

# Electric Vehicle (EV) Transition Roadmap

Tuesday, 17 October 2023

Infrastructure and Public Works Committee

Strategic Alignment - Environmental Leadership

**Program Contact:**

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Public

**Approving Officer:**

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## EXECUTIVE SUMMARY

At its meeting on 28 March 2023, Council requested a report on an Electric Vehicle (EV) Transition Roadmap (the Roadmap) for consideration as part of the 2024/25 budget process.

The purpose of this report is to present the Roadmap to Council for approval. Consistent with Council's decision, this report includes:

- The role of Council compared to other stakeholders with respect to leading, partnering or advocating for increased EV charging infrastructure.
- Changes required to planning, infrastructure, investment and engagement approaches to enable increased EV charging infrastructure.
- Options for an expanded series of trials of EV charging infrastructure.
- Explores establishment of a reference panel to guide a coordinated approach to investment and delivery of increased charging infrastructure.
- Identifies available partnership opportunities with other levels of government.

The Roadmap provides strategic recommendations in the short-term (1-3 years) and identifies priority charging locations across the City of Adelaide that respond to city resident and user needs. These recommendations and locations are proposed to be incorporated into a consolidated Climate and Sustainability Strategy to be presented to the Audit and Risk Committee by December 2023.

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## RECOMMENDATION

The following recommendation will be presented to Council on 24 October 2023 for consideration

THAT THE INFRASTRUCTURE AND PUBLIC WORKS COMMITTEE RECOMMENDS TO COUNCIL THAT COUNCIL

1. Approves the Electric Vehicle (EV) Transition Roadmap contained in Attachment A to Item 7.3 on the Agenda for the meeting of the Infrastructure and Public Works Committee held on 17 October 2023.
2. Notes the directions from the Electric Vehicle (EV) Transition Roadmap will be incorporated into a consolidated Climate and Sustainability Strategy to be presented to the Audit and Risk Committee by December 2023.
3. Notes the Electric Vehicle (EV) Transition Roadmap will inform budget proposals for 2024/25 to be considered by Council through the annual business plan and budget process.
4. Notes the following actions from the Electric Vehicle (EV) Transition Roadmap will commence in 2023/24:
  - 4.1. Facilitate the deployment of EV charging infrastructure with the City of Adelaide by establishing a clear framework for the rollout of EV chargers at strategic locations.

- 4.2. Enable the market-led provision of on-street EV chargers in select locations which support the transition to EVs and minimise impacts on the public realm.
  - 4.3. Work with private sector providers to trial on-street charging in residential areas with limited private off-street charging and constrained charging options.
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# IMPLICATIONS AND FINANCIALS

City of Adelaide 2020-2024 Strategic Plan	<b>Strategic Alignment – Environmental Leadership</b> 4.4 Support our community to transition to a low carbon economy through education, incentives and appropriate infrastructure.
Policy	The Roadmap delivers on Council's Carbon Neutral Strategy 2015-2025 and Climate Action Plan 2022-2025
Consultation	The Roadmap is informed by engagement across City of Adelaide, neighbouring local governments, State Government, industry, community representative groups and stakeholders.
Resource	Not as a result of this report
Risk / Legal / Legislative	Council has a role to advocate to the Department for Infrastructure and Transport (DIT) to bring South Australia in line with other States with respect to standardised signage, rules and expiation fees as it relates to EV parking. Current such matters are not addressed under the <i>Road Traffic Act 1961</i> .
Opportunities	The provision of public EV charging infrastructure aims to support residents in areas with constrained off-street charging options and provide destination charging that supports the city's economic competitiveness and appeal to visitors for shopping, employment, tourism, and enjoyment of the Adelaide Park Lands.
23/24 Budget Allocation	Funding is allocated in the Climate Change Adaptation Initiative Fund (CCAIF) for this financial year.
Proposed 24/25 Budget Allocation	Not as a result of this report
Life of Project, Service, Initiative or (Expectancy of) Asset	The Roadmap has a three-year delivery focus from 2023/24 financial year to 2025/26 financial year.
23/24 Budget Reconsideration (if applicable)	Not as a result of this report
Ongoing Costs (eg maintenance cost)	The Roadmap proposes a partnership model to expand EV charging infrastructure in the city to reduce upfront capital costs and ongoing maintenance of the charging network.
Other Funding Sources	City of Adelaide will approach the Australian Renewable Energy Agency (ARENA) regarding funding opportunities aligned with the Roadmap.

# DISCUSSION

## Context

1. Australia's uptake of electric vehicle (EVs) is expected to rise rapidly over the next decade. According to the EV Council, [State of EV's Report - July 2022](#), in 2022 EV sales (as a proportion of new vehicle sales) was 6.5% in South Australia, and in 2023 is already more than double all of 2022.
2. In Australia, Governments of all levels are preparing for rapid increase in EV uptake, including:
  - 2.1. On 9 May 2023, Council endorsed its [Climate Action Plan 2022-2025](#) which aims to accelerate the shift to electric vehicles including installation of 100 public electric vehicle and bicycle chargers by 2025; and integration of 75% electric vehicles into the City of Adelaide's light passenger vehicle fleet by 2025.
  - 2.2. In December 2020, the South Australian Government released its [EV Action Plan](#) with the vision to be a national leader in EV uptake and smart charging by 2025, harnessing renewable energy to lower motoring costs, air, noise and carbon pollution, and reduce electricity costs for all South Australians.
  - 2.3. In April 2023, the Australian Government released a [National EV Strategy](#). The National EV Strategy sets a vision to increase the uptake of EVs (EVs) to reduce our emissions and improve the wellbeing of Australians.
3. The purpose of this report is to present an EV Transition Roadmap (the Roadmap) to Council for approval (**Attachment A**) and respond to the matters decided by [Council on 28 March 2023](#).
4. In 2022, transport emissions accounted for around 35% of the City of Adelaide's community's carbon footprint while Councils vehicle fleet accounted for around 8% of the City of Adelaide's total corporate emissions.
  - 4.1. Transitioning 10,000 internal combustion vehicles to EVs would reduce carbon emissions by approximately 22,000 tonnes annually, a reduction of 2.3% of the total community emissions (which includes all City users, not only City of Adelaide residents).
  - 4.2. Thus, supporting the uptake of EVs through the provision of public EV chargers has the potential to reduce community and corporate carbon emissions over time.

## Role of Council

5. Council's decision sought information on the role of Council compared to other stakeholders with respect to leading, partnering or advocating for increased EV charging infrastructure.
6. Governments and Councils have invested, owned and operated EV charging infrastructure to spur initial supply and support the early adopters. EV charging in the City of Adelaide, including Council owned EV infrastructure is summarised in Link 6 view [here](#).
7. With growth in the EV market, there is increasing incentive for commercial charging providers to deliver infrastructure, which is changing the role of government.
8. Local governments are now opting to partner with private charging providers, while maintaining an overarching coordination role and ensuring charging supply meets broader city objectives, without needing to own and operate infrastructure themselves.
9. The Roadmap identifies three roles for the City of Adelaide to support the EV transition, being to:
  - 9.1. Lead - support a market-driven rollout of appropriately rated EV chargers by defining Design and Operating Guidelines, pricing structures, signage and approach to parking enforcement, expression of interest procedures and potential incentive schemes.
  - 9.2. Partner - partner with private third parties who own EV chargers and manage charging services. The third-party is then responsible for installation, operation and maintenance of the charging infrastructure.
  - 9.3. Influence - play an advocacy and influence role to facilitate the rollout of EV charging infrastructure.

## Planning, Infrastructure, Investment and Engagement

10. Council's decision sought information on changes required to planning, infrastructure, investment and engagement approaches to enable increased EV charging infrastructure.
11. It is anticipated that 80% to 90% of EV owners will charge their EV at home or at work. In 2022, reform to the National Construction Code (NCC) saw the introduction of EV-Readiness requirements. South Australia's requirements will take effect from October 2024, as follows:

- 11.1. 100% of car parking spaces in apartment buildings constructed will be EV-Ready
- 11.2. 10% of office car parking spaces will be EV-Ready
- 11.3. 20% of other commercial buildings will be EV-Ready.
- 12. City of Adelaide has high job density and large numbers of existing high density and apartment buildings with low levels of private charging infrastructure. This will create demand for public EV charging which can be supported through on-street and UPark charging solutions.
- 13. Council's submission to the Planning System Implementation Review endorsed in January 2023 identified a gap in the Planning and Design Code as it relates to EV policy. Administration is awaiting the release of the State Government's response to the Planning System Implementation Review, and is otherwise continuing to advocate for the inclusion of policies within the Planning and Design Code that support the EV transition.
- 14. The Roadmap is informed by an analysis (using the City Plan digital tool), which identifies priority public charging locations for investment in EV infrastructure in the City of Adelaide (Figure 1 and page 57 of the **Attachment A**).
- 15. Administration is monitoring funding opportunities, such as the Australian Renewable Energy Agency (ARENA) programs and considering third party partnerships to deliver the Roadmap.

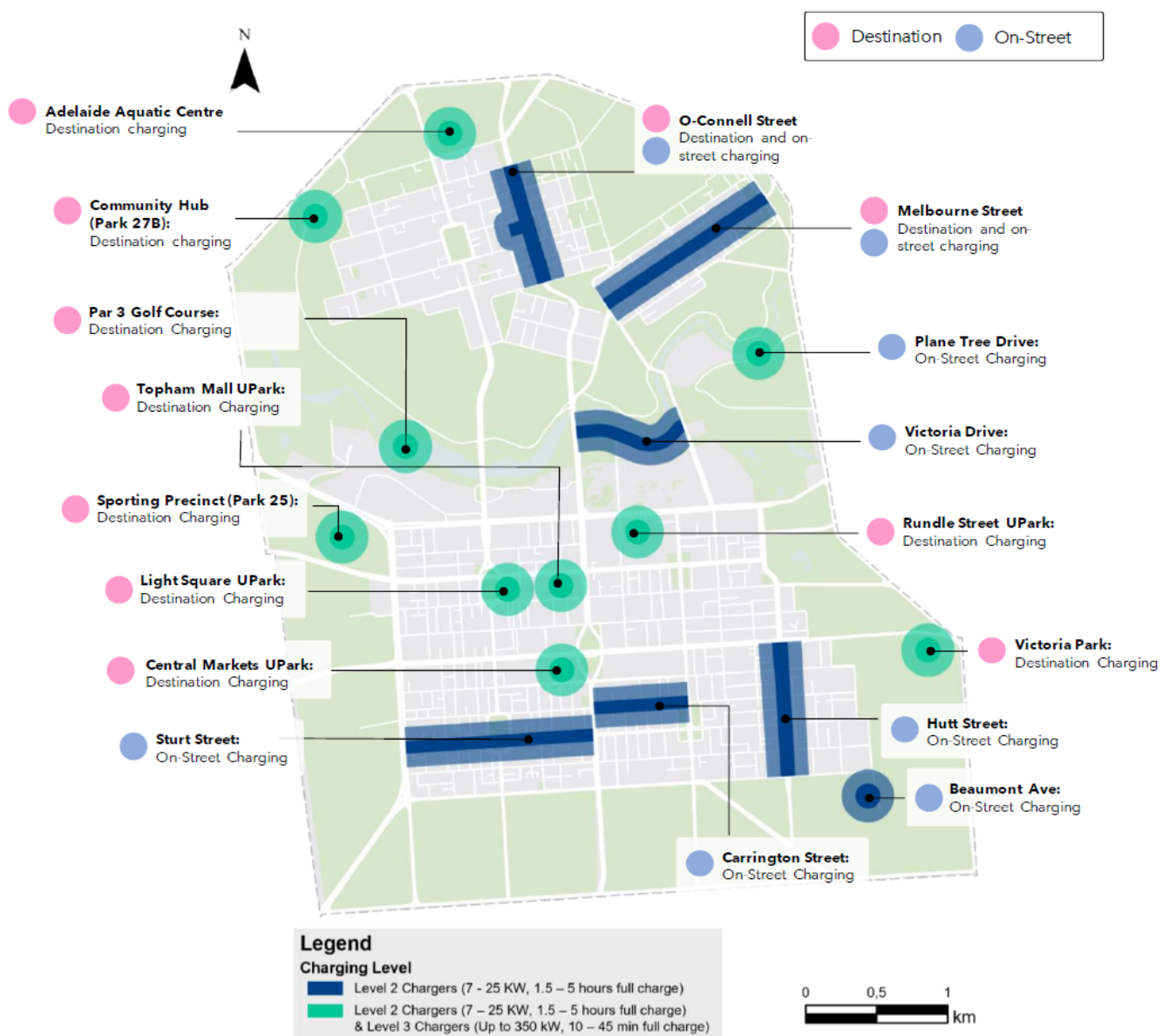


Figure 1 Priority Public Charging Locations

### EV Charging Trials

- 16. Council's decision sought to identify options for an expanded series of trials of EV charging infrastructure.

17. Pilot projects (refer to page 60 of **Attachment A**) can be considered that directly respond to key challenges in the City of Adelaide, such as:
  - 17.1. Supporting the transition to EV charging for residents in existing apartment buildings
  - 17.2. Providing on-street charging in select locations with limited off-street charging options and where it does not result in unintended amenity impacts.

#### **Reference Panel**

18. Council's decision sought exploration of the establishment of a reference panel to guide a coordinated approach to investment and delivery of increased charging infrastructure.
19. The advice on establishing an EV panel was that there would be greater value in using a broader city-wide transport and parking reference panel than a panel with EV specific focus.

#### **Partnerships**

20. Council's decision sought to identify available partnership opportunities with other levels of government.
21. The Roadmap identifies roles for Council to Partner and Influence, this includes:
  - 21.1. Partnering with industry for the provision of destination charging in UPark facilities
  - 21.2. Delivering a pilot project in an apartment building
  - 21.3. A coordinated government approach to on-route and hub EV charging networks.

#### **Next steps**

22. Pending a decision by Council on the Roadmap, the strategic recommendations and priority charging locations across the City of Adelaide will be incorporated into a consolidated Climate and Sustainability Strategy to be presented to the Audit and Risk Committee by December 2023 for delivery and oversight by Council through its City Planning, Development and Business Affairs Committee.
23. The Roadmap recommends seven steps in the short term (1-3 years) (page 58 and page 59 of **Attachment A**), which City of Adelaide can undertake for the provision of EV charging infrastructure across the city.
24. The below actions are proposed to commence in the current 2023/24 financial year:
  - 24.1. Facilitate the deployment of EV charging infrastructure with the City of Adelaide by establishing a clear framework for the rollout of EV chargers at strategic locations.
  - 24.2. Enable the market-led provision of on-street EV chargers in select locations which support the transition to EVs and minimise impacts on the public realm.
  - 24.3. Work with private sector providers to trial on-street charging in residential areas with limited private off-street charging and constrained charging options.

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## **DATA AND SUPPORTING INFORMATION**

**Link 1** – [Electric Vehicle Council - State of Electric Vehicles \(EV\)'s Report - July 2022](#)

**Link 2** – [City of Adelaide - Climate Action Plan 2022 – 2025](#)

**Link 3** – [South Australian Government Electric Vehicle Action Plan](#)

**Link 4** – [National Electric Vehicle Strategy](#).

**Link 5** – [Council minutes, Tuesday 28 March 2023](#)

**Link 6** – EV charging infrastructure in the City of Adelaide

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## **ATTACHMENTS**

**Attachment A – City of Adelaide Electric Vehicle Transition Roadmap**

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