of car dependency. This includes lifestyle impacts such as time spent commuting, financial impacts of car ownership, and the land use impacts of public and private land dedicated to car parking and roads. As the research highlighted, the benefits of shifting to increased active and public transport extend to health and wellbeing, opportunities for greening and cooling, instant reduction in emissions and measurable improvements in urban form and access, particularly for those who cannot afford to switch to EVs in the near term.

Role of local government – advocacy and facilitation

While advocacy to state and federal governments for funding to provide adequate infrastructure is critical, the role of local government in EV charging will primarily be one of facilitation. Councils often own or manage sites that have car parking, and these locations can be focal points for the community (libraries, commercial areas, town halls, leisure centres, et cetera), often in the heart of activity centres.

This means that local governments can engage with the EV charging industry to negotiate outcomes where charging is provided by the private sector at little or no cost to the Council. In addition, some sites may be able to attract rental payments from commercial EV charging providers. The EV charging industry advises that local government identifying broader areas rather than specific sites will lead to better outcomes. (The NCA report recommends areas and not specific sites.) Councils can also take measures to ensure that less advantaged communities have access and are supported, for example, by encouraging EV car sharing schemes and supporting the second-hand market by increasing EV fleet availability.

What's next?

The NCA notes that the EV transition space is consistently evolving and new technology, problems and solutions will emerge in the future. The NCA's EV working group will continue to track these trends and, where required, respond with suitable advocacy and re-prioritisation.