

**ACT AUDITOR-GENERAL'S REPORT  
ACT GOVERNMENT'S VEHICLE EMISSIONS  
REDUCTION ACTIVITIES**

REPORT NO. 4 / 2021

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PA 20/07

The Speaker  
ACT Legislative Assembly  
Civic Square, London Circuit  
CANBERRA ACT 2601

Dear Madam Speaker

I am pleased to forward to you a Performance Audit Report titled 'ACT Government's vehicle emissions reduction activities' for tabling in the Legislative Assembly pursuant to Subsection 17(4) of the *Auditor-General Act 1996*.

The audit has been conducted in accordance with the requirements of the *Auditor-General Act 1996* and relevant professional standards including *ASAE 3500 – Performance Engagements*.

Yours sincerely



Michael Harris  
Auditor-General  
21 April 2021

*The ACT Audit Office acknowledges the Ngunnawal people as traditional custodians of the ACT and pays respect to the elders; past, present and future. The Office acknowledges and respects their continuing culture and the contribution they make to the life of this city and this region.*



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# SUMMARY

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The ACT Government has prepared and implemented four plans and strategies since April 2018 which aim to reduce transport-related greenhouse gas emissions by increasing the uptake of zero emissions vehicle technologies in the ACT. The four plans are:

- *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018–21;*
- *the ACT Climate Change Strategy 2019-25;*
- *the ACT Transport Strategy 2020;* and
- *the Zero-Emission Transition Plan for Transport Canberra.*

This audit examines the implementation of 18 zero emissions vehicle-related commitments identified in these plans, including the working arrangements across ACT Government agencies to plan and implement the commitments, and the progress made between April 2018 and December 2020 in delivering the commitments. The zero emissions vehicle-related commitments examined primarily relate to increasing the uptake of electric vehicles in the ACT.

## Conclusions

### PLANNING FOR VEHICLE EMISSIONS REDUCTION

The four plans and strategies considered as part of the audit provide clarity on the Government's intentions to encourage and support zero emissions vehicle technologies in the ACT. The commitments range from affirming existing practices, investigating and trialling new ideas and technologies through to the identification of major new policy directions. The development of these plans and strategies reflects the evolution of technology and the market over the 2018 to 2020 period. The plans and strategies and the 18 commitments within them that relate to the Government's vehicle-related CO<sub>2</sub> emissions reduction activities provide an effective statement of the Government's ambitions.

### IMPLEMENTING PLANS

The Environment, Planning and Sustainable Development Directorate has established effective governance arrangements for the implementation of the zero emissions vehicle commitments, with some exceptions. Roles and responsibilities for the planning and implementation of the first 16 commitments, made in 2018 and 2019, have been clearly identified. Collaboration between different functions across Government has also enabled most actions to make progress.

Aspects of the planning and implementation of commitments relating to new policy areas, for example the transition of the ACT Government's passenger fleet and changes to the Territory Plan to create a requirement for the installation of charging equipment in multi-unit and mixed-use developments, have not been effectively managed.

In relation to the transition of the ACT Government's passenger fleet, the lack of progress in agreeing a set of guiding principles for parking and vehicle charging has led to delays in establishing appropriate charging infrastructure in a timely manner in the two new government office buildings at Civic and Dickson.

In relation to changing the Territory Plan to require the installation of charging equipment, a lack of shared understanding and agreement between teams within the Environment, Planning and Sustainable Development Directorate has led to delays and a lack of agreement about the necessary steps to achieve the outcome.

## REPORTING AND PROGRESS OF ACTIVITIES

ACT Government agencies have, for the most part, effectively implemented the zero emissions vehicle commitments considered as part of the audit. Of the 16 zero emissions vehicles commitments the Government made in 2018 and 2019 for completion in the 2018 to 2021 period, twelve have been completed as at December 2020.

Of the four that are not yet complete, the key exception relates to the action to change the Territory Plan to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure. This action is unlikely to be completed by December 2021 as originally intended. In November 2020 the Government signalled a revised timeframe for this action beyond 2021.

The three other actions (relating to the Government fleet's transition, traffic regulation and zero emissions vehicle incentives) have made some progress but not as much as intended. In the case of one action (relating to exploring zero emissions vehicle incentives) a revised commitment was made in the February 2021 ACT Budget to trial a zero emissions vehicle purchase incentive from July 2021.

The evaluation and reporting of the Government's progress in fulfilling its zero emissions vehicle ambitions could be improved with balanced, comprehensive, public commentary on its commitments.

## Key findings

### PLANNING FOR VEHICLE EMISSIONS REDUCTION

Paragraph

Consistent with the expectation that the transport sector would become, in 2020, the largest CO<sub>2</sub>-e emitting sector in the ACT (once electricity generation was decarbonised), in the period 2018 to 2020 the ACT Government developed four complementary strategies and plans containing 18 commitments targeted at reducing road vehicle-related CO<sub>2</sub>-e emissions. The commitments emphasise the importance of supporting an increase in the uptake of zero emissions vehicles more rapidly than would be achieved by the market alone.

2.5



- Within the four plans and strategies, the stated purpose of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is to provide the 'first steps in supporting the rapid uptake of zero emissions vehicles in the ACT'. The plan does not state what 'rapid uptake' means. An explicit statement of what effect the 'rapid uptake' of zero emissions vehicles will have on the number of vehicles in the ACT in the medium term, and in turn what impact this will likely have on emissions reduction would improve the prospects of gauging performance in the delivery of this plan. 2.15
- Within the 18 zero emissions vehicle-related commitments, the Government has made four commitments specific to reducing emissions from its own transport fleet. These commitments are to increase the leasing of zero emissions vehicles for the Government's passenger fleet in 2019-20 and to only lease zero emissions vehicles from 1 July 2020, to begin procuring zero emissions buses from 2021 and to only purchase zero emissions buses from 2025. These actions reflect a firm, unambiguous, and easy to communicate commitment that will have an impact on the Government's own CO<sub>2</sub>-e emissions by 2025. 2.41
- Between 2017 and 2019, consultation and policy development on climate change action by the Environment, Planning and Sustainable Development Directorate included developing a refreshed framework for the ACT Government's ambitions and performance in reducing CO<sub>2</sub>-e emissions from its own operations. The new *Zero Emissions Government Framework* was incorporated into the approved *ACT Climate Change Strategy 2019-25*. It announced a 33 per cent reduction in emissions from Government operations by 2025 (from 2020 levels). The setting of this target provides a context for considering policy options, and the progress of agreed actions, such as the Government fleet vehicle-related zero emissions actions. 2.50
- Additional resources (\$3.03 million) have been made available as budget initiatives to progress all zero emissions vehicles actions in the plans and strategies in the 2018 to 2020 period. It is the three actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* (Actions 1, 2 and 3) that reflect new policy directions that have been discretely resourced in the first two years of the action plan. 2.61
- The Government's February 2021 additional budgetary commitment to increasing the uptake of zero emissions vehicles in the ACT to December 2021 is more than \$2.13 million. The additional budgetary commitment relates to previously announced zero emissions vehicle strategies and plan actions and the Parliamentary Agreement of the 10th Legislative Assembly. Three of the four initiatives address increasing the uptake of zero emissions vehicles in the community rather than in the Government fleet. The Government fleet was the subject of the initial budgetary commitments in 2018 and 2020. 2.67
- Planning assumptions changed over time in the business cases relating to the installation of electric charging points in Government buildings to support the transitioning of the fleet to electric vehicles. This reflects the improving understanding by all stakeholders of how the transition would progress. One area where clarity was lacking was in the August 2019 business case funded in the 2.73

February 2020 budget review for charging infrastructure. The business case did not clearly identify the distinct needs and risks of installing charging infrastructure in the new Government office buildings in Dickson and Civic relative to the small-scale retrofitting of chargers in existing government buildings. This was a missed opportunity.

Planning for the transition of the Government’s passenger fleet from 1 July 2019 commenced in the preparatory year (2018-19) based on assumptions that a large proportion of expiring passenger vehicle leases would be suitable for replacement with electric vehicles. In addition to the issue of model availability, a number of other variables, such as the choice of ‘battery’ versus ‘plug-in hybrid’ electric vehicle, preferred parking locations and patterns of use, and fleet rationalisation, have increased the complexity and risks associated with the fleet’s transition. 2.87

Records confirm implementation arrangements were in place, at whole-of-government and directorate level, for introducing electric vehicles and installing vehicle charging infrastructure, for evolving passenger fleet management policy and providing guidance for electric vehicle users and decision makers. 2.92

Although much of the progress in transitioning the Government’s passenger fleet relates to the leasing of battery and plug-in hybrid electric vehicles, the ACT Government is also integrating hydrogen fuel cell powered electric vehicles into its passenger fleet, as of 30 March 2021. Following the opening of the hydrogen refuelling station in Fyshwick, an Australian first, the ACT Government’s fleet is now supported by two zero emissions technologies, providing learnings for exploring options for other classes of vehicles. 2.98

**IMPLEMENTING PLANS** Paragraph

The Environment, Planning and Sustainable Development Directorate has developed an adequate program design for its zero emissions vehicles actions. It will enable progress of actions to be verified as ‘complete’ or as implemented. However, there are opportunities for improvement in the program design, including: 3.20

- periodically reappraising the program logic of each action and documenting this;
- ensuring a substantial number of actions in a program have a measurable impact and also have specified target performance levels; and
- determining and progressing a program level evaluation process.

The development and implementation of policy to increase the use of electric vehicles will be enabled by regular and reliable reporting of the number of electric vehicles registered in the ACT. Publicly reporting the number of zero emissions vehicles registered in the ACT, including sub-categories, would raise awareness and inform decision making, once issues with the integrity of data are resolved and confidence in the data is established. 3.21

<p>The commitments identified in <i>The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21</i> require a combination of single directorate and whole-of-government effort. Roles and responsibilities are evident in the policy development and initial implementation phases of the plan, with the exception of Action 3, a new policy direction, for which limited preparatory work involving the relevant teams was undertaken in the policy development phase.</p>	3.32
<p>Roles, responsibilities and timeframes for the five commitments identified in the <i>ACT Climate Change Strategy 2019-25</i> are evident in the policy development documentation and in the strategy itself. This visibility aids public accountability in the implementation of the commitments.</p>	3.34
<p>Environment, Planning and Sustainable Development Directorate records maintained in the directorate's Objective system folders identify engagement between the Climate Change Policy team and other teams across government necessary for the support and implementation of all 16 actions, once announced. In each case engagement over the detail of the action began within three months of the commencement of the plan or strategy. In most instances engagement commenced with exchanges of emails and meetings between the requisite teams. Collaboration was evident once teams in different areas of Government were engaged.</p>	3.35
<p>The Climate Change Policy team has effective governance and administrative arrangements in place to articulate the activities and carriage of each of the first 16 commitments considered as part of the audit. These arrangements fulfil the function of formal project planning and monitoring. The approach would be improved further by ensuring the evolving versions of composite implementation plans developed to guide the implementation of the commitments have senior management (Executive) authorisation and are shared with other teams involved in implementation so that priority tasks and milestones are mutually understood and accepted.</p>	3.40
<p>Action 3 in <i>The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21</i> relating to amending the Parking and Vehicle Access General Code was not given equal priority by the three teams in the Environment, Planning and Sustainable Development Directorate involved in the action's implementation. A lower priority was given to it by the Strategic Planning and Territory Planning teams compared to the Climate Change Policy team. The three teams did not develop a shared understanding and commitment to the task at an early stage.</p>	3.58
<p>Action 5 in <i>The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21</i> relating to the use of transit lanes by zero emissions vehicles was given a lower priority by Roads ACT compared to the Climate Change Policy team. Legislation was amended on 1 July 2019, yet no signage was installed or public announcements made for more than 12 months. As a result, the full benefits envisaged by the action have not been realised in a timely way. Early implementation of this activity is particularly important given this aspect of the legislation terminates in 2023.</p>	3.73

Action 11 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relating to amending, announcing, installing signage for, and enforcing, the road rules to accommodate specific provisions for electric vehicles was given a lower priority by Roads ACT than by the Climate Change Policy team. As a result, progress has been slower and the full benefits envisaged by the action have not been realised in a timely way. 3.89

To support the progress of Actions 1 and 2, investment in charging infrastructure for government electric vehicles has been undertaken. The number of separate charging points and the number of government sites with charging points have been increasing as the number of electric vehicles has increased. However, no independent review has been conducted of the impact of introducing electric vehicles into the government fleet including the effectiveness of charging infrastructure. 3.99

While the installation or upgrade of electric vehicle charging points has been progressed at many government sites (at least 25 sites, by November 2020) an insufficient number of charging points had initially been planned for at the two new government office buildings at Dickson and Civic. Two charging points were initially planned for each of these two sites. Planning for the additional charging needs of a higher number of zero emissions (electric) vehicles has been underway since 2018. However, progress over related issues, such as what vehicles are entitled to park and charge in these two new buildings and the associated costings and assessments of different installation scenarios, has led to insufficient progress being made to reach a timely decision. 3.111

A solution was not arrived at and was not able to be implemented in time for the move of government staff into the Dickson office building in June 2020, or into the Civic building in March 2021. Occupancy of both buildings began with the originally specified two electric vehicle chargers in each building. Work is in hand to address the immediate and medium term shortfall in the overall number of car parking spaces with chargers in each building. 3.112

**REPORTING AND PROGRESS OF ACTIVITIES** Paragraph

Reporting obligations for zero emissions vehicle activities have been established for the *ACT Climate Change Strategy 2019-25*. Records indicate the Climate Change Policy and Programs teams are undertaking internal monitoring of actions at an aggregate level for the action plan and strategy, effectively engaging teams elsewhere in the directorate and across the Government in accounting for progress. 4.8

The Cabinet's first bi-annual report on the progress of the *ACT Climate Change Strategy 2019-25* provides commentary and assigns a status to each of 16 zero emissions vehicle activities. The commentary and status assigned in the Cabinet report accords with the audit evidence with the exception of Action 3: 'Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure'. Action 3 was reported as 'progressing / on track', but this was likely to have underestimated the extent of 4.21

the work to be undertaken by the consultant and the work that is contingent on the outcome of the consultancy. Implementation of Action 3 was most likely 'at risk' at the time of reporting.

There is extensive, in-depth public reporting of the Government's climate change intentions, challenges and progress located in the Environment, Planning and Sustainable Development Directorate's climate change webpages. However, there is insufficient public reporting on zero emissions vehicles activities. The only detailed commentary on the implementation of actions is contained in a non-publicly released report. *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is an award-winning plan, and there are several 'firsts' coming from the plan. Local (and wider) public interest is likely to be high but dedicated detailed reporting is not public. A systematic, balanced public commentary on all actions would aid wider public interest and public policy. 4.27

Action on 12 of the 16 commitments is complete. Progress has been sufficient in undertaking exploratory tasks and in continuing to support businesses and other government stakeholders to identify the actions as completed. For example, changes to road rules have been achieved in a timely way (Actions 5 and 3.22). The most challenging tasks to date relate to new major policy directions (Actions 2 and 3). These have been making progress but with unintended consequences (in the case of Action 2) and at an insufficient pace (in the case of Action 3) to meet the established timeframe. 4.34

With respect to Action 2 (ensuring that 100 per cent of new vehicle leases in the fleet are for zero emissions vehicles) 33 out of a possible 38 new leases (or 87 per cent) for passenger vehicles in the period July 2020 to December 2020 complied with fleet policies relating to zero emissions passenger vehicles (i.e. FP27 and FP30). Of the remaining five leases, two were potentially avoidable exceptions, based upon the reasons provided, relating to concerns about charging infrastructure. These concerns have the potential to be addressed in all new passenger vehicle lease decision making through improved policy communication and promulgation. 4.48

Authorisation of a) the *ACT Government Fleet Procurement and Management Policy* document itself, and of b) exceptions arising from the implementation of the discrete policies contained in the policy document is not occurring as intended. Given the objective of achieving 100 per cent compliance with zero emissions vehicle policies, authorisation of both is important in order to maintain, and potentially improve, levels of compliance. 4.53

In the first six months of 2020-21 there are emerging vehicle leasing patterns that need closer examination. A larger percentage of lease extensions than usual is being entered into (rather than new leases), and a larger percentage of plug-in hybrids is being leased (rather than battery electric vehicles). While good progress is being made in transitioning the Government's passenger fleet towards the 100 per cent zero emissions vehicles target from 1 July 2020 there is a risk that undesirable leasing patterns stem from perceptions about the unavailability of charging infrastructure. This may relate to the current situation at the new office buildings at Dickson and Civic or other government sites, or a combination of these. 4.60

<p>The Climate Change Policy team and the Parking Working Group are continuing to examine opportunities to promote investment in public charging infrastructure in the ACT. While this aspect of Action 3.21 is at an exploratory phase, planning is underway for a potential masterplan of priority locations and an improved approach to coordinating interest from non-government proponents. The February 2021 ACT Budget confirms the importance of making tangible progress in this.</p>	<p>4.75</p>
<p>Electric bikes have been a part of the ACT Government fleet for four years. The additional fleet travel option of an electric bike replaces a small percentage of the total local passenger vehicle movements. However, the 10,000 kilometres (or more) of e-bike journeys made between 2018 and 2020 demonstrates that there are viable zero emissions alternatives for short local trips.</p>	<p>4.83</p>
<p>The public infrastructure for e-bike users and other forms of micro-mobility is beginning to be considered through design guidance and policy. A 'Bike and Ride' policy is in development.</p>	<p>4.86</p>
<p>Action 7 in <i>The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21</i> and Action 3.22 in the <i>ACT Climate Change Strategy 2019-25</i>, which relate to e-bikes and e-scooters, proposed intermediate activities such as changing the road rules and investigating incentives. However, both actions have been completed as specified, and have since moved beyond the activity envisaged to a scheme implementation phase, that is e-scooter (hire) and e-bike (loan) schemes. Based on early feedback and observation, these schemes have received widespread public recognition and have been well responded to by the ACT public.</p>	<p>4.92</p>
<p>Preparatory work is underway to include transport-related energy efficiency activities in the next ten-year <i>Energy Efficiency Improvement Scheme</i>. The ACT was the first Australian jurisdiction to include non-stationary energy efficiency measures in legislation.</p>	<p>4.96</p>

## Recommendations

<b>RECOMMENDATION 1      PROGRAM DESIGN AND EVALUATION</b>	
<p>The Environment, Planning and Sustainable Development Directorate should review zero emissions vehicle program design and delivery, including:</p> <ul style="list-style-type: none"> <li>a) reviewing and confirming the program logic of all relevant (i.e. 16) actions in The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21 and the ACT Climate Change Strategy 2019-25;</li> <li>b) determining and progressing an evaluation process for specific actions;</li> <li>c) developing and applying a reliable internal monitoring and external reporting methodology for an indicator reflecting the uptake of zero emissions vehicles in the ACT; and</li> </ul>	

- d) defining Government expectations on the future uptake of electric vehicles in the ACT that influence the Government's transition planning.

#### RECOMMENDATION 2 SHARED IMPLEMENTATION PLANS

The Environment, Planning and Sustainable Development Directorate, when developing individual action plans or composite implementation plans that require multiple team input, should:

- a) secure authorisation by senior management;
- b) maintain version control of plans;
- c) share plans with the other relevant stakeholders; and
- d) seek a mutual understanding of and a written commitment to the necessary steps and likely timeframes in which a task is intended to be progressed.

#### RECOMMENDATION 3 LEARNINGS FROM IMPLEMENTATION

The Environment, Planning and Sustainable Development Directorate should review the effectiveness of the transition of the ACT Government fleet including:

- a) the usage pattern of electric vehicles now in the fleet versus that of petrol/diesel vehicles;
- b) barriers to increasing usage of electric vehicles; and
- c) identifying learnings from the work undertaken to establish fit-for-purpose charging infrastructure in the two new government office buildings at Dickson and Civic.

#### RECOMMENDATION 4 ZERO EMISSIONS VEHICLES REPORTING

The Environment, Planning and Sustainable Development Directorate should, prior to planning any successor plan to *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*, publicly report the Government's assessment of its progress in implementing the eleven actions in the plan. This assessment should be in accordance with better practice reporting and the reporting advice contained in *Strengthening Performance and Accountability: A Framework for the ACT Government* (2019).

#### RECOMMENDATION 5 FLEET POLICY ON ZERO EMISSIONS VEHICLES

ACT Government agencies should improve zero emissions passenger fleet policy adherence by:

- a) establishing an agreed authorisation process for the fleet policy document, the *ACT Government Fleet Procurement and Management Policy*, (process to be resolved by the ACT Government Fleet Executive within the Chief Minister, Treasury and Economic Development Directorate);
- b) duly authorising the fleet policy document, the *ACT Government Fleet Procurement and Management Policy* (currently to be undertaken by the Environment, Planning and Sustainable Development Directorate);

- c) obtaining Director-General authorisations of policy exceptions as intended (all directorates); and
- d) strengthening policy communication and promulgation (ACT Government Fleet Executive within the Chief Minister, Treasury and Economic Development Directorate, and the Strategic Fleet Executive Group chair).

## Response from agencies

In accordance with subsection 18(2) of the *Auditor-General Act 1996*, the Environment, Planning and Sustainable Development Directorate was provided with:

- a draft proposed report for comment. All comments were considered and required changes were reflected in the final proposed report; and
- a final proposed report for further comment.

In accordance with subsection 18(3) of the *Auditor-General Act 1996* other entities considered to have a direct interest in the report, including the Transport Canberra and City Services Directorate, and the Chief Minister, Treasury and Economic Development Directorate, were also provided with extracts of the draft proposed and final proposed report for comment.

## Response

### *Environment, Planning and Sustainable Development Directorate*

*The Environment, Planning and Sustainable Development Directorate (the Directorate) welcomes the Audit Office's performance audit of the ACT Government's vehicle emissions reduction activities. The Directorate will incorporate the findings and recommendations as important contributions to its continuous improvement in policy design and program delivery.*

*We note that the report found that the Directorate established effective governance arrangements for the implementation of commitments and that the bulk of the commitments have been successfully completed. The report also notes the rapidly changing technical and policy environment, and the cutting-edge nature of the activities. As the ACT progresses its ambitious agenda to achieve zero emissions in the Territory, this report will be an important input into delivering this outcome.*



# 1 INTRODUCTION

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## ACT Government CO<sub>2</sub>-e emission goals

- 1.1 The ACT is committed to achieving net zero CO<sub>2</sub>-e emissions<sup>1</sup> by 2045.
- 1.2 The ACT Government's CO<sub>2</sub>-e emissions goals for the Territory are legislated in the *Climate Change and Greenhouse Gas Reduction Act 2010*. The ACT's zero net emissions goal of 2045 is five years earlier than that of any other Australian jurisdiction.
- 1.3 A goal of a 100 per cent renewable electricity supply for the Territory from 2020 onwards was also legislated in 2016.

### *Interim targets*

- 1.4 The ACT was the first Australian jurisdiction to establish interim goals towards zero net emissions in legislation. A target of a 40 per cent reduction on 1990 CO<sub>2</sub>-e levels by 2020 was established.
- 1.5 The ACT Government has achieved its goal of securing a 100 per cent renewable electricity supply for the Territory for 2019-20 and, as a result, has exceeded its goal of a 40 per cent reduction on the Territory's 1990 CO<sub>2</sub>-e levels by 2020.
- 1.6 The ACT Government's next CO<sub>2</sub>-e emissions reduction goal is for the Territory to reduce CO<sub>2</sub>-e emissions by between 50 and 60 per cent (on 1990 CO<sub>2</sub>-e levels) by 2025.
- 1.7 The ACT Government has also committed to reducing CO<sub>2</sub>-e emissions from its own operations by 33 per cent (on its 2020 CO<sub>2</sub>-e levels) by 2025. This commitment is not in legislation.

## Transport-related emissions

- 1.8 Canberra is an expansive, low-density city that was historically designed around the motor car. Since the ACT has achieved the goal of securing a 100 per cent renewable electricity supply (in 2020) the majority of the remaining CO<sub>2</sub>-e emissions in the ACT result from motor transport (around 60 per cent). Private vehicles are estimated to contribute the largest share of this (69 per cent) followed by freight (20 per cent).<sup>2</sup>

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<sup>1</sup> CO<sub>2</sub> equivalent, or CO<sub>2</sub>-e, follows an internationally recognised methodology for converting all greenhouse gas emissions into CO<sub>2</sub> equivalents so that they can be compared.

<sup>2</sup> *ACT Transport Strategy 2020* (p9) figures based on ACT and Queanbeyan-Palerang Household Travel Survey, 2017

- 1.9 Emissions reductions of the scale required by the ACT Government's 2025 interim targets have to come, in part, from a reduction in transport emissions, for example, from the 304,455 road vehicles registered in the ACT.

### Electric vehicles

- 1.10 Electric vehicles, either powered partially or solely by an electric battery are the front-runner technology for reducing road transport-related CO<sub>2</sub>-e emissions. Provided the increase in demand for electricity from electric vehicles is able to be met by an increase in renewable electricity capacity, in a 100 per cent renewable electricity jurisdiction such as the ACT, electric vehicles charged in the ACT are zero CO<sub>2</sub>-e emitters.
- 1.11 The August 2020 *State of electric vehicles* report by the Electric Vehicle Council<sup>3</sup> identified a tripling of electric vehicle sales in Australia between 2018 and 2019. The report notes that, as a percentage of 2019 new car sales 'the ACT strongly outperforms others with 83 electric vehicles purchased for every 10,000 vehicles sold'.
- 1.12 The Australian Electric Vehicle Association's website identifies that, based on registration data held in the rego.ACT system, there were 446 electric vehicles registered in the ACT as at January 2020.
- 1.13 A Deloitte Insights report, *Electric vehicles: Setting a course for 2030* (July 2020), estimates one in three vehicles sold globally in 2030 will be electric. Unlike some European jurisdictions, such as Norway and the United Kingdom, no jurisdiction in Australia is currently proposing banning new petrol or diesel engine cars at a specific point in the future and no Australian jurisdiction currently directly subsidises the price of new electric vehicles.

### Hydrogen vehicles

- 1.14 Hydrogen is also emerging as a possible future technology for road transport, especially for vehicles other than passenger vehicles. Light commercial vehicles, trucks and buses comprise 12 per cent of the vehicles on the road in the ACT. In September 2020 the Commonwealth Government announced *Australia's Technology Investment Roadmap*, a strategy to accelerate development and commercialisation of low emissions technologies. The roadmap identifies priority low emissions technologies of clean hydrogen, energy storage, low carbon materials (steel and aluminium), carbon capture and storage, and soil carbon.

### ACT Government fleet vehicles

- 1.15 The ACT Government created 63,737 tonnes (64 kilotonnes (kt)) of CO<sub>2</sub>-e in 2019-20 from its operations, i.e. from all the ACT Government's activities, goods and services. Emissions from transport fuels comprised 63 per cent of this, of which the vast majority (83 per cent)

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<sup>3</sup> The Electric Vehicle Council is the national body representing the electric vehicle industry in Australia.

derived from the Transport Canberra bus fleet. The Government's 64 kt CO<sub>2</sub>-e is a small but symbolic share (4 per cent) of the Territory's total emissions (1,684 kt CO<sub>2</sub>-e in 2019-20)<sup>4</sup>.

- 1.16 As at 30 June 2020 the ACT Government's fleet of 1800 transportation vehicles included 585 passenger vehicles and 451 Transport Canberra buses. Reducing the current level of public bus service-related transport emissions via the introduction of electric buses into the fleet, or some other lower or zero emissions technology, is likely to be essential if the ACT Government's goal of reducing CO<sub>2</sub>-e emissions from its own operations by 33 per cent (on its 2020 CO<sub>2</sub>-e levels) by 2025 is to be achieved.

## Government actions to achieve CO<sub>2</sub>-e reduction goals

- 1.17 In June 2019 the Legislative Assembly legislated a revised timescale for net zero CO<sub>2</sub>-e emissions in the ACT, from 2050 to 2045. It is expected that the market will provide the vast majority of the progress necessary to achieve net zero emissions. Public policy and resource commitments will also influence this.
- 1.18 In the last two years the ACT Government has been confident it would achieve the Territory's 40 per cent emissions reduction target for 2020 and has been planning on this basis. As a result, a particular focus of effort in reducing emissions is now on the transport sector; the transport sector offers the greatest potential to achieve the 2025 interim target, as it is the largest remaining contributor to CO<sub>2</sub>-e emissions.
- 1.19 The Government has made commitments that support the Government and the community to make progress towards the ACT's legislated emissions reduction targets.
- 1.20 Commitments of interest to this audit are those relevant to reducing CO<sub>2</sub>-e emissions by increasing the uptake of zero emissions vehicles. These vehicles reduce reliance on CO<sub>2</sub>-e emitting modes of transport, that is, petrol, LPG and diesel engine vehicles. The commitments have been made in various Government or Ministerial announcements, plans and strategies, principally:
- *The ACT'S Transition to Zero Emissions Vehicles Action Plan 2018–21* (April 2018);
  - the *ACT Climate Change Strategy 2019-25* (September 2019); and
  - the *ACT Transport Strategy 2020* (August 2020) and its related *Zero-Emission Transition Plan for Transport Canberra* (September 2020).
- 1.21 The ACT Government receives local, national and international recognition for its leadership in CO<sub>2</sub>-e emissions reduction. For example, the achievement of a 100 per cent renewal electricity supply for the Territory for 2019-20 made the ACT the first major jurisdiction outside Europe to reach this goal. In relation to electric vehicles, in August 2020 the Electric

<sup>4</sup> ACT Greenhouse Gas Inventory 2019-20 (October 2020)

Vehicle Council rated the ACT as the highest performing of all Australian jurisdictions against ten electric vehicle policies.

## Audit objective and scope

### Audit objective

1.22 The objective of this audit is to provide an independent opinion to the Legislative Assembly on the effectiveness of the ACT Government's vehicle-related emissions reduction activities.

### Audit scope

1.23 The audit considers activities:

- where an ACT Government commitment has been made;
- that target motorised modes of transport that use the roads system (e.g. motorbikes, cars, freight vehicles and buses);
- that encourage the uptake of zero emissions motorised vehicles (e.g. e-scooters, e-bikes and zero emissions cars and buses); and
- that are planned for implementation in the 2018 to 2021 period as this is the timeframe of the first set of commitments as set out in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018–21*.

1.24 The scope of the audit includes:

- the direct action ACT Government agencies are taking to move towards zero emissions vehicles for their own operations; and
- ACT Government activities designed to improve the uptake of zero emissions vehicles by the community, industry and commerce.

### *The commitments*

1.25 Appendix A presents the commitments identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018–21*, the *ACT Climate Change Strategy 2019-25* and the *ACT Transport Strategy 2020* and its related *Zero-Emission Transition Plan for Transport Canberra* that are the subject of this audit.

## Out of scope

- 1.26 Not all the commitments made in the plans and strategies identified in paragraph 1.24 are in the scope of this audit. Emissions reduction commitments and activities that do not include the goal of increasing the adoption of zero emissions technologies were not considered, including measures that:
- increase active travel, for example, primarily through incentivising walking and cycling over vehicular travel;
  - increase bus and light rail patronage through improving existing or providing new services;
  - increase modal shift from car to public transport (for example, through regulatory measures, pricing and charges); and
  - reduce the demand for urban car journeys over time, through urban planning policy changes (for example, by targeting development along public transport corridors).
- 1.27 ACT Government actions to ensure the Territory maintains its capacity to obtain 100 per cent of its electricity from renewable sources are also not within the scope of the audit.

## Zero emissions vehicles

- 1.28 For the purpose of this audit, in accordance with *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018–21* definition, a zero emissions vehicle is:
- a car or bus utilising a battery partially (i.e. a Plug-in Hybrid Electric Vehicle) or fully (i.e. a Battery Electric Vehicle) for its motive power;
  - a car or bus utilising a hydrogen fuel cell to provide electricity for its motive power; and
  - electric bikes, electric scooters and other forms of micro-mobility.
- 1.29 This definition excludes hybrid cars since:
- A hybrid vehicle uses an engine powered solely by petrol, diesel or LPG with an electric motor and battery recovering deceleration energy and boosting efficiency and is not considered to be a zero emissions vehicle.

## Audit criteria, approach and method

### Audit criteria

- 1.30 To form a conclusion against the objective, the following criteria were used:
- ACT Government commitments to facilitate the Territory's transition to zero emissions vehicles are supported by effective plans and strategies for the 2018 to 2021 period.

- ACT Government agencies have established effective governance arrangements for the implementation of plans and strategies.
- ACT Government agencies have effectively implemented plans and strategies for the Territory's transition to zero emissions vehicles for the 2018 to 2021 period.

1.31 Sub-criteria for each criterion are presented in Appendix B. These are based on the ANAO better practice guides for *Public Sector Governance* (2014) and *Successful Implementation of Policy Initiatives* (2014) and *Strengthening Performance and Accountability: A Framework for the ACT Government* (January 2019).

## Audit approach and method

### Auditees and other consultees and stakeholders

1.32 The Environment, Planning and Sustainable Development Directorate is the principal auditee as climate change policy sits in its portfolio. However, the *ACT Climate Change Strategy 2019-25* and *The ACT'S Transition to Zero Emissions Vehicles Action Plan 2018-21* are whole-of-government commitments. Two other directorates involved in the implementation of these commitments, the Transport Canberra and City Services Directorate and the Chief Minister, Treasury and Economic Development Directorate, were also considered as part of the audit.

1.33 Other parties that were invited to discuss the audit, or who have been briefed on the audit include:

- ACT Climate Change Council;
- ACT Conservation Council;
- Australian Electric Vehicle Association (ACT branch);
- the ACT Commissioner for Sustainability and the Environment; and
- Pedal Power ACT (relating to micro-mobility modes of transport).

### Audit method

1.34 The audit method consisted of:

- interviews and discussion with key staff at the Environment, Planning and Sustainable Development Directorate, Transport Canberra and City Services Directorate and the Chief Minister, Treasury and Economic Development Directorate;
- reviewing relevant literature, and work undertaken on the topic by other jurisdictions and public sector entities to identify better practices;
- site visits to where zero emissions vehicle infrastructure (e.g. signs and charging points) is located;
- analysis of ACT Government fleet data;

- identifying and reviewing relevant information and documentation including the governance and accountability framework and related policy and procedures, research documents, and relevant reports; and
- examination of records relating to the information flow within and between the Environment, Planning and Sustainable Development Directorate, enabling directorates and the Executive (e.g. the Strategic Board, Ministers and Cabinet).

1.35 To inform the analysis of evidence for Criteria One and Two a Program Logic model was utilised based on the Department of Foreign Affairs and Trade's *Explanatory note on Program Logic* (2018):

Actions -> Intermediate outcomes -> Final outcomes -> Mission goal (i.e. CO<sub>2</sub>-e reduction)

1.36 The application of program logics encourages policy makers, reviewers and evaluators to establish, test and re-test a program or policy in order to provide and strengthen 'a clear line of sight from the Government's objective through inputs and outputs to expected outcomes and benefits'.

1.37 Where relevant, references are made to Austroads *Assessment of Key Road Operator Actions to Support Electric Vehicles* (February 2020). This report identifies actions that road operators should consider to support the transition to electric vehicles, classifying actions into two categories: core road operator functions and non-core functions:

This approach enables individual agencies to select actions based on how proactive or reactive they see their role in supporting (or not constraining) the rollout of electric vehicles in their jurisdictions.

1.38 The audit was performed in accordance with Auditing Standard *ASAE 3500 – Performance Engagements*. The audit adopted the policy and practice statements outlined in the Audit Office's *Performance Audit Methods and Practices* (PAMPr) which is designed to comply with the requirements of the *Auditor-General Act 1996* and *ASAE 3500 – Performance Engagements*.

1.39 In the conduct of this performance audit the ACT Audit Office complied with the independence and other relevant ethical requirements related to assurance engagements.

1.40 Fieldwork was conducted between August and October 2020, remotely and face-to-face where appropriate.

1.41 *ASAE 3500 – Performance Engagements* requires that an audit consider events up to the date of the report. To achieve this, the audit team, when seeking comments during report drafting, asked agencies to inform the team of any significant events affecting audit findings since fieldwork ceased.





## 2 PLANNING FOR VEHICLE EMISSIONS REDUCTION

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- 2.1 This chapter presents the context in which the plans and strategies containing zero emissions vehicle commitments were prepared, finalised and announced. It considers the Government's focus on reducing CO<sub>2</sub>-e emissions related to transport, and the four plans and strategies in which 18 specific commitments have been made to progress actions in the 2018-21 period. The chapter also considers planning associated with transitioning the ACT Government passenger fleet to zero emissions vehicles.

### Summary

### Conclusions

The four plans and strategies considered as part of the audit provide clarity on the Government's intentions to encourage and support zero emissions vehicle technologies in the ACT. The commitments range from affirming existing practices, investigating and trialling new ideas and technologies through to the identification of major new policy directions. The development of these plans and strategies reflects the evolution of technology and the market over the 2018 to 2020 period. The plans and strategies and the 18 commitments within them that relate to the Government's vehicle-related CO<sub>2</sub> emissions reduction activities provide an effective statement of the Government's ambitions.

### Key findings

Consistent with the expectation that the transport sector would become, in 2020, the largest CO<sub>2</sub>-e emitting sector in the ACT (once electricity generation was decarbonised), in the period 2018 to 2020 the ACT Government developed four complementary strategies and plans containing 18 commitments targeted at reducing road vehicle-related CO<sub>2</sub>-e emissions. The commitments emphasise the importance of supporting an increase in the uptake of zero emissions vehicles more rapidly than would be achieved by the market alone.

Paragraph

2.5

Within the four plans and strategies, the stated purpose of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is to provide the 'first steps in supporting the rapid uptake of zero emissions vehicles in the ACT'. The plan does not state what 'rapid uptake' means. An explicit statement of what effect the 'rapid uptake' of zero emissions vehicles will have on the number of vehicles in the ACT in the medium term, and in turn what impact this will likely have on emissions reduction would improve the prospects of gauging performance in the delivery of this plan.

2.15

Within the 18 zero emissions vehicle-related commitments, the Government has made four commitments specific to reducing emissions from its own transport fleet.

2.41

These commitments are to increase the leasing of zero emissions vehicles for the Government's passenger fleet in 2019-20 and to only lease zero emissions vehicles from 1 July 2020, to begin procuring zero emissions buses from 2021 and to only purchase zero emissions buses from 2025. These actions reflect a firm, unambiguous, and easy to communicate commitment that will have an impact on the Government's own CO<sub>2</sub>-e emissions by 2025.

Between 2017 and 2019, consultation and policy development on climate change action by the Environment, Planning and Sustainable Development Directorate included developing a refreshed framework for the ACT Government's ambitions and performance in reducing CO<sub>2</sub>-e emissions from its own operations. The new *Zero Emissions Government Framework* was incorporated into the approved *ACT Climate Change Strategy 2019-25*. It announced a 33 per cent reduction in emissions from Government operations by 2025 (from 2020 levels). The setting of this target provides a context for considering policy options, and the progress of agreed actions, such as the Government fleet vehicle-related zero emissions actions. 2.50

Additional resources (\$3.03 million) have been made available as budget initiatives to progress all zero emissions vehicles actions in the plans and strategies in the 2018 to 2020 period. It is the three actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* (Actions 1, 2 and 3) that reflect new policy directions that have been discretely resourced in the first two years of the action plan. 2.61

The Government's February 2021 additional budgetary commitment to increasing the uptake of zero emissions vehicles in the ACT to December 2021 is more than \$2.13 million. The additional budgetary commitment relates to previously announced zero emissions vehicle strategies and plan actions and the Parliamentary Agreement of the 10th Legislative Assembly. Three of the four initiatives address increasing the uptake of zero emissions vehicles in the community rather than in the Government fleet. The Government fleet was the subject of the initial budgetary commitments in 2018 and 2020. 2.67

Planning assumptions changed over time in the business cases relating to the installation of electric charging points in Government buildings to support the transitioning of the fleet to electric vehicles. This reflects the improving understanding by all stakeholders of how the transition would progress. One area where clarity was lacking was in the August 2019 business case funded in the February 2020 budget review for charging infrastructure. The business case did not clearly identify the distinct needs and risks of installing charging infrastructure in the new Government office buildings in Dickson and Civic relative to the small-scale retrofitting of chargers in existing government buildings. This was a missed opportunity. 2.73

Planning for the transition of the Government's passenger fleet from 1 July 2019 commenced in the preparatory year (2018-19) based on assumptions that a large proportion of expiring passenger vehicle leases would be suitable for replacement with electric vehicles. In addition to the issue of model availability, a number of other variables, such as the choice of 'battery' versus 'plug-in hybrid' electric vehicle, 2.87

preferred parking locations and patterns of use, and fleet rationalisation, have increased the complexity and risks associated with the fleet's transition.

Records confirm implementation arrangements were in place, at whole-of-government and directorate level, for introducing electric vehicles and installing vehicle charging infrastructure, for evolving passenger fleet management policy and providing guidance for electric vehicle users and decision makers. 2.92

Although much of the progress in transitioning the Government's passenger fleet relates to the leasing of battery and plug-in hybrid electric vehicles, the ACT Government is also integrating hydrogen fuel cell powered electric vehicles into its passenger fleet, as of 30 March 2021. Following the opening of the hydrogen refuelling station in Fyshwick, an Australian first, the ACT Government's fleet is now supported by two zero emissions technologies, providing learnings for exploring options for other classes of vehicles. 2.98

## The four plans and strategies

- 2.2 The focus of this audit is on the commitments the Government has made, and the related actions, that are aimed at reducing transport-related emissions, specifically:
- actions whose ultimate purpose is to reduce CO<sub>2</sub>-e emissions arising from road transport; and
  - actions that increase the uptake of motorised modes of transport that produce zero CO<sub>2</sub>-e emissions.
- 2.3 The timeframe examined in this audit for the Government's commitments, the actions arising from those commitments and their implementation plans and intended outcomes is 2018 to 2021. This is determined by the first of the commitments examined:
- *The ACT'S Transition to Zero Emissions Vehicles Action Plan 2018–21;*
  - *the ACT Climate Change Strategy 2019-25;* and
  - *the ACT Transport Strategy 2020, and its subordinate Zero-Emission Transition Plan for Transport Canberra (2020-2025).*
- 2.4 Eighteen zero emissions vehicle-related commitments arise from these plans and strategies, which have been considered for the purpose of the audit. These are summarised in Table 2-1 and shown in full in Appendix A.

**Table 2-1 Zero emissions vehicles commitments considered as part of the audit**

Title	Announcement	Action items within scope of this audit
<i>The ACT's Transition to Zero Emissions Vehicles Action Plan 2018–21</i>	16 April 2018	11 actions
<i>ACT Climate Change Strategy 2019-25</i>	30 September 2019	5 actions
<i>ACT Transport Strategy 2020*</i>	26 August 2020	Not applicable
<i>Zero-Emission Transition Plan for Transport Canberra*</i>	9 September 2020	2 actions

Source: Audit Office

Note: The *ACT Transport Strategy 2020* is a high-level strategy which refers to the subsequent development of 'guiding frameworks' from which 'a program of work will be developed to translate the Strategy into action'.

2.5 Consistent with the expectation that the transport sector would become, in 2020, the largest CO<sub>2</sub>-e emitting sector in the ACT (once electricity generation was decarbonised), in the period 2018 to 2020 the ACT Government developed four complementary strategies and plans containing 18 commitments targeted at reducing road vehicle-related CO<sub>2</sub>-e emissions. The commitments emphasise the importance of supporting an increase in the uptake of zero emissions vehicles more rapidly than would be achieved by the market alone.

### ***The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21***

2.6 Initial options were signed off by the Minister on 5 December 2017, five days after the ACT Government signed the *Memorandum of Understanding - Sub-National Collaboration on Electric Vehicles* with four other Australian jurisdictions and cities. Thereafter the drafting of policy on encouraging zero emissions vehicles in the ACT progressed rapidly.

2.7 The Ministers' foreword summarises the purpose of the plan:

The actions outlined in this paper are the first steps in supporting the rapid uptake of zero emissions vehicles in the ACT as part of the broader plan to ensure Canberra grows into a highly sustainable and liveable city.

2.8 The plan does not state what 'rapid uptake' means.

2.9 The Budget Committee of Cabinet noted in its 9 April 2018 decision to release the plan that:

... these initial steps will be reinforced by further policy working during the development of the Climate Strategy and the Transport for Canberra Strategy in 2018.

## ACT Climate Change Strategy 2019-25

2.10 At the same time as the development of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*, the Environment, Planning and Sustainable Development Directorate was undertaking public consultation for a successor plan to the Government's second climate change Action Plan (AP2, 2012). The successor strategy was in development from 27 February 2017 (i.e. the date of the first stakeholder roundtable) until the Cabinet decision to approve it on 12 August 2019 and its public launch in September 2019. One of the six priorities in the strategy is transport.

### Transport-specific strategies

2.11 On 18 December 2018 a consultation process began to renew the *Transport for Canberra 2012-2031* strategy. A draft *Moving Canberra: Integrated Transport Strategy* was made public for consultation. By July 2019 work had begun on a 'roadmap' for achieving a net zero emissions public transport system in the ACT, in line with proposed actions in the draft *Moving Canberra: Integrated Transport Strategy* and the draft *ACT Climate Change Strategy* (refer to Table 2-2).

**Table 2-2 Action on transitioning Transport Canberra buses**

Goal	Action	Directorate/ timeframe
5D Zero emissions Government 5.9	Develop and implement a roadmap for transitioning Transport Canberra buses to zero emissions by 2040 at the latest while continuing to improve service levels, and review progress every five years.	TCCS/EPSDD From 2022

Source: *ACT Climate Change Strategy 2019-25* (page 12)

2.12 Work to progress the 'roadmap' began in July 2019 with the Environment, Planning and Sustainable Development Directorate but continued with Transport Canberra. On 18 November 2019, the Minister for Transport announced the establishment of an expert steering group:

The Transition Plan will provide a roadmap for transitioning Transport Canberra buses to zero emissions by 2040, and detail the costs, risks, opportunities, service impacts and benefits to enable informed decision-making about our bus fleet transition.

The Transition Plan will be led by a Steering Committee comprised of public and private industry experts ...

2.13 By 26 August 2020 a new high-level strategy, the *ACT Transport Strategy 2020*, was announced, building on consultation undertaken on the draft *Moving Canberra Integrated Transport Strategy*. The *ACT Transport Strategy 2020* contains few specific commitments or actions but instead relies on 'guiding frameworks' for this. On 9 September 2020 one such framework, the *Zero-Emission Transition Plan for Transport Canberra*, was announced by the Government. This plan provides detail not available in the *ACT Transport Strategy 2020*. The plan confirms the commitment that there will be 'no new non-zero-emissions buses purchased after 2025', a commitment first made public in a speech by the Minister for

Transport in November 2019. The plan also proposes an indicative<sup>5</sup> four-year phased introduction of a minimum of 80 electric buses into the Transport Canberra fleet by June 2025 as part of 'Zero emission Tranche One', beginning with the first 26 electric buses in 2021-22.

2.14 The action plan for the *Zero-Emission Transition Plan for Transport Canberra* contains 16 actions primarily focused on the period 2020 to 2025. Two of these actions (refer to Appendix A) have an implementation phase to be achieved by 2021, that is, within the timeframe that defines the scope of this audit. They are:

- 'In 2020-21 Transport Canberra will undertake a depot feasibility study to identify the mid to long term stabling, maintenance and operational needs for the future fleet'. This is a component of the plan's Action 1.2: *Undertake a Depot Feasibility Study to identify the timing and scope of future needs*; and
- 'Transport Canberra will commence initial marketing sounding in late 2020 followed by a formal request for Expressions of Interest in early 2021'. This is a component of the plan's Action 2.1: *Procure a first tranche of battery electric buses which are supported by a temporary infrastructure solution*. Zero emission Tranche One comprises 80 battery electric buses to be procured during 2021-22.

2.15 Within the four plans and strategies, the stated purpose of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is to provide the 'first steps in supporting the rapid uptake of zero emissions vehicles in the ACT'. The plan does not state what 'rapid uptake' means. An explicit statement of what effect the 'rapid uptake' of zero emissions vehicles will have on the number of vehicles in the ACT in the medium term, and in turn what impact this will likely have on emissions reduction would improve the prospects of gauging performance in the delivery of this plan.

2.16 Chapter 3 considers further aspects of the monitoring and reporting of data on zero emissions vehicles.

## Government fleet emissions

2.17 All four plans and strategies contain commitments that address CO<sub>2</sub>-e emissions from the Government's own operations, including the public transport fleet.

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<sup>5</sup> The latter two years of this first tranche are subject to future government funding decisions (page 17 of the *Zero-Emission Transition Plan for Transport Canberra*).

2.18 Of the 18 commitments considered in this audit, four relate to the Government's own vehicles:

- Actions 1 and 2 of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* seek to increase the proportion of zero emissions vehicles in the Government passenger fleet; and
- the two actions drawn from *the Zero-Emission Transition Plan for Transport Canberra* relate to preparatory work in bringing electric buses into service.

2.19 Furthermore, one of the six priorities of the *ACT Climate Change Strategy 2019-25* is *ACT Government Leadership*. Commentary on this priority in the strategy states:

Government is committed to leading by example to showcase best practice sustainability in Government operations. This includes implementing the Zero Emissions Government Framework to reduce emissions from Government operations.

...

The Zero Emissions Government Framework enables and coordinates a whole of government approach to reducing Government emissions in a cost-effective manner. It replaces the previous Carbon Neutral Government Framework.

2.20 According to a report to the ACT Government Strategic Board on 5 February 2020, a replacement framework for the Carbon Neutral Government Framework was given added impetus in May 2019:

Following the passing of an Assembly motion acknowledging the existence of a state of climate emergency on 16 May 2019, the Chief Minister asked that in addition to existing measures, the ACTPS consider practical carbon reduction initiatives within regular ACTPS operations, such as reducing travel and utilising video-conferencing for meetings where appropriate.

2.21 The target of reducing CO<sub>2</sub>-e emissions from the Government's own operations by 33 per cent by 2025 is also expressed in the *ACT Climate Change Strategy 2019-25* in this priority:

The Government aims to demonstrate leadership by pursuing rapid emissions reductions that are consistent with achieving emission reduction targets of:

- greater than a 33% reduction in emissions from Government operations by 2025 (from 2020 levels)
- zero emissions from Government operations by 2040.

2.22 The 33 per cent reduction target for 2025 contained within the Zero Emissions Government Framework presents a more stretching target for the Government than the 2025 interim emissions reduction target for the Territory. It provides the goal against which the progress of the four Government vehicle-related zero emissions (refer to paragraph 0) actions can be measured.

2.23 The *ACT Climate Change Strategy 2019-25* identifies that Government transport is responsible for 63 per cent of the 64 kt CO<sub>2</sub>-e projected to be produced by Government operations in 2020 of which the largest proportion, 52 per cent, arises from public transport, i.e. Transport Canberra buses. Table 2-3 shows projected ACT Government emissions sources in 2020, on the basis that the goal of a 100 per cent renewable electricity supply for the Territory had been achieved.

**Table 2-3 Projected ACT Government emissions sources in 2020**

Category	Percentage	kt CO <sub>2</sub> e
Transport Canberra buses	52	33
Fleet vehicles	11	8
Natural gas (other facilities)	13	8
Natural gas (health facilities)	13	8
Natural gas (schools)	11	7
<b>Total</b>	<b>100</b>	<b>64</b>

Source: *ACT Climate Change Strategy 2019-25* page 74 (using ACT Government Enterprise Sustainability Platform data)

2.24 The achievement of a 33 per cent reduction in CO<sub>2</sub>-e emissions (from 2020 levels) from Government operations by 2025 will be made much more difficult if progress is not made in reducing emissions from Transport Canberra buses during this period.

2.25 Transport Canberra officials forecast an emissions reduction of 5.64 kt CO<sub>2</sub>-e per annum by 2024-25 arising from the introduction of 82 electric buses and the removal of 89 diesel/CNG buses from the fleet.<sup>6</sup> This 5.64 kt CO<sub>2</sub>-e reduction in 2024-25 would represent a 9 per cent reduction in emissions from Government operations based on the 2020 projected baseline of 64 kt CO<sub>2</sub>-e.

## Adapting strategies as circumstances change

2.26 It is better practice<sup>7</sup> in public policy to articulate, test and review the rationale (or *program logic*) of policies, actions and intended outcomes periodically as a matter of course, but especially where circumstances including background assumptions have changed, or are changing.

2.27 The proposed actions related to the *ACT Transport Strategy 2020*, published in August 2020, have been developed in the context of the current COVID-19 pandemic. For example, a transport recovery plan is to be formulated as one of the guiding frameworks referred to in the strategy.

2.28 In anticipation of the upcoming ACT election, the Climate Change Policy team within the Environment, Planning and Sustainable Development Directorate commenced an internal

<sup>6</sup> The fleet size is forecast to vary +/- 2 per cent between 2020 and 2025.

<sup>7</sup> *Explanatory note on Program Logic* DFAT (2018)



review of the *ACT Climate Change Strategy 2019-25* in September 2020. This was to gain a better understanding of the highest impact measures, and possible alternative pathways to reach the Government and Territory 2025 CO<sub>2</sub>-e emissions reduction targets.

- 2.29 Climate Change Policy officials within the Environment, Planning and Sustainable Development Directorate also advised on 1 October 2020 that an internal review of zero emissions vehicles policy was being undertaken.

## The 18 commitments

- 2.30 The eleven actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* are referred to as government commitments. They are prefaced by the words 'the Government commits...'

- 2.31 The five zero emissions vehicle-related actions in the *ACT Climate Change Strategy 2019-25* are referred to as:

... the actions Government will take to meet its legislated emission reduction target of 50–60% (below 1990 levels) by 2025.

- 2.32 The two actions in the *Zero-Emission Transition Plan for Transport Canberra* in the scope of this audit are contained within an 'Action Plan to guide the implementation' within a 'preferred transition pathway' within the plan. The plan states that:

All actions and investments will be subject to consideration in future ACT Government investment decisions and will require periodic review to ensure our actions keep pace with the accelerated rate of technological change.

## Nature of the commitments

- 2.33 A review of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* shows:

- Actions 1, 2 and 3 are new policy directions;
- Actions 5 and 8 are amendments to existing policies and rules; and
- Actions 4, 6, 7, 9, 10, 11 are actions to 'examine' or 'support' various issues and therefore provide prospective policy signals.

- 2.34 Overall, the eleven actions in the action plan comprise a complementary set of activities that include straightforward 'business as usual' deliverables with harder-to-achieve actions.

- 2.35 A review of the five actions in the *ACT Climate Change Strategy 2019-25* considered as part of the audit shows:

- Action 3.22 is an amendment to existing policies and rules;
- Actions 3.20, 3.23 and 4.20 are actions to 'explore', 'investigate' and 'encourage' various issues and therefore provide prospective policy signals; and

- Action 3.21 includes a single action that refers to implementation of the eleven actions of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*.

2.36 Of the two selected *Zero-Emission Transition Plan for Transport Canberra* actions:

- the first is a 'study' action and therefore provides a prospective policy signal; and
- the second is an action in response to a new policy direction, that is to procure the first tranche of electric buses.

## New policy directions

### *ACT Government fleet transition*

2.37 The first new policy direction arising in the April 2018 announcement of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relates to Actions 1 and 2, that is, the transitioning of the Government's passenger vehicle fleet to zero emissions vehicles:

- Action 1 – 'At least 50% of all newly leased ACT Government fleet passenger vehicles will be zero emissions vehicles in 2019–20 (where fit for purpose)'.
- Action 2 – 'All newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose)'.

2.38 These two actions:

- reflect a firm, unambiguous, and easy to communicate commitment; and
- provide the basis on which definitions were developed, for example, for what an electric vehicle is, and what 'fit for purpose' means as described in subordinate policies.

2.39 The actions represent the Government's first public commitment to a transitioning of its own fleet vehicles such that all new passenger leases will be for zero emissions vehicles after 30 June 2020. The actions also place the ACT as the first jurisdiction within Australia to be transitioning all its passenger fleet (dependent on the availability in the market for like-for-like functionality) to zero emissions vehicles if this was to be achieved from 1 July 2020 onwards.

2.40 The new policy direction announced in the *Zero-Emission Transition Plan for Transport Canberra* relates to the commencement of the procurement of zero emissions buses in 2021-22, and no longer procuring non-zero emissions buses from 2025. It also reflects a firm, unambiguous, and easy to communicate commitment.

2.41 Within the 18 zero emissions vehicle-related commitments, the Government has made four commitments specific to reducing emissions from its own transport fleet. These commitments are to increase the leasing of zero emissions vehicles for the Government's passenger fleet in 2019-20 and to only lease zero emissions vehicles from 1 July 2020, to begin procuring zero emissions buses from 2021 and to only purchase zero emissions buses

from 2025. These actions reflect a firm, unambiguous, and easy to communicate commitment that will have an impact on the Government's own CO<sub>2</sub>-e emissions by 2025.

### *Charging equipment in apartment blocks*

- 2.42 The other new policy direction within the 18 commitments relates to the installation of charging infrastructure in new developments:
- Action 3 – ‘To amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure’.
- 2.43 By referencing the Parking and Vehicle Access General Code the action indicates an intention to bring through the *Planning and Development Act 2007* a change to the Territory Plan, via a Territory Plan Variation. This is a major undertaking given the range of internal and external stakeholders likely to need to be involved in a ‘full’ variation, given its likely economic impact.
- 2.44 If it is accomplished, the action would require property developers (or other development proponents) to install electric vehicle charging equipment in the parking bays of apartment blocks. It would create an additional development cost, depending on the level of requirement made, which would likely be passed on to buyers and renters.
- 2.45 Three actions of the eleven within *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* represent major new policy directions (Actions 1, 2 and 3). These three actions are also described as deliverables rather than as exploratory actions to be achieved within the plan timeframe. These three actions therefore reflect a greater level of ambition. Each requires substantial preparatory work and engagement with internal and external stakeholders, and aims to deliver a distinct, defined outcome by 2021.

### **Plan and strategy delivery timeframes**

- 2.46 On 9 April 2018 the Budget Committee of Cabinet agreed to the release of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-2020*, and noted that the Action Plan will be finalised, subject to ‘any minor amendments’ through the agreement of four ministers. When the document was made public on 16 April 2018 the Action Plan's implementation period was extended to 2021. No documentary evidence was available to identify:
- how the change of end point from 2020 to 2021 was endorsed; or
  - whether the end point related to a calendar year or a financial year.
- 2.47 The lack of clarity on the action plan's end dates (i.e. 2020 or 2021, financial or calendar year) could potentially account for a substantial quantity of time (i.e. up to 18 months) of what is nominally a three-year plan.
- 2.48 Climate Change Policy officials advised that the convention adopted, in line with the *ACT Climate Change Strategy 2019-25*, is to apply a calendar year-end to the action plan.

- 2.49 While the *ACT Climate Change Strategy 2019-25* actions respond to the Territory's 2025 CO<sub>2</sub>-e reduction target, the specific actions in the plan each contain a completion timeframe or are stated as 'ongoing'.
- 2.50 Between 2017 and 2019, consultation and policy development on climate change action by the Environment, Planning and Sustainable Development Directorate included developing a refreshed framework for the ACT Government's ambitions and performance in reducing CO<sub>2</sub>-e emissions from its own operations. The new *Zero Emissions Government Framework* was incorporated into the approved *ACT Climate Change Strategy 2019-25*. It announced a 33 per cent reduction in emissions from Government operations by 2025 (from 2020 levels). The setting of this target provides a context for considering policy options, and the progress of agreed actions, such as the Government fleet vehicle-related zero emissions actions.

## Budgeted commitments (April 2018 to June 2020)

- 2.51 The 16 actions proposed in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and *ACT Climate Change Strategy 2019-25* agreed by Cabinet on 9 April 2018 and 12 August 2019 respectively were accompanied by estimates of initial implementation costs and plans to consider further initiatives to extend activities in future budgeting rounds.
- 2.52 Two financial commitments to the first 16 actions were made between 2018 and 2020 following the Cabinet's agreement to the release of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*:
- \$0.456 million in June 2018 for the 'more electric vehicle charging' initiative; and
  - \$2.577 million in February 2020 for the 'zero emissions vehicles' initiative.
- 2.53 In respect of the two other commitments relating to buses, the Government's budget announcement in February 2021 (detailed in paragraphs 2.62 to 2.67 below) is the first budget announcement since the publication of the *Zero-Emission Transition Plan for Transport Canberra* that refers to new initiative funding for the actions arising from the plan. The Government continues to fund an ongoing bus fleet replacement program, including the introduction of electric buses, from existing allocated funding, the most recent purchase being of 40 Scania EURO 6 buses in November 2017.<sup>8</sup>

### June 2018 budget commitment

- 2.54 The two business cases for the two financial commitments made identify that the resources were being sought principally for rounds of 'installation of electric vehicle charging infrastructure at Government sites to support a transition to a zero emissions vehicle fleet'. The \$0.456 million in June 2018 was to support the installation of 50 Government fleet charging points by June 2019, while recognising 'funding [for additional charging

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<sup>8</sup> The Transport Canberra and City Services 2019/20 Annual Report (20 December 2020) refers to their delivery between November 2019 and August 2020.

infrastructure] may be provided by other directorates'. At that point three further rounds of 100 charging points per year were anticipated from 2019-20 to 2021-22, with a total estimated cost of \$2.769 million. The March 2018 Cabinet submission noted:

... [future years] funding is not sought in the Cabinet Submission due to the uncertainty around market response to this first stage of Government action and the potential for future installation led by other Directorates.

2.55 The business case accompanying the March 2018 Cabinet submission also stressed:

... it is essential to have electric vehicle charging in place prior to taking delivery of electric vehicles.

2.56 Cabinet was advised that all other actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* were able to be progressed in some form using existing Environment, Planning and Sustainable Development Directorate resources, and with the 'cooperation of other directorates'.

### February 2020 budget commitment

2.57 The 2019-20 mid-year budget review delivered a further sum of \$2.577 million for zero emissions vehicle activities, including the installation of another 127 charging points at government sites (estimated \$1 million in capital) to support the transition of government fleet vehicles. The other zero emissions vehicle activity specifically referred to in the business case for \$2.577 million is:

Amending the Parking and Vehicle Access General Code to require new apartment developments to install vehicle charging infrastructure and consider this requirement for retail and commercial buildings (\$0.5m)

2.58 The balance of the \$2.577 million was to provide team resources within the division to support the implementation of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*.

2.59 The February 2020 business case included an assessment of the eventual impact on reduced CO<sub>2</sub>-e emissions resulting from the Government's passenger fleet's transition:

An implementation plan has been developed for the Strategy and Plan. Implementing action 3.21 is expected to deliver around 1 kt of carbon dioxide equivalent (CO<sub>2</sub>-e) abatement in 2025. This abatement is from replacement of the ACT Government fleet with zero emission vehicles. Over lifetime, around 8 kt CO<sub>2</sub>-e of abatement is expected to be delivered.

2.60 The provision of \$3.03 million in funding (\$0.456 million in June 2018 and \$2.577 million in February 2020) relates primarily to the new policy directions outlined in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*:

- Actions 1 and 2 relating to transitioning the ACT Government passenger fleet to zero emissions vehicles; and
- Action 3 which seeks to establish a requirement for the installation of zero emissions charging infrastructure in apartment blocks.

2.61 Additional resources (\$3.03 million) have been made available as budget initiatives to progress all zero emissions vehicles actions in the plans and strategies in the 2018 to 2020 period. It is the three actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* (Actions 1, 2 and 3) that reflect new policy directions that have been discretely resourced in the first two years of the action plan.

### Budget announcement February 2021

2.62 On 9 February 2021 the ACT Government's budget announcement included policy decisions and initiatives to further progress 'commitments under *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*' through:

- the Sustainable Household Scheme;
- zero emissions vehicles – two free years' registration;
- zero emissions vehicles – supporting infrastructure and industry development; and
- planning and design for a zero emissions bus network.

2.63 The Sustainable Household Scheme will provide zero interest loans up to \$15,000 for investments that help transition households to net zero emissions by 2045. This includes investment in zero emissions vehicles. The Budget Outlook states 'Detailed design work will be undertaken in early 2021 ahead of the loans being progressively made available to the ACT community from mid-2021'. The net cost of the scheme is estimated to be \$6.254 million by December 2021<sup>9</sup>. An unspecified share of this cost will support the uptake of zero emissions vehicles. This budgetary commitment addresses Action 3.20 of the *ACT Climate Change Strategy 2019-25* and the Parliamentary Agreement of the 10<sup>th</sup> Legislative Assembly.

2.64 The 'zero emissions vehicles – two free years' registration' commitment relates to both new and second hand qualifying zero emissions vehicles. By December 2021 the net cost (i.e. revenue foregone and expenses) is estimated to be \$387,000<sup>8</sup>. This budgetary commitment addresses Action 3.20 of the *ACT Climate Change Strategy 2019-25* and the Parliamentary Agreement of the 10th Legislative Assembly. Zero emission vehicles already attracted a 20 per cent registration discount for the vehicle's first two years prior to *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*.

2.65 The 'zero emissions vehicles – supporting infrastructure and industry development' commitment relates to the installation of 50 publicly accessible charging stations in response to a zero emissions vehicle public charging masterplan. By December 2021 the cost is estimated to be \$1.09 million<sup>8</sup>. This budgetary commitment addresses Action 3.21 of the *ACT Climate Change Strategy 2019-25* and the Parliamentary Agreement of the 10th Legislative Assembly.

2.66 The 'Planning and design for a zero emissions bus network' commitment relates to implementing 'a pathway for the ACT to use zero emissions public transport, consistent with

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<sup>9</sup> The 2021-22 year estimate figure has been pro rata-ed.

the *Zero Emission Transition Plan for Transport Canberra*, by electrifying Woden Bus Depot to enable the charging of electric buses'. By December 2021 the cost is estimated to be \$650,000<sup>8</sup> based on published data<sup>10</sup>. This budgetary commitment addresses actions within the *Zero Emission Transition Plan for Transport Canberra* and the Parliamentary Agreement of the 10th Legislative Assembly.

- 2.67 The Government's February 2021 additional budgetary commitment to increasing the uptake of zero emissions vehicles in the ACT to December 2021 is more than \$2.13 million. The additional budgetary commitment relates to previously announced zero emissions vehicle strategies and plan actions and the Parliamentary Agreement of the 10th Legislative Assembly. Three of the four initiatives address increasing the uptake of zero emissions vehicles in the community rather than in the Government fleet. The Government fleet was the subject of the initial budgetary commitments in 2018 and 2020.

## Business cases for government passenger fleet transition

- 2.68 A March 2018 business case (*Electric vehicle charging points for the ACT Government Fleet*) accompanying *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* states:

- 'the transition to electric vehicles [is] a key, low cost abatement activity';
- '... it is necessary to have one charging point per pool fleet vehicle'; and
- 'it is estimated that 300 [+50] charging stations will need to be installed at Government sites over three years ... sufficient for all fleet passenger vehicles (estimated 700 vehicles serviced by 350 dual charging points)'.

- 2.69 With respect to lease costs, the Minister for Climate Change and Sustainability's accompanying brief stated:

Transitioning to 100 percent zero emissions vehicles for the Government fleet may initially involve an increased vehicle leasing cost to Government but will reduce vehicle operating costs.

- 2.70 In consideration of the policy formulation prior to Cabinet approval on 9 April 2018 it is noted:

- none of the documentation presented to Cabinet outlined the implications for the whole-of-government accommodation strategy which were likely to result in more Government fleet vehicles being parked at the two new-build centralised locations (at Dickson and Civic), and fewer vehicles elsewhere; and
- when Cabinet approved *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*, planning assumptions were based on (a) 700 vehicles and 700 charging points, and (b) more expensive leases of electric vehicles being offset by lower operating costs.

<sup>10</sup> A 'not for publication' capital provision figure has been withheld to secure value for money.

2.71 However, by the time the Government fleet transition was underway in response to Actions 1 and 2 (i.e. from 2019 onwards) of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*:

- the number of fleet vehicles for which a viable electric vehicle option was available was calculated to be 350 of the initially estimated 700 in the Government's passenger fleet;
- fleet managers were seeking longer (four-year) leases to achieve lease cost parity with petrol/diesel equivalents rather than factoring in future savings from operating costs;
- the basis for calculating charging infrastructure costs had changed from 50 dual chargers at \$9,120 per dual charger (9 April 2018), to \$7,874 per single charger (12 August 2019); and
- the estimated cost of incorporating sufficient charging points within the new Dickson and Civic office buildings was \$11,538 per single charger (July 2020).

2.72 In relation to the installation of electric vehicle charging points in the new Dickson and Civic office buildings, the February 2020 budget review provided a further \$1 million to install a further 127 chargers at Government sites. The accompanying business case, developed in August 2019, did not state whether the installations were for existing buildings, for the new Government offices or a combination of these. This leaves open the question of how charger installation costs would be borne and who would be responsible for the installation of chargers at the two Government office sites, both of which presented extensive project management challenges independent of the matter of electric vehicle charging and parking. By not elevating this issue in the budget review in late 2019, Climate Change Policy officials missed an opportunity to focus whole-of-government management attention on an emerging problem.

2.73 Planning assumptions changed over time in the business cases relating to the installation of electric charging points in Government buildings to support the transitioning of the fleet to electric vehicles. This reflects the improving understanding by all stakeholders of how the transition would progress. One area where clarity was lacking was in the August 2019 business case funded in the February 2020 budget review for charging infrastructure. The business case did not clearly identify the distinct needs and risks of installing charging infrastructure in the new Government office buildings in Dickson and Civic relative to the small-scale retrofitting of chargers in existing government buildings. This was a missed opportunity.

2.74 In response to the draft proposed report Environment, Planning and Sustainable Development Directorate officials advised:

While there were indeed issues surrounding installation of charging infrastructure in the new buildings, it is not clear that the mid-year budget review business case was an effective or appropriate means to address them.



## A changing market for electric vehicles

- 2.75 Climate Change Policy team documentation indicates during the 2016 to 2019 period the market for electric vehicles was expected to change rapidly.
- 2.76 A 2016 *Electric Vehicle and ACT Fleet Initiative* report investigated the feasibility of emissions reductions through the introduction of electric vehicles into the Government's fleet. The report identified that:
- ... in the short term (next 1-3 years) there is not a strong cost of abatement (\$ per tonne of CO<sub>2</sub>e saved) argument for transitioning. This is mainly due to the upfront difference in lease cost and the lower resale value of EVs which is not outweighed by the cost saving of switching from petrol or diesel to electricity.
- ... In the mid-term (3-5 years) there is a stronger argument for transitioning to EVs for higher emissions reductions.
- 2.77 During the formulation of the draft of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* in February 2018 Climate Change Policy officers were advised that the Government Fleet provider, SG Fleet, would not have any zero emissions electric vehicle options in its leasing listing for the 2018-19 year, and there remained some doubt about availability for the 2019-20 year:
- Unfortunately, SG Fleet has indicated that it does not anticipate having any electric vehicles available for selection during the 2018-19 period. I have triple checked this point as recently as Friday. There is a good chance of electric vehicle options being available in Australia during 2019-20. The primarily issue is that, while the motoring press is upbeat about availability of new electric vehicle models in the medium term, SG Fleet has found that this does not translate so well into model availability in Australia.
- 2.78 However, by July 2019 the Zero Emissions Government Framework incorporated within the draft *ACT Climate Change Strategy 2019-25*, rearticulates the firm targets (i.e. the 50 per cent for 2019-20 and 100 per cent targets for 2020-21) and policy direction announced in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. It was intended the Government's passenger fleet would make rapid process in its transition to zero emissions vehicles.

## Government passenger fleet planning

- 2.79 Working estimates in 2018 based on SG Fleet data were that there were between 600 and 700 passenger vehicles potentially suitable for transitioning to electric vehicles.

**Table 2-4 Fleet size data 2013 to 2018 excluding Transport Canberra public buses**

	2013	2014	2015	2016	2017	2018
Passenger	722	718	693	657	631	621
Light	354	360	353	355	376	383
Heavy	235	235	248	266	257	271
Total	1311	1313	1294	1278	1264	1275

Source: Climate Change Policy team data, October 2018

## Vehicle suitability

2.80 Within the passenger fleet, not all vehicles were considered likely to have a suitable electric vehicle option. Vehicle suitability was defined in initial briefing documentation in October 2018 and later codified in in fleet policy in November 2020 as:

A fleet vehicle is deemed 'fit for purpose' for replacement with an electric vehicle where there is an available electric vehicle model which can deliver equivalent function and utility for the purpose that the vehicle is used. This will take into consideration any modifications that have been made to the vehicle being replaced and any specific requirements such as equipment loads, or distances travelled.

2.81 A consultant's report *EV Suitability analysis* (18 October 2018) advised Climate Change Policy officials:

After reviewing the existing fleet, up to 80% of vehicles terminating in the 2019/2020 FY may have a practical 'like for like' replacement option. Selection will still be subject to a case by case review by directorates to ensure that specification (fit for purpose), operational range and financial (whole of Life) costs meet customer requirements. Additionally, another 13% of vehicles may also be suitable candidates subject to selection flexibility. For outlying years (2020 – 2022) targets of 100% of eligible vehicles, the large majority of terminating vehicles fall within the 'like for like' replacement category.

2.82 In October 2018 SG Fleet data utilised by the Climate Change Policy team identified there were 532 leased passenger vehicles (excluding those identified as potentially executive vehicles) of which 92 leases would expire in 2019-20, 154 in 2020-21 and 102 in 2021-22 (of which 38 would expire prior to 31 December 2021). On this basis, *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* Government fleet policies were likely to apply to 294<sup>11</sup> expiring leases up to 31 December 2021, of which the 'large majority' according to the consultant's report, would 'fall within the like for like replacement category'.

2.83 Further factors to be accounted for in making plans for the transition include:

- a number of electric vehicles were already in the fleet, mainly charged by older technologies (i.e. there were 17 Type 1 chargers in Government buildings in April 2019);

<sup>11</sup> 294 passenger vehicles from two full years (2019-20 and 2020-21) and one part year (2021-22) reflects the timeframe of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* in which the commitment to transitioning the Government passenger fleet was first made.

- waiting times for the model range upon which the consultant's report was based would delay transitioning. By March 2020 a six-month delay for certain leading models was being forecast between the decision to lease a particular vehicle and the arrival of that vehicle in the fleet; and
- every year some leases that are due to expire are extended, where extension is deemed a more cost-efficient option. In the last two financial years to 30 June 2020, 40 per cent of expiring leases were extended, mostly by between six and twelve months.

2.84 Directorates were also being encouraged to rationalise their fleets. The ten most popular passenger vehicle models in the Government's fleet are driven an average of 37 kilometres per day. The passenger fleet size had already reduced by 16 per cent between 2013 and 2018. The Government Office Accommodation Project, and the potential for the pooling of vehicles between co-located directorates could also potentially affect fleet size in future. More detail is provided on the planning for charging infrastructure in the new government office buildings in Chapter 3 (refer to paragraph 3.100 onwards).

2.85 The Climate Change Policy team's work in supporting the transition of the Government fleet included ensuring charging infrastructure would be available when needed. Reliable data on vehicle movements, and on fleet vehicle parking locations, access and availability ideally precede decisions about charging infrastructure and the timing, the number, location and type of chargers to be installed. In the preparatory year (2018-19) before the first compliance year (2019-20):

- there was a lack of certainty on whether the charging of Executive vehicles and vehicles of members of the Legislative Assembly (not included in Table 2-4) was to be addressed, and if so, by whom;
- there was policy work to do to on how charging infrastructure is accommodated where fleet vehicle parking is temporary or time limited, not secure, or is publicly accessible;
- there was policy work to do to address the charging of fleet vehicles that were permitted to be taken home overnight, as electric vehicles typically 'refuel' overnight if trickle charged; and
- while the electric vehicles policy was neutral on the desirability of a battery electric vehicle (BEV) over a plug-in hybrid electric vehicle (PHEV), a directorate's choice could have a major consequence on the type of charger (e.g. a trickle charger or rapid charger) considered fit for purpose, and therefore the level of charging demand (i.e. load) placed on a building's electricity supply. Unlike the cost of adding a trickle charger, changing a building's load capacity requires substantial planning and further investment to upgrade.

- 2.86 These matters were particularly significant in the case of making timely progress in planning for appropriate electric vehicle charging infrastructure for the Government's new centralised office accommodation at Dickson and Civic. Latterly, changing ACT Public Service work patterns, for example, the need to work from home for many during 2020, have also challenged prior assumptions about fleet requirements.
- 2.87 Planning for the transition of the Government's passenger fleet from 1 July 2019 commenced in the preparatory year (2018-19) based on assumptions that a large proportion of expiring passenger vehicle leases would be suitable for replacement with electric vehicles. In addition to the issue of model availability, a number of other variables, such as the choice of 'battery' versus 'plug-in hybrid' electric vehicle, preferred parking locations and patterns of use, and fleet rationalisation, have increased the complexity and risks associated with the fleet's transition.

### Working together for fleet transition

- 2.88 Documentation identifies that the Climate Change Policy team in the Environment, Planning and Sustainable Development Directorate was effective in engaging stakeholders following the announcement of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*.
- 2.89 In consideration of the management of the Government's passenger fleet (refer to Appendix D: Fleet management) these stakeholders include:
- Fleet Executive (the Deputy Director, Workforce Capability and Governance in the Chief Minister, Treasury and Economic Development Directorate) who is 'responsible for approving fleet strategy and policy, and is the responsible Delegate on fleet matters';
  - the Senior Fleet Executive Group. This is a cross-directorate group which considers fleet strategy, policy and project proposals, makes recommendations to the Fleet Executive, advocates for approved fleet initiatives and projects in home Directorates and monitors progress of approved fleet initiatives and projects;
  - SG Fleet. The ACT Government joined the Australian Government's Fleet Service Contract in 2015. The provider is SG Fleet. SG Fleet advised it was not well placed when *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* was announced to be able to immediately offer options that would allow the Government fleet to transition in the way anticipated in the plan. However, a year later, by 29 April 2019 SG Fleet was able to present to the Senior Fleet Executive Group proposals 'for the [electric vehicle] replacement cycle and how that will affect Directorates and Agencies [including] SG Fleet's recommendation moving forward';
  - within the Chief Minister, Treasury and Economic Development Directorate, the Government's contracts manager (in ACT Procurement) for the SG Fleet, and Major Projects Canberra to 'manage a broader program of [electric vehicle] charger installation over the next 18 months; and

- fleet managers within all directorates and agencies, and office accommodation project managers.

2.90 The *ACT Government Fleet Procurement and Management Policy* provides whole-of-government fleet policy. The most recent version is dated November 2020 (refer to paragraph 4.52). The policy includes the following eight (of 33) fleet policies relating to zero emissions vehicles:

FP13: Executives may choose the type of vehicle; however, vehicles must be leased through SG Fleet, be four cylinders, have an automatic transmission, and be suitable for business use. Executives should be encouraged to consider selecting a vehicle that is petrol/diesel fuel efficient mechanical engine and or a zero emissions vehicle in line with ACT Government Commitment Zero Emissions Strategy for Battery Electric Vehicles (EV's) or Hydrogen Fuel Cell Electric Vehicles (HFCEV) ...

FP26: Directorates must follow the environmental, carbon neutral policies and directives relating to fleet procurement/leasing and operation as notified by the CMTEED Procurement ACT Contracts and Category Management Team - Fleet from time to time.

FP27: A plug-in electric vehicle (PEV) also known as an electric vehicle (EV) is any vehicle that can be recharged from an external source of electricity, such as wall sockets, charging stations with the electricity stored in the rechargeable battery packs that drives or contributes to drive the wheels. The Territory's preferred option and most readily available vehicle to Directorates.

FP28: Hydrogen Fuel Cell Electric Vehicle (HFCEV) A hydrogen fuel cell electric vehicle is powered by a group of individual fuel cells, known as a fuel cell stack. The stack is designed to contain enough cells to provide the necessary power for the automotive application. A fuel cell stack produces power for as long as fuel is available. Fuel cell vehicles use hydrogen gas to power an electric motor. Unlike conventional vehicles which run on petrol or diesel, fuel cell cars and trucks combine hydrogen and oxygen to produce electricity, which runs a motor.

FP29: HYBRID - you can't plug in a hybrid vehicle to charge the battery; it can only be charged by the petrol engine. It therefore cannot operate without producing emissions. A HYBRID is not considered a Zero Emissions Vehicle in the Territory and should not be considered as a viable vehicle choice by Directorates.

FP30: Plug-in Hybrid Electric Vehicle (PHEV) can run solely as an electric vehicle for a short driving range (around 50km's) and then will begin to run on petrol/diesel. A PHEV is considered a Zero Emissions Vehicle.

FP31: 1 July 2020 Directorates must lease zero emissions passenger fleet vehicles where deemed 'fit for purpose' for replacement with an electric vehicle where there is an available electric vehicle model available which can deliver an equivalent function and utility for the purpose that the vehicle is used. As new model EV's, HFCEV's and PHEV's become available in the light commercial ranges, directorates must lease these vehicles in line with the Territory's Zero Emissions Vehicle commitments.

FP33: Directorates may permit Territory personnel to home garage Closed Vehicle User Group (CVUG) fleet vehicles, Pool cars including Battery Electric Vehicle (BEV) or Hydrogen Fuel Cell Electric Vehicles (HFCEV) if this is required for operational efficiency reasons and is approved by the Director-General or Chief Executive Officer. Directorates must ensure Electric Vehicles being home garaged have separately metered BEV Charging infrastructure installed at the Territory employees' residence.

2.91 In addition, Fleet Policy 2 advises 'deviations' from policies should be discussed with the Territory Fleet Contract Manager and approved by the leasing directorate's Director-General before a vehicle order is placed with SG Fleet.

- 2.92 Records confirm implementation arrangements were in place, at whole-of-government and directorate level, for introducing electric vehicles and installing vehicle charging infrastructure, for evolving passenger fleet management policy and providing guidance for electric vehicle users and decision makers.
- 2.93 An exception relates to the planning of charging infrastructure at the two new Government offices at Dickson and Civic. Paragraphs 3.100 to 3.103 provide more detail on this.

## Hydrogen fuel cell electric cars in the ACT Government Fleet

- 2.94 *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* defines zero emissions vehicles as:
- ... vehicles that do not emit any greenhouse gas emissions, and includes plug-in hybrid electric, battery electric and hydrogen fuel cell electric cars, as well as electric bikes.
- 2.95 The plan is centred on electric vehicles that are charged from the electricity grid. Most of the images in the plan show such vehicles. However, hydrogen fuel cell-generated electric vehicles are also within scope of the plan if the hydrogen utilised is created using renewable electricity. The plan refers to the Government's desire for progress in investigating:
- ... opportunities for zero emissions fuel production in the ACT, including the proposed deployment of 20 hydrogen-powered Hyundai fuel cell electric vehicles (FCEVs) into the Government fleet by 2019–20 refuelling at Fyshwick.
- 2.96 The action 'investigating opportunities for zero emissions fuel production in the ACT' has progressed to an implementation phase. A hydrogen refuelling station has been established in Fyshwick. This provides hydrogen produced from the Territory's 100 per cent renewable electricity supply. On 26 March 2021 the Government announced the opening of the Fyshwick refuelling station, and that it is 'Australia's first public Hydrogen refuelling station'.
- 2.97 'Deployment of [the] 20 hydrogen-powered fuel cell vehicles into the Government fleet' was not achieved during 2019-20 due to delays in establishing the hydrogen refuelling station. However, with the refuelling station now open, the ACT Government also advised that Hyundai NEXO Hydrogen Fuel Cell Electric Vehicles 'will begin being integrated into the Territory's Fleet from Tuesday, 30 March 2021' and that:
- The 20 Hyundai NEXO's are part of a Loan vehicle Program for a period of 3 years and are being provided to the ACT Government at no cost to the Territory for the first 12 months.
  - In years 2 and 3 of the NEXO Loan Vehicle Program the Territory's only out of pocket expense will be the cost of the Hydrogen to run the vehicles.
  - Registration costs, servicing costs, insurance costs over the 3 year term of the program are covered by partnering stakeholders.
  - ... [and as a result] the ACT is the first jurisdiction in Australia to have an operational Public Hydrogen Refuelling Facility and Hydrogen Fuel Cell vehicles integrated into the Territory's Fleet.

2.98 Although much of the progress in transitioning the Government's passenger fleet relates to the leasing of battery and plug-in hybrid electric vehicles, the ACT Government is also integrating hydrogen fuel cell powered electric vehicles into its passenger fleet, as of 30 March 2021. Following the opening of the hydrogen refuelling station in Fyshwick, an Australian first, the ACT Government's fleet is now supported by two zero emissions technologies, providing learnings for exploring options for other classes of vehicles.





## 3 IMPLEMENTING PLANS

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- 3.1 This chapter considers ACT Government agencies' planning activities for the delivery of the commitments, including governance and administrative arrangements and roles and responsibilities. Five key actions (Actions 1, 2, 3, 5 and 11) are considered in detail as they presented particular challenges in working between teams within and across directorates during preparatory and implementation phases.

### Summary

### Conclusion

The Environment, Planning and Sustainable Development Directorate has established effective governance arrangements for the implementation of the zero emissions vehicle commitments, with some exceptions. Roles and responsibilities for the planning and implementation of the first 16 commitments, made in 2018 and 2019, have been clearly identified. Collaboration between different functions across Government has also enabled most actions to make progress.

Aspects of the planning and implementation of commitments relating to new policy areas, for example the transition of the ACT Government's passenger fleet and changes to the Territory Plan to create a requirement for the installation of charging equipment in multi-unit and mixed-use developments, have not been effectively managed.

In relation to the transition of the ACT Government's passenger fleet, the lack of progress in agreeing a set of guiding principles for parking and vehicle charging has led to delays in establishing appropriate charging infrastructure in a timely manner in the two new government office buildings at Civic and Dickson.

In relation to changing the Territory Plan to require the installation of charging equipment, a lack of shared understanding and agreement between teams within the Environment, Planning and Sustainable Development Directorate has led to delays and a lack of agreement about the necessary steps to achieve the outcome.

### Key findings

The Environment, Planning and Sustainable Development Directorate has developed an adequate program design for its zero emissions vehicles actions. It will enable progress of actions to be verified as 'complete' or as implemented. However, there are opportunities for improvement in the program design, including:

- periodically reappraising the program logic of each action and documenting this;

Paragraph

3.20

- ensuring a substantial number of actions in a program have a measurable impact and also have specified target performance levels; and
- determining and progressing a program level evaluation process.

The development and implementation of policy to increase the use of electric vehicles will be enabled by regular and reliable reporting of the number of electric vehicles registered in the ACT. Publicly reporting the number of zero emissions vehicles registered in the ACT, including sub-categories, would raise awareness and inform decision making, once issues with the integrity of data are resolved and confidence in the data is established. 3.21

The commitments identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* require a combination of single directorate and whole-of-government effort. Roles and responsibilities are evident in the policy development and initial implementation phases of the plan, with the exception of Action 3, a new policy direction, for which limited preparatory work involving the relevant teams was undertaken in the policy development phase. 3.32

Roles, responsibilities and timeframes for the five commitments identified in the *ACT Climate Change Strategy 2019-25* are evident in the policy development documentation and in the strategy itself. This visibility aids public accountability in the implementation of the commitments. 3.34

Environment, Planning and Sustainable Development Directorate records maintained in the directorate's Objective system folders identify engagement between the Climate Change Policy team and other teams across government necessary for the support and implementation of all 16 actions, once announced. In each case engagement over the detail of the action began within three months of the commencement of the plan or strategy. In most instances engagement commenced with exchanges of emails and meetings between the requisite teams. Collaboration was evident once teams in different areas of Government were engaged. 3.35

The Climate Change Policy team has effective governance and administrative arrangements in place to articulate the activities and carriage of each of the first 16 commitments considered as part of the audit. These arrangements fulfil the function of formal project planning and monitoring. The approach would be improved further by ensuring the evolving versions of composite implementation plans developed to guide the implementation of the commitments have senior management (Executive) authorisation and are shared with other teams involved in implementation so that priority tasks and milestones are mutually understood and accepted. 3.40

Action 3 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relating to amending the Parking and Vehicle Access General Code was not given equal priority by the three teams in the Environment, Planning and Sustainable Development Directorate involved in the action's implementation. A lower priority was given to it by the Strategic Planning and Territory Planning teams compared to 3.58

the Climate Change Policy team. The three teams did not develop a shared understanding and commitment to the task at an early stage.

Action 5 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relating to the use of transit lanes by zero emissions vehicles was given a lower priority by Roads ACT compared to the Climate Change Policy team. Legislation was amended on 1 July 2019, yet no signage was installed or public announcements made for more than 12 months. As a result, the full benefits envisaged by the action have not been realised in a timely way. Early implementation of this activity is particularly important given this aspect of the legislation terminates in 2023. 3.73

Action 11 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relating to amending, announcing, installing signage for, and enforcing, the road rules to accommodate specific provisions for electric vehicles was given a lower priority by Roads ACT than by the Climate Change Policy team. As a result, progress has been slower and the full benefits envisaged by the action have not been realised in a timely way. 3.89

To support the progress of Actions 1 and 2, investment in charging infrastructure for government electric vehicles has been undertaken. The number of separate charging points and the number of government sites with charging points have been increasing as the number of electric vehicles has increased. However, no independent review has been conducted of the impact of introducing electric vehicles into the government fleet including the effectiveness of charging infrastructure. 3.99

While the installation or upgrade of electric vehicle charging points has been progressed at many government sites (at least 25 sites, by November 2020) an insufficient number of charging points had initially been planned for at the two new government office buildings at Dickson and Civic. Two charging points were initially planned for each of these two sites. Planning for the additional charging needs of a higher number of zero emissions (electric) vehicles has been underway since 2018. However, progress over related issues, such as what vehicles are entitled to park and charge in these two new buildings and the associated costings and assessments of different installation scenarios, has led to insufficient progress being made to reach a timely decision. 3.111

A solution was not arrived at and was not able to be implemented in time for the move of government staff into the Dickson office building in June 2020, or into the Civic building in March 2021. Occupancy of both buildings began with the originally specified two electric vehicle chargers in each building. Work is in hand to address the immediate and medium term shortfall in the overall number of car parking spaces with chargers in each building. 3.112

## Program design

3.2 According to *Successful Implementation of Policy Initiatives* (2014) planning provides:

... a 'map' of how an initiative will be implemented, addressing matters such as timeframe, dependencies with other policies or activities, program logic, phases of implementation, roles and responsibilities, resourcing, and compliance with legal and policy requirements.

...

Plans should provide a logic map of how an initiative will be implemented. The plan should be designed to help the implementing entity identify the key steps necessary for the initiative to meet the intended policy outcomes.

3.3 *Strengthening Performance and Accountability: A Framework for the ACT Government* (2019) describes 'measuring performance' as:

... being able to accurately and consistently determine what is being done by an organisation in pursuit of a specific objective, the resources that have been used, and the extent to which those actions have resulted in progress towards an objective. This allows us to determine whether programs and services are effective and whether they are being implemented efficiently.

3.4 Better practice program design includes the establishment of a logical flow between a planned action and its intended impact on an objective, and the establishment of a performance measurement framework which enables progress to be accurately and consistently determined.

3.5 Prior to integrating zero emissions vehicles actions within the *ACT Climate Change Strategy 2019-25* further work was undertaken to consider the program logic underpinning the proposed actions. The *ZEV Action Plan Implementation Plan Status Living Document* describes this flow of logic as:

- Actions -> Intermediate Outcomes -> Final Outcomes -> Mission Goal (i.e. CO<sub>2</sub>-e reduction);
- intermediate actions, next steps and issues arising; and
- data sources for the purpose of verifying progress.

3.6 The *ZEV Action Plan Implementation Plan Status Living Document* concludes by stating:

Monitoring and Evaluation: The effectiveness and efficiency of the Zero Emissions Vehicles Action Plan will be measured in terms of the objectives, outcomes and outputs achieved compared to the objectives, outcomes and outputs planned.

3.7 While the *ZEV Action Plan Implementation Plan Status Living Document* refers to 'monitoring and evaluation' intentions for the action plan, there has been no evaluation of the action plan's achievements by the Climate Change Policy team or by others external to the team. However, the action plan's implementation (i.e. the progress of actions and their outputs) has been monitored and reports have been prepared (refer to Chapter 4, paragraphs 4.3 to 4.12).

## Program logic analysis

- 3.8 The program logic of the first 16 commitments<sup>12</sup> was reviewed based on documentary evidence and through discussions with Climate Change Policy officials (refer to Appendix C for analysis of each action). The Climate Change Policy team examines program logic, although its review is not always well documented. The aim of this analysis was to determine whether the ‘objectives, outcomes and outputs planned’ were likely to enable effective and efficient performance measurement, monitoring and reporting.
- 3.9 The following observations are made:
- all actions are implementable to a greater or lesser extent, given resources;
  - all actions are accompanied by identified, discrete outcomes although these are not quantified in most cases and not readily verifiable in some cases (Actions 4, 9 and 4.20);
  - only four actions (Actions 1, 2, 5 and 8) have a measurable outcome. Only two of these include quantifiable targets (Actions 1 and 2), against which performance levels can be judged;
  - most outcomes do not lead directly to the Mission Goal (i.e. CO<sub>2</sub>-e reduction);
  - for the large majority of actions (the exception is Action 9), outcomes lead indirectly to CO<sub>2</sub>-e emissions reduction via potential increases in zero emissions vehicles; and
  - attribution (that is, linking a cause and effect) between the action and an increase in zero emissions vehicles is possible but will be difficult in most cases.
- 3.10 In considering program design, 13 of the 16 actions are capable of being verified as addressed (i.e. ‘complete’ or implemented). However, program documentation provides limited means to quantify achievement or to judge achievement levels against an expected level of performance (i.e. via a specified target level of performance).
- 3.11 Due to the design of the program, evaluation of the success of actions, including their impact, would necessarily rely on qualitative assessment, with the exception of Actions 1 and 2. Better practice program design incorporates a greater degree of measurability and use of targets to aid transparency and ease in performance measurement, monitoring and reporting.
- 3.12 Actions 1 and 2 are measurable and have quantifiable targets (i.e. the percentages of new leases being of electric vehicles). Data on this is aggregated via the SG Fleet database, which is accessible through Procurement ACT within the Chief Minister, Treasury and Economic Development Directorate. From May 2020 this database has been directly accessible to the

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<sup>12</sup> Planning documentation for the remaining two commitments, relating to transitioning the bus fleet, was not examined. The Government’s commitment to these two actions was made in September 2020. Implementation of the two actions is led by the Transport Canberra and City Services Directorate.

Climate Change Programs data team for the purpose of progress monitoring and reporting of these two actions.

#### Reporting on electric vehicle registration

- 3.13 *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* supports and encourages the purchase and use of electric vehicles by the community and by fleet managers including the Government, within the ACT. A measure of the increase in the uptake of zero emissions vehicles in the ACT would be a relevant indicator of success, notwithstanding the issue of attribution of this outcome to specific actions in the plan. While the aim of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is to encourage electric vehicle uptake it sets no measurable performance target for this.
- 3.14 The Environment, Planning and Sustainable Development Directorate does not regularly monitor and report, internally or publicly, the number of zero emissions vehicles registered in the ACT, including sub-categories of vehicles such as battery and plug-in hybrid electric vehicles. However, the ACT branch of the Australian Electric Vehicle Association does so and reports this publicly based on data it receives on request from Access Canberra drawn from the rego.ACT database. For example, data published by the Australian Electric Vehicle Association (ACT) indicates the month-by-month electric vehicle trend during 2020.
- 3.15 As at January 2021 the Australian Electric Vehicle Association (ACT) identified that there were 828 battery electric vehicles registered in the ACT (and a further 338 plug-in hybrid vehicles). This is an 85 per cent increase from the 446 battery electric vehicles in January 2020. However, the Association has questioned the reliability of this data, according to its public website<sup>13</sup> and in advice to the Audit Office. In mid-2020 the Association identified, through its own audit of the rego.ACT data that had been provided to it, a potential understatement of the number of electric vehicles in the ACT by 17 per cent due to the wrong categorisation of vehicles. Austroads<sup>14</sup> *Assessment of Key Road Operator Actions to Support Electric Vehicles* (February 2020) identifies that the inconsistent classification of electric vehicles in registration data systems in Australia is one of 22 road operator core function issues that needs to be addressed.
- 3.16 As at 3 March 2021 Access Canberra advised that it was aware of the potential for an inconsistency between the historic classification of electric vehicles in the rego.ACT system and the definition of zero emissions vehicles according to policy established in response to *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* (April 2018). Work was in hand to establish whether there was an inconsistency, and if so, the scale of the inconsistency, whether this was capable of having an impact on fees and charges, and how this should be addressed in order to reliably monitor and report zero emission vehicles.

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<sup>13</sup> Webpages extracted at <https://aeva.asn.au/act-ev-statistics/> on 21 August 2020

<sup>14</sup> Austroads is a not-for-profit organisation, funded by Australian and New Zealand government transport agencies whose work impacts a wide range of agencies including planning, service, infrastructure, health and safety, public health and policing.

- 3.17 The increase in electric vehicles in the ACT is the focus of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. It is likely the number of electric vehicles has increased substantially during 2020, at least in part due to the severe hailstorm in January 2020, which caused people to purchase new replacement cars, and the ACT Government's fleet transition to zero emissions vehicles. While making the link between the actions of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and any increase is not straightforward (refer to Appendix C for analysis of each action), regular reliable reporting of the number of electric vehicles registered in the ACT is useful context for the actions and policies of the Government relating to electric vehicles. Currently the Electric Vehicle Council reports jurisdiction by jurisdiction uptake figures annually.
- 3.18 It is noted that in the ACT Government's 2020-21 Budget (February 2021), the Budget Outlook states:
- The Government will also undertake market sounding to attract a more robust zero emission vehicle ecosystem in the ACT and adopt a target for 2030 for new ACT zero emissions vehicle sales.
- 3.19 Developing and implementing a reliable method of reporting on the numbers of zero emissions vehicles registered or sold in the ACT in the intervening period to 2030 will assist in target setting and subsequently monitoring performance against that target.
- 3.20 The Environment, Planning and Sustainable Development Directorate has developed an adequate program design for its zero emissions vehicles actions. It will enable progress of actions to be verified as 'complete' or as implemented. However, there are opportunities for improvement in the program design, including:
- periodically reappraising the program logic of each action and documenting this;
  - ensuring a substantial number of actions in a program have a measurable impact and also have specified target performance levels; and
  - determining and progressing a program level evaluation process.
- 3.21 The development and implementation of policy to increase the use of electric vehicles will be enabled by regular and reliable reporting of the number of electric vehicles registered in the ACT. Publicly reporting the number of zero emissions vehicles registered in the ACT, including sub-categories, would raise awareness and inform decision making, once issues with the integrity of data are resolved and confidence in the data is established.

#### RECOMMENDATION 1 PROGRAM DESIGN AND EVALUATION

The Environment, Planning and Sustainable Development Directorate should review zero emissions vehicle program design and delivery, including:

- a) reviewing and confirming the program logic of all relevant (i.e. 16) actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and the *ACT Climate Change Strategy 2019-25*;

- b) determining and progressing an evaluation process for specific actions;
- c) developing and applying a reliable internal monitoring and external reporting methodology for an indicator reflecting the uptake of zero emissions vehicles in the ACT; and
- d) defining Government expectations on the future uptake of electric vehicles in the ACT that influence the Government's transition planning.

## Cross-government collaboration

3.22 The roles and responsibilities and the implementation plans for the first 16 actions identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and the *ACT Climate Change Strategy 2019-25* were considered as part of the audit. The remaining two actions relating to transitioning the Transport Canberra bus fleet were not examined since these new commitments were announced in September 2020.

## Roles and responsibilities

3.23 Responsibility for climate change policy sits with the Minister for Climate Change and Sustainability and is discharged through the Environment, Planning and Sustainable Development Directorate. The ACT Climate Change Council advises the Minister.

3.24 Within the Environment, Planning and Sustainable Development Directorate, the Climate Change and Sustainability Division of approximately 60 full-time equivalent staff includes separate teams responsible for program development and implementation, and for policy development.

3.25 The Climate Change Policy team initiates, examines, seeks to establish and promulgates climate change policy. However, the policy team does not directly implement policy in most instances, which is the responsibility of other ACT Government teams and agencies.

### *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*

3.26 All directorates have a role to play in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. Three directorates in particular have a major role in supporting the Environment, Planning and Sustainable Development Directorate (EPSDD):

- Chief Minister, Treasury and Economic Development Directorate (CMTEDD);
- Transport Canberra and City Services Directorate (TCCS); and
- Justice and Community Safety Directorate (JACS).

3.27 Roles and responsibilities for the implementation of the eleven actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* are shown in Table 3-1.



**Table 3-1 Roles and responsibilities for The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21**

Action	Defined commitment	Roles and Responsibilities
1	At least 50 per cent of all newly leased ACT Government fleet passenger vehicles will be zero emissions vehicles in 2019–20 (where fit for purpose).	<b>New major policy direction</b> All directorates with fleet needs, with policy, coordination and advice from CMTEDD Fleet Executive and EPSDD Climate Change Policy teams
2	All newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose).	<b>New major policy direction</b> All directorates with fleet needs, with policy, coordination and advice from CMTEDD Fleet Executive and EPSDD Climate Change Policy teams
3	Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure.	<b>New major policy direction</b> Advice and instrumentality with EPSDD via its Climate Change policy, Strategic Planning and Policy and Territory Plan teams
4	Work with local and state governments to facilitate the installation of charging stations on major routes to and from Canberra including routes to Sydney and coastal areas.	<b>Continuation of existing arrangements</b> Facilitated by TCCS and EPSDD
5	Permit zero emissions vehicles to drive in transit lanes until 2023.	<b>New minor policy direction</b> Advice and instrumentality with JACS (regulation) and TCCS (Roads ACT)
6	Conduct a feasibility assessment for the installation of covered car parks with solar powered vehicle charging stations.	<b>Exploratory action</b> Initially with EPSDD, potentially onward action with cross-directorate Car Parking Group
7	Investigate providing incentives to encourage the use of electric bikes including through more secure bike parking and bike charging stations.	<b>Exploratory action</b> Initially with EPSDD with TCCS's Active Travel Office and potentially with TCCS transport planners
8	Amend tax arrangements to allow ACT Government staff to salary sacrifice an electric bike.	<b>New minor policy direction</b> CMTEDD advice
9	Support new and innovative businesses in the zero emissions vehicles sector to maximise job creation and economic development in the ACT.	<b>Continuation of existing arrangements</b> Facilitated by CMTEDD Economic Development and EPSDD Climate Change teams
10	Investigate the potential use of electric vehicle batteries to support the electricity grid at times of peak demand.	<b>Exploratory action</b> Initially with EPSDD, potentially onward action with all directorates and CMTEDD Fleet Executive
11	Review parking and traffic regulations to ensure that priorities offered to zero emission vehicles can be enforced; and provide specific zero emissions vehicle number plates for easy identification and enforcement of zero emissions vehicles related regulations (e.g. ensuring only zero emissions vehicles park and charge in allocated spaces for vehicle charging).	<b>Exploratory action</b> Initially with JACS (regulation), TCCS (Roads ACT), and CMTEDD (Access Canberra regulation and enforcement) and ACT Policing

Source: Audit Office review of records for the period Oct 2017 to September 2018 in Objective 'action by action' folders

3.28 The eleven actions that were committed to in the Environment, Planning and Sustainable Development Directorate-developed plan were consulted on as part of the Cabinet consideration process in March 2018. The plan was supported by the other six directorates, with qualifying commentary from two.

- 3.29 With one exception there is sufficient detail in the Cabinet submission and in the accompanying business case (for budgetary resources for Actions 1 and 2) for decision makers and consultees to gauge which Government functions would be needed to support the implementation of actions and how this was to be achieved. The one exception is that there is very limited commentary in the Cabinet submission on Action 3 other than to point out that a regulatory impact would flow from seeking a change to the Parking and Vehicle Access General Code, indicating the potential involvement of the Territory Planning team.
- 3.30 Consultation on the eleven proposed commitments between directorates was limited prior to Cabinet consideration. In the case of Action 3, where the facilitating functions and teams were all within the Environment, Planning and Sustainable Development Directorate, there was an absence in documentation in the December 2017 to March 2018 period of detail of how the action would be taken forward, in what timescale, by whom, with what resource implications and what accompanying risks for the proposed action.
- 3.31 In some cases (i.e. Actions 6, 7 and 10), the actions in the plan are described as ‘exploratory’. In these cases, the roles and responsibilities beyond the Climate Change Policy team’s initiation of the activity were not known during policy formulation or at commencement of the plan.
- 3.32 The commitments identified in *The ACT’s Transition to Zero Emissions Vehicles Action Plan 2018-21* require a combination of single directorate and whole-of-government effort. Roles and responsibilities are evident in the policy development and initial implementation phases of the plan, with the exception of Action 3, a new policy direction, for which limited preparatory work involving the relevant teams was undertaken in the policy development phase.

### **ACT Climate Change Strategy 2019-25**

- 3.33 Five actions relating to zero emissions vehicles were agreed within the *ACT Climate Change Strategy 2019-25* on 12 August 2019 (refer to Appendix B). Unlike *The ACT’s Transition to Zero Emissions Vehicles Action Plan 2018-21*, the Climate Change Strategy identifies the responsible directorates and timeframes for each action within the strategy document itself. Table 3-2 shows the responsibilities and timeframes for the actions identified in the Climate Change Strategy.

**Table 3-2 Actions to support the uptake of zero emissions vehicles in the ACT Climate Change Strategy 2019-25**

Defined commitment in strategy	Responsibility and Timeframe
Explore and trial financial incentives such as increased registration discounts, rebates and low interest loans to encourage the uptake of zero emissions vehicles and electric bikes. (3G 3.20 <i>Encourage zero emissions vehicles</i> )	EPSDD by 2020 This is initially an <b>exploratory action</b> but potentially could be a major new policy direction (on a trial basis)
Implement the Zero Emissions Vehicles Action Plan 2018–21, explore opportunities to promote investment in public charging infrastructure, and identify new actions to support the uptake of zero emissions	EPSDD by 2021

Defined commitment in strategy	Responsibility and Timeframe
vehicles from 2021 onwards. (3G 3.21 <i>Encourage zero emissions vehicles</i> )	Other than implementing the Zero Emissions Vehicles Action Plan 2018–21, this is an <b>exploratory action</b>
Amend road rules to facilitate the safe use of new sustainable personal mobility options, such as electric scooters. (3G 3.22 <i>Encourage zero emissions vehicles</i> )	JACS and TCCS with EPSDD (no specified end date) This is a <b>new minor policy direction</b>
Investigate regulatory options to drive the transition to zero emissions commercial vehicle fleets. (3G 3.23 <i>Encourage zero emissions vehicles</i> )	JACS and CMTEDD by 2023 <b>Exploratory action</b>
Encourage the use of smart financing by medium and large businesses and organisations to support [...] zero emissions vehicle fleets. (4G 4.20 <i>Encourage zero emissions vehicles</i> )	EPSDD by 2023 <b>Continuation of existing arrangements</b>

Source: Audit Office

3.34 Roles, responsibilities and timeframes for the five commitments identified in the *ACT Climate Change Strategy 2019-25* are evident in the policy development documentation and in the strategy itself. This visibility aids public accountability in the implementation of the commitments.

3.35 Environment, Planning and Sustainable Development Directorate records maintained in the directorate's Objective system folders identify engagement between the Climate Change Policy team and other teams across government necessary for the support and implementation of all 16 actions, once announced. In each case engagement over the detail of the action began within three months of the commencement of the plan or strategy. In most instances engagement commenced with exchanges of emails and meetings between the requisite teams. Collaboration was evident once teams in different areas of Government were engaged.

## Implementation plans

3.36 Formal stand-alone project plans were prepared for two of the actions relating to the *ACT Climate Change Strategy 2019-25* (Actions 3.20 and 3.21) using a standard project plan template, within nine months of the commencement of the strategy. No formal, stand-alone project plan was prepared for any of the eleven actions in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. However, a composite implementation plan has been developed and utilised for the eleven actions (refer to paragraph 3.5). It is referred to as a 'live' document that identifies:

- objectives of the action;
- performance indicators;
- data sources to support the indicators;
- target completion dates;
- lead directorates and key contacts; and

- progress to date and next steps (or milestones).

3.37 Several 'point in time' versions of the composite implementation plan were held in the Objective records system. They provide an effective account of intentions, responsibilities and the progress for each action at a point in time. These implementation plans work well as statements of current position and intentions, with the exception that there was no evidence on record of these plans:

- being validated or authorised by senior management; or
- being shared with other teams relevant to the action to confirm the achievability and priority of actions described in the plan.

### Timeframes for completion of actions

3.38 In comparing the 'point in time' versions, there is some variability in timeframes reflected in the plans for the eleven commitments identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. For example, the timeframe is presented for:

- Action 3 as 'TBC' (i.e. to be confirmed) in one plan, and by December 2020 in another;
- Action 4 as 'ongoing' in one plan, and as 2021 in another;
- Action 7 as 2020 in one plan and 2021 in another;
- Action 9 as 'ongoing' in one plan and as June 2021 in another; and
- Action 10 as 2022 in one plan and October 2019 in another.

3.39 No evidence was found to indicate these plans had been endorsed at the Executive level, for example, by the Executive Branch Manager or Executive Group Manager for the team. The lack of senior management authorisation of specific versions of these plans makes it difficult to confirm which timeframe is driving the Climate Change Policy team's efforts. Also, there was no evidence of plans being shared with other teams involved in implementation. This means it is not possible to confirm that the priority placed on an action as indicated by a specified timeframe is shared and mutually accepted. The lack of senior management authorisation from the policy-owning area, i.e. the Climate Change and Sustainability Division within the Environment, Planning and Sustainable Development Directorate, also weakens the authority with which different teams collaborate with each other.

3.40 The Climate Change Policy team has effective governance and administrative arrangements in place to articulate the activities and carriage of each of the first 16 commitments considered as part of the audit. These arrangements fulfil the function of formal project planning and monitoring. The approach would be improved further by ensuring the evolving versions of composite implementation plans developed to guide the implementation of the commitments have senior management (Executive) authorisation and are shared with other teams involved in implementation so that priority tasks and milestones are mutually understood and accepted.

## Risk assessment

3.41 A risk assessment tool similar to ACTIA's operational and strategic risk register tools (2019) has been utilised by the Climate Change Policy team to:

- record the risk profile of commitments identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*;
- record the risk profile of commitments identified in the draft *ACT Climate Change Strategy 2019-25* (March 2019);
- update the divisional risk register (March 2019); and
- record the revised risk profile of commitments identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* (May 2020).

3.42 The risk assessment describes high-level or generalisable risks, such as a risk of 'failure to implement the Zero Emissions Vehicles Action Plan'. The assessment describes existing control measures and further actions. Further actions to be taken in relation to this risk are to:

continue to implement the ZEV Action Plan and track progress through regular reporting / updates.

secure ongoing funding for implementation for the life of the Strategy (until 2021) for both staffing and project funding to support actions.

seek funding for, and implement, zero emissions vehicle actions that are part of the Climate Change Strategy.

3.43 According to the assessment the existing control measures and further actions do not change the residual risk, which remains 'medium' but do improve the control effectiveness rating.

3.44 Operational issues encountered during implementation and responses to these are described in composite implementation plans (refer to paragraph 3.37).

## Implementation of key actions

3.45 A review of the implementation of the 16 commitments identified in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and the *ACT Climate Change Strategy 2019-25* identified challenges with the implementation of five key commitments in particular:

- requiring apartment block developers to install charging infrastructure (Action 3);
- developing and applying specific road rules for zero emissions vehicles (Actions 5 and 11); and
- whole-of-government fleet actions (Actions 1 and 2).

## Charging infrastructure in apartment blocks

3.46 Action 3 proposes creating an obligation on developers to install electric vehicle charging infrastructure in parking bays of apartment blocks. Action 3 is to:

Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure.

3.47 Action 3 was initially positioned as a task involving the Climate Change Policy team, the Strategic Planning team which was progressing a parking code review, and the Territory Planning team. All three teams are within the Environment, Planning and Sustainable Development Directorate. A March 2018 email from Territory Planning team officials to the Climate Change Policy team states:

... there is a review of the Parking code underway ... Depending on the timing of any proposed changes to the code, it might be helpful to have a chat with [Strategic Planning] so that any changes proposed by Climate Change can be incorporated into the review, and combined in one variation to the Territory Plan down the track.

3.48 Communication between the three teams indicate collaboration on this task was sporadic during 2018. However, by 3 January 2019 the Climate Change Policy team was anticipating good progress during 2019. A Climate Change Policy team brief project plan noted:

- a new Parking Code will be prepared in 2019, resulting in a Territory Plan Variation to introduce the new Code;
- community engagement will be undertaken in early 2019 to inform the review; and
- the proposed new Parking Code will be implemented through a Territory Plan Variation in 2019, providing a further opportunity for community engagement.

3.49 Between January and June 2019, the Climate Change Policy team consulted with the ACT branch of the Australian Electric Vehicle Association, developed a possible specification for charging points and related infrastructure based on Australian Electric Vehicle Association (ACT) branch members' advice and produced draft text for potential inclusion in the Parking and Vehicle Access General Code. No Territory Plan Variation was progressed during 2019 to implement the new Parking Code.

3.50 By March 2020, Climate Change Policy team officials were seeking to address Territory Plan team requirements to be achieved through a consultancy task. The task was undertaken between June 2020 and August 2020. This task involved engaging a range of stakeholders, including developers, owner corporations and residents, utilities and charging infrastructure providers, over commercial, social, political, legal and cultural impacts of charging point proposals. 'Strong' and 'well coordinated' views were voiced by stakeholders, according to the consultancy report (11 August 2020) which also forewarned of the need to progress 'with caution'. The consultancy also provided a cost-benefit analysis of seven distinct policy positions on proposed code changes on 'high rise' and 'mid rise' apartments, and townhouses.

- 3.51 On 25 September 2020 Strategic Planning team officials advised the Audit Office that the Parking Code review:
- ... is being gradually reviewed over the coming 12 to 18 months with the initial focus on the City Centre.
- 3.52 In addition, in relation to the proposal for electric vehicle charging infrastructure to be considered as part of the Parking Code review, Strategic Planning officials advised:
- ... further work was required to explore issues not related to the Parking Code for example impact on viability, housing affordability, safety and potential need for strata reform. This further work is being led by the Climate Change team.
- 3.53 As for the involvement of the Territory Planning team, officials advised the Audit Office by email on 17 September 2020:
- ... the Climate Change and Sustainability team have a consultancy at the moment looking at potential provisions for the Territory Plan relating to [electric vehicle charging] infrastructure. Once this work is completed [...] and recommendations agreed to, the Territory Plan team can start preparing the [Territory Plan Variation] ...
- 3.54 The process to achieve a Territory Plan Variation outlined by the Environment, Planning and Sustainable Development Directorate involves 12 steps and can take between 12 and 18 months from preparation until commencement.
- 3.55 The accounts of the necessary steps and progress being made by the Climate Change Policy, Strategic Planning and Territory Planning teams indicate that it is highly unlikely that a change to the Parking and Vehicle Access General Code can be accomplished by December 2021 that would 'require all new multi-unit and mixed-use developments to install vehicle charging infrastructure'.
- 3.56 Furthermore, the accounts provided in directorate records indicate that:
- Climate Change Policy officials underestimated the work involved in securing a Territory Plan variation; and
  - the three teams placed a different priority on the task.
- 3.57 No preparatory work for Action 3 was undertaken between March 2018 and September 2020 towards a three-way, mutually agreed workplan between the Climate Change Policy, Strategic Planning and Territory Planning teams. A shared understanding and commitment to the task at an early stage in the process would have provided more certainty about its achievability.
- 3.58 *Action 3 in The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21 relating to amending the Parking and Vehicle Access General Code was not given equal priority by the three teams in the Environment, Planning and Sustainable Development Directorate involved in the action's implementation. A lower priority was given to it by the Strategic Planning and Territory Planning teams compared to the Climate Change Policy team. The three teams did not develop a shared understanding and commitment to the task at an early stage.*

3.59 In response to the draft proposed report, Environment Planning and Sustainable Development Directorate officials advised that:

We note that while there was no specific implementation plan for Action 3 agreed between the three parties, there were ongoing discussions on progressing this measure. These occurred concurrent with the Planning System Review and Reform Project (still underway) making significant changes to the planning system possible.

In this context it is not clear that a detailed project plan was deliverable given the changing environment and other priorities.

## Differential road rules for zero emissions vehicles

3.60 Actions 5 and 11 relate to incentives through changes to the ACT's road rules to encourage and support the uptake of zero emissions vehicles. These actions rely on the use of specific permissions granted to zero emissions vehicle drivers that are not available to petrol or diesel vehicle drivers. This includes:

- the use of transit lanes (e.g. either bus lanes or T2 lanes); and
- parking available only to zero emissions vehicles in order to access publicly available electric charging facilities.

3.61 Road rules regulations<sup>15</sup> made under the *Road Transport (Safety and Traffic Management) Act 1999* are able to create differential rules for zero emissions vehicles. For those road rules to be effective in changing road user behaviour, all road users (zero emissions vehicle and diesel/petrol vehicle drivers) need to be aware of any change in rules and that the rule is enforceable.

3.62 Accordingly, important matters in progressing actions 5 and 11 are:

- establishing a regulatory basis for the action in the road rules;
- public awareness through announcements and signage to all those potentially affected by the change in rules; and
- government functions mutually agreeing the Government's position on enforcement.

## Establishing changes in road rules

3.63 The National Transport Commission<sup>16</sup> reviews the national model road rules every two years. These model road rules have no legal effect but form the basis of states' and territories' jurisdiction-specific road rules. Rules relating to 'electric vehicles' are beginning to be introduced into the model road rules. The most recent release of national model road rules was on 22 November 2019.

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<sup>15</sup> Road Transport (Road Rules) Regulation 2017 (SL2017-43)

<sup>16</sup> The National Transport Commission leads national land transport reform in support of Australian governments to improve safety, productivity, environmental outcomes and regulatory efficiency.



- 3.64 In pressing forward with changes to ACT road rules specific to zero emissions vehicle use ahead of developments in the national model road rules, the ACT runs a risk of divergence from the national model road rules which may create an administrative burden in enforcement. However, there are also advantages in doing so, as learnings arise that may ultimately benefit all states and territories.

### Transit lane access

- 3.65 Action 5 is to:

Permit zero emissions vehicles to drive in transit lanes until 2023.

- 3.66 Following an assessment of suitable lanes in the ACT road system, one section of an existing transit lane approximately 4.5 kilometres in length was identified as suitable, along Adelaide Avenue (in both directions), for zero emissions vehicles to use. The briefing to the Minister noted 'Canberra is unusual in Australia for having so few transit lanes'.
- 3.67 New road rules came into effect on 1 July 2019 enabling 'zero emissions vehicles' to use transit lanes in the ACT. The road rules do not specify, or limit this to, Adelaide Avenue. The change in road rules (s156 (4) of the regulation) includes a 31 December 2023 expiry date for the provision. The ministerial briefing at the time advised that zero emissions vehicle owners and other road users would need to be informed of the change using signage and media release.
- 3.68 This change to ACT road rules came ahead of the release of the latest round of national model road rules on 22 November 2019. The national road rules do not include a provision for electric vehicles' (or zero emissions vehicles', in the case of the ACT) use of transit lanes.

### Announcement and signage

- 3.69 While the new *ACT Transport Strategy 2020*, announced on 26 August 2020, included the statement 'ZEVs can use ACT transit lanes from 1 July 2019 to the end of 2023' at that point in time there was no signage and there had been no public announcement, more than one year after the change to legislation. Signage in both directions of Adelaide Avenue was installed in September 2020 by Roads ACT, a division of Transport Canberra and City Services directorate (refer to Figure 3-1). No public announcement has been made.
- 3.70 In response to the draft proposed report, Transport Canberra and City Services directorate officials advised:

While installing ZEV signs on this road was not a high priority for Roads ACT, it was completed in a timely manner given that no signage for ZEVs existed nationally and so the sign needed to be designed in discussion with our national partners.

The installation of ZEV signs for the Adelaide Avenue T2 lane was also delayed by an upgrade to the Cotter Road / Adelaide Avenue intersection ...

Figure 3-1 New 'zero emissions signage' on Adelaide Avenue



Source: Audit Office September 2020

#### *Enforcement of transit lanes*

3.71 While some delay has been caused by the uncertainty over national and Territory-level responsibilities for making electric vehicles more easily distinguishable (for example, through the use of distinctive number plates), it was agreed in September 2019 that enforcement officers, that is ACT Policing, would access and utilise the ACT Road Transport Authority's motor registry database 'rego.ACT' to identify the engine type linked to the vehicle registration details. This would enable transit lane infringements to be pursued. Use of the motor registry database in this manner increases the importance of ensuring vehicle classification in the database is reliable (refer to paragraph 3.16) and is able to distinguish between a low emissions hybrid and a zero emissions plug-in hybrid vehicle.

3.72 In July 2020 officials at ACT Policing were seeking confirmation of the change in transit lane road rules prior to operationalising enforcement:

... I assume the appropriate legislation has been amended to reflect this change. If you could confirm this it would be appreciated. Once confirmed I will bring this to attention of ACT Policing members to ensure a smooth transition into this space, from a policing perspective. I don't believe we will have any issues as it is fairly straightforward.

3.73 Action 5 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relating to the use of transit lanes by zero emissions vehicles was given a lower priority by Roads ACT compared to the Climate Change Policy team. Legislation was amended on 1 July 2019, yet no signage was installed or public announcements made for more than 12 months. As a result, the full benefits envisaged by the action have not been realised in a timely way. Early implementation of this activity is particularly important given this aspect of the legislation terminates in 2023.

### Review of parking and traffic regulations

3.74 Action 11 is to:

Review parking and traffic regulations to ensure that priorities offered to zero emissions vehicles can be enforced; and provide specific zero emissions vehicle number plates for easy identification and enforcement of zero emissions vehicles related regulations (e.g. ensuring only zero emissions vehicles park and charge in allocated spaces for vehicle charging).

3.75 In addition to providing zero emissions vehicles access to sections of the Adelaide Avenue transit lanes, Action 11 activities include reviewing parking arrangements adjacent to public charging infrastructure.

3.76 *Austrroads Assessment of Key Road Operator Actions to Support Electric Vehicles* (February 2020) identifies the electric vehicle charger parking and queuing as one of 22 road operator core function issues (Issue 22) that need addressing.

### Access to charging points

3.77 Key challenges for electric vehicle users relate to two electric vehicle-specific re-fuelling phenomena: being 'ICE-ed' and range anxiety.

### Being 'ICE-ed'

3.78 Lack of access to otherwise available charging points is referred to as being 'ICE-ed', where a non-electric vehicle (i.e. Internal Combustion Engine vehicle) parks in a bay designed for electric vehicles and renders the charging point inaccessible. Given the potential scarcity of alternative charging points, the fear of this happening is a potential deterrent to battery electric vehicle use. Plug-in hybrids minimise this fear since there is an alternative fuel source (i.e. diesel or petrol) to fall back on.

### Range anxiety

3.79 In its *State of Electric Vehicles* report (August 2020), the Electric Vehicle Council refers to 'range anxiety':

Public charging infrastructure also helps to address consumer concerns about running out of power, a concern known colloquially as "range anxiety". In our survey of consumers, [ ... ] a majority of respondents (52%) cited insufficient access to charging equipment is discouraging them from buying an electric vehicle.'

*Enforcement at public charging points*

3.80 Communications in May 2019 between Climate Change Policy officials, the Justice and Community Safety Directorate where transport regulation is developed, and Roads ACT which is responsible for managing the Territory's roads infrastructure indicated that the regulation of seven publicly accessible charging point locations was of interest. The Justice and Community Safety Directorate had confirmed existing transport regulations could be utilised with appropriate street signage to create a No Parking 'other than electric vehicles' offence.

3.81 Of the seven public charging locations identified by the Climate Change Policy team, by July 2019 only two (at Kendall Street in New Acton and on London Circuit in Civic) were identified as being on public land and therefore appropriate for transport regulation, for publicly funded signage and for enforcement by Government parking inspectors.

3.82 In July 2020 the Climate Change Policy team and Roads ACT officials were continuing discussions and signs at the two sites had not been installed.

3.83 Between August and November 2020 discussions were continuing and the matter of the legal basis for creating an offence had been raised again as an impediment to making progress in installing signage and enforcement. Advice from a Justice and Community Safety Directorate transport regulation official refers to the latest round of national model road rules made on 22 November 2019:

The amendments include a specific offence for parking in a parking area designated for electric-powered vehicles in a non-electric powered vehicle. An electric vehicle is defined as a vehicle that is powered by 1 or more electric motors or traction motors, regardless of whether the vehicle is also powered by another form of propulsion, and can be recharged from an external source of electricity.

The ACT has not implemented these changes and will likely not be in a position to do so until early next year ...

3.84 The amendments referred to are sections 203B and 203C in the November 2019 model Road Rules i.e.:

- stopping in a parking area for electric-powered vehicles (s203B); and
- stopping in a parking area for the charging of electric-powered vehicles (s203C).

3.85 Current (February 2021) ACT Road Rules do not contain a section 203B or 203C or other reference to the parking or charging of electric or zero emissions vehicles, other than a dictionary reference to 'an electric vehicle parking sign'.

3.86 These recent emails also acknowledge that:

- signage, if installed, would likely be a short-term measure as work was progressing nationally with Austroads on standardised electric vehicle signage; and
- parking enforcement was not straightforward due to the potential difficulty of parking enforcement officers 'identifying electric vehicles or electric vehicle conversions'.

- 3.87 Austroads *Assessment of Key Road Operator Actions to Support Electric Vehicles* (February 2020) supports the views expressed in the emails since the Austroads report identifies two of the 22 road operator core function issues as:
- charger signage standards and guidelines (Issue 10); and
  - unique physical identification of electric and hydrogen vehicles (Issue 3).
- 3.88 The issues regarding transit lane use and parking at public charging points indicate that the importance of zero emissions vehicle regulatory matters represented a different level of priority for Climate Change Policy officials than for Roads ACT officials. Roads ACT officials advised that this is partly explained by the uncertainty over the timing and impact of work at a national level and also by the current scale of electric vehicles in the ACT.
- 3.89 *Action 11 in The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* relating to amending, announcing, installing signage for, and enforcing, the road rules to accommodate specific provisions for electric vehicles was given a lower priority by Roads ACT than by the Climate Change Policy team. As a result, progress has been slower and the full benefits envisaged by the action have not been realised in a timely way.

## RECOMMENDATION 2 SHARED IMPLEMENTATION PLANS

The Environment, Planning and Sustainable Development Directorate, when developing individual action plans or composite implementation plans that require multiple team input, should:

- a) secure authorisation by senior management;
- b) maintain version control of plans;
- c) share plans with the other relevant stakeholders; and
- d) seek a mutual understanding of and a written commitment to the necessary steps and likely timeframes in which a task is intended to be progressed.

## Whole-of-government charging infrastructure

- 3.90 Of the 18 actions considered as part of this audit the actions with the broadest impact across all government functions are Actions 1 and 2 within *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*:

Action 1 - At least 50 per cent of all newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles in 2019-20 (where fit for purpose).

Action 2 - All newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020-21 (where fit for purpose).

## Scale of challenge

- 3.91 All eight directorates<sup>17</sup> lease passenger fleet vehicles. As at 30 June 2019, there were 589 leased passenger fleet vehicles. On 30 June 2020 there were 582 leased passenger vehicles that, when each lease expired/expires, were/are subject to Actions 1 or 2. This data includes pool and non-pool vehicles, and vehicles leased for specific executives as part of their contractual terms and conditions.
- 3.92 Lease documentation indicates there were 28 zero emissions vehicles, as defined by the *ACT Government Fleet Procurement and Management Policy* (i.e. plug-in hybrid or a battery electric in accordance with policies FP27 and FP30), leased from SG Fleet as at 30 June 2019, and 85 as at 30 June 2020. Table 3-3 shows the change in passenger vehicles in the ACT Government fleet between 2019 and 2020 for different types of vehicle.

**Table 3-3 ACT Government fleet passenger vehicles (2019 and 2020)**

ACT Government Fleet Procurement and Management Policy	Type of vehicle	Number at 30 June 2019	Number at 30 June 2020
Zero emissions FP27 and FP30 policy compliant vehicles in the fleet	Plug-in hybrid vehicles	13	47
	Battery electric vehicles	15	38
	<b>Subtotal</b>	28	85
Vehicles that are not classified as zero emissions vehicles in the fleet	Petrol or diesel engine vehicles	395	321
	Hybrid vehicles	166	176
	<b>Total passenger vehicles in fleet</b>	<b>589</b>	<b>582</b>

Source: SG Fleet database extract 22 October 2020

## Installation of charging points

- 3.93 The growth in the number of zero emissions vehicles in the Government fleet during the 2019-20 year was accompanied by an increase in access to electric vehicle infrastructure.
- 3.94 Following a study commissioned by the Climate Change Policy team of Government sites in 2018, two rounds of installation have been conducted. The first round between June 2019 to October 2019 resulted in the upgrade of 17 existing 'type 1' chargers and the addition of a further 27 'type 2' chargers (44 in total).
- 3.95 In a 5 June 2019 briefing, Climate Change Policy team officials advised that the 44 new and upgraded charging points being installed:

<sup>17</sup> The ACT Health Directorate became two directorates: ACT Health and Canberra Health Services on 1 October 2018.

... are sufficient to achieve the commitments to have 50% new leases of zero emissions vehicles in 2019-20.

- 3.96 Between June 2020 and November 2020 a further 28 chargers were added. A further 20 or more chargers were planned by the end of 2020 for three sites: Winyu House (Gungahlin), the Territory records building at Mitchell and the Education Directorate's Hedley Beare Centre in Weston Creek.
- 3.97 The 72 charging points (as at 1 November 2020) are located at 14 Government buildings and 11 Transport Canberra and City Services Directorate depots. The addition of further charging points at Winyu House, Mitchell and the Hedley Beare Centre will take the total to more than 90 points at 26 locations, not including the new office buildings at Dickson and Civic.
- 3.98 While Climate Change Policy team officials were of the view that the charging infrastructure installed by 30 June 2020 was adequate for the electric vehicle fleet size at the time, there has been no independent assessment of patterns of use of the fleet since the number of electric vehicles in the fleet increased substantially during 2019-20. For example, it is not known where there is a choice between conventional petrol/diesel and electric vehicles at a particular location whether vehicle users are maximising the use of electric vehicles, and if not, what the perceived barriers are.
- 3.99 To support the progress of Actions 1 and 2, investment in charging infrastructure for government electric vehicles has been undertaken. The number of separate charging points and the number of government sites with charging points have been increasing as the number of electric vehicles has increased. However, no independent review has been conducted of the impact of introducing electric vehicles into the government fleet including the effectiveness of charging infrastructure.

### Charging infrastructure in new government buildings at Dickson and Civic

- 3.100 In June 2018 and February 2020 financial resources were provided to the Environment, Planning and Sustainable Development Directorate's Climate Change Policy team to install charging points in government buildings. As stated in paragraph 2.72, the business cases for these commitments did not indicate whether the proposed 177 charging points related to existing or the proposed two new government buildings.
- 3.101 Tender documents for the construction of Dickson and Civic buildings were prepared prior to the announcement of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. The tenders specified a limited number of electric vehicle charging stations to be provided in basement parking areas. The subsequent Agreements for Lease (AFL) for the buildings include two charging points in each building. With buildings scheduled for occupancy in 2020 (anticipating the accommodation of up to 3,200 ACT Public Service staff), there is a risk that the growing number of zero emissions vehicles being leased by the directorates intending to occupy the two new buildings would not be able to be charged on site. This would potentially have major consequences for fleet vehicle availability and patterns of use.

- 3.102 Charging infrastructure at the two new Government buildings was the subject of extensive discussion between April 2018 and March 2020 between Climate Change Policy and Chief Minister, Treasury and Economic Development Directorate officials. In these discussions matters such as the charging of executives' and Legislative Assembly Members' vehicles and the electric load implications for different charging technologies were examined and clarified but were not definitively resolved. The issue of responsibility for funding the additional electric vehicle charging infrastructure also arises in records, as does the issue of the number of parking places to be leased in each building and which vehicles would be permitted to occupy them.
- 3.103 With the proposed move of ACT public servants into more centralised office locations at Dickson and Civic in 2020, estimates in March 2020 were that at least 50 electric vehicles would potentially be moving with staff into the two new buildings at commencement of occupancy. Unless a contract variation and change to the Agreements for Lease were pursued and work completed prior to occupancy, these buildings would contain only two charging points each. Meeting existing fleet needs, let alone future needs, would require a substantial revision in the number of chargers.

#### Strategic Office Accommodation Committee

- 3.104 The Strategic Office Accommodation Committee oversees the Government's Workforce Transformation Program and Government Accommodation Project. A review of the records of this committee identifies that the matter of fleet vehicle parking and charging at the two new Government buildings in Dickson and Civic received regular attention between 2018 and 2020, but that insufficient attention was given to ensuring charging infrastructure was in situ for the fleet vehicles of directorates occupying the Dickson Office building, which commenced on 13 July 2020.
- 3.105 As a result, there was an inadequate number of chargers to service the 15 existing zero emissions vehicles (as at 30 June 2020) or the estimated 28 electric vehicles intended to charge in the basement of the Dickson building by June 2021. Alternative short-term options were being examined.
- 3.106 At the conclusion of fieldwork in October 2020 there was greater clarity on the parking and charging needs at the Dickson and Civic office buildings. This clarity arises from agreement by the Strategic Office Accommodation Committee in July 2020 to a set of parking principles which have a direct impact on the planning of electric vehicle charging infrastructure. These principles include that:
- all fleet vehicles for Directorates in the new Dickson and the Civic offices will be parked under the buildings in order to 'ensure ease of access, security and management of charging infrastructure'. This decision also included leasing additional spaces under the Dickson building to enable all fleet vehicles to be accommodated;
  - no electric vehicle chargers will be placed in the Members of the Legislative Assembly car park or into ACT Government Executive allocated parking spaces in the buildings; and



- the ACT Government Fleet Vehicles are the only vehicles that will receive access to electric vehicle chargers in the basement levels of any ACT Government building (leased or owned).

3.107 Also at the 28 July 2020 meeting the Strategic Office Accommodation Committee acknowledged that a proposed variation to the Agreements for Lease would likely involve additional charging facilities for 118 vehicles, at a cost of an estimated \$1.5m for the new buildings<sup>18</sup> taking account the agreed principles. However, this estimate does not include the potential cost of addressing an increased electricity load, which is a matter dependent on the number and type of chargers selected, and existing capacity, once established. Selection of charger type (e.g. trickle or rapid) is in part dependent on the type of vehicle being charged and the charging turn-around time needed.

3.108 With regard to the matter of funding the charging infrastructure, the minutes of the Strategic Office Accommodation Committee meeting on 20 May 2020 state:

Further discussions have taken place with EPSDD that have indicated that EPSDD has funding available in 2019-20 and 2020-21 to fund some EV charging points in both the buildings.

3.109 Further to this, the Committee meeting on 28 July 2020 received a report stating:

EPSDD has indicated that it has limited funding for EV charging points [and] there is no capacity in this funding for substation upgrades or major changes to the buildings' electricity infrastructure.

### *Progress in 2021*

3.110 By January 2021 the Civic Office Building (COB) had been accepted as complete by the ACT Government with staff relocations to the new building beginning in March. On 2 March 2021, Climate Change Policy team officials provided an update on charging infrastructure in the new Civic and Dickson office buildings. This identified that:

- two charging points had been installed in each of the two new buildings in accordance with the original Agreements for Lease (AFLs);
- overseen by the Strategic Office Accommodation Committee, work was in progress to install a further 37 chargers (and one rapid charger) in the Dickson Office Building and to establish the feasibility of a further 30 at the new Civic Office Building;
- for Civic-located electric vehicles, as a back-up, 75 chargers were available in other government office buildings close by (at the Nara and Allara buildings);
- the level of electricity supply capacity at the new Civic Office Building had been established and gauged sufficient for a further 100 chargers; and that

<sup>18</sup> This estimate also includes charging for 26 electric vehicles (of the 118) at the refurbished Allara, Nara and Customs House buildings, referred to as COB2 in committee records. It excludes 12 chargers already specified in Agreements for Lease (two each at the two new buildings, and eight at COB2).

- projections for parking and charger needs at the two buildings over the next two to three years were also being investigated.

3.111 While the installation or upgrade of electric vehicle charging points has been progressed at many government sites (at least 25 sites, by November 2020) an insufficient number of charging points had initially been planned for at the two new government office buildings at Dickson and Civic. Two charging points were initially planned for each of these two sites. Planning for the additional charging needs of a higher number of zero emissions (electric) vehicles has been underway since 2018. However, progress over related issues, such as what vehicles are entitled to park and charge in these two new buildings and the associated costings and assessments of different installation scenarios, has led to insufficient progress being made to reach a timely decision.

3.112 A solution was not arrived at and was not able to be implemented in time for the move of government staff into the Dickson office building in June 2020, or into the Civic building in March 2021. Occupancy of both buildings began with the originally specified two electric vehicle chargers in each building. Work is in hand to address the immediate and medium term shortfall in the overall number of car parking spaces with chargers in each building.

3.113 In response the draft proposed report, the Chief Minister, Treasury and Economic Development Directorate officials provided further explanation for the rate of progress in making electric vehicle charging infrastructure available for the ACT Government passenger fleet following staff relocation to the new Government buildings in Dickson and Civic:

In developing these [EV charging infrastructure installation] policies considerable work was required to understand the charging requirements for each individual vehicle in the fleet and their overnight parking location. Given the disruption caused by the pandemic the usage of many vehicles was not representative of typical use.

In addition, consideration was given to alternate charging infrastructure that would be publicly available because of the various EPSDD public charging initiatives. In a similar way that internal combustion vehicles are refuelled at petrol stations, there was potential for the vehicle fleet to utilise publicly available fast charging infrastructure.

The ACT is an early adopter of ZEVs in Australia and the technology is rapidly changing. Significant work was required to understand the long-term needs of the vehicle fleet. This work resulted in the policy endorsed by SOAC in July 2020 meeting.

Furthermore, as detailed in the report alternate charging infrastructure has been made available to ZEVs in other nearby buildings.

**RECOMMENDATION 3**

**LEARNINGS FROM IMPLEMENTATION**

The Environment, Planning and Sustainable Development Directorate should review the effectiveness of the transition of the ACT Government fleet including:

- a) the usage pattern of electric vehicles now in the fleet versus that of petrol/diesel vehicles;
- b) barriers to increasing usage of electric vehicles; and
- c) identifying learnings from the work undertaken to establish fit-for-purpose charging infrastructure in the two new government office buildings at Dickson and Civic.



## 4 REPORTING AND PROGRESS OF ACTIVITIES

- 4.1 This chapter examines the commentary provided on the progress of the Government's zero emissions vehicle activities in the ACT and how effective the commentary is in informing stakeholders on progress. Further commentary is also provided on recent developments with e-bikes, e-scooters and plans for transitioning the Transport Canberra bus fleet.

### Summary

#### Conclusion

ACT Government agencies have, for the most part, effectively implemented the zero emissions vehicle commitments considered as part of the audit. Of the 16 zero emissions vehicle commitments the Government made in 2018 and 2019 for completion in the 2018 to 2021 period, twelve have been completed as at December 2020.

Of the four that are not yet complete, the key exception relates to the action to change the Territory Plan to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure. This action is unlikely to be completed by December 2021 as originally intended. In November 2020 the Government signalled a revised timeframe for this action beyond 2021.

The three other actions (relating to the Government fleet's transition, traffic regulation and zero emissions vehicle incentives) have made some progress but not as much as intended. In the case of one action (relating to exploring zero emissions vehicle incentives) a revised commitment was made in the February 2021 ACT Budget to trial a zero emissions vehicle purchase incentive from July 2021.

The evaluation and reporting of the Government's progress in fulfilling its zero emissions vehicle ambitions could be improved with balanced, comprehensive, public commentary on its commitments.

### Key findings

Reporting obligations for zero emissions vehicle activities have been established for the *ACT Climate Change Strategy 2019-25*. Records indicate the Climate Change Policy and Programs teams are undertaking internal monitoring of actions at an aggregate level for the action plan and strategy, effectively engaging teams elsewhere in the directorate and across the Government in accounting for progress.

Paragraph

4.8

The Cabinet's first bi-annual report on the progress of the *ACT Climate Change Strategy 2019-25* provides commentary and assigns a status to each of 16 zero

4.21

emissions vehicle activities. The commentary and status assigned in the Cabinet report accords with the audit evidence with the exception of Action 3: 'Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure'. Action 3 was reported as 'progressing / on track', but this was likely to have underestimated the extent of the work to be undertaken by the consultant and the work that is contingent on the outcome of the consultancy. Implementation of Action 3 was most likely 'at risk' at the time of reporting.

There is extensive, in-depth public reporting of the Government's climate change intentions, challenges and progress located in the Environment, Planning and Sustainable Development Directorate's climate change webpages. However, there is insufficient public reporting on zero emissions vehicles activities. The only detailed commentary on the implementation of actions is contained in a non-publicly released report. *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is an award-winning plan, and there are several 'firsts' coming from the plan. Local (and wider) public interest is likely to be high but dedicated detailed reporting is not public. A systematic, balanced public commentary on all actions would aid wider public interest and public policy.

4.27

Action on 12 of the 16 commitments is complete. Progress has been sufficient in undertaking exploratory tasks and in continuing to support businesses and other government stakeholders to identify the actions as completed. For example, changes to road rules have been achieved in a timely way (Actions 5 and 3.22). The most challenging tasks to date relate to new major policy directions (Actions 2 and 3). These have been making progress but with unintended consequences (in the case of Action 2) and at an insufficient pace (in the case of Action 3) to meet the established timeframe.

4.34

With respect to Action 2 (ensuring that 100 per cent of new vehicle leases in the fleet are for zero emissions vehicles) 33 out of a possible 38 new leases (or 87 per cent) for passenger vehicles in the period July 2020 to December 2020 complied with fleet policies relating to zero emissions passenger vehicles (i.e. FP27 and FP30). Of the remaining five leases, two were potentially avoidable exceptions, based upon the reasons provided, relating to concerns about charging infrastructure. These concerns have the potential to be addressed in all new passenger vehicle lease decision making through improved policy communication and promulgation.

4.48

Authorisation of a) the *ACT Government Fleet Procurement and Management Policy* document itself, and of b) exceptions arising from the implementation of the discrete policies contained in the policy document is not occurring as intended. Given the objective of achieving 100 per cent compliance with zero emissions vehicle policies, authorisation of both is important in order to maintain, and potentially improve, levels of compliance.

4.53

In the first six months of 2020-21 there are emerging vehicle leasing patterns that need closer examination. A larger percentage of lease extensions than usual is being entered into (rather than new leases), and a larger percentage of plug-in hybrids is being leased (rather than battery electric vehicles). While good progress is being

4.60

made in transitioning the Government's passenger fleet towards the 100 per cent zero emissions vehicles target from 1 July 2020 there is a risk that undesirable leasing patterns stem from perceptions about the unavailability of charging infrastructure. This may relate to the current situation at the new office buildings at Dickson and Civic or other government sites, or a combination of these.

The Climate Change Policy team and the Parking Working Group are continuing to examine opportunities to promote investment in public charging infrastructure in the ACT. While this aspect of Action 3.21 is at an exploratory phase, planning is underway for a potential masterplan of priority locations and an improved approach to coordinating interest from non-government proponents. The February 2021 ACT Budget confirms the importance of making tangible progress in this. 4.75

Electric bikes have been a part of the ACT Government fleet for four years. The additional fleet travel option of an electric bike replaces a small percentage of the total local passenger vehicle movements. However, the 10,000 kilometres (or more) of e-bike journeys made between 2018 and 2020 demonstrates that there are viable zero emissions alternatives for short local trips. 4.83

The public infrastructure for e-bike users and other forms of micro-mobility is beginning to be considered through design guidance and policy. A 'Bike and Ride' policy is in development. 4.86

Action 7 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and Action 3.22 in the *ACT Climate Change Strategy 2019-25*, which relate to e-bikes and e-scooters, proposed intermediate activities such as changing the road rules and investigating incentives. However, both actions have been completed as specified, and have since moved beyond the activity envisaged to a scheme implementation phase, that is e-scooter (hire) and e-bike (loan) schemes. Based on early feedback and observation, these schemes have received widespread public recognition and have been well responded to by the ACT public. 4.92

Preparatory work is underway to include transport-related energy efficiency activities in the next ten-year *Energy Efficiency Improvement Scheme*. The ACT was the first Australian jurisdiction to include non-stationary energy efficiency measures in legislation. 4.96

## Reported progress

4.2 In accordance with the *Annual Reports (Government Agencies) Directions 2019* (NI2019-296), ACT Government agencies including the Environment, Planning and Sustainable Development Directorate are required to prepare and make public commentary in annual reports:

... relevant to the agency's 1) long term strategic direction and context, 2) performance analysis against its short-term budget outputs ...

- 4.3 Other than in annual reports, the Environment, Planning and Sustainable Development Directorate is required to report explicitly on CO<sub>2</sub>-e emissions reduction activities to:
- the Strategic Board on the implementation of the *Zero Emissions Government Framework* (the successor to the *Carbon Neutral Government Framework*), as requested by the Chief Minister following the announcement of the State of Climate Emergency on 19 May 2019;
  - Cabinet, via six-monthly reports to the Strategic Board, from September 2019 on the implementation of the *ACT Climate Change Strategy 2019-25*, as agreed when the strategy was approved; and
  - the Legislative Assembly, via a Ministerial annual report, according to section 15 of the *Climate Change and Greenhouse Gas Reduction Act 2010*.
- 4.4 In addition to preparing an annual report, the Commissioner for Sustainability and the Environment prepares periodic *State of the Environment* reports, and reports on the Government's progress in implementing its climate change strategies where requested to do so. One was published in October 2017, prior to the commencement of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*, and another has been requested by the Government to be undertaken in 2024.
- 4.5 The Cabinet decision on 9 April 2018 to release *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* does not include any obligation to monitor or report progress in the implementation of the plan. However, the plan's eleven actions were incorporated into the *ACT Climate Change Strategy 2019-25* for which an obligation to report exists. As a result, an obligation to report progress to the Legislative Assembly on the zero emissions vehicle activities contained in either the action plan or the strategy has existed since August 2019.
- 4.6 A standard operating procedure (*Reporting implementation progress for Climate Change Strategy and Canberra's Living Infrastructure Plan*) has been developed to guide the Climate Change Policy team's preparation of the external reports referred to in paragraph 4.3.
- 4.7 While there is no standard operating procedure for the preparation of internal reports, there is much evidence in the division's records of internal monitoring of actions at both the plan and strategy level. Emails and reports indicate effective engagement of teams within the directorate and elsewhere across Government in accounting for progress.
- 4.8 Reporting obligations for zero emissions vehicle activities have been established for the *ACT Climate Change Strategy 2019-25*. Records indicate the Climate Change Policy and Programs teams are undertaking internal monitoring of actions at an aggregate level for the action plan and strategy, effectively engaging teams elsewhere in the directorate and across the Government in accounting for progress.



- 4.9 The Environment, Planning and Sustainable Development Directorate's climate change webpages<sup>19</sup> provide a wide range of public reports of the Government's climate change intentions, challenges and progress.

### Reporting progress in 2019 and 2020

- 4.10 The most extensive coverage of the Government's zero emissions vehicle activities was provided in the first six-monthly report to Cabinet on the implementation of the *ACT Climate Change Strategy 2019-25*. This report was provided to the Strategic Board in February 2020 and Cabinet noted the report on 10 May 2020. This report has not been made public.
- 4.11 A separate report was provided to the Strategic Board on 5 February 2020 on the Government's progress in implementing its *Zero Emissions Government Framework*, a component of which relates to zero emissions vehicles. This was made public.
- 4.12 The most recent annual report from the Minister for Climate Change and Sustainability for 2019-20 (December 2020) and the Environment, Planning and Sustainable Development Directorate's *2019-20 Annual Report* (December 2020) are also public reports and contain commentary specific to the Government's zero emissions vehicle activities.

### Reporting consistently and comprehensively

- 4.13 The commentary provided in these reports relates to a period of between 15 and 24 months since the commencement of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*. The four reports were reviewed for comprehensiveness and consistency with evidence available in Environment, Planning and Sustainable Development Directorate records at the point in time each report was prepared. The focus of this review was on the commentary provided for the 16 actions. The two further actions relating to transitioning Transport Canberra buses to zero emissions were announced too recently, in September 2020, to be included in the 2019-20 annual reports<sup>20</sup> published in December 2020.
- 4.14 The three publicly available reports provide narrative on some of the 16 actions. For example, commentary is provided on the Government's own fleet transition in three reports. The Minister's *2019-20 Annual Report*, in accordance with section 15 of the *Climate Change and Greenhouse Gas Reduction Act*, provides commentary on five of the 16 actions. None of the public reports provides a complete assessment of the progress of every action, whether actions are tracking satisfactorily in relation to expectations, or what impact a completed action is having. In contrast, the Cabinet report on the implementation of the *ACT Climate Change Strategy 2019-25*, which is not publicly available, provides a comprehensive assessment of each of the zero emission vehicles actions and its status, as at March 2020.

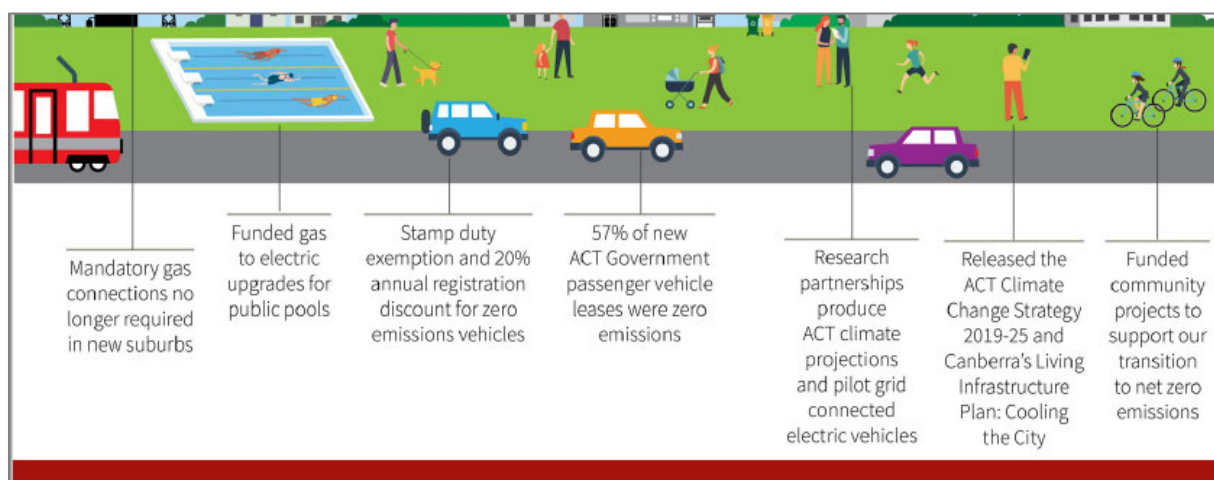
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<sup>19</sup> [www.environment.act.gov.au/cc/act-climate-change-strategy](http://www.environment.act.gov.au/cc/act-climate-change-strategy)

<sup>20</sup> Including the *Transport Canberra and City Services Directorate 2019-20 Annual Report* (December 2020)

4.15 Where provided, commentary in the three public reports on zero emissions vehicles actions is consistent with the evidence of progress available in Environment, Planning and Sustainable Development Directorate records, with one minor exception. The Environment, Planning and Sustainable Development Directorate's *2019-20 Annual Report* and the Minister's *2019-20 Annual Report* present action taken in the year to support the purchase and running of zero emissions vehicles in the ACT. The exception is that the commentary refers to the Government providing a 20 per cent discount on registration fees for two years and a full stamp duty exemption. The reports do not clarify that these supports were in place prior to the reporting year and also prior to the commencement of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*.

**Figure 4-1 2019-20 reported activity on actions taken**



Source: Minister's *2019-20 Annual Report* under the *Climate Change and Greenhouse Gas Reduction Act 2010* (page 3)

4.16 All the commentary on the progress of zero emissions vehicles activities has been provided by Climate Change Policy and Programs officials or by other functions of government at the request of the Policy or Programs teams.

#### *Cabinet report 10 May 2020*

4.17 In this report each action is accompanied by commentary and a status is assigned to indicate the state of progress. The assessment was provided by Climate Change Policy officials. The resulting report was authorised by the Director-General of the Environment, Planning and Sustainable Development Directorate.

4.18 The Cabinet progress report (10 May 2020) includes a status update on the progress of 16 zero emissions vehicle actions with:

- eleven 'progressing/on track' (1, 2, 3, 4, 6, 7, 9, 10, 11, 3.21 and 4.20);
- one 'potentially at risk' (3.20);
- three 'completed' (5, 8 and 3.22); and
- one 'yet to commence' (3.23).

4.19 Nearly all commentary and status assigned accords with the audit evidence at the point the report was provided to Cabinet in March 2020. However, for the reasons outlined in paragraphs 3.46 to 3.58 the Audit Office disagrees with the reported status of Action 3 (i.e. the action to 'Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure') as 'On Track':

Research, development and drafting of amendments is underway in consultation with stakeholders. A consultant may be engaged to review potential amendments. Status Progressing / On Track

4.20 It is unlikely that this action was 'On Track' in March 2020 for completion by December 2021. Two years had elapsed since *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* had been announced, and 21 months remained to implement all steps to accomplish this action by December 2021. While the specification of the consultant's task referred to was being drafted at the time of the Cabinet report, referring to the action as 'progressing / on track' underestimates the extent of the work to be undertaken by the consultant and the work that is contingent on the outcome of the consultancy. The 'on track' status does not account for the high probability of extensive work being necessary once the consultant's task was completed to achieve a Territory Plan Variation, given the range of stakeholders that would need to be involved. As at March 2020 limited prior stakeholder engagement had occurred upon which to develop a draft amendment.

4.21 The Cabinet's first bi-annual report on the progress of the *ACT Climate Change Strategy 2019-25* provides commentary and assigns a status to each of 16 zero emissions vehicle activities. The commentary and status assigned in the Cabinet report accords with the audit evidence with the exception of Action 3: 'Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure'. Action 3 was reported as 'progressing / on track', but this was likely to have underestimated the extent of the work to be undertaken by the consultant and the work that is contingent on the outcome of the consultancy. Implementation of Action 3 was most likely 'at risk' at the time of reporting.

4.22 The *Parliamentary and Governing Agreement for the 10th Australian Capital Territory Legislative Assembly* (refer to Appendix A extracts) of 2 November 2020 includes a commitment to:

Enact regulation in conjunction with the Territory Plan Review to require charging infrastructure for new multi-unit residential and commercial buildings, and investigate measures to support retrofitting of charging infrastructure in existing buildings.

4.23 This commitment indicates that the Government's position on Action 3 has been revised since 8 April 2018, and:

- the Government is supporting a different route to achieving the requirement, that is, through the Territory Plan Review, rather than a Territory Plan Variation; and
- the timeframe for the completion of this review is within the administrative term, that is, by October 2024, in line with its inclusion in the Parliamentary Agreement.

### Clarity of reporting

4.24 The following observations are made in relation to the clarity of reporting in the 10 May 2020 report to Cabinet:

- the status assigned to actions utilises labels: ‘yet to commence’, ‘progressing / on track’, ‘at risk’ and ‘completed’; The label ‘on track / progressing’ is an unhelpful pairing, as the two terms have different meanings.
- the commentary is generally limited on the impact of actions at this stage, although there are exceptions. Action 8, a completed action, refers to introducing a salary sacrifice arrangement for ACTPS employee e-bikes. The commentary refers to 25 staff as having already used this arrangement. In time, further commentary on the impact of completed actions, or the means to assess impact, will enhance the value of reporting. For example, there are two ‘road rules’ actions completed as at March 2020 (Action 5 relating to use of transit lanes and Action 3.22 relating to the use of e-scooters). Commentary on the community’s response to these changes (or how it may be gauged) will enhance the effectiveness reporting and assist program evaluation;
- one of the five zero emissions vehicles actions announced as part of the *ACT Climate Change Strategy 2019-25* is reported as ‘at risk’ and an explanation accompanies this status that this is ‘due to future budget dependency’ (Action 3.20). This is a helpful description. As at 9 February 2021, resources are to be made available for Action 3.20 (\$15,000 zero interest loans); and
- there is some commentary (on Action 9) about what ‘may’ be undertaken. In another case (on Action 10) there is no reference to any tangible activity but the action is reported to be ‘on track’. The commentary is too vague to be helpful.

### Government advice on reporting

4.25 A government policy document *Strengthening Performance and Accountability: A Framework for the ACT Government* (January 2019) is ‘designed for ACT Government officials to guide performance and accountability’. Chapter 6 of this document provides guidance on reporting. This is in addition to mandated reporting in accordance with annual reporting directions and other agency-specific or legislated reporting requirements.

4.26 Reporting advice in *Strengthening Performance and Accountability: A Framework for the ACT Government* is that the ‘ACT’s reporting framework seeks to:

- align planned performance with reports on actual performance;
- achieve a balanced and integrated presentation of performance; and
- ensure accessibility and efficiency.

4.27 There is extensive, in-depth public reporting of the Government’s climate change intentions, challenges and progress located in the Environment, Planning and Sustainable Development Directorate’s climate change webpages. However, there is insufficient public reporting on zero emissions vehicles activities. The only detailed commentary on the implementation of

actions is contained in a non-publicly released report. *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is an award-winning plan, and there are several 'firsts' coming from the plan. Local (and wider) public interest is likely to be high but dedicated detailed reporting is not public. A systematic, balanced public commentary on all actions would aid wider public interest and public policy.

#### RECOMMENDATION 4 ZERO EMISSIONS VEHICLES REPORTING

The Environment, Planning and Sustainable Development Directorate should, prior to planning any successor plan to *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*, publicly report the Government's assessment of its progress in implementing the eleven actions in the plan. This assessment should be in accordance with better practice reporting and the reporting advice contained in *Strengthening Performance and Accountability: A Framework for the ACT Government* (2019).

#### Progress on the implementation of the commitments (February 2021)

4.28 The Audit Office has reviewed each of the commitments considered as part of the audit and assessed its progress. This analysis is shown in Table 4-1.

**Table 4-1 Audit review of 16 zero emissions vehicles actions**

Actions (16)	Audit assessment of activity's progress and status	Status
Action 1: At least 50 per cent of all newly leased ACT Government fleet passenger vehicles will be zero emissions vehicles in 2019–20 (where fit for purpose).	<p><u>Planning phase is complete.</u></p> <p>Work progressed in 2018-19 and 2019-20 to promulgate the zero emissions vehicles policy, and to encourage and support compliance with the policy, including assisting the development of the network of charging points across government buildings. 17 chargers were upgraded and 27 chargers were installed by 30 June 2020.</p> <p><u>Implementation has been successful.</u></p> <p>The policy was met. Whole-of-government achievement: 71 electric (battery and plug-in hybrid) vehicles joined the passenger fleet out of 124 leases commencing in 2019-20 (57 per cent). The goal has been exceeded.</p>	Activity can be asserted to be complete and the outcome successful, as defined.
Action 2: All newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose).	<p><u>Planning phase is continuing.</u></p> <p>A key planning focus is on addressing the charging infrastructure needs of the Dickson and Civic office buildings. This was not resolved prior to occupancy of the Dickson or Civic office buildings. The next phase of charger infrastructure is being tendered and when complete will provide charging facilities at 28 Government sites, including the two new government office buildings in Civic and Dickson.</p> <p><u>Implementation to date has been successful, but there are unintended leasing patterns emerging.</u></p> <p>Data indicates a slow-down in ordering new leases, more lease extensions being agreed, and fewer battery electric compared to plug-in hybrids. In the period July to December, three leases were commenced which did not meet policies (FP13 or FP31).</p>	Activity is in progress (mid-year) As at mid-point in the year, the outcomes are successful as defined, with very few exceptions.

#### 4: Reporting and progress of activities

Actions (16)	Audit assessment of activity's progress and status	Status
<p>Action 3: Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure.</p>	<p><u>Planning phase has made limited progress to date. No definitive timetable is agreed.</u></p> <p><u>Implementation not yet achieved.</u></p> <p>While progress of a potential Territory Plan Variation is possible in 2021, there is an absence of a clear three-way commitment to what needs to happen to achieve an outcome by December 2021. It would be challenging to achieve this outcome in the remaining 12 months.</p>	<p>Activity unlikely to be accomplished by December 2021</p> <p>A different route to achieving the same outcome is now proposed by Government, in an unspecified timeframe.</p>
<p>Action 4: Work with local and state governments to facilitate the installation of charging stations on major routes to and from Canberra including routes to Sydney and coastal areas.</p>	<p><u>Planning phase is complete.</u></p> <p>There is evidence of a continuation of work with local and state governments, sufficient to assert achievement of this action.</p> <p><u>Implementation phase continues but it is not possible to gauge its impact</u></p> <p>A review of the PlugShare website indicates that in the period 2017 to 2020 there has been growth in the number of chargers, including higher speed chargers on the five major routes out of ACT. However, the role of the ACT Government in facilitating this infrastructure is unknown. There has been limited change in the number of chargers within the ACT but this is not within scope of this action (it relates to Action 3.21).</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to improve outcomes.</p>
<p>Action 5: Permit zero emissions vehicles to drive in transit lanes until 2023.</p>	<p><u>Planning phase is complete.</u></p> <p>The following steps received attention: testing the rationale and its application, agreeing routes, amending road rules, and addressing signage.</p> <p><u>Implementation is complete.</u></p> <p>The road rules were changed as of 1 July 2019, but a lack of timely signage and public announcement risks diminishing the impact of this work.</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to improve the impact of the outcome.</p>
<p>Action 6: Conduct a feasibility assessment for the installation of covered car parks with solar powered vehicle charging stations.</p>	<p><u>Planning phase is complete.</u></p> <p>The task has been defined, a consultancy contract let and a report provided. Sufficient work has been undertaken to assert it is complete.</p> <p><u>Implementation is not required for this action.</u></p> <p>Having received consultancy advice, a plan is needed as to how to take this work to the next phase. This is out of scope of this action.</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to improve the impact of the outcome.</p>
<p>Action 7: Investigate providing incentives to encourage the use of electric bikes including through more secure bike parking and bike charging stations.</p>	<p><u>Planning phase is complete.</u></p> <p>Investigations have been conducted, and discussion held between Climate Change Policy officials and the Active Travel Office at Transport Canberra. Sufficient work has been undertaken to assert it is complete.</p> <p><u>Implementation is not required for this action.</u> The goal has been exceeded since this action has moved on to an implementation phase. An E-Bikes library was established in June 2020. Early signs are that the library will be well utilised. Work on facilities at Park and Ride, and Bike and Ride locations has made limited progress.</p>	<p>Activity can be asserted to be complete, as defined.</p> <p>There is sufficient time to improve the impact of the outcome.</p>
<p>Action 8: Amend tax arrangements to allow ACT Government staff to salary sacrifice an electric bike.</p>	<p><u>Planning and implementation is complete.</u></p> <p>This facility has been introduced to enable ACT public servants to salary sacrifice an electric bike, through a single provider (E-Stralian). This is now in place and working in that the facility is reported to have been used 35 times. The facility has not yet been promoted. E-bike infrastructure has been designed into the new government buildings at Dickson and Civic.</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to improve outcomes.</p>

Actions (16)	Audit assessment of activity's progress and status	Status
Action 9: Support new and innovative businesses in the zero emissions vehicles sector to maximise job creation and economic development in the ACT.	<p><u>Planning and Implementation is complete.</u></p> <p>There is evidence of a continuation of work with local businesses, sufficient to assert achievement of this action.</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to improve the impact of the outcome.</p>
Action 10: Investigate the potential use of electric vehicle batteries to support the electricity grid at times of peak demand.	<p><u>Planning phase is complete.</u></p> <p>There is evidence of investigation of this goal, and the work has progressed to field trials with ANU via an ARENA funded 'V2G' project. This commenced in July 2020. This is using Government Fleet electric vehicles (currently 21 of a planned 50) as part of a trial for grid stabilisation (a world first<sup>21</sup>).</p> <p><u>Implementation is not required for this action.</u></p> <p>However, the goal is exceeded since this action has moved on to an implementation phase.</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to improve the impact of the outcome.</p>
Action 11: Review parking and traffic regulations to ensure that priorities offered to zero emission vehicles can be enforced; and provide specific zero emissions vehicle number plates for easy identification and enforcement of zero emissions vehicles related regulations.	<p><u>Planning phase is complete.</u></p> <p>The action is adjusted following the outcome of a national decision on number plates (a voluntary scheme, paid for electric vehicle drivers). Enforcement is possible via the rego.ACT system. Other aspects of road rules relating to parking and charging are being examined.</p> <p><u>Implementation is progressing.</u></p>	<p>Activity is progressing and may be completed in the timeframe. Progress has been intermittent.</p>
Action 3.20: Explore and trial financial incentives such as increased registration discounts, rebates and low interest loans to encourage the uptake of zero emissions vehicles and electric bikes (by 2020)	<p><u>Planning phase is in progress.</u></p> <p>An electric bike trial (the SEE Change library) is underway and being expanded. For passenger vehicles, incentives have been explored and modelled, and been prepared for Cabinet consideration. In February 2021 the ACT Government budget announcement included costed actions to introduce additional zero emissions vehicle ownership incentives (two) from June 2021.</p> <p><u>Implementation is progressing.</u></p> <p>A trial (of a passenger vehicle incentive scheme) has not yet commenced, but is intended from June 2021. An e-bike trial commenced in August 2020.</p>	<p>Activity cannot yet be confirmed as complete. Exploration has been undertaken. An e-bike trial has commenced. A vehicle trial had not commenced by December 2020 but a revised commitment has been made to commence a trial from June 2021.</p>
Action 3.21 Implement the Zero Emissions Vehicles Action Plan 2018–21, b) explore	<p><u>Planning and Implementation is complete.</u></p> <p>There is sufficient evidence to assert that all three components have been addressed.</p>	<p>Activity can be asserted to be complete.</p> <p>There is sufficient time to continue developments to b) and c)</p>

<sup>21</sup> Electric Vehicle Council *The State of Electric Vehicles* August 2020 (page 69)

Actions (16)	Audit assessment of activity's progress and status	Status
opportunities to promote investment in public charging infrastructure, and c) identify new actions to support the uptake of zero emissions vehicles from 2021 onwards (by 2021)	The February 2021 ACT Government Budget announcement included commitments to instal 50 publicly accessible charging stations in response to a zero emissions vehicles public charging masterplan. The Parliamentary Agreement and February 2021 budget announcement address c).	
Action 3.22 Amend road rules to facilitate the safe use of new sustainable personal mobility options, such as electric scooters (no end date specified)	<u>Planning and Implementation is complete.</u> Legislation (Road Rules) have been changed (20 December 2019), and publicly announced. This was an important precursor to the establishment of the two scooter hire businesses in September 2020. This development means the goal has been exceeded since this action has moved on to an implementation phase.	Activity can be asserted to be complete. There is sufficient time to improve the impact of the outcome.
Action 3.23: Investigate regulatory options to drive the transition to zero emissions commercial vehicle fleets (by 2023)	<u>Planning is complete.</u> Since March 2020 the task has been defined, a consultancy contract let and a report provided. Sufficient work has been undertaken to assert it is complete. <u>Implementation is not required for this action.</u> Having received consultancy advice, a plan is needed as to how to take this work to the next phase. This is out of scope of this action.	Activity can be asserted to be complete. There is sufficient time to progress options
Action 4:20 Encourage the use of smart financing by medium and large businesses and organisations to support [...] zero emissions vehicle fleets (by 2023)	<u>Planning and Implementation is complete.</u> There is evidence of a continuation of work with local businesses, sufficient to assert achievement of this action.	Activity can be asserted to be complete. There is sufficient time to improve outcomes

Source: Audit Office

4.29 A review of the 16 commitments made in 2018 and 2019 shows that:

- 12 of the 16 actions are complete, according to the action as expressed in the requisite plan and strategy; and
- of the completed tasks, six include 'exploratory' tasks (6, 7, 10, 3.20, 3.21 and 3.23), and three (4, 9, and 4.20) relate to providing continued support. To state that the action is complete, it is sufficient to identify evidence of ongoing research or support activity.

4.30 Eight actions contain a clearly defined, discrete outcome to be achieved in a specified timeframe. These are:

- Actions 1 and 2, to achieve a specified level of electric vehicles leases when replacing Government passenger vehicles, within a given year;



- Action 3, to achieve a Territory Plan Variation that includes an obligation on developers to install charging points in apartment blocks, by December 2021;
- Actions 5, 11 and 3.22, to achieve a change of the Road Rules and implement any related activity such as signage and enforcement;
- Action 8 amend salary sacrifice arrangements to include E-bikes, by December 2021; and
- Action 3.20, to trial an incentive scheme. The goal is to commence, but not necessarily complete, this action by December 2020.

4.31 Of these eight:

- four are accomplished (Actions 1, 5, 8, and 3.22);
- one is unlikely to be able to be accomplished in the remaining time (Action 3); and
- three are work in progress (Actions 2, 11 and 3.20) and may be completed by December 2021.

4.32 Table 4-1 identifies three 'Amber' rated actions (Actions 2, 11 and 3.20). These may be accomplished with additional management priority, support or resources. In the case of Action 3.20 an additional incentive scheme for zero emission vehicles may be launched from June 2021, in accordance with the ACT Government Budget announcement in February 2021. The Red rated action (Action 3) may be accomplished with additional management priority, support or resources, but this is only likely to be achieved with an extended timeframe.

4.33 Of the 12 'completed' actions, in four cases (Actions 1, 7, 10 and 3.22) the progress made substantially exceeds the intention in the wording of the commitment. For example, for Action 7, the action taken has progressed to a scheme implementation phase rather than a 'desk-based' investigation phase. In the case of Action 10, the action taken has progressed to a trial phase rather than a 'desk-based' investigation phase.

4.34 Action on 12 of the 16 commitments is complete. Progress has been sufficient in undertaking exploratory tasks and in continuing to support businesses and other government stakeholders to identify the actions as completed. For example, changes to road rules have been achieved in a timely way (Actions 5 and 3.22). The most challenging tasks to date relate to new major policy directions (Actions 2 and 3). These have been making progress but with unintended consequences (in the case of Action 2) and at an insufficient pace (in the case of Action 3) to meet the established timeframe.

## Commentary on selected actions

### Actions to increase zero emissions passenger vehicles in the ACT Government Fleet

*Action 1 (ensuring that at least 50 per cent of all newly leased ACT Government fleet passenger vehicles were for zero emissions vehicles in 2019–20, where fit for purpose).*

- 4.35 The commitment to ensuring that at least 50 per cent of new vehicle leases in the fleet were for zero emissions vehicles (where fit for purpose) was achieved in 2019-20. Data from the SG Fleet database identifies that:
- 124 new leases were entered into for passenger vehicles during 2019-20 (a substantially larger number than the number (92) predicted in early planning (refer to paragraph 2.81); and
  - 71 new electric vehicles had joined the fleet during 2019-20 (57 per cent of all new leases).
- 4.36 As at 30 June 2020 there was a total of 85 electric (i.e. battery and plug-in hybrid) vehicles in the fleet.
- 4.37 Climate Change Policy officials further identified that of the 53 new leases in 2019-20 that were not for electric vehicles, an electric vehicle could not have been selected in 25 cases as there was no fit for purpose electric vehicle equivalent. Discounting new leases where there was no fit for purpose electric vehicle option, the resulting percentage increases to 72 per cent, rather than 57 per cent. This is substantially higher than the 50 per cent minimum specified in Action 1.
- 4.38 One complicating factor in analysing the data is that there is no simple, reliable way of identifying Executive vehicles in the aggregated fleet data. In accordance with Fleet Policy FP13, Executive-leased vehicles are not required to follow the Fleet Policies related to zero emissions vehicles (e.g. FP31), and therefore Executive vehicles should be excluded from performance data related to Actions 1 and 2 of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*.
- 4.39 Estimates from the Climate Change Policy team and from the SG Fleet manager indicate Executive-leased vehicles account for about 5 per cent (i.e. about 30) of all the vehicles in the passenger fleet (of the 589 in June 2019). A manual process is necessary to identify Executive vehicles and so validate policy compliance. While this does not cast doubt on the achievement of the 2019-20 Action 1 objective, it is relevant to confirming achievement of the 2020-21 Action 2 objective, that is, the 100 per cent target.

*Action 2 (ensuring all newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21, where fit for purpose)*

4.40 The Government is aiming to achieve its Action 2 objective of ensuring that 100 per cent of new vehicle leases in the fleet are for zero emissions vehicles (where fit for purpose) during 2020-21.

4.41 Data was examined relating to the Government’s passenger vehicle fleet for the first six months of 2020-21. On 31 December, there were 573 passenger vehicles in the fleet (a reduction of nine compared to six months earlier).

**Table 4-2 ACT Government fleet passenger vehicles (December 2020)**

ACT Government Fleet Procurement and Management Policy	Type of vehicle	Number at 31 December 2020	Percentage
Zero emissions vehicles compliant with policies FP27 and FP30	Plug-in hybrid vehicles	66	12
	Battery electric vehicles	46	8
<b>Zero emissions policy compliant subtotal</b>		<b>112</b>	<b>20</b>
Vehicles in the fleet that are not zero emissions according to policies FP27 and FP30	Petrol or diesel engine vehicles	292	51
	Hybrid vehicles	169	29
<b>Total passenger vehicles in fleet</b>		<b>573</b>	<b>100</b>

Source: SG Fleet database extract January 2021

4.42 The SG Fleet database also identifies that in the period July to December 2020:

- 58 new leases were entered into for passenger vehicles, (that is a marginally lower figure than that anticipated in early planning in October 2018); of which
- there were 33 new zero emissions vehicle leases (9 battery or 24 plug-in hybrid electric).

4.43 There were 25 newly leased vehicles in five directorates and agencies<sup>22</sup> that were not zero emissions vehicles as defined in the *ACT Government Fleet Procurement and Management Policy* (i.e. vehicles that accord with policies FP27 and FP30). Fleet managers in the five entities identified, that of the 25:

- 12 were Executive-leased vehicles (and so are not required to be zero emissions vehicles, in accordance with Fleet Policy 13 (FP13));

<sup>22</sup> Transport Canberra and City Services (5), Chief Minister, Treasury and Economic Development (3), Justice and Community Safety (12) Directorates, Canberra Health Services (4), and the Cultural Facilities Corporation (1)

- 8 were selected for the primary reason that there was no fit for purpose zero emissions vehicle option available on the SG Fleet listing, in accordance with Fleet Policy 31 (FP31); and
- 5 were selected for 'other reasons'.

4.44 The 'other reasons' provided by fleet managers were:

- a lack of appropriately located charging stations, access issues for existing charging stations and charger speed;
- a lack of sufficient time to routinely charge at a vehicle's primary location;
- urgency in the need to acquire or replace a vehicle due to unforeseen circumstances and a lack of immediate availability of a zero emissions policy-compliant option;
- unacceptable delays to a suitable SG Fleet listed vehicle being available due to supply chain difficulties; and
- a lack of awareness of the specific nature of the policy, that is, what qualifies as an electric vehicle.

4.45 In two cases decisions over which vehicles to lease were made in good faith during 2019-20 on the basis that lease commencement would be during 2019-20 when the zero emissions vehicles policy objective was a 50 per cent rather than 100 per cent compliance level with policy.

4.46 With respect to the objective of Action 2, that is to achieve 100 per cent of all new vehicle leases being for zero emissions vehicles (where fit for purpose, or not an Executive vehicle) during 2020-21, there is a high level of compliance (33 of 38, or 87 per cent) with the objective for the first six months of the year.

4.47 With respect to the five exceptions, two were the result of transitioning between the two years and there being two distinct policy positions for the two years, and one was based on urgent need. The remaining two were potentially avoidable exceptions, based upon the reasons provided (relating to concerns about charging infrastructure) since:

- the 'fit for purpose' policy (FP31) relates to the functionality of the vehicle and not the availability of charging points; and
- the issue of range anxiety (refer to paragraph 3.79) is potentially mitigated by the selection of a plug-in hybrid electric vehicle (FP 27) which is a zero emissions vehicle type and can operate independent of charging infrastructure indefinitely.

- 4.48 With respect to Action 2 (ensuring that 100 per cent of new vehicle leases in the fleet are for zero emissions vehicles) 33 out of a possible 38 new leases (or 87 per cent) for passenger vehicles in the period July 2020 to December 2020 complied with fleet policies relating to zero emissions passenger vehicles (i.e. FP27 and FP30). Of the remaining five leases, two were potentially avoidable exceptions, based upon the reasons provided, relating to concerns about charging infrastructure. These concerns have the potential to be addressed in all new passenger vehicle lease decision making through improved policy communication and promulgation.
- 4.49 Fleet Policy FP2 in the *ACT Government Fleet Procurement and Management Policy* (November 2020) states:
- ... Should a Directorate propose to deviate from this listing, any such deviation must be discussed with CCMT. ... The deviation must be approved by the Director-General before a vehicle order is placed with SG Fleet.
- 4.50 Fleet managers confirmed only one of the three exceptions (that is, other than the two transitioning cases) was authorised by the entity's Director-General (or equivalent) in accordance with the *ACT Government Fleet Procurement and Management Policy*.
- 4.51 There is a risk that adherence to policy, including the provision for authorised, reasoned exceptions to policies, is made more difficult due to uncertainty over the status of the policy document itself. For example, one fleet manager advised they administered their directorate's vehicle leasing in accordance with the duly authorised *Fleet Procurement and Management Policy*, dated October 2017, and not the unauthorised updated versions drafted in 2020.
- 4.52 Copies of the *ACT Government Fleet Procurement and Management Policy* provided by officials were marked '2020' and 'draft update' and did not indicate the updated policy had been approved. Officials confirmed policy document approval had not occurred in the manner as stated in the policy, although specific policies (FPs) contained in the document had been endorsed by the Strategic Fleet Executive Group. According to the draft document (November 2020, draft version 4), the policy is to be supported and endorsed by Environment, Planning and Sustainable Development Directorate officials and ultimately approved by the Director-General. However, this appears to be contradicted by information on the cover of the draft policy.
- 4.53 Authorisation of a) the *ACT Government Fleet Procurement and Management Policy* document itself, and of b) exceptions arising from the implementation of the discrete policies contained in the policy document is not occurring as intended. Given the objective of achieving 100 per cent compliance with zero emissions vehicle policies, authorisation of both is important in order to maintain, and potentially improve, levels of compliance.

## RECOMMENDATION 5 FLEET POLICY ON ZERO EMISSIONS VEHICLES

ACT Government agencies should improve zero emissions passenger fleet policy adherence by:

- a) establishing an agreed authorisation process for the fleet policy document, the *ACT Government Fleet Procurement and Management Policy*, (process to be resolved by the ACT Government Fleet Executive within the Chief Minister, Treasury and Economic Development Directorate);
- b) duly authorising the fleet policy document, the *ACT Government Fleet Procurement and Management Policy* (currently to be undertaken by the Environment, Planning and Sustainable Development Directorate);
- c) obtaining Director-General authorisations of policy exceptions as intended (all directorates); and
- d) strengthening policy communication and promulgation (ACT Government Fleet Executive within the Chief Minister, Treasury and Economic Development Directorate, and the Strategic Fleet Executive Group chair).

4.54 One of the four directorates contacted about zero emissions vehicle policy exceptions advised the Audit Office of its revised internal controls to ensure the policy is adhered to:

[The Directorate] is aware of the commitments of the ACT Zero Emission Vehicles Action Plan. Since July 2020, [the Directorate has] reviewed and updated our fleet request process to ensure that any newly leased passenger vehicle will be zero emission vehicles unless they are not fit for purpose. All fleet contacts within [the Directorate] were advised to use the new Fleet Request and Evaluation Form. If a passenger vehicle outside ZEV or outside SG Fleet matrix was selected for the new lease, they need to provide sufficient reasons why they choose that vehicle, and the evaluation form needs to be signed off by the relevant executive (Executive Branch Manager or Executive Group Manager).

### 2020-21 leasing patterns

4.55 In examining the leasing patterns of the first six months of 2020-21, there has been a greater proportion of lease extensions when compared to new leases during the first six months of 2020-21. The ratio of Extension to New leases for the two years to June 2020 was 40:60, whereas the ratio for 2020-21 so far is 50:50. This indicates fleet managers are extending leases more frequently than in previous years.

4.56 Of the electric vehicles being leased, a higher percentage in the fleet, and of recently commenced leases, are plug-in hybrid electric vehicles (i.e. 'dual fuel') rather than battery electric vehicles (i.e. pure electric) (refer to Table 4-3).

**Table 4-3 Electric vehicles joining the passenger fleet**

Numbers of vehicles	At 30 June 2019 in fleet	At 31 June 2020 in fleet	At 31 December 2020 in fleet	New Leases in six months to 31 December 2020
Plug-in hybrid electric vehicles	13 (46 per cent)	47 (55 per cent)	66 (60 per cent)	24 (73 per cent)
Battery electric vehicles	15 (54 per cent)	38 (45 per cent)	46 (40 per cent)	9 (27 per cent)
Total number of policy compliant passenger electric vehicles in fleet	28	85	110	33

Source: Audit Office analysis of SG Fleet data

- 4.57 Although not formalised in fleet policy, fleet management documentation expresses a preference for battery (or ‘pure’) electric vehicles over plug-in hybrid electric vehicles. The data indicates that more fleet managers and fleet users are currently opting for the less preferred plug-in hybrid electric vehicles, rather than battery electric vehicles. As discussed in paragraph 4.44, with reference to the reasons for not choosing compliant electric vehicles when procuring new vehicles, there is a risk that the perceived unavailability of charging points in Government building locations (and other locations) is influencing vehicle selection. Given the travel range of battery electric vehicles (e.g. 300 km for the 16 Hyundai Ionics in the fleet) and the average daily distance travelled of less than 40 km for most fleet passenger vehicles this may not be a problem.
- 4.58 A ‘charge at home’ policy is being formulated to accommodate vehicles that are permitted to be home garaged. This addresses the cost of installation, usage and re-imburement arrangements. Once finalised, the policy may provide a degree of greater flexibility for charging for some vehicles.
- 4.59 The 2018 consultant’s report (refer to paragraph 2.81) advised a ‘large majority of terminating vehicles fall within the ‘like for like’ replacement category’. In practice, excluding Executive vehicles (12) and the policy exceptions (5) in 2020-21 (to December 2020), 80 per cent of new leases (33 of 41) have been for zero emissions vehicles and 20 per cent (8 of 41) have had no like-for-like replacement option. In this respect the Government’s fleet transitioning opportunities are broadly in accordance with the consultant’s 2018 advice.

4.60 In the first six months of 2020-21 there are emerging vehicle leasing patterns that need closer examination. A larger percentage of lease extensions than usual is being entered into (rather than new leases), and a larger percentage of plug-in hybrids is being leased (rather than battery electric vehicles). While good progress is being made in transitioning the Government's passenger fleet towards the 100 per cent zero emissions vehicles target from 1 July 2020 there is a risk that undesirable leasing patterns stem from perceptions about the unavailability of charging infrastructure. This may relate to the current situation at the new office buildings at Dickson and Civic or other government sites, or a combination of these.

4.61 Telematic data is available for nearly all government passenger fleet vehicles. A review of Government vehicle leasing patterns, based on data and the accounts of leasing managers, fleet vehicle users and the Government's Fleet Executive, undertaken after the completion of the first full year of operation of the 100 per cent zero emissions vehicle leasing policy (i.e. Action 2 of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*) would assist in informing future policy, communications and infrastructure planning. This could be accomplished as part of Recommendation 3.

**Figure 4-2 ACT Government electric vehicles 'in the field' and 'back at base'**



Source: Audit Office (September 2020)

### Developments planned, January to June 2021

4.62 A total of 146 passenger vehicle leases are due to expire between 1 January 2021 and 30 June 2021. Two further initiatives are planned to have a positive impact on the number of zero emissions passenger vehicles entering the Government fleet.



- 4.63 Since July 2020 the ACT Government has been a partner in an ARENA<sup>23</sup> funded project that is trialling V2G technology. V2G allows battery electric vehicles to discharge electricity back to the grid in order to improve grid security. Through this project 32 additional battery electric vehicles will be entering the ACT Government fleet. In the period to 30 December 2020, three battery electric passenger vehicles entered the fleet joining 15 vehicles already involved in the V2G trial. In the period from January 2021 to June 2021 a further 29 are planned to enter the fleet, completing a V2G ACT Government trial fleet of 50 battery electric vehicles. This activity addresses Action 10 of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21*, which is to 'investigate the potential use of electric vehicle batteries to support the electricity grid at times of peak demand'.
- 4.64 In addition, 20 hydrogen fuelled passenger vehicles are currently available to the ACT Government under the SG Fleet contract once the Fyshwick refuelling station is commissioned. This is planned to occur before the end of June 2021.

### Actions to increase zero emissions passenger vehicles on ACT roads

- 4.65 Action 3.21 of the *ACT Climate Change Strategy 2019-25* includes the commitment to 'explore opportunities to promote investment in public charging infrastructure'. The timeframe for this action is 'by 2021'.
- 4.66 Minutes of the May 2018 meeting of the cross-directorate Parking Working Group explain an important aspect of the challenge<sup>1</sup>:

A coordinated approach is needed to guide the development of charging stations rather than reacting to individual proposals on a case by case basis. ... there has been confusion within and outside the organisation in dealing with requests previously.

- 4.67 A Parking Working Group *Briefing – Electric vehicle charging station principles* document from July 2018 provides background:

Government currently has no formal process or policy guidance for assessing electric vehicle charging station proposals. Given the Government's publicly stated commitment to encouraging the shift to electric vehicles, and the global shift to electric vehicles which is underway, a process and policy will need to be developed.

Climate Change Policy has taken on a coordination role and will work with PWG to develop these charging station principles. Initial draft principles are included in this paper for comment from PWG members.

...

Developing a clear process and principles will help to provide certainty to industry and allow for a consistent and transparent approach for assessment of proposals. Principles can be used to shape the charging station network that is developed in the ACT to ensure we have a strategic, user-friendly network of charging stations.

<sup>23</sup> The Australian Renewable Energy Agency (ARENA) announced \$2.4 million in funding to ActewAGL to demonstrate V2G services in Australia on 8 July 2020.

4.68 In August 2020 Roads ACT officials also acknowledged the need for policy and greater coordination in relation to approving the installation of charging infrastructure and ensuring subsequent maintenance:

These have been approved ad hoc by Roads ACT and the Parking Working Group in the past. We need to develop a policy on the review and implementation of these in view of other competing considerations of parking, particularly in key areas.

4.69 Austroads *Assessment of Key Road Operator Actions to Support Electric Vehicles* (February 2020) indicates issues relating to the planning of public charging infrastructure are shared with other Australian states and territories. The Austroads report identifies three of 22 road operator core function issues as:

- charging infrastructure interaction with the public (Issue 7);
- electric vehicle charging investment and requirements (Issue 17); and
- standards and guidelines for charging infrastructure (Issue 18).

4.70 There has been progress during 2020 in encouraging public charging infrastructure development in the ACT:

- a consultancy task was undertaken resulting in reports in August 2020: *Exploring opportunities to promote investment in public charging infrastructure - external capacity building report* and internal ACT Government report; and
- the *Planning and Development Regulation 2008*<sup>24</sup> change as of 10 September 2020, widens the criteria (s1.113) in the regulation so that electric vehicle charging points up to 2.5 metres in height are exempt from the requirement for development approval. This ensures a wider range of equipment suppliers are able to be used in the ACT without the need for development approval.

4.71 Climate Change Policy officials advised that resulting from the August 2020 consultancy report work was continuing in examining the options available to the Government to support a self-sustaining charging industry in the ACT. A business case was being prepared and the Parking Working Group was considering the report. According to officials:

... The consultancy report and discussions with [Parking Working Group] have highlighted the need for a coordinated [Zero Emissions Vehicle] charging masterplan. EPSDD is currently investigating the development of a masterplan to identify priority sites for infrastructure in Canberra and to establish a streamlined process for potential charging providers. This approach would help charging providers identify suitable sites and comply with ACT planning and electricity connection requirements ...

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<sup>24</sup> SL2008-2 R94 under the *Planning and Development Act 2007*

- 4.72 In January 2021 the Australian Electric Vehicle Association (ACT) prepared an unsolicited position paper for the ACT Government on public charging infrastructure, in part responding to the November 2020 Parliamentary Agreement commitment to:
- ... build at least 50 electric vehicle recharging stations across Canberra and the region, holding a reverse auction for their construction in 2021-22. This will include working with service station providers to explore broader public charging infrastructure.
- 4.73 The position paper acknowledges ‘investment by the ACT Government would be welcome as a means of stimulating the expansion of local charging infrastructure’ but also warns of the dangers of subsidy as ‘it could discourage other commercial providers from entering the market’.
- 4.74 In February 2021 the Government budget announcement included action to increase publicly available electric vehicle charging infrastructure (refer to paragraph 2.65) including developing a strategic plan (or masterplan) to inform the Government’s approach to investment. Based on descriptions in documentation up to August 2020, there has been limited progress beyond identifying the need for a masterplan.
- 4.75 The Climate Change Policy team and the Parking Working Group are continuing to examine opportunities to promote investment in public charging infrastructure in the ACT. While this aspect of Action 3.21 is at an exploratory phase, planning is underway for a potential masterplan of priority locations and an improved approach to coordinating interest from non-government proponents. The February 2021 ACT Budget confirms the importance of making tangible progress in this.

## Pedal-assisted electric bicycles (e-bikes)

### Government Fleet

- 4.76 Electric bikes are part of the Government fleet. A fleet of e-bikes was introduced under the *Carbon Neutral Government Framework* as part of a trial run between 1 December 2016 and 31 March 2018. The trial evaluation (December 2018) recommended:
- ... bikes continue to be used in the ACT Government, with EPSDD transferring the trialled e-bikes to other directorates as considered appropriate to their operational needs;
- there be greater promotion of e-bikes as a transport option where they are currently available to employees, including increased availability of induction and education sessions to drive the uptake of e-bikes, along with focusing on the environmental healthy travel benefits to staff and the broader community, and associated benefits of active travel; and
- other ACT Government directorates and agencies not involved in the e-bike trial, based on the findings from this trial, examine the suitability of e-bikes for local travel including drawing upon the resources, skills, knowledge and experience of the directorates that participated in this trial.
- 4.77 Initially eight and then a further three e-bikes were introduced into the fleet by the Environment, Planning and Sustainable Development Directorate to be used in Civic, Mitchell, Fyshwick and Dickson by four directorates. The introduction of e-bikes was accompanied by a suite of advice, guidance and policy and a discrete risk management

strategy. Other jurisdictions subsequently sought advice from the Directorate on its approach.

4.78 Additional e-bikes have since been added to the fleet. Four are used by staff in and around Philip, principally between the Canberra Hospital and Bowes Street, (ACT Health's Woden offices). There are also three e-mountain bikes in use at the Parks and Conservation Service's Stromlo depot.

4.79 Trip data from the first eleven e-bikes' GPS was fed into the GoFinder (web) application for the period 2017 to 2020. This data indicates usage of these e-bikes in the past three years exceeded 10,000 km in total, with peak usage in 2018-19. While an indicator of its potential in the suite of travel options available, this is, however, only a small percentage of the total travel undertaken by Government officials in Canberra. Fleet passenger vehicle journeys, in comparison, were in excess of 12 million kilometres in the same period.

4.80 A snapshot from GoFinder of the activities of the eleven e-bikes on 5 November 2020 indicates:

- four e-bikes being used that same day, and six not having been used in the previous month. Officials advised the current pattern of use reflects changes in the travel footprint of staff due to the Dickson office move and the pandemic;
- an average of 85 trips per e-bike per year have been made;
- the average use of each e-bike as 3.75 kilometres per trip over the preceding three years. This indicates these e-bikes were used mainly for short distance trips;
- the majority (79 per cent) of the trips in the preceding three years were undertaken around Civic and the inner North Canberra area, close to the directorates' office locations; and
- seasonality does not affect the pattern of e-bike usage. Trips were undertaken consistently throughout the seasons over the preceding three years.

### **e-bikes in the community**

4.81 Activities to encourage community uptake of e-bikes have been researched, planned and implemented, principally by the Climate Change and Sustainability Division (through the Policy and the Programs teams) with support from the Active Travel Office of Transport Canberra. These activities include:

- research, including (i) an initial Climate Change Policy team paper with eight possible incentives to encourage uptake (May 2019), (ii) an ANU Fenner School<sup>25</sup> Master's thesis *e-Bike uptake in the ACT* examining policy options for addressing barriers (e.g. stigma, bike security, cost, cycle path infrastructure), and (iii) a consultancy task resulting in the *Bike and Ride / Park and Ride Investigation* final report (December 2018); and

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<sup>25</sup> Kate Argue, Meg Dowley August 2019

- Implementation of a 'try before you buy' e-bike loan scheme launched in July 2020.
- 4.82 End of trip facilities, which meet the needs of active travel users including e-bike users have been designed into the new office buildings at Dickson and Civic.
- 4.83 Electric bikes have been a part of the ACT Government fleet for four years. The additional fleet travel option of an electric bike replaces a small percentage of the total local passenger vehicle movements. However, the 10,000 kilometres (or more) of e-bike journeys made between 2018 and 2020 demonstrates that there are viable zero emissions alternatives for short local trips.

### e-bike public infrastructure in the ACT

- 4.84 The Active Travel Office within Transport Canberra is responsible for promoting and supporting zero emissions travel through walking and cycling and other modes of active travel for the ACT community. These include micro-mobility options (e.g. e-bikes and e-scooters). Active Travel Office officials advised that there had been no relevant developments to Park and Ride facilities (e.g. 'Bike and Ride' facilities) since April 2018 but that investments were being planned to enhance the attractiveness, functionality and convenience of micro-mobility travel options, such as secure bike cages, and charging infrastructure. Two additions to Park and Ride facilities have been funded under the Government's second round economic stimulus package (June 2020): the Well Station Drive, and Barry Drive Park and Ride facilities will include secure bike facilities. The new Barry Drive Bike and Ride facility, a bike shelter, was completed in January 2021. Active Travel Office officials also advised that policy was currently being drafted relating to 'Bike and Ride' facilities.
- 4.85 Examination of active travel policies and plans such as the *Municipal Infrastructure Standard 05 Active Travel Facilities Design* (April 2019) and the *Planning for Active Travel in the ACT Active Travel Infrastructure – Interim Planning Guideline* (April 2019) identifies a limited emphasis on addressing the distinct needs of micro-mobility travellers, such as appropriate signage, end of trip facilities, charging infrastructure and stowage.
- 4.86 The public infrastructure for e-bike users and other forms of micro-mobility is beginning to be considered through design guidance and policy. A 'Bike and Ride' policy is in development.

### Loan scheme

- 4.87 One activity that has progressed further than anticipated in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* is Action 7:
- Investigate providing incentives to encourage the use of electric bikes including through more secure bike parking and bike charging stations.
- 4.88 This action has moved beyond the exploratory to an implementation phase. A six-month pilot scheme, potentially extendable, commenced in July 2020 establishing a 'CBR Electric

Bike Library' with Government funding through SEE-Change, a grass-roots sustainability organisation based in Canberra and Pedal Power ACT. Climate Change Programs officials advised in September 2020 that the service was likely to be oversubscribed based on the size of the bike library, the number of bookable slots and the level of community interest in the first two months. In January 2021, SEE-Change announced it was seeking to extend its library and shorten loan times to address a backlog of unmet demand.

## e-scooters

4.89 Another action that has moved beyond the intended action in the *ACT Climate Change Strategy 2019-25* is Action 3.22:

- Amend road rules to facilitate the safe use of new sustainable personal mobility options, such as electric scooters.

4.90 This action has progressed beyond amending the road rules to actively supporting and promoting the use of e-scooters in the ACT. The legal basis for the use of e-scooters on roads, footpaths and cycleways was established in December 2019. In August 2020, the Government let two contracts to e-scooter businesses (Neuron Mobility and Beam Mobility) operating up to 750 e-scooters, visible up and down Northbourne Avenue, across Civic, the ANU campus, Fyshwick, Belconnen and parts of the Parliamentary Triangle.

4.91 Based on media coverage and observation, in the first four months of e-scooter activity, the Canberra community is embracing this technology for its functionality and fun.

**Figure 4-3 Neuron scooter for hire in central Canberra (September 2020)**



Source: Audit Office September 2020

4.92 Action 7 in *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* and Action 3.22 in the *ACT Climate Change Strategy 2019-25*, which relate to e-bikes and e-scooters, proposed intermediate activities such as changing the road rules and investigating incentives. However, both actions have been completed as specified, and have since moved beyond the activity envisaged to a scheme implementation phase, that is e-scooter (hire) and e-bike (loan) schemes. Based on early feedback and observation, these schemes have received widespread public recognition and have been well responded to by the ACT public.

### Energy Efficiency Improvement Scheme developments

4.93 Also relevant to three modes of zero emissions travel discussed above is the Government's aim to include transport-related energy efficiency measures in an extended Energy Efficiency Improvement Scheme.

4.94 The scheme is in its third phase. In January 2019 the Government announced an intention to extend the scheme for another ten years to 2030. Changes to the *Energy Efficiency (Cost of Living) Improvement Act 2012* that take effect from 4 October 2019 extend the scheme through removal of a limitation to *stationary* measures (Section 6b). The Minister for Climate Change and Sustainability's sponsoring statement explained:

Work is already underway to investigate options for energy efficiency rebates on electric vehicles and other transport options.

4.95 The ACT was the first jurisdiction to include this provision. Climate Change Program team officials advised that code of practice and program design work is underway, and a determination may be sought in early 2021 ready for the program to be in effect in 2022.

4.96 Preparatory work is underway to include transport-related energy efficiency activities in the next ten-year *Energy Efficiency Improvement Scheme*. The ACT was the first Australian jurisdiction to include non-stationary energy efficiency measures in legislation.

### Transport Canberra transitioning to zero emissions plans

4.97 The Transport Canberra and City Services Directorate's *2019-20 Annual Report* refers to a *Zero Emission Transition Plan*:

With this Plan the ACT Government is taking nation-leading action to transition our city's bus fleet to zero emissions, including the infrastructure, investment and skills needed to make the transition operationally successful.

[A 2020-21 priority is to] commence implementation of the *Zero Emission Transition Plan* for the phasing out of legacy diesel and gas buses to enable a zero-emissions bus fleet by 2040 ...

4.98 In August and September 2020 the ACT Government made announcements in relation to transitioning Transport Canberra to zero emissions. The announced plans include specific actions and intentions related to Transport Canberra's public transport bus fleet. Two commitments have been made in the announcements that identify Government expectations to be achieved in the period of audit interest to December 2021:

- in 2020-21 Transport Canberra will undertake a depot feasibility study to identify the mid to long term stabling, maintenance and operational needs for the future fleet; and
- Transport Canberra will commence initial marketing sounding in late 2020, followed by a formal request for Expressions of Interest in early 2021, as part of its response to Action 1 of the *Zero Emission Transition Plan*, which is to procure a first tranche of battery electric buses which are supported by a temporary infrastructure solution).

### Implementation progress of bus-related activities

4.99 Given that neither of the two actions was due for completion by December 2020, the Audit Office requested an update of progress from Transport Canberra in February 2021.

#### Depot feasibility study

4.100 Transport Canberra provided the Audit Office with the following update on 20 January 2021:

Transport Canberra has commenced initial investigations and appointed a specialist zero-emission transport advisor to assist with scoping and power assessment for the depot. Transport Canberra is also finalising a Request for Tender to undertake the complementary infrastructure, network and approvals assessment for the fourth bus depot and other network wide infrastructure investigations. These works are expected to be finalised by the end of the 2020-21 financial year (June 2021).

#### Initial marketing sounding and expressions of interest

4.101 Transport Canberra provided the Audit Office with the following update on 20 January 2021:

Market sounding for the 90 zero emission buses has commenced. A tenders ACT page has been established to take registrations and initial interest with further industry briefings and interviews to be held over coming weeks. Market Sounding is expected to continue through to March 2021.

4.102 The Tenders ACT entry was posted on 21 December 2020 and closed on 31 January 2021.

4.103 Based on the nature and timing of progress of the two actions reported by Transport Canberra, the two bus-related zero emissions actions announced in September 2020 are progressing in accordance with the expectations established in the *Zero Emission Transition Plan*.



# APPENDIX A: COMMITMENTS AND ACTIONS

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## The first 16 commitments

*The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-2021* states 'to support and accelerate the transition to zero emissions vehicles, the ACT Government commits to the following [11] actions':

1. At least 50 per cent of all newly leased ACT Government fleet passenger vehicles will be zero emissions vehicles in 2019–20 (where fit for purpose).
2. All newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose).
3. Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure.
4. Work with local and state governments to facilitate the installation of charging stations on major routes to and from Canberra including routes to Sydney and coastal areas.
5. Permit zero emissions vehicles to drive in transit lanes until 2023.
6. Conduct a feasibility assessment for the installation of covered car parks with solar powered vehicle charging stations.
7. Investigate providing incentives to encourage the use of electric bikes including through more secure bike parking and bike charging stations.
8. Amend tax arrangements to allow ACT Government staff to salary sacrifice an electric bike.
9. Support new and innovative businesses in the zero emissions vehicles sector to maximise job creation and economic development in the ACT.
10. Investigate the potential use of electric vehicle batteries to support the electricity grid at times of peak demand.
11. Review parking and traffic regulations to ensure that priorities offered to zero emission vehicles can be enforced; and provide specific zero emissions vehicle number plates for easy identification and enforcement of zero emissions vehicles related regulations (e.g. ensuring only zero emissions vehicles park and charge in allocated spaces for vehicle charging).

The *ACT Climate Change Strategy 2019-25* includes the following commitments and actions related to the Government's support for the uptake of zero emissions vehicles:

1. Explore and trial financial incentives such as increased registration discounts, rebates and low interest loans to encourage the uptake of zero emissions vehicles and electric bikes. (3G 3.20 *Encourage zero emissions vehicles*)
2. Implement the *Zero Emissions Vehicles Action Plan 2018–21*, explore opportunities to promote investment in public charging infrastructure, and identify new actions to

support the uptake of zero emissions vehicles from 2021 onwards. (3G 3.21 *Encourage zero emissions vehicles*)

3. Amend road rules to facilitate the safe use of new sustainable personal mobility options, such as electric scooters. (3G 3.22 *Encourage zero emissions vehicles*)
4. Investigate regulatory options to drive the transition to zero emissions commercial vehicle fleets. (3G 3.23 *Encourage zero emissions vehicles*)
5. Encourage the use of smart financing by medium and large businesses and organisations to support [...] zero emissions vehicle fleets. (4G 4.20 *Encourage zero emissions vehicles*)

The audit focused the above 16 actions.

A further action in the *ACT Climate Change Strategy 2019-25* to 'Ensure all newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose) (5D 5.15) is a rearticulation of *The ACT's Transition to Zero Emissions Vehicles Action Plan 2018-21* Action 2 above.

### **Rethinking transport: Buses (two further actions)**

The *ACT Climate Change Strategy 2019-25*, (page 49) also describes 'Rethinking Transport' actions. These include to 'encourage zero emissions vehicles by providing incentives, facilitating installation of charging infrastructure, running commercial and freight vehicle trials and working toward a zero emissions Government passenger vehicle and bus fleet' No further specificity is provided for short term actions (by 2021) in the strategy related to the bus fleet.

Announced in August and September 2020 during the course of this audit's fieldwork, the *ACT Transport Strategy 2020* and its related *Zero-Emission Transition Plan for Transport Canberra* provide specific details and timescales on two bus fleet actions that are scheduled to commence by 2021. These are:

1. In 2020-21 Transport Canberra will undertake a depot feasibility study to identify the mid to long term stabling, maintenance and operational needs for the future fleet; and
2. Transport Canberra will commence initial marketing sounding in late 2020 followed by a formal request for Expressions of Interest in early 2021 (as part of its response to Action 1: Procure a first tranche of battery electric buses which are supported by a temporary infrastructure solution).

Given neither of these two actions was due for completion by December 2020, the Audit Office requested an update of progress from Transport Canberra prior to the circulation of the draft proposed report to auditees, in January 2021.

### **Parliamentary Agreement (2 November 2020)**

The agreement states 'The ACT Labor and ACT Greens Parliamentary and Governing Agreement for the 10<sup>th</sup> Australian Capital Territory Legislative Assembly represents the parties' shared

commitment to serve the people of the ACT. The agreement includes reference to actions to make progress towards the territory's net zero emissions goal'. These include, to:

Implement a program of zero-interest loans of up to \$15,000 for households and not-for-profit community organisations to assist with the upfront costs of investing in: rooftop solar panels; household battery storage; zero emission vehicles and efficient electric appliances.

Significantly expand the number of zero emission vehicles (ZEVs) in the ACT by doing the following:

- i. Engage with the ZEV industry and adopt an ambitious target for new ACT vehicle sales to be zero emission by 2030.
- ii. Provide financial incentives for the purchase of zero emission vehicles. This includes free vehicle registration for new zero emission vehicles for two years, introduced as soon as practical.
- iii. Develop additional financial incentives to support greater ZEV uptake by businesses and the community sector.
- iv. Implement a pathway for the ACT to use only zero emissions public transport, garbage trucks, taxi and rideshare vehicles by the mid 2030s - with no further purchase of non-zero emissions buses. Short-term leasing of buses to meet peak operational requirements is permitted.
- v. Build at least 50 electric vehicle recharging stations across Canberra and the region, holding a reverse auction for their construction in 2021-22. This will include working with service station providers to explore broader public charging infrastructure.
- vi. Enact regulation in conjunction with the Territory Plan Review to require charging infrastructure for new multi-unit residential and commercial buildings, and investigate measures to support retrofitting of charging infrastructure in existing buildings.
- vii. Conduct market sounding to attract zero emission vehicle industries and other economic and training opportunities to the ACT.
- viii. Research and pilot further Vehicle2Grid and Vehicle2Home projects to improve energy efficiency and grid reliability

Alongside zero emissions vehicle incentives outlined in the Agreement, the Government will also continue to transition Canberra's entire public bus fleet to zero emissions buses by buying 90 battery electric buses in the next parliamentary term, building a new zero-emissions bus depot in Canberra's North and building electric bus infrastructure at the new Woden Depot.

### **Audit observation**

With the exception of Action vi. relating to charging infrastructure for new multi-unit residential and commercial buildings and the commitment to buy 90 electric buses by 2024, all actions are additional or extensions to commitments already made and which are the subject of this audit.



## APPENDIX B: AUDIT CRITERIA

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**Criterion One:** ACT Government commitments to facilitate the Territory's transition to zero emissions vehicles are supported by effective plans and strategies for the 2018 to 2021 period.

- 1.1 Plans and strategies identify low or zero emissions vehicle priorities, aligned actions, timeframes, responsibilities and interdependent actions.
- 1.2 Actions in response to commitments are supported by business cases including assessment of risk and potential impact, and the resources required.
- 1.3 Implementation plans relating to the ACT Government agencies' transitioning to zero emissions vehicles for their own operations are developing in all areas where a significant impact may be achieved.

**Criterion Two:** ACT Government agencies have established effective governance arrangements for the implementation of plans and strategies.

- 2.1 Roles and responsibilities are assigned, and priority is given, within the relevant business unit for the progress of activities.
- 2.2 Business units responsible for the implementation of individual activities work effectively with other agencies and business units where there are interdependencies.
- 2.3 The responsible administrative unit for Climate Change has effective arrangements for monitoring, verifying and reporting progress.

**Criterion Three:** ACT Government agencies have effectively implemented plans and strategies for the Territory's transition to zero emissions vehicles for the 2018 to 2021 period.

- 3.1 Monitoring reporting within the responsible business unit and to the responsible administrative unit provides an effective account of progress.
- 3.2 For activities in the planning phase, the level of planning is proportionate and as advanced as intended.
- 3.3 For activities in the implementation phase, progress is being made in accordance with an established performance framework.



## APPENDIX C: PROGRAM DESIGN

The table is based on fieldwork evidence including discussions with Climate Change Policy officials and establishes the flow of logic from the proposed action to its effect on the overall program goal (CO<sub>2</sub>-e reduction). In each case an audit judgement is provided on whether:

- the action's intended outcome is readily verifiable, and if so, whether it is measurable;
- if measurable, a target number has been established in advance of implementation in order to gauge the level of performance; and
- attribution between the action's outcome and the overall program goal is practically possible.

No.	Action	Intended Intermediate and end-of-program outcome	How achieved	Outcome validation	Program Goal (i.e. CO <sub>2</sub> -e reduction)
1	At least 50 per cent of all newly leased ACT Government fleet passenger vehicles will be zero emissions vehicles in 2019–20 (where fit for purpose).	<ul style="list-style-type: none"> <li>• Number of electric vehicles compared to qualifying (FFP) fleet size</li> <li>• Number of chargers in ACTG buildings</li> <li>• Use of vehicles (km)</li> </ul>	<ul style="list-style-type: none"> <li>• Supported by appropriate technical advice, methodology and policy</li> <li>• Whole-of-government fleet man't action</li> <li>• Charging points, installed by contractors paid for by either EPSDD or host directorate</li> </ul>	<ul style="list-style-type: none"> <li>• Fleet data via SG Fleet</li> <li>• In year progress for 2019/20</li> <li>• <b>Measurable and verifiable</b></li> <li>• <b>Targets established</b></li> </ul>	<ul style="list-style-type: none"> <li>• Direct: CO<sub>2</sub>-e abatement, measurable (per vehicle) <b>Attribution</b> straightforward</li> <li>• Indirect: create more EVs in second-hand market, measurable. <b>Attribution</b> straightforward</li> <li>• Normalise EVs, not measurable. <b>Attribution</b> difficult</li> </ul>
2	All newly leased ACT Government passenger fleet vehicles will be zero emissions vehicles from 2020–21 (where fit for purpose).	<ul style="list-style-type: none"> <li>• All qualifying vehicles</li> <li>• Number of chargers in Govt buildings</li> <li>• Use of vehicles (km)</li> </ul>	<ul style="list-style-type: none"> <li>• Supported by appropriate technical advice, methodology and policy</li> <li>• Whole-of-government fleet man't action</li> <li>• Charging points, installed by contractors paid for by</li> </ul>	<ul style="list-style-type: none"> <li>• Fleet data via SG Fleet</li> <li>• In year progress for 2020/21</li> <li>• <b>Measurable and verifiable</b></li> <li>• <b>Targets established</b></li> </ul>	<ul style="list-style-type: none"> <li>• Direct: CO<sub>2</sub>-e abatement, measurable (per vehicle) <b>Attribution</b> straightforward</li> <li>• Indirect: create more EVs in second-hand market, measurable <b>Attribution</b> straightforward</li> </ul>

No.	Action	Intended Intermediate and end-of-program outcome	How achieved	Outcome validation	Program Goal (i.e. CO <sub>2</sub> -e reduction)
3	Amend the Parking and Vehicle Access General Code to require all new multi-unit and mixed-use developments to install vehicle charging infrastructure	<ul style="list-style-type: none"> <li>Requirement made in legislation</li> <li>Progress according to project plan and established TPV timeline</li> </ul>	<ul style="list-style-type: none"> <li>TPV via established methodology. Incorporated into a wider set of matters within a thematic review (e.g. Car Parking or Multi Unit Housing)</li> </ul>	<ul style="list-style-type: none"> <li>Requirement in legislation by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable (no targets)</b></li> </ul>	<ul style="list-style-type: none"> <li>Normalise EVs, not measurable</li> <li>Support increase in uptake of EVs.</li> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution</b> difficult</li> </ul>
4	Work with local and state governments to facilitate the installation of charging stations on major routes to and from Canberra including routes to Sydney and coastal areas.	<ul style="list-style-type: none"> <li>Increase in EV charging infrastructure (numbers, charging speed or accessible locations) on major routes to and from Canberra</li> </ul>	<ul style="list-style-type: none"> <li>Topic-related purposeful interactions with local and state govt</li> </ul>	<ul style="list-style-type: none"> <li>Increase in infrastructure over April 2018 to Dec 2021 period</li> <li><b>Not verifiable, or measurable and attribution difficult</b></li> <li><b>No targets</b></li> </ul>	<ul style="list-style-type: none"> <li>Support increase in uptake of EVs.</li> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution</b> difficult.</li> </ul>
5	Permit zero emissions vehicles to drive in transit lanes until 2023.	<ul style="list-style-type: none"> <li>Lanes identified and road rules changed</li> <li>Lanes signposted</li> <li>Lanes used by EVs</li> </ul>	<ul style="list-style-type: none"> <li>Change road rules (e.g. RT(RR)R 2017 s156. (1 July 2019 version)</li> <li>Publicity and visible use</li> <li>Enforcement feasible</li> </ul>	<ul style="list-style-type: none"> <li>Legislation changed, announcement and signpost <b>verifiable</b> by December 2021</li> <li>Use of lanes <b>measurable</b>. No <b>target</b> set</li> </ul>	<ul style="list-style-type: none"> <li>Support increase in uptake of EVs.</li> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution</b> difficult</li> </ul>
6	Conduct a feasibility assessment for the installation of covered car parks with solar powered vehicle charging stations	<ul style="list-style-type: none"> <li>Final study provided that addresses brief</li> </ul>	<ul style="list-style-type: none"> <li>Internal, external consultancy or academic</li> </ul>	<ul style="list-style-type: none"> <li>A fit for purpose document by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable</b> and no <b>targets</b> set</li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution</b> difficult, if a solar charging car park were to eventuate</li> </ul>



No.	Action	Intended Intermediate and end-of-program outcome	How achieved	Outcome validation	Program Goal (i.e. CO <sub>2</sub> -e reduction)
7	Investigate providing incentives to encourage the use of electric bikes including through more secure bike parking and bike charging stations	<ul style="list-style-type: none"> <li>Final study provided that addresses brief</li> </ul>	<ul style="list-style-type: none"> <li>Internal, external consultancy or academic</li> </ul>	<ul style="list-style-type: none"> <li>A fit for purpose document by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable</b> and no targets set</li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use E-bikes in the Territory. <b>Attribution</b> difficult, if new secure -e bike stowage and charging were to eventuate</li> </ul>
8	Amend tax arrangements to allow ACT Government staff to salary sacrifice an electric bike.	<ul style="list-style-type: none"> <li>Scheme approved</li> </ul>	<ul style="list-style-type: none"> <li>Scheme developed</li> <li>Awareness raised</li> </ul>	<ul style="list-style-type: none"> <li>Scheme taken up</li> <li><b>Verifiable</b></li> <li><b>Measurable but no target set</b></li> </ul>	<ul style="list-style-type: none"> <li>Directly as a factor in decision to buy or use E-bikes in the Territory. <b>Attribution</b> possible</li> </ul>
9	Support new and innovative businesses in the zero emissions vehicles sector to maximise job creation and economic development in the ACT	<ul style="list-style-type: none"> <li>More businesses, more successful businesses in the sector in the ACT</li> </ul>	<ul style="list-style-type: none"> <li>Purposeful interactions with potential businesses and new businesses.</li> <li>Financial support</li> <li>Support events and programs funded or provided by ACTG</li> </ul>	<ul style="list-style-type: none"> <li>Number and nature of interactions in the period April 2018 to Dec 2021.</li> <li><b>Not verifiable</b></li> <li><b>Not measurable and no target set</b></li> </ul>	<ul style="list-style-type: none"> <li>Data on sector businesses and jobs <b>Attribution</b> difficult</li> </ul>
10	Investigate the potential use of electric vehicle batteries to support the electricity grid at times of peak demand.	<ul style="list-style-type: none"> <li>Final study provided that addresses brief</li> </ul>	<ul style="list-style-type: none"> <li>Internal, external consultancy or academic</li> </ul>	<ul style="list-style-type: none"> <li>A fit for purpose document by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable and no targets set</b></li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution</b> difficult</li> </ul>
11	Review parking and traffic regs, provide specific zero emissions vehicle number plates ...	<ul style="list-style-type: none"> <li>Regulatory basis exists for enforcement (e.g. parking control sign or road marking s316 &amp; dictionary, 20 Dec 2019)</li> </ul>	<ul style="list-style-type: none"> <li>Enforcement agencies confirm mechanism available</li> <li>EV users legally obliged to display EV plate (intention)</li> </ul>	<ul style="list-style-type: none"> <li>All EV differential road rules are enforceable. e.g. signage or road markings</li> <li>EV plates become law (if legislated)</li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution</b> difficult</li> </ul>

No.	Action	Intended Intermediate and end-of-program outcome	How achieved	Outcome validation	Program Goal (i.e. CO <sub>2</sub> -e reduction)
3.20	Explore Financial incentives for EVs and E-bikes ...	<ul style="list-style-type: none"> <li>Enforcement action mechanism available</li> <li>EV users are provided with EV plates</li> <li>Final study provided that addresses brief</li> </ul>	<ul style="list-style-type: none"> <li>Internal, external consultancy or academic</li> </ul>	<ul style="list-style-type: none"> <li><b>Verifiable, not measurable and or targets</b></li> <li>A fit for purpose document by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable and no targets set</b></li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use EVs in the Territory, depending on what actions are subsequently taken. <b>Attribution possible</b> but depends on proposed actions.</li> </ul>
3.21	a) Implement the Zero Emissions Vehicles Action Plan 2018–21, b) explore opportunities to promote investment in public charging infrastructure, c) identify new actions to support the uptake of zero emissions vehicles from 2021 onwards.	<ul style="list-style-type: none"> <li>As above 1 – 11</li> <li>Final study provided that addresses brief</li> </ul>	<ul style="list-style-type: none"> <li>a) As above 1 – 11</li> <li>b) Internal, external consultancy or academic</li> <li>New actions collated and scrutinised</li> </ul>	<ul style="list-style-type: none"> <li>A fit for purpose document by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable and no targets set (b and c)</b></li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use EVs in the Territory, depending on what actions are subsequently taken. <b>Attribution possible</b> but depends on proposed actions.</li> </ul>
3.22	Amend road rules to facilitate the safe use of new sustainable personal mobility options, such as electric scooters.	<ul style="list-style-type: none"> <li>changes to road rules</li> </ul>	<ul style="list-style-type: none"> <li>Change road rules (e.g. RT(RR)R 2017 s244 (20 Dec 2019 version)</li> <li>Publicity and visible use</li> <li>Enforcement feasible</li> </ul>	<ul style="list-style-type: none"> <li>Legislation changed, announcement by December 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable and no targets set</b></li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision to buy or use EVs in the Territory. <b>Attribution difficult</b></li> </ul>

No.	Action	Intended Intermediate and end-of-program outcome	How achieved	Outcome validation	Program Goal (i.e. CO <sub>2</sub> -e reduction)
3.23	Investigate regulatory options to drive the transition to zero emissions commercial vehicle fleets.	<ul style="list-style-type: none"> <li>Final study provided that addresses brief</li> </ul>	<ul style="list-style-type: none"> <li>Internal, external consultancy or academic</li> </ul>	<ul style="list-style-type: none"> <li>A fit for purpose document by Dec 2021</li> <li><b>Verifiable</b></li> <li><b>Not measurable and no targets set</b></li> </ul>	<ul style="list-style-type: none"> <li>Indirectly as a factor in decision fleet buyers buying or using EVs in the Territory. <b>Attribution</b> possible but depends on eventual proposed actions.</li> </ul>
4.20	Encourage the use of smart financing by medium and large businesses and organisations to support [...] zero emissions vehicle fleets	<ul style="list-style-type: none"> <li>Growth in use of smart finance by the ACTs medium and large businesses for their Zev fleets</li> </ul>	<ul style="list-style-type: none"> <li>Purposeful interactions with medium and large businesses. Support events and programs funded or provided by ACTG</li> </ul>	<ul style="list-style-type: none"> <li>Number and nature of interactions in the period April 2018 to Dec 2021.</li> <li><b>Not verifiable</b></li> <li><b>Not measurable and no targets</b></li> </ul>	<ul style="list-style-type: none"> <li>Data on ZEV fleets in the ACT <b>Attribution</b> difficult</li> </ul>

### Audit observations

**Verification:** the outcomes of most actions are readily verifiable. Three are not (Actions 4, 9 and 4.20). These are ‘work with’, ‘support’, ‘encourage’ actions. Relationships with the external stakeholders already exist. Demonstrating an increased emphasis/effort in these relationships would be difficult.

**Measurability:** Four actions (1, 2, 5 and 8) are measurable. However only Actions 1 and 2 are accompanied by **targets** against which performance levels can be judged.

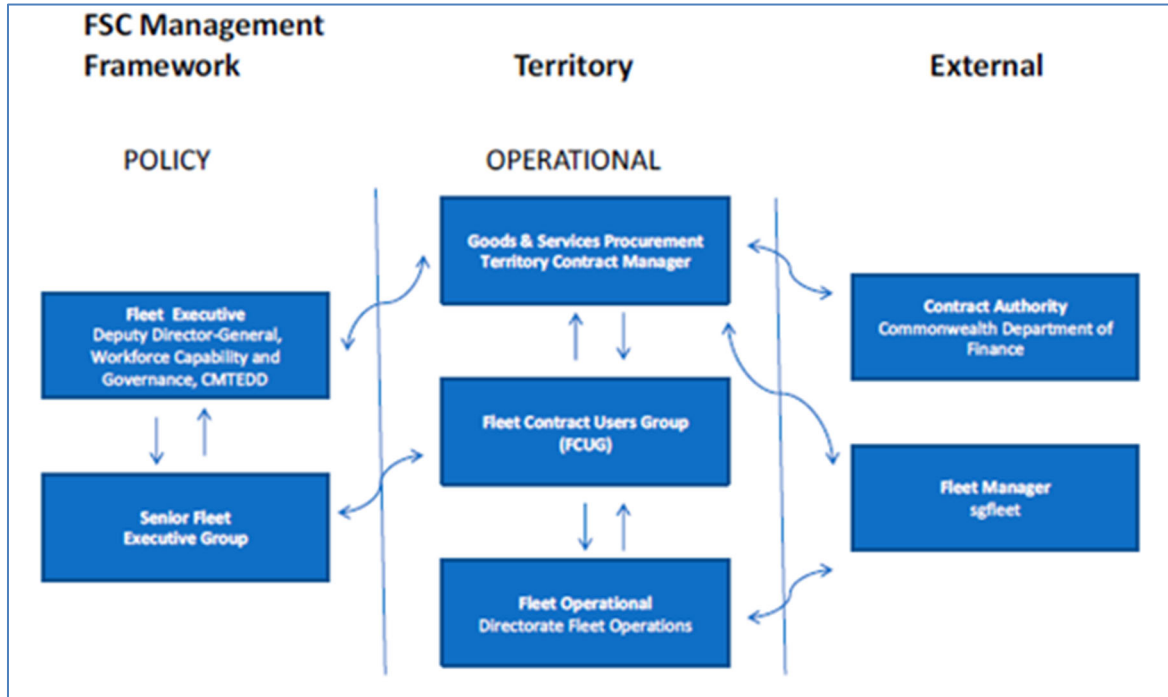
**Attribution:** Assessing the impact on CO<sub>2</sub>-e reduction via an increase in zero emissions vehicles as a consequence of each action is possible in three cases (Actions 1, 2 and 8). In a further three actions, attribution may be possible depending on the outcome that eventuates from an exploratory action (3.20, 3.21 and 3.23).

Given the design of this program, while actions can be verified as addressed (i.e. ‘complete’ or implemented), there is limited opportunity to quantify achievements (i.e. measurability), or to judge achievement levels against an expected level of performance (i.e. a target). Evaluation of the impact of actions would necessarily rely on qualitative assessment, with the exception of Actions 1 and 2.



# APPENDIX D: FLEET MANAGEMENT

## Whole of Government Fleet Services Contract Governance and Management Arrangements



Source: Senior Fleet Executive Group Terms of Reference (February 2020)



## Audit reports

Reports Published in 2020-21	
Report No. 03 – 2021	Court Transport Unit Vehicle – Romeo 5
Report No. 02 – 2021	Total Facilities Management Contract Implementation
Report No. 01 – 2021	Land Management Agreements
Report No. 10 – 2020	2019-20 Financial Audit – Financial Results and Audit Findings
Report No. 09 – 2020	2019-20 Financial Audits Overview
Report No. 08 – 2020	Annual Report 2019-20
Report No. 07 – 2020	Management of care of people living with serious and continuing illness
Reports Published in 2019-20	
Report No. 06 – 2020	Transfer of workers' compensation arrangements from Comcare
Report No. 05 – 2020	Management of household waste services
Report No. 04 – 2020	Residential Land Supply and Release
Report No. 03 – 2020	Data Security
Report No. 02 – 2020	2018-19- Financial Audits – Computer Information Systems
Report No. 01 – 2020	Shared Services Delivery of HR and Finance Services
Report No. 11 – 2019	Maintenance of ACT Government School Infrastructure
Report No. 10 – 2019	2018-19 Financial Audits – Financial Results and Audit Findings
Report No. 09 – 2019	2018-19 Financial Audits – Overview
Report No. 08 – 2019	Annual Report 2018-19
Reports Published in 2018-19	
Report No. 07 – 2019	Referral Processes for the Support of Vulnerable Children
Report No. 06 – 2019	ICT Strategic Planning
Report No. 05 – 2019	Management of the System-Wide Data Review implementation program
Report No. 04 – 2019	2017-18 Financial Audits Computer Information Systems
Report No. 03 – 2019	Access Canberra Business Planning and Monitoring
Report No. 02 – 2019	Recognition and implementation of obligations under the <i>Human Rights Act 2004</i>
Report No. 01 – 2019	Total Facilities Management Procurement
Report No. 12 – 2018	2017-18 Financial Audits – Financial Results and Audit Findings
Report No. 11 – 2018	2017-18 Financial Audits – Overview
Report No. 10 – 2018	Annual Report 2017-18
Report No. 09 – 2018	ACT Health's management of allegations of misconduct and complaints about inappropriate workplace behaviour

These and earlier reports can be obtained from the ACT Audit Office's website at <http://www.audit.act.gov.au>.