



MOUNT BARKER
DISTRICT COUNCIL

Technology & Innovation Action Plan

Endorsed by Council 8th October 2024



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Introduction

Technology in transport is happening rapidly with new intelligent transport systems and contemporary and near future technology such as electric/hybrid motor vehicles and hydrogen fuel celled vehicles for examples, together with the progressive introduction of connected and autonomous or driverless vehicle technologies.

Council will need to enable these changes with future transport initiatives. Simple actions such as marking edge lines and centre lines should be considered to enable lane control functions in autonomous motor vehicles. Future transport services are also changing such as the progressive introduction of innovative services like Mobility as a Service.

Council has endorsed the **Transport Lead Strategy** which establishes the overarching principles for transport planning and traffic management throughout the Mount Barker District in the coming years.

Six core themes are outlined in the Lead Strategy namely:

- Road Network Management
- Active Transport
- Road Safety
- Parking
- Public Transport and
- **Technology and Innovation.**

The combined suite of these six themes, together with the Lead Strategy and a consolidated action plan, make up the complete Integrated Transport Plan.



Vision and Strategic Directions

Council has a vision to support and advocate for new technologies in the Mount Barker Community Plan.

The key directions for Technology and Innovation are:

- Ensuring Council is best placed to cater for future transport technologies
- Monitor and act on emerging transport network management technology and intelligent transport systems
- Investigate opportunities for Mobility as a Service
- Support for the introduction of vehicles with alternative power supply (electric, hydrogen)
- Provision of options for low or zero emissions transport
- Road maintenance and upgrades are undertaken to accommodate current and future vehicle safety technologies
- Provisions for progressive introduction of autonomous (driverless) or connected motor vehicles.

Mobility as a Service (MaaS) is a concept providing a range of transport options to suit an individual's needs without the cost of owning a vehicle. MaaS is still developing and evolving as a market, but should enable people to bundle transport options such as car ride sharing, public transport and other ride share initiatives.

What we've heard so far

Development of the Lead Strategy and each of the six themes has involved various stages of community and stakeholder consultation. Key issues regarding the road network include:

Journey information and wayfinding

- Use of technology to change behaviours / Living Lightly Local
- Journey information eg Vehicle travel times / routes
- ITS for road safety at specific locations
- Smart bus stops
- Information (variable message) signage prior to interchanges
- Variable speed signs at bad intersections
- ITS systems for school zones such as School zone reminders / school crossings
- Electronic signage for parking wayfinding
- Free Wi-Fi in town centres
- Solar lighting on bus shelters.

Vision and Strategic Directions Continued

Vehicle fleet and micro mobility

- More EV charge points in locations to support visitors/ tourism
- Automated buses from Verdun to Hahndorf along with parking initiatives to reduce parking demand in Hahndorf
- Integration of E-Scooters for private use
- Automated buses for circle lines around Mount Barker
- E-bike and mobility scooter charging locations
- Council to establish a policy for its role in EV charge points (general recognition that EV charging should be left to commercial operators).

Innovation for parking

- Smart parking applications in Mount Barker CBD and Hahndorf
- Smart parking for existing car parks (eg King William Road)
- Carpooling apps
- Use of parking sensors
- Parking payments using app (if/when charges are introduced)
- Wayfinding for parking (available spaces etc)
- Paid parking options.

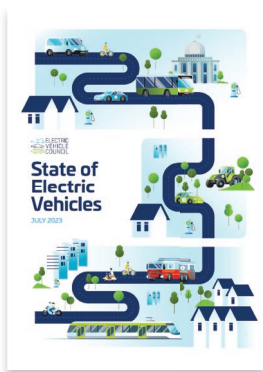


Existing Situation

State of Electric Vehicles Report (July 2023)

The Electric Vehicle Council published a report in July 2023 on the State of EVs in Australia. The report highlighted the increasing demand for EVs as follows:

- In the first 6 months of 2023, 8.4 % of all new cars sold throughout Australia were EVs
- Sales of electric cars in Australia have increased exponentially in recent years and this trend is likely to continue in the coming years
- While these most recent sales figures are encouraging, in order for Australia to achieve its climate targets, it is expected that more than 50% of all new cars sold in 2030 will need to be EVs. This means Australia will need to aim for around 1 million EVs on our roads by the end of 2027.



Electric Vehicle Council
(electricvehiclecouncil.com.au)



Department for Energy & Mining
(electricvehicles.sa.gov.au)

Electric Vehicle Action Plan (2021)

The State Government published an Electric Vehicle Action Plan in 2021. The report further highlighted the increased up-take in EVs and importance of EVs in reducing greenhouse emissions.

- Not only are the numbers of electric vehicles on our roads set to increase exponentially in the next decade, they will be central to the power system of the future.
- As transport contributes 30% of total state greenhouse gas emissions, the Plan is an important next step toward the State's goal of a low emissions economy and a 50% reduction in state emissions by 2030.

Key directions within the Plan that are relevant to the Mount Barker Integrated Transport Plan include:

- Expansion of the EV charging network
- Leading by example with the purchase of EVs in Government fleets
- Potential introduction of electric (or hydrogen) electric bus fleet (which will impact on the facilities required in bus depots)
- Partnering with local government and industry to deliver a Fleet Pledge Program (The Fleet Pledge program provides decision-makers and fleet managers with a hub of information, allowing them to learn from each other and draw on experiences to better shape their knowledge and expectations of EVs).

Existing electric charging stations

While there are a few public charging stations installed in Mount Barker, the only high power station is at the Homemaker Centre on Dutton Road Mount Barker. A limited number of charging stations are available in Hahndorf and a few other private tourist facilities throughout the District. High power charging stations are not otherwise available in other townships throughout Mount Barker.



Smart Community Strategy

Council endorsed the Smart Community Strategy in December 2020 ([Smart Community Strategy | Mount Barker District Council](#)).

The Strategy acknowledges that technology can enable smart services such as transport on demand, smart car parking, and public way-finding. Fast and reliable internet will strengthen local business and education sectors. Smart services will attract new industries, creating jobs and investment needed for a growing community.

The Smart Community Strategy is a key priority direction of council and represents a long term commitment to a journey of continuous improvement with creativity and innovation at its core. In collaboration with the community, the strategy provides the road map for council to take a leading role in enabling the positive impact technology can have on community well-being, economic prosperity and ecological sustainability.

However the Smart Community Strategy stops short of detail on the following issues, and further investigations are needed:

Type of Issue	Issue
Electric vehicles	Council does not have a policy for electric vehicle charging.
Parking technology	Mount Barker has very limited use of electronic signage.
Connected and autonomous vehicles	Council does not have a policy for connected and autonomous vehicles.
Traffic data collection	Council does not manage traffic, transport and parking data efficiently for public use.
Mobility as a service	Council does not have a policy for mobility as a service.

Best Practice and Opportunities

There is a vast range of potential opportunities for future technologies and Smart City opportunities in the transport arena including:

- Parking signage
- Parking information and enforcement
- Traffic data collection/monitoring
- Real time traffic information (including emergency management)
- E scooters
- Real time multimodal transport system
- Electric Vehicle Charging Stations
- Bike charging stations
- Smart lighting
- Way finding signage
- Mobility scooters.



Opportunities identified in Council's Smart Communities Strategy include:

- Deploy sensors across the district to capture data aimed at improving asset management and maintenance of community facilities
- Collect data on traffic movement and parking behaviour to inform future traffic management planning
- Investigate smart parking management options to reduce congestion and help local business
- Support the expansion of public transport on demand
- Deploy sensors on council vehicles to get real-time road and footpath condition data
- Promote the deployment and use of ride-hailing, car and bike-sharing applications
- Model pedestrian movement and analyse against local transport infrastructure design and services to improve connectivity, permeability and reduce reliance of private motor vehicles.

The main challenges in this ever-changing field will be:

- Positioning ourselves for whatever the future holds
- Build in integration
- Identify opportunities that will provide real transport benefits
- Move quickly on installation and monitoring.

Much is unknown about what future mobility looks like, and when significant changes might occur. Planning for the future therefore needs to be flexible and responsive to new opportunities and changes as they occur. While the idea of fully autonomous vehicles might be some years away, almost all new vehicles contain advanced safety features such as Lane Keep Assist and adaptive cruise control.

Action Plan

The Action plan for management of the Road Network is provided in the following table. The Prioritisation was determined following community engagement and was accurate at the time of Council endorsement. A Consolidated List of Actions has been prepared reflecting the prioritisation, and this separate document will be updated on an annual basis.

Action	Proposed Initiative	Council's Role	Priority
Policy Development			
T1.1	Develop an electric vehicle charging policy outlining Council's role in the identification of suitable (public) locations for electric vehicle charging stations, noting the community does not see Council having a role in the actual provision and operation of EV charging	Provider	Short Y1
T1.2	Develop a policy for the suitability for the location and management of connected and autonomous vehicles in Mount Barker, such as a retirement villages, and in the Mount Barker town centre	Provider	Long
T1.3	Develop a policy for mobility as a service, including shared vehicle usage, delivery operators and shared e-scooters and e-bikes	Provider	Long
T1.4	Monitor developments with the potential legalisation of private e-scooter use throughout the State, and develop a policy to that responds to the potential increase in usage of these vehicles	Provider	Short Y2
Parking Opportunities			
T2.1	Investigate latest technologies in parking information management and enforcement and apply in a coordinated manner as part of an integrated parking strategy	Provider	Short Y2
T2.2	Encourage new parking technologies with digital information signage to manage the parking demand at shopping centres and busy car parking sites with high turnover throughout the day	Facilitator	Short Y2
Traffic Management and Road Safety			
T3.1	Investigate latest technologies to enable systematic collection of traffic data collection on key Council roads (to monitor growth patterns and input to ongoing transport modelling)	Provider	Short Y1
T3.2	Establish a Geographic Information System (GIS) based integrated traffic and transport database for traffic volumes and speed surveys	Provider	Short Y1
T3.3	Work with DIT in the potential application of Integrated Transport Strategy (ITS) solutions for road safety blackspots	Provider, Facilitator	Ongoing
T3.4	Investigate opportunities for installation of variable message signs (including emergency management) on either Council or State road networks	Provider	Medium
T3.5	Review line marking practices and seek to include centre and edge lines wherever practical (as an aid to lane departure technologies)	Provider	Ongoing

Action Plan Continued

Action	Proposed Initiative	Council's Role	Priority
Public Transport			
T4.1	Advocate for real time public transport information at key bus stops	Advocacy	Ongoing
T4.2	Support the expansion of public transport on demand services	Advocacy	Ongoing
Mobility			
T5.1	Investigate opportunities for promotion of new technologies in car pooling apps	Provider, Facilitator	Long

Council role definitions

- Provider** Council directly provides infrastructure including the construction of local roads, footpaths and trails.
- Facilitator** Council facilitates the provision of the required actions by others. e.g. provision of footpath to a bus stop.
- Stakeholder** Council provides information or assistance in the development of a project e.g. desirable active transport links for Adelaide Road interchange upgrade.
- Advocacy** Council advocates on behalf of the community for the actions that are required. e.g. public transport.

Contact

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