



Zero Emissions Fleet Strategy And Implementation Plan



Adopted by Council 8th December 2022

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1 Introduction

The *Dubbo Regional Council Zero Emission Fleet (ZEF) Strategy and Implementation Plan* is designed to support and guide Council in reducing greenhouse gas emissions associated with its fleet operations.

A zero emissions fleet includes vehicles that do not emit any greenhouse gas emissions, such as battery electric (BEV) and hydrogen fuel cell electric vehicles (FCEVs). The transition to a zero emissions fleet can include hybrid electric (HEV) and plug-in hybrid electric (PHEV) vehicles, which utilise both fuel and electricity, and seek to lower fleet emissions but are not zero emissions. The benefits of transitioning to a zero emissions fleet include reduced greenhouse gas emissions, improved air quality, less noise, and lower running costs than conventional vehicles as a result of decreased fuel and servicing costs.

While zero emissions vehicle (ZEV) charging will increase electricity demand, emissions from vehicle charging will fall as Council increases the proportion of its electricity from renewable sources. In addition, any hydrogen procured for fuel would need to be produced from renewable energy sources to remain a zero emissions option.

The *ZEF Strategy and Implementation Plan* consists of four parts as outlined below:

Part 1: Council Roadmap (Evensergi)

This Roadmap provides the overall context for the *ZEF Strategy and Implementation Plan* and has been developed on behalf of Council by Evensergi, a consultant specialising in assisting organisations to plan, implement and transition to zero emission fleet operations. It also assesses the feasibility of the transition for Council including understanding what vehicles can transition and when, and what costs and resources would be required.

Part 2: Strategy

This section uses the information collected in Part 1 to outline Council's strategic vision, goals, and outcomes for the management of Council's fleet.

Part 3: Implementation Plan

This section contains specific actions for implementation to ensure the strategic outcomes in the Zero Emissions Fleet Strategy are achieved.

Part 4: Monitoring, Reporting and Review

Part 4 describes how the *ZEF Strategy and Implementation Plan* will be monitored, reported and reviewed.

2 Council Roadmap

2.1.1 Development of Roadmap

In December 2020 Council engaged Everergi to assist Council to plan, implement and transition to zero emission fleet operations. Everergi's main role was to aid Council in better understanding the business case and roadmap for transitioning to a zero emissions fleet. The final Roadmap (the Roadmap) submitted to Council in August 2021, has assisted Council in the development of this Strategy.

In particular, the Roadmap examined and provided commentary around:

- The importance of transitioning to a zero emissions fleet
- International, national and state legislative policy
- Predicted trends for Australia in 2025, 2030 and to 2050
- Barriers or challenges in transitioning to a zero emissions fleet
- Council's existing fleet operations
- Fleet transition analysis of both light and heavy vehicles
- Vehicle procurement and management
- Infrastructure procurement and management
- Key Enablers, including governance, policies, procedures and financing
- Key Recommendations, including suggested action pathways.

2.1.2 Key Findings

2.1.2.1 The business case for Council to transition is strong

The Roadmap concludes that there is a very strong business case for transitioning to a zero emissions fleet. The Roadmap examines the key environmental, economic and social drivers for change as it applies to Dubbo Regional Council. These insights are summarised below.

Transitioning to a zero emissions fleet will assist Council to:

- *Reduce fleet operating costs over a 10 year period (2021-2030)*

The Roadmap included a quantitative fleet transition analysis* to help DRC understand when assets would be technically and commercially suitable for electrification up until 2030. The quantitative fleet analysis estimated a potential reduction of costs from executing a Zero Emissions Fleet Roadmap of up to \$2.47 million or 5.5% compared to "business as usual" over the 10 year period to 2030 if the transition is managed appropriately.

- *Mitigate greenhouse gas emissions associated with Council's fleet operations*

Transport is Australia's third largest source of greenhouse gas emissions, accounting for 17% of total emissions. Council's fuel use (petrol, diesel) currently results in 12% of Council's greenhouse gas emissions from energy consumption (electricity, gas, fuel). By executing a Zero Emissions Fleet Roadmap or strategy the quantitative fleet analysis* estimated a potential emissions reduction of at least 1,760 tonnes CO₂

equivalent, or 9% of the combined light and heavy vehicle fleet emissions over the 10 year period to 2030.

**The Roadmap quantitative fleet transition analysis was based on a number of key assumptions at the time, including vehicle availability.*

- *Rank highly amongst other leading local governments striving to achieve net zero emissions*

The NSW government is aiming to fast track the transport sector to net zero emissions by 2050 and is one of the most progressive Australian states in this area along with the ACT. In recent years local government has also been leading in minimising carbon emissions. Typical initiatives include the integration of zero emission vehicles into local government fleets, installing charging infrastructure in public places, and policy development to promote sustainable transport forms. The Roadmap provides a detailed summary of councils leading in the transition, their initiatives and targets.

2.1.2.3 Council's pathway to transition will continue to evolve

The Roadmap outlines a number of pathways to transition for the light and heavy vehicle fleet. Light vehicles will transition more quickly than heavy vehicles as few 'fit for purpose' zero emissions heavy vehicles are currently available on the market.

The speed at which Council's fleet will transition will increase as electric vehicle technology advances, vehicle availability improves, and costs reduce.

Any strategy or policy developed will need to adapt to these changing conditions. In this light Council has developed a short-term strategy and implementation framework, with revisions to be completed every two years to account for changes in technology and the growing speed of transition expected.

2.1.2.3 Change is inevitable

The Roadmap outlines that the economic opportunity associated with zero emissions fleets (ZEFs) is approaching more quickly than many think with zero emissions vehicles to become the dominant vehicle choice from a total cost of ownership perspective from around 2025 onwards.

The Roadmap also states that the changing nature of global vehicle supply, driven by government mandates in many countries, is likely to introduce risks to 'business as usual' with increasing vehicle prices and lower choice for traditionally powered fleet options.

Preparing adequately with internal planning capability and forward thinking infrastructure investment can protect Council against more expensive reactive measures, with this Strategy and Implementation Plan becoming a key part of Council's forward planning.

2.1.2.4 Incentives exist for early adopters

There are a number of 'once in a generation' incentives being launched by the State Government for those councils willing to transition to a zero emissions fleet, including a reverse auction program to assist fleet managers to close the Total Cost of Ownership (TCO) gap between traditionally powered and zero emission vehicles sooner.

As zero emissions vehicles do approach TCO parity with traditionally powered vehicles, those councils with a refined understanding of zero emission vehicle TCO will have the skills, experience and knowledge to make effective procurement decisions across all assets.

There may be significant jobs and development opportunities for the community in regions that become early adopters through the procurement and public operation of ZEVs, councils are stimulating demand for such vehicles within a region. This will drive demand for broader ZEV charging services, encouraging private investment, driving new jobs and other economic activity.

3 The Strategy

3.1 Strategic Vision / Objective

Dubbo Regional Council plans for, and begins to transition to, a zero emissions fleet.

3.2 Policy Context

The Dubbo Regional Council Zero Emissions Fleet Strategy and Implementation Plan is designed to support and guide Council in planning and beginning to transition to a zero emissions fleet.

Council's requirement for the development of the Zero Emissions Fleet Strategy and Implementation Plan has arisen from Council's adopted Energy Strategy and Implementation Plan 2020 to 2025, which includes a Sustainable Transport goal to "plan for and begin to transition to a zero emissions fleet". This goal is based on the rationale that Council's fuel use (petrol, diesel) currently results in 12% of Council's greenhouse gas emissions from energy consumption (electricity, gas, fuel). Diesel use accounts for 11% of Council's greenhouse gas emissions from energy consumption, and is largely consumed by Council's heavy vehicle fleet. Council's total fleet fuel consumption in 2019/2020 was 1.2 million litres.

While the Strategy supports the direction and outcomes Council would like to achieve, the implementation plan will provide the actions and tasks for achieving the key strategic objectives under the key strategy areas.

The Strategy and Implementation Plan sits below Council's Community Strategic Plan and informs Council's four year Delivery and one year Operational Plans. During the revision of these Plans Council Directors will be required to consider the inclusion of the relevant strategies and actions.

3.3 Key Strategy Areas

The Energy Strategy has been divided into four key strategy areas. The individual strategies include:

1. Light Vehicles
2. Heavy Vehicles
3. Servicing and Maintenance
4. Charging Infrastructure

3.3.1 Strategy Area One – Light Vehicles

Scope:

This strategy area addresses light vehicle selection, procurement and use.

Goal:

Dubbo Regional Council will progressively switch to low or zero emissions vehicles within its light vehicle fleet at the time of renewal, where the total cost of ownership (TCO) is equal to or less than the TCO of the existing traditionally powered vehicle and the vehicle is fit for purpose.

Rationale:

Council's light vehicle fleet currently contains 171 vehicles, with light commercial vehicles (e.g. utilities and vans) making up around two thirds of the light vehicle fleet. SUVs make up 27% of the fleet, with less than 7% of the light vehicle fleet being conventional passenger vehicles.

Council's light vehicle fleet accounts for **20.9%** of Council's fleet greenhouse gas emissions, with light commercial vehicles contributing to a vast majority of those emissions.

A relatively large proportion of light fleet assets are set for replacement in the coming financial years and provide opportunities for transition.

Figure 6: Age distribution of vehicles in the DRC light fleet



Source: DRC Zero Emissions Fleet Roadmap, Everergi November 2021

Zero emission vehicles tend to cost more upfront, but become much more cost effective when assessed on the full lifetime costs or Total Cost of Ownership (TCO), rather than solely on the upfront cost. The Roadmap considers TCO ‘price parity’ as a significant milestone or signal for transitioning to a zero emissions vehicle. This is when it is cheaper to own a zero emissions vehicle, compared to a traditionally powered vehicle, when costs are compared across the lifetime of the vehicle.

In examining the future transition of Council’s light vehicle fleet the Roadmap indicates that Council’s transition will be staggered as the TCO parity of a ‘fit for purpose’ low to zero emission vehicle with a traditionally powered vehicle varies greatly between each vehicle segment.

Asset segment	Estimated TCO parity for EVs	Asset segment	Estimated TCO parity for EVs
Large Passenger	2025/26	Medium SUV	2025/26
Medium Passenger	2024/25	Small SUV	2024/25
Small Passenger	2023/24	LCV Ute	2026/27
Light Passenger	2022/23	LCV Van	2026/27
Large SUV	2026/27	LCV Commuter (Bus)	2026/27

Source: DRC Zero Emissions Fleet Roadmap, Everergi November 2021

In this regard, Council’s Passenger Vehicles and SUVs will transition sooner, with Light Commercial Vehicles (e.g. utilities and vans), which make up the majority of Council’s light vehicle fleet and its emissions, not expected to transition until after 2025 where it is predicted zero emission versions of these vehicles are more readily available on the Australian market.

The availability and cost of electric vehicles will be subject to great change in the coming years with significant investment in electric vehicle research and development and Council needs to be ready to adapt. The Roadmap suggests that Council could introduce a number of measures to aid electrification of its light vehicle fleet during this time. An example includes introducing a transitional arrangement for the light vehicle asset replacement schedule such as extending the holding period of existing vehicles by an additional year to take advantage of any improvements in electric vehicle availability and prices overtime. The business case of purchased electric vehicles could also be improved by extending their holding period and through higher utilisation for short trips.

Key Strategic Outcomes:

LV 1	Council prepares a Light Vehicle Fleet Policy aligned to Council’s Zero Emission Fleet Strategy goals for light vehicles.
LV 2	Council reviews available ‘fit for purpose’ low or zero emission vehicles, their associated Total Cost of Ownership (TCO), and updates Council’s Light Vehicle Fleet Policy’s Vehicle Selection List annually.
LV 3	Council’s fleet budget aligns with Council’s Light Vehicle Fleet Policy.
LV 4	Council investigates and introduces where feasible incentives for staff leaseback vehicles to aid and accelerate its light vehicle fleet transition.
LV 5	Council pursues funding opportunities to aid and accelerate its light vehicle fleet transition. Grants assist in closing the Total Cost of Ownership (TCO) gap between zero emission and traditionally powered light vehicle fleet.
LV 6	Council purchases low or zero emissions vehicles according to Council’s Zero Emission Fleet Strategy goals and in accordance with the Light Vehicle Fleet Policy.
LV 7	Council staff are aware, and have an operational knowledge of, zero emission vehicles introduced into the light vehicle fleet
LV 8	In accordance with Council’s adopted <i>Energy Strategy and Implementation Plan 2020 – 2025</i> , Council obtains at least 50% of Council’s light vehicle electricity consumption from renewable energy by 2025.
LV 9	Council is aware and knowledgeable of technological advances in zero emissions light vehicles
LV 10	Council partners with like-minded councils to lobby the State and Federal governments to prioritise the transition of light vehicles and investment in solutions to accelerate the transition.

3.3.2 Strategy Area Two – Heavy Vehicles

Scope:

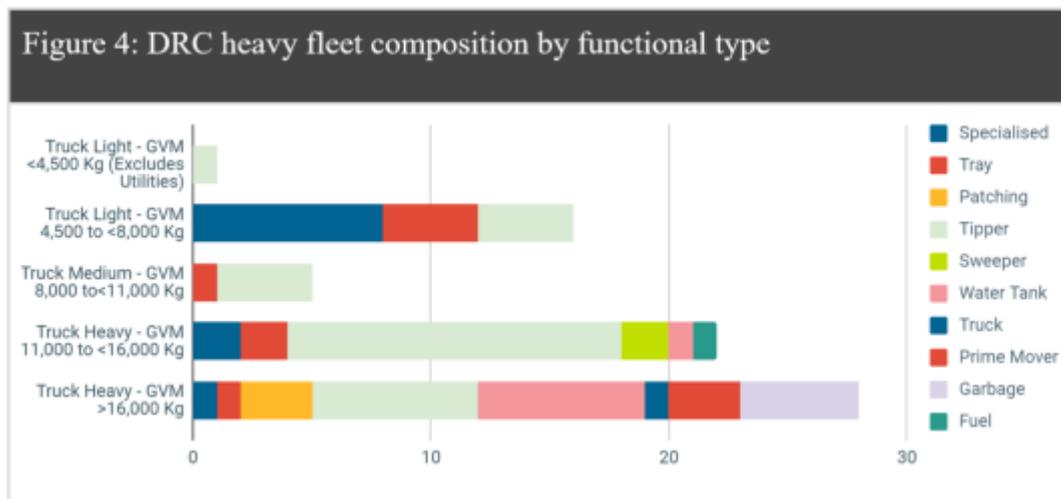
This strategy area addresses heavy vehicle selection, procurement and use.

Goal:

Dubbo Regional Council will progressively switch to low or zero emissions vehicles within its heavy vehicle fleet at the time of renewal, where the total cost of ownership (TCO) is equal to or less than the TCO of the existing traditionally powered vehicle and the vehicle is fit for purpose.

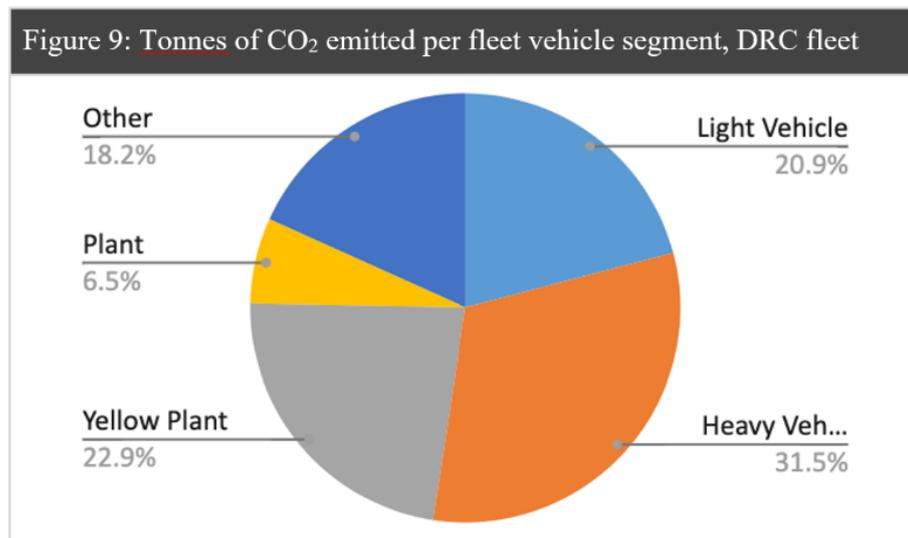
Rationale:

Council’s heavy vehicle fleet currently contains 72 vehicles, with the dominant vehicle class being tipper trucks. There is a tendency within the fleet for heavier vehicles, with nearly three quarters of the fleet over 11 tonnes GVM.



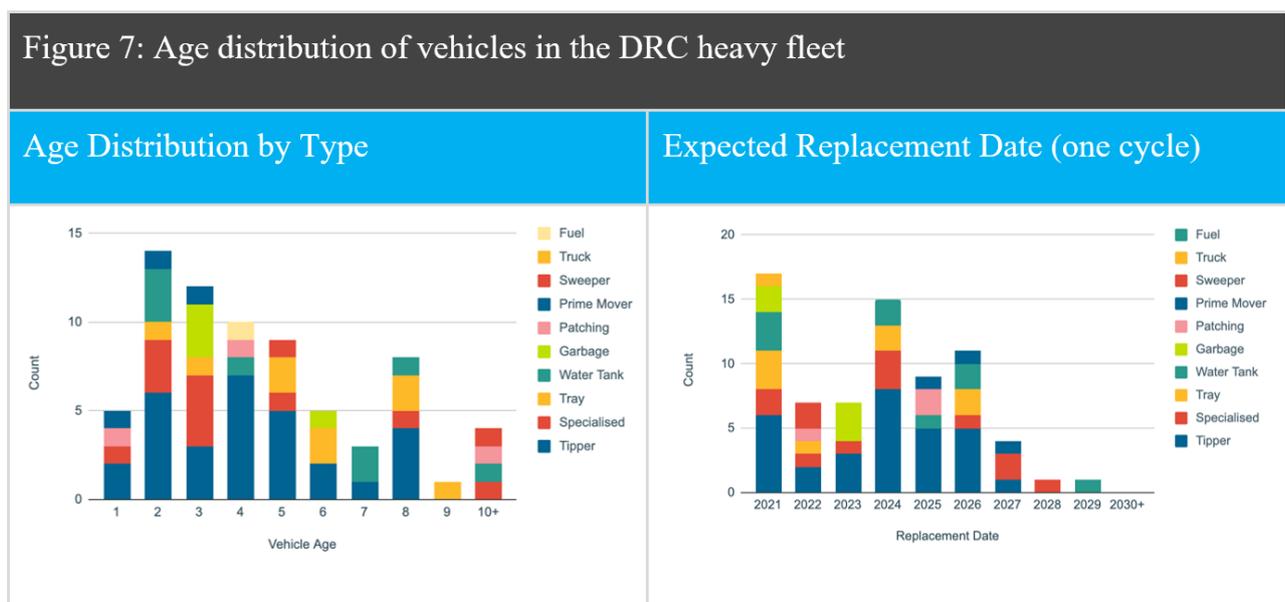
Source: DRC Zero Emissions Fleet Roadmap, Everergi November 2021

Council’s heavy truck fleet and heavy plant dominate Council emissions accounting for over **60%** of total fleet greenhouse gas emissions.



Source: DRC Zero Emissions Fleet Roadmap, Everengi November 2021

A relatively large proportion of heavy fleet assets are set for replacement in the coming financial years



Source: DRC Zero Emissions Fleet Roadmap, Everengi November 2021

Depending on the specific use case, the business case for low to zero emissions heavy vehicles and availability of appropriate vehicles is generally poor, which will result in a period of relative inaction for heavy vehicle fleet transition particularly before 2025.

A like for like replacement analysis was conducted part of the Roadmap which concluded that given current technology only 7 heavy vehicles had an operationally straightforward electric option available on the market at “the time of scheduled replacement” and with a positive Total Cost of Ownership over a ten year period. In addition, the Roadmap

concluded that hydrogen powered (Hydrogen Fuel Cell) vehicles are more than ten years from cost-effective fleet operation in a regional setting.

The technical specification, cost and weight improvements expected in the heavy electric vehicle industry over the next 10 years will increasingly improve the business case for electrification of Council’s heavy vehicle fleet. Given the significant investments globally in zero emission vehicle R&D, there is also potential for a break-through in operational capabilities sooner than projected.

It is also likely that the Central West Orana Renewable Energy Zone (REZ) may provide some opportunities for Council to invest in hydrogen fuel cell technology should hydrogen infrastructure investment occur within REZ.

Council’s heavy vehicle fleet transition pathway prior to 2025 will therefore focus on trialling a number of zero emission options, adopting a pilot and learn approach. A key element of this approach will be ensuring that Council collates relevant data on its heavy vehicle requirements (e.g. payload), and tracks and monitors the performance of any trial low or zero emission heavy vehicles.

Key Strategic Outcomes:

HV 1	Council prepares a Heavy Vehicle Fleet Policy aligned to Council’s Zero Emission Fleet Strategy goals for heavy vehicles. The Policy addresses vehicle selection, procurement, and use.
HV 2	Council is aware and knowledgeable of the ‘fit for purpose’ requirements of its heavy vehicle fleet.
HV 3	Council reviews available ‘fit for purpose’ low or zero emission vehicles, their associated Total Cost of Ownership (TCO), and updates Council’s Heavy Vehicle Fleet Policy’s Vehicle Selection List annually.
HV 4	Council’s fleet budget aligns with Council’s Heavy Vehicle Fleet Policy.
HV 5	Council pursues funding opportunities to aid and accelerate its heavy vehicle fleet transition. Grants assist in closing the Total Cost of Ownership (TCO) gap between zero emission and traditionally powered heavy vehicle fleet.
HV 6	Council adopts a ‘pilot and learn’ approach to its heavy vehicle fleet transition.
HV 7	Council staff are aware, and have an operational knowledge of, zero emission vehicles introduced into the heavy vehicle fleet.
LV 8	In accordance with Council’s adopted <i>Energy Strategy and Implementation Plan 2020 – 2025</i> , Council obtains at least 50% of Council’s heavy vehicle electricity consumption from renewable energy by 2025.
HV 9	Council is aware and knowledgeable of technological advances in zero emissions heavy vehicles.

HV 10	Council partners with like-minded councils to lobby the State and Federal governments to prioritise the transition of heavy vehicles and investment in solutions to accelerate the transition.
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3.3.3 Strategy Area Three – Servicing and Maintenance

Scope:

This strategy area addresses vehicle servicing and maintenance of Council’s zero emission light and heavy vehicle fleet.

Goal:

Dubbo Regional Council plans for and provides vehicle servicing and maintenance aligned to Council’s Zero Emission Fleet Strategy goals.

Rationale:

Electric vehicles only have a small number of moving parts that require maintenance, such as software updates, brake fluid, wiper fluid, wiper blades, tyre and wheel alignment and care, air conditioning servicing and the cabin air filter. Major servicing issues such as motor bearing failure and battery degradation are not issues that normally arise in the operational life of electric vehicles, but would be warranty covered items.

In this regard, electric vehicles will require both in house and external servicing and maintenance. Whilst Council may be able to attend to most maintenance requirements at a significant saving over external servicing, any sensor failures and associated error codes will require the vehicle to be sent to a car dealership with access to special IP owned by the vehicle manufacturer. In addition vehicle dealerships may be required for scheduled servicing to ensure warranty compliance, or to address any warranty claims.

The Roadmap indicates that in the early years of transition Council may grapple with the lack of vehicle dealership support, but some local dealers such as Nissan, Kia and Hyundai are working towards electric vehicle readiness in the region.

Council will need to ensure in house maintenance staff attain the skills required, and develop any procedures and policies to ensure a ‘safe work environment’ when working with electric vehicles.

Key Strategic Outcomes:

SM 1	Dubbo Regional Council prepares a Vehicle Servicing and Maintenance Policy aligned to Council's Zero Emission Fleet Strategy goals.
SM 2	Council in-house servicing and maintenance staff attain the skills required for the transition to a zero emissions fleet
SM 3	Council develops procedures and policies to ensure a "safe work environment" for the transition to a zero emissions fleet
SM 4	Council services and maintains low to zero emission vehicles according to the above Vehicle Servicing and Maintenance Policy

3.3.4 Strategy Area Four – Charging Infrastructure

Scope:

This strategy area addresses charging infrastructure and software selection, procurement, installation, use, servicing and maintenance.

Goal:

Dubbo Regional Council plans for, installs and maintains appropriate charging infrastructure aligned to Council's Zero Emission Fleet Strategy goals.

Rationale:

The number of chargers required to be installed in the early years of transition is recommended to be "one charger per one electric vehicle" procured until it has been operationally demonstrated that this number of chargers is not required. Council will obtain a better understanding of the required number of chargers through real world experience obtained in the early phases of transition and also the use of telematics.

The type of chargers installed must be 'smart' or controllable chargers to ensure load management systems, which integrate with all chargers on site and regulates their output, can be installed to reduce ongoing energy costs and impacts on the electricity network. Consideration should be given to chargers with vehicle to grid (V2G), vehicle to home (V2H), or vehicle to load (V2L) capabilities however these technologies are relatively new and may limit electric vehicle options in the very near future.

The size of chargers required at these sites will be Level 2 AC fast chargers (7- 22 kW). It was not recommended that Council install Level 3 DC Rapid Chargers (e.g. Tesla, NRMA) for its fleet.

The priority location for charging infrastructure will be Council buildings and facilities which house the majority of Council's fleet, such as the Dubbo Hawthorne Street Depot, Wellington Amaroo Drive Depot and the Dubbo Civic Administration Building. However

households will also play a critical role with one in three vehicles within Council’s fleet considered suitable for home charging (97 of 291 vehicles). Many factors however will need to be considered before Council installs home or private charging infrastructure, but it may aid Council’s transition where it removes or limits the need for costly Council building and network upgrades.

Future proofing Council buildings and facilities will be particularly important when it comes to Council’s electric vehicle transition. Major costs can incur to Council should existing sites require costly carpark trenching and civil works, or a site requires upgrades to upstream grid infrastructure (e.g. transformers, cables or feeder mains). In addition, any required upgrades to grid infrastructure can take time (18-24 months) and any increases in network capacity are allocated by the distribution network service provider (DNSP) on a first come first served basis.

Key Strategic Outcomes:

CI 1	Council prepares a Charging Infrastructure Policy aligned to Council’s Zero Emission Fleet Strategy goals. The Policy would cover infrastructure and software selection, procurement, installation, use, servicing and maintenance.
CI 2	Council buildings and facilities are future proofed. Council considers and plans for future charging infrastructure requirements at existing, refurbished and new buildings, facilities and carparks.
CI 3	Council determines the feasibility of, and if feasible plans for, future home charging infrastructure required to support Council leaseback vehicles garaged at home.
CI 4	Council ensures operational budgets are aligned to Council’s zero emissions fleet transition goals.
CI 5	Council pursues funding opportunities to aid and accelerate the installation of charging infrastructure required to meet Council’s zero emissions fleet transition goals.
CI 6	Council has adequate charging infrastructure to meet Council’s Zero Emission Fleet Strategy goals.
CI 7	Council staff are aware, and have an operational knowledge of, installed charging infrastructure
CI 8	Council staff attain the skills required for the transition to a zero emissions fleet particularly in relation to servicing and maintaining charging infrastructure
CI 9	Council develops procedures and policies to ensure a “safe work environment” for the transition to a zero emissions fleet particularly in relation to charging infrastructure
CI 10	Council services and maintains installed charging infrastructure according to the above Charging Infrastructure Policy
CI 11	Council monitors advances in, and obtains a better understanding of, charging infrastructure required to support its future low to zero emissions fleet
CI 12	Council partners with like-minded councils to lobby the State and Federal governments to prioritise investment in charging infrastructure within the region.

4 Implementation Plan

This section contains specific actions to be undertaken by Dubbo Regional Council to ensure the key strategic outcomes in the Zero Emissions Fleet Strategy are addressed.

A copy of the Implementation Plan is below.

The delivery timeframe for the Plan will be from when the Zero Emissions Fleet Strategy and Implementation Plan is adopted by the Executive Leadership Team and/or Council until June 2025.

The delivery timeframe is split into three categories and assigned against each specific action.

- Short Term – completion within 1-2 years
- Medium Term – completion within 3-4 years
- Ongoing – a recurring event to be completed on a continuing basis

Strategy Area		Light Vehicles				
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility	
LV 1	Council prepares a Light Vehicle Fleet Policy aligned to Council's Zero Emission Fleet Strategy goals for light vehicles.	<p>LV 1.1 Council develops and adopts a Light Vehicle Fleet Policy aligned to Council's Zero Emission Fleet Strategy goals for light vehicles.</p> <p>The Policy addresses vehicle selection, procurement, and use.</p> <p>The Policy also considers the incorporation of measures to aid electrification, such as extended holding periods of vehicles.</p> <p>The Policy includes a Vehicle Selection List or Schedule which is updated and approved annually by the Executive Leadership Team.</p>	Short Term	Fleet & Depot Services	Fleet & Depot Services / Resource Recovery & Efficiency	
LV 2	Council reviews available 'fit for purpose' low or zero emission light vehicles, their associated Total Cost of Ownership (TCO), and updates the Light Vehicle Fleet Policy's Vehicle Selection List annually	LV 2.1 Council reviews the available 'fit for purpose' low or zero emission light vehicles, and their associated Total Cost of Ownership (TCO).	Annually	Fleet & Depot Services	Fleet & Depot Services	
		LV 2.2 Council updates the Light Vehicle Fleet Policy's Vehicle Selection List or Schedule according to the results of the 'fit for purpose' low or zero emission vehicles review.	Annually	Fleet & Depot Services	Fleet & Depot Services	
LV 3	Council's fleet budget aligns with Council's Light Vehicle Fleet Policy.	LV 3.1 Council's fleet budget is updated to reflect Council's Light Vehicle Fleet Policy.	Annually	Fleet & Depot Services	Fleet & Depot Services	

Strategy Area		Light Vehicles				
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility	
LV 4	Council investigates and introduces where feasible incentives for staff leaseback vehicles to aid and accelerate its light vehicle fleet transition.	LV 4.1 Council develops and adopts an incentive for staff leaseback vehicles which allow a higher purchase price for electronic vehicles (EVs) when the total cost of ownership over a four year period is no more than the approved range of internal combustion engine vehicle options. This incentive may be altered by the CEO when considered advantageous with new technology and government incentives that do not increase the total cost of ownership to Council.	Short Term	Fleet & Depot Services	Fleet & Depot Services	
LV 5	Council pursues funding opportunities to aid and accelerate its light vehicle fleet transition. Grants assist in closing the Total Cost of Ownership (TCO) gap between zero emission and traditionally powered light vehicle fleet.	LV 5.1 Council applies for Federal or State Government grants to assist in funding the Total Cost of Ownership (TCO) gap between zero emission and traditionally powered light vehicle fleet.	Short Term	Fleet & Depot Services	Fleet & Depot Services / Resource Recovery & Efficiency	
LV 6	Council purchases low or zero emissions vehicles according to Council's Zero Emission Fleet Strategy goals and in accordance	LV 6.1 Council purchases low or zero emissions vehicles according to Council's Zero Emission Fleet Strategy goals and in accordance with the Light Vehicle Fleet Policy.	Short to Medium	Fleet & Depot Services	Fleet & Depot Services	

Strategy Area		Light Vehicles				
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility	
	with the Light Vehicle Fleet Policy.	LV 6.2	Council considers purchasing a low or zero emissions vehicle as a "pool car or Council use only vehicle" to allow staff to be familiar with and to gain a better understanding of EV technology.	Short	Fleet & Depot Services	Fleet & Depot Services / Development & Marketing
LV 7	Council staff are aware, and have an operational knowledge of, zero emission vehicles introduced into the light vehicle fleet	LV 7.1	An induction or training course is developed for staff drivers of Council owned zero emission light vehicles.	Medium	Fleet & Depot Services	Fleet & Depot Services/ People, Culture & Safety
		LV 7.1	Staff complete an induction or training course prior to driving Council owned zero emission light vehicles.	Medium	Fleet & Depot Services	Relevant Staff
		LV 7.2	An educational test drive day (or week) is planned by Council in collaboration with a light electric vehicle retailer to increase staff awareness and operational knowledge of low to zero emission light vehicles.	Medium	Fleet & Depot Services	Fleet & Depot Services/ People, Culture & Safety

Strategy Area		Light Vehicles				
Key Strategic Outcomes		Actions		Delivery	Funding	Responsibility
LV 8	In accordance with Council's adopted Energy Strategy and Implementation Plan 2020 – 2025, Council obtains at least 50% of Council's light vehicle electricity consumption from renewable energy by 2025.	LV 8.1	As part of Council's electricity contract, Council purchases at least 50% of Council's light vehicle electricity consumption from renewable energy by 2025.	Medium	Organisational Services (Procurement)	Resource Recovery and Efficiency/ Organisational Services (Procurement)
LV 9	Council is aware and knowledgeable of technological advances in zero emissions light vehicles	LV 9.1	Council is a member of local government networks aimed at increasing council awareness and knowledge of technological advances in zero emissions light vehicles	Ongoing	Fleet & Depot Services / Resource Recovery & Efficiency	Fleet and Depot Services / Resource Recovery & Efficiency
LV 10	Council partners with like-minded councils to lobby the State and Federal governments to prioritise the transition of light vehicles and investment in solutions to accelerate the transition.	LV 10.1	Council is a member of local government networks which lobby the State and Federal governments to prioritise the transition of light vehicles and investment in solutions to accelerate the transition.	Ongoing	Fleet and Depot Services / Resource Recovery & Efficiency	Fleet and Depot Services / Resource Recovery & Efficiency

Strategy Area		Heavy Vehicles			
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility
HV 1	Council prepares a Heavy Vehicle Fleet Policy aligned to Council's Zero Emission Fleet Strategy goals for heavy vehicles. The Policy addresses vehicle selection, procurement, and use.	HV 1.1 Council develops and adopts a Heavy Vehicle Fleet Policy aligned to Council's Zero Emission Fleet Strategy goals for light vehicles. The Policy addresses vehicle selection, procurement, and use. The Policy includes a Vehicle Selection List or Schedule which is updated and approved annually by the Executive Leadership Team.	Short	Fleet & Depot Services	Fleet & Depot Services / Resource Recovery & Efficiency
HV 2	Council is aware and knowledgeable of the 'fit for purpose' requirements of its heavy vehicle fleet	HV 2.1 Council conducts a review of its 'fit for purpose' requirements of its heavy vehicle fleet.	Short	Fleet & Depot Services	Fleet & Depot Services
HV 3	Council reviews available 'fit for purpose' low or zero emission heavy vehicles, their associated Total Cost of Ownership (TCO)	HV 3.1 Council reviews the available 'fit for purpose' low or zero emission heavy vehicles, and their associated Total Cost of Ownership (TCO).	Annually	Fleet & Depot Services	Fleet & Depot Services
HV 4	Council's fleet budget aligns with Council's Heavy Vehicle Fleet Policy.	HV 4.1 Council's fleet budget is updated to reflect Council's Heavy Vehicle Fleet Policy.	Annually	Fleet & Depot Services	Fleet & Depot Services

Strategy Area		Heavy Vehicles				
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility	
HV 5	Council pursues funding opportunities to aid and accelerate its heavy vehicle fleet transition. Grants assist in closing the Total Cost of Ownership (TCO) gap between zero emission and traditionally powered heavy vehicle fleet.	HV 5.1	Council applies for Federal or State Government grants to assist in funding the Total Cost of Ownership (TCO) gap between zero emission and traditionally powered heavy vehicle fleet.	Short	Fleet & Depot Services	Fleet & Depot Services / Resource Recovery & Efficiency
HV 6	Council adopts a 'pilot and learn' approach to its heavy vehicle fleet transition	HV 6.1	Council purchases a zero emissions heavy vehicle to trial within its fleet in accordance with Council's Zero Emission Fleet Strategy and Heavy Vehicle Fleet Policy.	Medium	Fleet & Depot Services	Fleet & Depot Services
HV 7	Council staff are aware, and have an operational knowledge of, zero emission vehicles introduced into the heavy vehicle fleet	HV 7.1	An induction or training course is developed for staff drivers of Council owned zero emission heavy vehicles.	Medium	Fleet & Depot Services	Fleet & Depot Services/ People, Culture & Safety
		HV 7.2	Staff compete an induction or training course prior to driving Council owned zero emission heavy vehicles.	Medium	Fleet & Depot Services	Relevant Staff
		HV 7.3	An educational test drive day (or week) is planned by Council in collaboration with a heavy electric vehicle manufacturer to increase staff awareness and operational knowledge of low to zero emission heavy vehicles.	Medium	Fleet & Depot Services	Fleet & Depot Services/ People, Culture & Safety

Strategy Area		Heavy Vehicles				
Key Strategic Outcomes		Actions		Delivery	Funding	Responsibility
HV 8	In accordance with Council's adopted Energy Strategy and Implementation Plan 2020 – 2025, Council purchases at least 50% of Council's heavy vehicle electricity consumption from renewable energy by 2025.	HV 8.1	As part of Council's electricity contract, Council purchases at least 50% of Council's heavy vehicle electricity consumption from renewable energy by 2025.	Medium	Organisational Services (Procurement)	Resource Recovery & Efficiency/ Organisational Services (Procurement)
HV 9	Council is aware and knowledgeable of technological advances in zero emissions heavy vehicles	HV 9.1	Council is a member of local government networks aimed at increasing council awareness and knowledge of technological advances in zero emissions heavy vehicles	Ongoing	Fleet and Depot Services / Resource Recovery & Efficiency	Fleet and Depot Services / Resource Recovery & Efficiency
HV 10	Council partners with like-minded councils to lobby the State and Federal governments to prioritise the transition of heavy vehicles and investment in solutions to accelerate the transition.	HV 10.1	Council is a member of local government networks which lobby the State and Federal governments to prioritise the transition of heavy vehicles and investment in solutions to accelerate the transition.	Ongoing	Fleet and Depot Services / Resource Recovery & Efficiency	Fleet and Depot Services / Resource Recovery & Efficiency

Strategy Area		Servicing and Maintenance				
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility	
SM 1	Council prepares a Vehicle Servicing and Maintenance Policy aligned to Council's Zero Emission Fleet Strategy goals.	SM1.1	Council develops and adopts a Vehicle Servicing and Maintenance Policy aligned to Council's Zero Emission Fleet Strategy goals.	Short	Fleet & Depot Services	Fleet & Depot Services
SM 2	Council in-house servicing and maintenance staff attain the skills required for the transition to a zero emissions fleet	SM2.1	Council is aware of the inhouse skills required and courses available for staff in relation to servicing and maintaining zero emissions	Short	Fleet & Depot Services	Fleet & Depot Services
		SM2.2	Council obtain the inhouse skills required for servicing and maintaining zero emission vehicles	Medium	Fleet & Depot Services	Fleet & Depot Services / People, Culture & Safety
SM 3	Council develops procedures and policies to ensure a "safe work environment" for the transition to a zero emissions fleet	SM3.1	Council is aware of the risks of inhouse servicing and maintaining zero emission vehicles	Short	Fleet & Depot Services	Fleet & Depot Services / People, Culture & Safety
		SM3.2	Council develops and adopts procedures and policies to ensure a "safe work environment" when servicing and maintaining zero emissions vehicles	Medium	Fleet & Depot Services	Fleet & Depot Services / People, Culture & Safety

Strategy Area		Servicing and Maintenance				
Key Strategic Outcomes		Actions		Delivery	Funding	Responsibility
SM 4	Council services and maintains low to zero emission vehicles.	SM4.1	Council services and maintains low to zero emission vehicles according to the above Vehicle Servicing and Maintenance Policy.	Short to Medium	Fleet & Depot Services	Fleet & Depot Services

Strategy Area		Charging Infrastructure				
Key Strategic Outcomes		Actions		Delivery	Funding	Responsibility
CI 1	Council prepares a Charging Infrastructure Policy aligned to Council's Zero Emission Fleet Strategy goals. The Policy would cover infrastructure and software selection, procurement, installation, use, servicing and maintenance.	CI 1.1	<p>Council develops and adopts a Charging Infrastructure Policy aligned to Council's Zero Emission Fleet Strategy goals for light vehicles.</p> <p>The Policy would cover infrastructure and software selection, procurement, installation, use, servicing and maintenance.</p>	Short	Resource Recovery & Efficiency	Resource Recovery & Efficiency/ Building Services/Fleet & Depot Services
CI 2	Council buildings and facilities are future proofed. Council considers and plans for future charging infrastructure requirements at existing, refurbished and new buildings, facilities and carparks.	CI2.1	Council develops and adopts a Sustainable Building Policy (<i>as per Council's adopted Energy Strategy and Implementation Plan</i>) to ensure Council considers and plans for future charging infrastructure requirements at existing, refurbished and new buildings, facilities and carparks.	Short	Resource Recovery & Efficiency	Resource Recovery & Efficiency/ Building Services

Strategy Area		Charging Infrastructure				
Key Strategic Outcomes		Actions	Delivery	Funding	Responsibility	
CI 3	Council determines the feasibility of, and if feasible plans for, future home charging infrastructure required to support Council leaseback vehicles garaged at home.	CI3.1	Council conducts a study into the feasibility of utilising home charging infrastructure to charge Council low to zero emission leaseback vehicles.	Short	Resource Recovery & Efficiency	Resource Recovery & Efficiency/ Building Services/ Fleet & Depot Services
		CI3.2	If feasible Council plans for future home charging infrastructure required to support Council leaseback vehicles garaged at home	Medium	Fleet & Depot Services	Building Services/ Fleet & Depot Services
CI 4	Council ensures operational budgets are aligned to Council's zero emissions fleet transition goals.	CI4.1	Council's fleet budget is updated to reflect charging infrastructure requirements needed to meet Council's zero emissions fleet transition goals.	Annually	Fleet & Depot Services	Fleet & Depot Services
CI 5	Council pursues funding opportunities to aid and accelerate the installation of charging infrastructure required to meet Council's zero emissions fleet transition goals.	CI5.1	Council applies for Federal or State Government grants to assist in funding the installation of charging infrastructure required to meet Council's zero emission fleet transition goals.	Short	Resource Recovery & Efficiency	Resource Recovery & Efficiency
CI 6	Council has adequate charging infrastructure to meet Council's Zero Emission Fleet Strategy goals.	CI6.1	Council installs charging infrastructure according to Council's Zero Emission Fleet Strategy goals, and in accordance with the Charging Infrastructure Policy.	Short to Medium	Fleet & Depot Services	Building Services

Strategy Area		Charging Infrastructure				
Key Strategic Outcomes		Actions		Delivery	Funding	Responsibility
CI 7	Council staff are aware, and have an operational knowledge of, installed charging infrastructure	CI7.1	A charging infrastructure induction or training course is developed for staff drivers of Council owned zero emission vehicles.	Medium	Building Services	Building Services/People, Culture & Safety
		CI7.2	Staff compete a charging infrastructure induction or training course prior to driving Council owned zero emission vehicles.	Medium	Building Services	Relevant Staff
		CI7.3	An education or demonstration day is planned by Council to increase staff awareness and operational knowledge of installed charging infrastructure.	Medium	Building Services	Building Services/ People, Culture & Safety
CI 8	Council staff attain the skills required for the transition to a zero emissions fleet particularly in relation to servicing and maintaining charging infrastructure	CI8.1	Council is aware of the in-house skills required and courses available for staff in relation to servicing and maintaining charging infrastructure	Short	Building Services	Building Services
		CI8.2	Council obtain the in-house skills required for servicing and maintaining charging infrastructure	Medium	Building Services	Building Services
CI 9	Council develops procedures and policies to ensure a “safe work environment” for the	CI9.1	Council is aware of the risks of in-house servicing and maintenance of charging infrastructure	Short	Building Services	Building Services / People, Culture & Safety

Strategy Area		Charging Infrastructure				
Key Strategic Outcomes		Actions		Delivery	Funding	Responsibility
	transition to a zero emissions fleet particularly in relation to charging infrastructure	CI9.2	Council develops and adopts procedures and policies to ensure a “safe work environment” when servicing and maintaining charging infrastructure	Medium	Building Services	Building Services / People, Culture & Safety
CI 10	Council services and maintains installed charging infrastructure.	CI10.1	Council staff (or Council’s contractor) maintain and service installed charging infrastructure according to the above Charging Infrastructure Policy.	Short to Medium	Building Services	Building Services
CI 11	Council monitors advances in, and obtains a better understanding of, charging infrastructure required to support its future low to zero emissions fleet	CI11.1	Council is a member of local government networks aimed at increasing council awareness and knowledge of technological advances in charging infrastructure	Ongoing	Resource Recovery & Efficiency	Resource Recovery & Efficiency/ Building Services
CI 12	Council partners with like-minded councils to lobby the State and Federal governments to prioritise investment in charging infrastructure within the region.	CI12.1	Council is a member of local government networks which lobby the State and Federal governments to prioritise investment in charging infrastructure within the region.	Ongoing	Resource Recovery & Efficiency	Resource Recovery & Efficiency/ Building Services

5 Monitoring, Reporting and Review

Key strategic goals, outcomes and actions from the Strategy and Implementation Plan must be incorporated by relevant Directors and Managers into Council's four year Delivery and one year Operational Plans.

In this light any progress achieved against the Strategy and Implementation Plan will be reported on by the Responsible Council Officer through the standard Council Integrated Planning and Reporting process.

A detailed strategic review of the Strategy and Implementation Plan will then be completed by December 2024.