REPORT

Electric Vehicle Ready Local Government Fleets

Increasing uptake and ambition

March 2019
Electric Vehicle Ready Local Government Fleets

Executive Summary

Electric vehicles are integral to achieving net zero greenhouse gas emissions by 2050 – part of Australia’s full commitments under the Paris Agreement. Transport is one of the fastest growing sources of emissions in Australia, and electric vehicles fuelled by renewable energy can help to drastically reduce the sector’s emissions. Globally, the transition to electric vehicles has momentum, however Australia still trails behind.

Local government fleets provide a significant opportunity to accelerate Australia’s transition to electric vehicles. Local Councils have significant emissions reductions targets in place and ambition to be leaders in sustainability. With many Councils currently investigating electric vehicle uptake, now is the time to provide the support and information they need to encourage this action.

ClimateWorks Australia, in partnership with the Electric Vehicle Council and the Municipal Association of Victoria, recently completed a project to enable greater uptake of electric vehicles in Victorian local government fleets. Based on the findings from this project, ClimateWorks recommends the following three priority areas of work to further accelerate national uptake of electric vehicles:

Recommendation 1: A national capacity building program

Councils need a capacity building program that provides the information and tools needed to build fleet transition plans. Tools for calculating the total cost of ownership of vehicles will be important in building a Council’s business case for switching to an electric vehicle fleet. Councils also need information about the charging infrastructure required to support an electric vehicle fleet, to support their decision-making. A national program led by an independent or government organisation, that provides the required resources and networking opportunities within and across Councils, could significantly increase the number of Councils pursuing this opportunity. State-wide programs, like this one, could also be rolled out in the other states. A ‘how to’ guide could also help to provide Councils with an overarching framework to transitioning their fleets.

Recommendation 2: Events to create momentum at the executive level

Executive support will play a key role in enabling Councils to develop transition plans to electric vehicles for their entire fleet. Many Councils are willing to purchase or lease one or two electric vehicles, but few are currently developing full fleet transition plans. Future events targeted at Councillors and Mayors could generate the required momentum for Councils to move their entire fleet to electric, leading the way for a broader transition.
Recommendation 3: Actions to reduce the capital cost barrier

Capital cost barriers faced by Councils when purchasing electric vehicles could be lessened through a national project to showcase growing Australian demand for electric vehicles.

Working with fleet buyers across government and corporate sectors could benefit the Australian market by encouraging electric vehicle manufacturers to bring more models and vehicles to Australia.

New financial support mechanisms could also help local governments deploy more electric vehicles in their fleets, and this will be an important area of future investigation. The national capacity building program should also cover the full range of financing options available to Councils.

Councils are currently investigating the potential for electric vehicles to deliver on their emissions reduction targets and sustainability leadership goals. The programs of work recommended here would enable them to increase their uptake of electric vehicles and create momentum for broader uptake in Australia.
About us

ClimateWorks Australia

ClimateWorks Australia develops expert, independent and practical solutions and provides advice to assist the transition to net zero carbon emissions for Australia and Asia Pacific. A non-profit organisation, ClimateWorks was co-founded in 2009 by The Myer Foundation and Monash University and works within Monash Sustainable Development Institute. ClimateWorks also benefits from strong relationships with an international network of affiliated organisations that support effective policies, financing and action for greenhouse gas emissions reductions.

Since launch, ClimateWorks has made significant progress. Acting as a bridge between research and action, its collaborative, end-to-end approach to solutions that will deliver greatest impact is informed by a thorough understanding of the constraints of governments and the practical needs of business. This, combined with philanthropic funding and university ties, has earned the organisation an outstanding reputation as a genuine and impartial adviser.

In the pursuit of its mission, ClimateWorks looks for innovative opportunities to reduce emissions, building an evidence-base for action through a combination of robust research and analysis, clear and targeted engagement, and effective capacity strengthening. ClimateWorks supports decision makers with tailored information and the tools they need, and works with key stakeholders to remove obstacles and help facilitate conditions that encourage and support the transition to a prosperous, net zero emissions future. To learn more about this work, visit www.climateworksaustralia.org

Acknowledgment of Support

ClimateWorks Australia thanks the experts who provided input through consultations undertaken for this project. This includes project partners - the Municipal Association of Victoria and the Electric Vehicle Council. We also thank Bede Doherty of Bede Doherty Consulting Pty. Ltd. who provided expert advice and consultation for the duration of the project.
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2. Introduction

Electric vehicles are key to achieving net zero emissions in Australia’s transport sector and could assist Australia to meet its commitments under the Paris Agreement. Transport is one of the fastest growing sources of emissions in Australia and electric vehicles fuelled by renewable energy can help to drastically reduce the sector’s emissions. Fleets represent a significant opportunity to generate momentum for electric vehicle uptake in Australia. Government and corporate fleets have substantial purchasing power, making up 52 per cent of new light vehicles purchased in Australia in 2017.

Fleet transitions can also play an important role in normalising electric vehicle technology. As the number of electric vehicles in fleets increases, so too will the opportunity to educate organisational staff and the community more broadly, overcoming potential misconceptions and demonstrating the significant benefits of electric vehicles. Fleets could also help expedite the transition to electric vehicles as fleet vehicles are also generally replaced over shorter time frames than personal vehicles. This would provide an opportunity to supply the second hand electric vehicle market.

Local government fleets in particular have the potential to lead the way with electric vehicle uptake. In comparison to many corporate fleets, Councils have an explicit obligation to manage their assets in the best interests of their constituents. Many Councils also have significant emissions reduction targets and have already implemented initiatives to improve energy efficiency, and to either install or source renewable energy. To reach their emissions reduction targets, Councils must now address their transport emissions.

And financial concerns no longer need to present a substantial barrier to uptake. The Australian electric vehicle market is improving rapidly, providing a greater variety of fleet-suitable vehicles at a similar or lower total cost of ownership to traditional petrol vehicles.

In combination, these factors create a significant opportunity for increasing electric vehicle uptake in local government fleets and supporting Australia’s electric vehicle transition.
3. Project Background

This report summarises the findings from the, “Electric Vehicle Ready Local Government Fleets” project undertaken by ClimateWorks Australia in partnership with the Electric Vehicle Council and the Municipal Association of Victoria. Funded by the Victorian Government Department of Environment, Land, Water and Planning, the project worked with local governments across Victoria.

The key objective of this project was to increase electric vehicle uptake in Victorian local government fleets. This report highlights learnings from the project to inform future projects in this area. The report explains the approach we took and provides recommendations for future work that would further enable local governments to transition their fleets to electric vehicles.

### Project Activities

<table>
<thead>
<tr>
<th>Activity</th>
<th>Details</th>
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<tbody>
<tr>
<td>Initial workshop</td>
<td>Held introductory workshop for Council executives, fleet and sustainability teams. Industry speakers and council case studies were presented.</td>
</tr>
<tr>
<td>Initial survey</td>
<td>Collected Councils’ level of preparedness for electric vehicles, their key barriers and drivers, and what assistance would be helpful.</td>
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<tr>
<td>Fleet data collection</td>
<td>Councils provided detailed fleet data.</td>
</tr>
<tr>
<td>Manufacturer engagement</td>
<td>De-identified, collated data provided to manufacturers to illustrate demand from Council fleets. Manufacturers provided their electric vehicle costs.</td>
</tr>
<tr>
<td>Fleet total cost of ownership comparisons and reports</td>
<td>Councils who provided detailed fleet data receive total cost of ownership comparisons and a summary report highlighting opportunities in their fleet.</td>
</tr>
<tr>
<td>Total cost of ownership calculator</td>
<td>Developed a total cost of ownership calculator for all Councils.</td>
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<tr>
<td>Webinar 1: Vehicle Financing Options</td>
<td>Covered manufacturer responses and key opportunities for council fleets. Included TCO comparisons.</td>
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<tr>
<td>Webinar 2: Charging Infrastructure for fleets</td>
<td>Industry speakers and Council examples of decisions to be made when installing charging infrastructure for fleets.</td>
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<tr>
<td>Final survey</td>
<td>Collected feedback on project effectiveness, remaining Council barriers and support required.</td>
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4. Knowledge and skills

This project demonstrated that Victorian Councils are already planning for greater uptake of electric vehicles in their fleets. The information and support we provide to Councils now can assist in scaling up this transition.

Through the project we provided resources and workshops to overcome knowledge gaps identified in the initial survey of participants. We helped Councils understand how to compare total cost of ownership between electric and petrol vehicles, and provided information on charging infrastructure. Building on the success of this approach, we recommend a national or state-wide capacity building program to support Councils by providing them with the information, examples and tools they need to successfully transition to fully electric fleets. This program could include the development of a ‘How to’ resource for Council use.

4.1 Project Findings & Approach

Council Readiness
Through this project, we found that many Victorian Councils have a strong interest in electric vehicles and that the time is right to provide support and encourage action. In our initial survey, twenty-two of the twenty-five Councils we spoke to had begun investigating electric vehicle opportunities. Six Councils already had electric vehicles in their fleet. Another five had plans to purchase at least one electric vehicle within the financial year.

Total Cost of Ownership
Our initial survey and workshop found that sustainability and fleet teams had little experience calculating the total cost of ownership of their vehicles. A total cost of ownership approach assists staff within Councils to show the benefits of electric vehicles and build a business case to unlock senior level support, as well as compare costs of new vehicles arriving on the market.

To assist in breaking down this barrier, we created a total cost of ownership calculator which enabled Councils to compare petrol and electric vehicles. Councils rated this calculator as equally the most valuable part of their participation in the project. Further, seventy-five percent of Councils who responded to our final survey said they would use the calculator routinely as part of their fleet procurement process. The calculator is now available to all Councils through the MAV website.

For Councils who were able to provide detailed fleet data, we also provided comparative costings of their current fleet and electric vehicles currently on the market. Our calculations show that within some categories of vehicles, electric vehicle options (battery electric and plug in hybrid) have a similar or lower total cost of ownership than current internal combustion engine fleet vehicles.

Charging Infrastructure
Electric fleets require appropriate charging infrastructure to keep them running. Our initial survey identified this area as another key knowledge gap for sustainability and fleet teams. Their questions included what chargers to install, where to install them, and what management systems they need to service a transitioning fleet.

Australia’s electric vehicle market is still in the relatively early stages of development and during this period, it can be difficult for Councils to access credible and impartial advice. This is particularly true for charging infrastructure, as many parties who can provide information also have an interest in selling their services or equipment.
For this project, we focused on providing information on the range of fleet charging options available to Councils, with presentations from industry representatives and leading Councils.

Our information also focused on opportunities to reduce costs and future-proof Council fleet investments. Councils found case studies and examples from other Councils who had already installed infrastructure very helpful.

The majority of the cost involved in installing charging infrastructure is in preparing the site and installing the electrical capacity required. Councils can therefore reduce costs by carefully selecting the site to deliberately reduce the cost of electrical and construction works. Councils can also reduce the cost of future installations by installing greater electrical capacity (wiring) in an initial install, than is immediately required. Chargers can also be connected to the internet or networked, which allows for software to be installed and a range of data collection or services to be provided. Installing chargers with this ability from the outset enables Councils to install or upgrade software at a later stage.

Remaining information gaps

Our final survey identified two remaining areas where Councils need further information and examples.

There are a number of internal Council policies that need to be updated to allow them to develop long term fleet transition strategies, rather than rely on ad hoc arrangements to purchase small numbers of electric vehicles. Leading Councils have started writing these policies, which presents a key opportunity to share these leading experiences and make subsequent transitions easier for other Councils.

Councils also require more information on how and when public charging infrastructure will be delivered. This is not specific to fleet transitions, but we found that as Councils start to invest in charging for their fleets, they also consider public charging networks. The role of Councils in providing public charging infrastructure is not clear-cut and there are organisations who are already developing plans for state-wide and national charging networks. To support good Council decision-making in this area, it will be necessary to develop and share information around what a national network might look like, and to better define the role of different entities in installing and operating the charging network. Councils need guidance on what role, if any, they might play in facilitating private investment and delivery of charging infrastructure.

4.2 What next?

Given that the knowledge and tools we provided on total cost of ownership and on charging infrastructure helped increase the intention of participating Councils to buy electric vehicles, it is clear that building greater knowledge more broadly is key to increasing Council uptake of electric vehicles. Councils in Victoria have had the opportunity to learn from this project and it has already been very effective. We therefore recommend a national capacity building program aimed at providing information, tools and networking opportunities for local Councils across Australia. This program could also start at the state level, giving Councils in other states the opportunity provided in this project. A capacity building program would provide Councils in other states with the same opportunity as Councils who participated in this project, and has the potential to significantly increase the number of Councils moving to electric vehicles. This program proposal supports the Senate Select Committee on Electric Vehicles’ recommendations to coordinate procurement of electric vehicles across federal, state and local governments and that government fleets set electric vehicle targets.

Design considerations for a national program

Led by an independent organisation or government body

An independent organisation or government body should play the leading role in a national program. As highlighted in this report, this is important, as many parties providing information about electric vehicles and charging products also have an interest in selling equipment. Advice

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from non-commercial sources will also support decision-making by CEOs and Councillors, by enhancing their confidence in the business case for electric vehicles. This role could possibly be played by a government body or department, or the national Electric Vehicle Council.

Networking opportunities for Councils

Another key to the success of a capacity building program will be providing networking opportunities within and between Councils. While it is important to build buy-in and support from fleet and sustainability teams within the same Council, it is also important to provide Councils with opportunities to network with each other. This will facilitate hearing the experiences of those who have already taken action on electric vehicles. Council representatives have strong inside knowledge of the environment in which a Council operates, so can offer valuable insights into effective strategies for creating change within.

Our final project survey found that the equally most valuable part of our project was the initial workshop, which brought together Councils from across Victoria. The below quotes from participants demonstrated the significant value of providing this opportunity for Councils to network and learn from each other.

“(It) was great to further strengthen the engagement between internal departments…. It built a sense of common purpose and excitement.” Yarra City Council

“The learnings from other councils will be invaluable as our council moves forward in this space.” Greater Shepparton City Council

Regular updates

Information and resources provided in a national program will need to be updated regularly. The Australian electric vehicle market is a rapidly changing space with new low cost electric vehicle models expected to arrive on the market in the next 6 months. Councils will need access to up-to-date information, to empower them to take advantage of this moment.
5. Building ambition and motivation for change

This project created greater ambition amongst Victorian Councils for electric vehicle uptake through leveraging Council ambition to lead on sustainability. We therefore recommend building on this engagement by focusing on generating ambition within Council executive teams. Case studies are also an important tool for showcasing potential, thereby creating the motivation for change within Councils.

5.1 Project findings and approach

Executive support

Executive support is key to enabling Councils to develop transition plans for their entire fleet. Our project found most Councils are willing to purchase or lease one or two electric vehicles but few are currently developing full fleet transition plans.

In many cases there are passionate individuals within Councils, but without buy-in at higher levels, progress can be very slow. External encouragement can push Councillors and other executive team members to generate the ambition required within Councils. As one of the participating Councils stated, “The team are very much on board – (we) just need Councillors now.”

Our initial project workshop enabled Councillors to show their interest in electric vehicles and ask questions. At this session we provided an overarching view of the current environment and details on future trends. Our surveys found the leading drivers for Councils to consider electric vehicle options are achieving emissions reductions targets, leading on sustainability and environmental action, and showcasing that leadership to their community. Councillors need to understand the opportunities electric vehicles provide, against these drivers.

Existing networks can streamline engagement with Councillors and other Council executives. Our partnership with the Municipal Association of Victoria (MAV) was integral to encouraging Councillors to attend the initial workshop. This relationship also provided an opportunity to grow ambition by presenting to Councillors at the MAV Transport and Infrastructure Committee.

5.2 What next?

To build momentum in the broader community, greater ambition is needed from Councils across Australia. We therefore recommend investigating further opportunities to build executive support for electric vehicles in Councils. Specific events targeted at executive Council teams could demonstrate how electric vehicles can contribute to Councils’ emissions reduction targets and sustainability leadership, and motivate executives to actively push for the transition of their fleet.

Design considerations

Key drivers

As mentioned, this project identified three key drivers for Councils to consider electric vehicles: meeting emissions reductions targets, leading on environmental action and showcasing that leadership to the community and to other Councils.

Case studies

Motivation to change is also prompted by understanding that change is possible and delivers benefit - and case studies are a great way of creating this understanding. The activities of a
number of ambitious Councils and organisations could provide excellent case studies. For example, the ACT Government’s three year transition plan could serve to lift ambition amongst Councils and create momentum. It’s also an example of the way in which strong executive support can create motivation for change. In designing events to build executive support for Council fleet transitions, it will be essential to showcase these key drivers and to provide case studies.
6. Financing options and availability of vehicles

At the conclusion of the project, participating Councils continued to highlight the capital required to purchase electric vehicles and charging infrastructure as an ongoing barrier to their increased uptake. We interpreted this concern to reflect two issues; the limited number of low cost electric vehicles currently available in the Australian market, and a current lack of experience, knowledge or suitability of financing options for Councils.

We recommend that further work is undertaken to showcase Australian demand for electric vehicles to manufacturers. We also suggest incorporating advice on financing options into the capacity building program, and exploring opportunities for innovative financial support mechanisms.

6.1 Project approach

As the electric vehicle market develops in Australia, showcasing growing consumer demand to manufacturers will provide a powerful lever for encouraging the addition of further vehicles and models to the country. The project prototyped this approach using combined purchasing power to showcase the potential for such demand, to manufacturers. We did this by gathering fleet numbers from Councils then providing collated, de-identified data to manufacturers as an indication of potential electric vehicle demand from local governments in Victoria.

Manufacturers in turn, showed their support for this approach, engaging with our team and providing data for the total cost of ownership calculator.

6.2 What next?

Projects currently in development will look to scale up our approach to showcase demand to manufacturers, working nationally and across corporate and government buyers. We see great value in this approach and suggest the Electric Vehicle Council could provide an effective avenue to engage with electric vehicle manufacturers.

New financial support mechanisms could also help local governments to deploy more electric vehicles in their fleets, and this will be an important area of future investigation. There may be opportunities for state or federal governments to facilitate the reduction of capital costs to Councils, through financial incentives, or by employing innovative mechanisms to strengthen the residual value expectation for electric vehicles.

We also recommend that a national capacity building program for Councils includes information on financing options. Councils could access a range of low cost financing options for fleet purchasing, through their own arrangements with state governments and through leasing arrangements. The majority of Councils we worked with in this project currently buy their fleet vehicles directly from local dealers – so it’s possible that fleet and sustainability teams don’t yet have information or experience in accessing financing options. This information will be key to enabling Councils to move forward with transitioning their fleets.
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Published by
ClimateWorks Australia
Melbourne, Victoria
February 2019
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