LACHLAN SHIRE COUNCIL

Zero Emissions Fleet Transition Plan

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Prepared by

CENTRAL NSW JOINT ORGANISATION

ChargeWorks

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NSW GOVERNMENT

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Introduction to Council's Fleet Transition Plan

This **Zero Emissions Fleet Transition Plan** sets out the actions that Lachlan Shire Council will take to reduce its dependence on liquid fossil fuels, reduce costs, and promote sustainability through the introduction of electric vehicles (EVs) into Council's fleet.

The global projections, market forces, and commitments made by vehicle manufacturers towards electrification means that the transition to electric vehicles will be rapid, and a proactive response from Council is required.

This plan is comprised of six sections outlining Council's considerations and plans to pursue a zero emissions fleet:

1. Fleet Overview
2. State of Electric Vehicles
3. Barriers and Opportunities to Adoption
4. Business Case Analysis
5. Council Targets
6. Charging Infrastructure Planning

Implementing this plan will allow Council to pursue a lower cost and lower emissions future without compromising its operations.

This plan has been prepared in close consultation with Central NSW Joint Organisation and in support of the ***CNSWJO Zero Emissions Fleet Strategy.***

Lachlan Shire Council has the objective to achieve a target of **75% of new passenger vehicle purchases by 2030-31.**

Figure 1: Lachlan Shire Council Administration Building with EV Charging

Section 1 - Fleet Overview

Council's fleet is comprised of 155 vehicles as per the following categories:

Category	Number	Annual Fuel usage L	Emissions %
Utility	50	116,157	25%
Passenger	27	58,966	13%
Trucks	22	150,970	32%
Light Plant* (Mowers, Forklifts)	27	9,315	2%
Heavy Plant (Tractors, Backhoes)	29	130,401	28%
Total	**155**	**465,810L**	**100%**

Table 1: Fleet Overview

*Light plant fuel data is estimated based on typical CNSWJO light plant fuel consumption

Lachlan Shire Council manages approximately 4,400 kms of roads, of which around 1,000 kms are sealed. This is the largest road network of any local council in NSW.

Trucks, heavy plant and utility vehicles are essential to Council's operations.

However, these vehicles also account for **85%** of Council's overall fuel usage and emissions.

To achieve a zero-emissions fleet, Council must plan how to address each segment.

- As at July 2024, there is a lack of suitable hybrid or electric utility vehicle models available in the market. This space is rapidly developing and within the next 1-3 years several alternative options will appear.
- Manufacturers such as Hino, Hyundai, Isuzu and Foton already offer medium-rigid electric trucks. Council has already tested a Foton 6T electric truck and will continue to trial these vehicles as they improve and become more affordable.
- The market for electrified heavy vehicles and plant is still in its infancy, however, most the manufacturers that supply Councils are beginning to produce electric plant vehicles. Electric plant vehicles available include loaders, excavators, compactors, rollers, mixers, pavers, backhoes and more.
- Options for hydrogen fuel cell electric trucks are also emerging, for example Hyzon Motors heavy rigid truck platform.

Council intends to take action to encourage and plan for adopting these types of zero-emission vehicles as they emerge because it offers the greatest opportunity to reduce fuel costs and emissions.

Council's passenger vehicles account for approximately **12%** of overall fuel usage. This segment presents an immediate opportunity for emissions reductions through adoption of electric passenger vehicles which are already available in the Australian market.

Fleet Size and Vehicle Count

Council's fleet is comprised of the following vehicle class breakdown (by count).

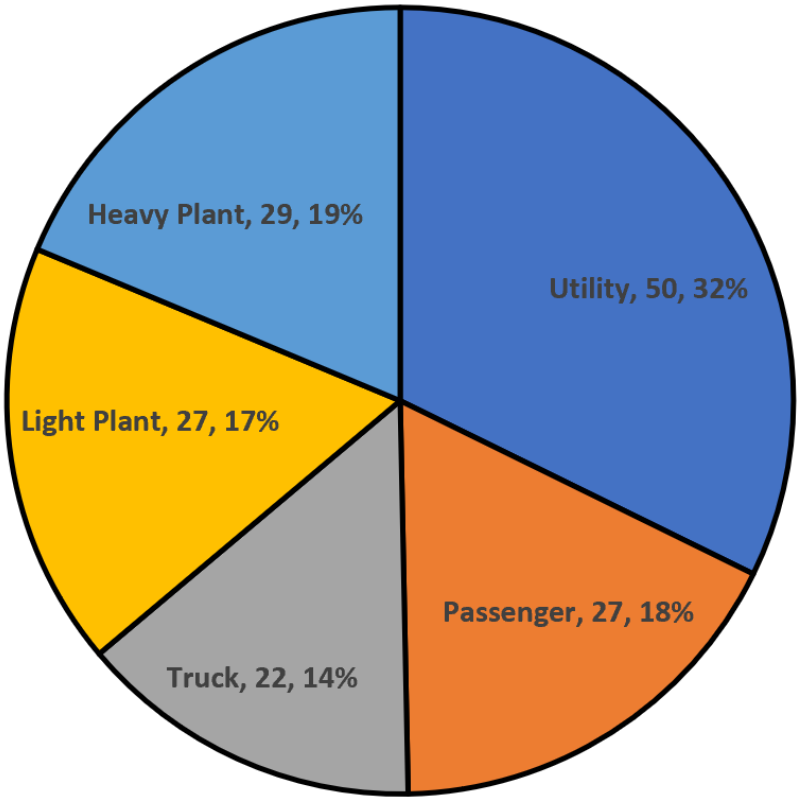

Figure 2: Fleet Vehicle Count

It is significant to note that most of the fleet are utility vehicles (utes and vans).

This highlights that a **capable and affordable electric ute** is pivotal to Council's ability to transition to a zero-emissions fleet.

Leaseback vehicles also form a significant portion of our fleet.

- In the passenger vehicle segment, 11 out of 27 vehicles are leaseback.
- In the utility vehicle segment 13 out of 50 are leaseback.

Leaseback vehicles present an immediate opportunity for cost savings due to the Fringe Benefits Tax (FBT) exemption offered on electric vehicles. This is timely given the ATO crackdown on the private use of utes as personal vehicles – which is FBT applicable.

Vehicle Age

Council vehicles have the following turnover periods (whichever occurs first):

Vehicle Type	**Turnover Duration**	**Turnover Duration**
Leaseback vehicles	3 years	80,000 kms
Work vehicles	4 years	100,000 kms
Trucks and Plant	5-10 years	-

Therefore, Council will naturally turnover and buy replacements for most of its fleet in the next 3-5 years. Over this timeframe, many Council vehicles will become cost-effective candidates for electrification.

Vehicle Fuel Consumption and Behaviour

The following graph summarises the fuel usage attributable to each vehicle category.

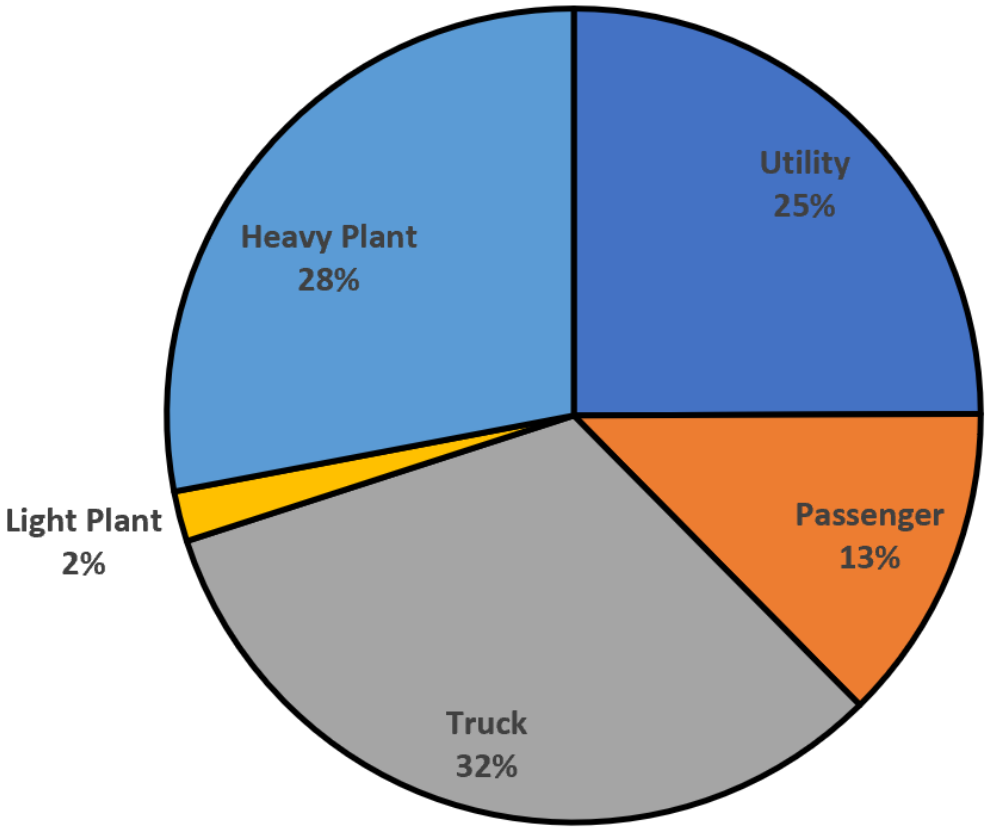

Figure 3: Fuel Usage by Vehicle Class

Council's short-term plan for transitioning to a zero-emissions fleet should address all segments.

The state of electric vehicles in Australia (refer section 2 below) is that **passenger vehicles are the immediate opportunity**, however, Council's vision is to also **target the electrification of utility vehicles, trucks and plant as they become available.**

Typical and Extreme Use Cases

The fuel consumption of individual vehicles in Council's fleet varies widely.

The figure below shows the range of fuel usage across each vehicle category:

- Most of Council's passenger vehicles, for example, typically use (only) around 2,000L p.a., whilst some outliers consume as much as 4,200L p.a.
- Council's utility vehicles consume more fuel on average than the passenger vehicles and have a wider range of use cases. Some work vehicles don't really drive that much whilst some leaseback vehicles consume as much as 6,500L per year.
- The majority of Council's fuel consumption is attributable to a few high-use trucks and plant vehicles.

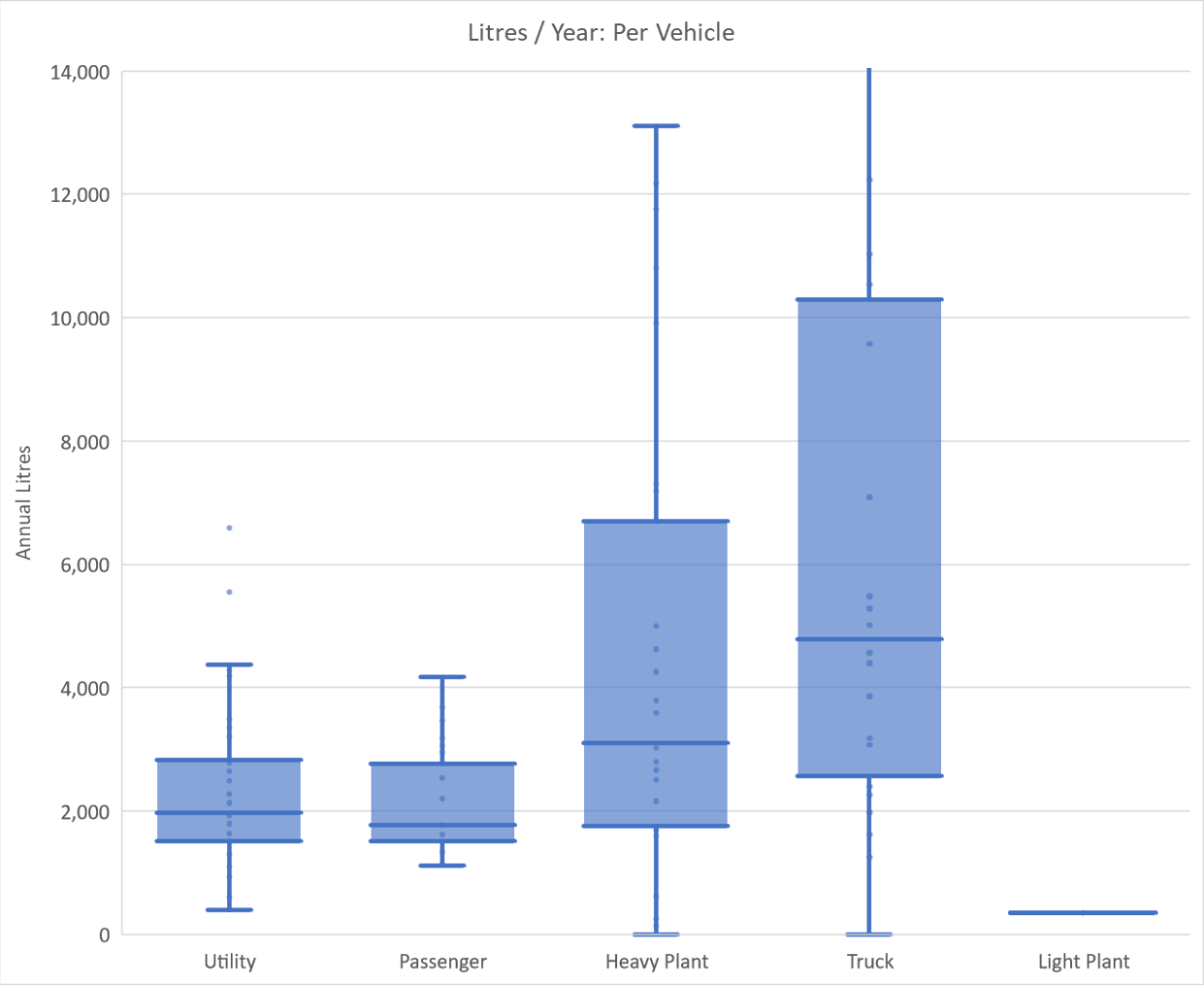

Figure 4: Vehicle Fuel Usage Distribution

This analysis shows that **replacing a smaller number of high-use vehicles with electric alternatives will have the biggest impact on reducing cost and emissions**.

The optimal vehicles for transition are those that have above average fuel usage, i.e. those that that are used every day for between 100km-300km of driving. This is well within the operating range of modern electric vehicles.

Fuelling Behaviour

Approximately 90% of all fuel consumed by Council's fleet is dispensed at Council's depots. The remaining fuel (primarily leaseback vehicles) is dispensed at petrol stations.

This highlights that Council really needs to **plan for charging infrastructure at its depots** to service the fleet of the future.

Council has already made provision for charging infrastructure as part of the construction of the new works depot in Condobolin.

Council must plan how it will implement electric vehicle charging at key locations including:

1. Council Depot - Condobolin
2. Council Administration Building – Condobolin

These flagship projects are discussed in section 6 of Council's plan below.

A challenge unique to Lachlan Shire Council is the large distances between the three major town centres of Condobolin, Lake Cargelligo and Tottenham.

To reduce range anxiety during long out-and-back journeys, Council plans to install charging options at a variety of Council facilities in each town. This will provide flexibility to operational teams allowing them to top up at remote sites and eliminate the range anxiety of out-and-back journeys.

Council must ensure that there are a sufficient number of charging points to service the large number of utes and trucks. These charging points can be relatively low-powered so long as there are enough available for everyone to plug-in. Council may also wish to consider a few high-powered DC chargers to service occasional fast charging when required.

It is noteworthy that Forbes and Parkes have been selected in the first two rounds of the of the NSW Fast Charging Program. These charging locations will be commissioned in 2024 and will assist in facilitating electric vehicle journeys to and from Lachlan Shire.

Condobolin has been included as a 'remote regional zone' under round 3 of the fast-charging program. These means that a minimum of 4 charging bays, rated at a minimum of 150 kW per bay, will be installed in Condobolin. Council has submitted an expression of interest to host fast-charging at the 'utes in the paddock' visitor information centre.

Fast charging in town will be useful for ultra-fast charging Council vehicles without Council needing to install this capacity itself.

Emissions

Council's annual fleet emissions, based on the financial year ending 2023 are as follows:

- Scope 1 (Direct tailpipe emissions)
  - **1,263 Tonnes CO2 p.a.**
- Scope 1 + 3 (Total fuel lifecycle emissions including transport, storage and tailpipe)
  - **1,574 Tonnes CO2 p.a.**

Council's fleet total CO_2-e emissions (in kilograms) by vehicle category are as follows:

Vehicle Class	Scope 1 Emissions (kg)	Scope 1+3 Emissions (kg)
Utility	315,598	393,308
Passenger	157,774	196,741
Truck	410,187	511,186
Light Plant	25,309	31,541
Heavy Plant	354,300	441,538
Total	**1,263,169kg**	**1,574,314kg**

Table 2: Fleet Emissions

The majority of Council's emissions are attributable to **truck and heavy plant vehicles** – more than 953 Tonnes of CO2 per year.

Calculation of Emissions

The National Greenhouse Accounts Factors July 2023 state that the combustion of diesel and petrol emits 2.717 kg and 2.312 kg respectively of equivalent carbon dioxide emissions per litre of fuel (Scope 1).

Scope 3 – fuel lifecycle emissions refer to other emissions associated with the transport and storage of fuel. The National Greenhouse Accounts Factors allocate 17.2-17.3 kg CO2-e/KJ of emissions under Scope 3 in addition to Scope 1 tailpipe emissions including all other losses (mining / transport etc).

The CO_2 emissions calculation for Scope 1 and 3 are as follows:

Fuel Type	Emission factor kg CO2-e/GJ						GJ/kL	Product (kg CO2-e/L)	
	CO2	CH4	N2O	Total	Scope 3	Total		Scope 1	Scope 1+3
Diesel	69.9	0.01	0.5	70.41	+17.3	87.71	38.6	2.717 kg	3.386 kg
Petrol	67.4	0.02	0.2	67.62	+17.2	84.82	34.2	2.312 kg	2.901 kg

Table 3: Calculations for CO2 Emissions

Vehicle Metrics

The tables below detail the specifications for the common vehicle models currently in use at Council. The numbers below are indicative as there are some variations within model groups i.e. dual vs single-cab and age of vehicle.

Passenger Vehicles

Council has a variety of passenger vehicles in its fleet with the majority of vehicles being medium-large SUVs. Many of these vehicles have equivalent EV models available in Australia.

Model	Count	Size
Toyota Rav 4 / Hybrid	3	Medium SUV
Toyota Kluger / Hybrid	1	Large SUV
Toyota Fortuner	7	Large SUV
Toyota Land Cruiser / Prado	8	Large SUV
Ford Everest	6	Large SUV
Hyundai Imax	1	People Mover
Isuzu MUX	1	Large SUV
Total	**27**	

Table 4: Light Passenger Vehicle Metrics

Utility Vehicles

Council's utility vehicles are all broadly similar in specifications, however, there is some variation with model age and type. There is currently a lack of alternatives to these vehicles.

Model	Count	Weight (kg)	Payload (kg)	Towing (kg)
Volkswagen Amarok	1	2,283	967	3,500
Isuzu Dmax	3	1,596	1,405	2,800
Toyota Hilux	8	2,055	1,105	3,500
Ford Ranger	38	1,783	1,447	3,500
Total	**50**			

Table 5: Utility Vehicle Metrics

Trucks

The truck fleet categories below are based on its approximate GVM (Gross Vehicle Mass).

GVM	Count
6.5 Tonne	3
7.5 Tonne	3
10-12 Tonne	4
24 Tonne	1
35 Tonne	5
Prime Mover	6
Total	**22**

Table 6: Truck Metrics

Council's plan is to assess utes and trucks for electrification as they reach their normal turn-over duration of around 5 years. Vehicles will be assessed specifically in terms of their operational requirements i.e. range, payload, charging needs, and the suitability of electric alternatives.

Fleet Summary

Trucks and utility vehicles are the key to Council's fleet transition – they make up 48% of the fleet by count and are responsible for 57% of the overall fuel usage and emissions.

Electric trucks are already available but come at a cost premium. These vehicles must be assessed on a case-by-case basis when they reach end of life to ensure all operational requirements are met.

Since there is a lack of suitable available hybrid or electric utility vehicle models in the market, Council should proactively monitor and respond to new utility options in the next 1-3 years as zero-emissions options become available in Australia. To help in this endeavour, part of CNSWJO's regional strategy is to regularly record and distribute a register of available zero emissions vehicles, as well as make available opportunities for test drives.

Council turns over its light fleet every 3-5 years, and over this time period many vehicles will be candidates for electrification as suitable vehicles appear in Australia.

Leaseback vehicles form a significant portion of the fleet and present an immediate opportunity for cost savings through electrification due to the fringe benefits tax exemption offered to electric vehicles.

Council's total fuel usage, cost and emissions vehicle category is summarised as follows:

Vehicle Class	**Count** (Leaseback)	**Total Fuel Consumption**	**Total Fuel Cost**	**Total Scope 1 + 3 Emissions (kg)**
Utility	50 (13)	116,157	$ 214,890	393,308
Passenger	27 (11)	58,966	$103,510	196,741
Truck	22	150,970	$ 279,295	511,186
Light Plant	27	9,315	$17,233	31,541
Heavy Plant	29	130,401	$ 241,242	441,538
Total	**155**	**465,810L**	**$856,170**	**1,574,314kg**

Table 7: Summary of Fleet Metrics

As above, targeting a smaller number of high-use vehicles with electric alternatives will have the biggest impact on reducing cost and emissions.

Section 2 - State of Electric Vehicles

This section of Council's **Zero Emissions Fleet Transition Plan** summarises the state of zero emission vehicles in a global, Australian and NSW context and how this will influence the electrification of Council's fleet.

With reference to the ***CNSWJO Zero Emissions Fleet Strategy***, Council acknowledges the following takeaways from this research:

- Direct electrification via batteries is the most efficient, cost-effective and commercially available route to fully decarbonizing road transport.
- Options for hydrogen fuel cell electric trucks are also emerging, for example Hyzon Motors heavy rigid truck platform. Hydrogen options may be viable for very heavy equipment but is unlikely to be economical for light vehicles and most trucks.
- The transition to EVs will be rapid.
    - 8.4% of new vehicles in Australia are currently EVs.
    - Approximately 50% of passenger vehicle sales in 2030 will be EV.
- Electric vehicles already offer lower total cost of ownership in several vehicle categories and the business case for electrification continues to improve as vehicle prices reduce.
    - Passenger vehicles in the hatchback, SUV and sedan segments can already provide a lower total cost of ownership to Council.
    - Electric utility vehicles and trucks may initially have significant cost premiums compared to existing fleet vehicles, however, can similarly achieve a lower total cost of ownership in the right applications.
    - Price parity in some vehicle segments has already been reached and will extend to most vehicle classes by the end of the decade.
- EV sales are being dominated by new vehicle manufacturers, primarily based in China (e.g. Tesla, BYD, MG). This may force Council to consider alternative vehicle suppliers and servicing arrangements.
- Legacy manufacturers (particularly from Japan) are lagging in their ability to provide low cost, high volume EVs.
- Model availability and supply constraints will continue to restrict the speed in which Australia transitions to EVs. Council may have to adapt to what is available, particularly in the utility vehicle class.
- There is a **lack of affordable electric utility vehicles** currently in the market.
- The NSW government has implemented several mechanisms to support the transition to EVs including subsidies, fleet incentives and investment in charging infrastructure.
- The Australian government has recently published a national fuel efficiency standard for light vehicles.
- The role of large Plug-in Hybrid Electric Vehicles (PHEVs) going forwards is a stop-gap before even lower running cost all-electric vehicles are available.
- **PHEVs may initially be suitable for utility and large vehicle categories.**
- Electric trucks, to some extent, are already available in Australia.
- Electric light plant vehicles are available in Australia and can provide lower total cost of ownership (along with other performance benefits).
- The market for electrified heavy vehicles and plant is still in its infancy, however, most the manufacturers that supply Councils are beginning to produce electric plant vehicles. Electric plant vehicles available include loaders, excavators, compactors, rollers, mixers, pavers, backhoes and more.

Impact on Electrification of Council Vehicles

The table below summarises the key findings from the state of electric vehicles and the corresponding impact to Council.

Key Findings	**Impact to Council**
Zero emission vehicles will primarily be battery electric vehicles	EV charging infrastructure is required at depots and administration buildings
The transition to EVs will be rapid	Fleet procurement policies must adapt to rapidly changing market.
Electric vehicles can offer a lower total cost of ownership	Fleet procurement policies and leaseback offerings should include and encourage EV options.
The EV market is being dominated by new vehicle manufacturers	Fleet procurement policies must include new vehicle manufacturers Council will need to investigate servicing support of these manufacturers.
Model availability will continue to limit transition	Council will need to plan ahead to ensure vehicles are ready at time of turnover.
The federal government has introduced a national fuel efficiency standard for light vehicles	Model availability will change over the coming years, including a greater diversity of low and zero emission vehicles.
PHEVs may play a short-term role in the electrification of utility and large vehicle categories.	Council's plan for transitioning to a zero-emissions fleet will be centred around its two largest segments – the utility and passenger vehicles. The most suitable vehicles for Council in the next 1-3 years are electric vehicles with range-extending petrol engines (plug-in-hybrid-electric-vehicles). Unlike a conventional hybrid, these vehicles are primarily a ground up EVs with a small petrol engine to avoid the cost of a huge battery. As battery costs come down, subsequent models will be able to feature larger batteries with greater range and no need for a backup engine. This type of vehicle is a logical first step for Council because these vehicles will be initially more affordable to purchase and provide our drivers with confidence around vehicle range.
There is a lack of affordable electric utes in the market	Model availability in the next 1-3 years appears to be primarily PHEVs. Council intends to trial and adopt these types of vehicles as they become available (1-3 years), with a view to transitioning to all-electric options as they too become available (3-5 years).
Electric trucks are already available in Australia	Council has already tested a Foton 6T electric truck and will continue to trial these vehicles as they improve and become more affordable.
Electric light plant vehicles are already available in Australia	Council is particularly interested in trialling an all-electric mower as part of its light plant fleet and will look to turnover petrol mowers to electric.

Section 3 – Barriers and Opportunities

This section describes the barriers and opportunities facing Council in transitioning to an electric fleet.

With reference to the ***CNSWJO Zero Emissions Fleet Strategy***, Council acknowledges the following takeaways:

Barriers to Adoption of EVs

- Range anxiety is a common perceived barrier to adoption of EVs for Councils.
    - Electric passenger vehicles typically have a range of 300-600km.
    - Electric utility vehicles currently available have a range of 330km+
    - Electric trucks have a range of approximately 200-300km depending on operating conditions.
    - However, based on existing Council fleet usage behaviour, its vehicles very rarely drive even half this distance on a daily basis.
    - Council's passenger and utility vehicles should be able to transition to electric with little to no disruption to normal operating behaviour **provided that charging infrastructure is made available.**
    - The issue of range for Councils is not the required driving distance – it is the reliability and availability of charging infrastructure.
    - Common driving routes include return journeys to Orange (404km) and Dubbo (410km). Higher range electric passenger vehicles can already make this journey without recharging, however, electric truck and utility vehicles will likely require recharging. Fortunately, Dubbo, Orange and Parkes have fast charging infrastructure in place which can enable these journeys with a short 10–15-minute charging stop.

- Electric vehicles require charging infrastructure.
    - EVs require regular recharging. Unlike petrol or diesel cars, EVs should begin each day with a 'full tank' and rarely have a low state of charge.
    - This will require an adaptation in operational behaviour – to regularly plug vehicles in to recharge at the end of the day.
    - Operation of EVs is most streamlined when charging infrastructure is installed where vehicles are parked overnight.
    - This plan describes Council's flagship projects for providing EV charging infrastructure at the Council administration and depot – refer section 6.
    - In addition, the rollout of fast charging networks in Australia such as the Tesla, ChargeFox, EVIE Networks and NRMA networks has enabled EV travel across NSW with recharging possible in as little as 10 minutes depending on the charging capability of the vehicle.
    - The NSW government is contributing an additional $149 million to build-out a world class fast charging network located at these sites:
        - Round 1: 86 sites – incl. Molong, Parkes, Orange, Bathurst, Forbes
        - Round 2: 104 sites – incl. West Wyalong, Young, Dubbo, Mudgee.
        - Round 3: 90 sites – including Cowra & Bathurst (reopened).

      Condobolin has included as a 'remote regional zone' under round 3 of the fast-charging program. These means that a minimum of 4 charging bays, rated at a minimum of 150 kW per bay, will be installed in Condobolin.

- High Upfront Cost
    - A major challenge for Councils to transition fleets is the impact of high cost EVs on CAPEX and OPEX budgeting. Councils typically treat these two budgets independently, and reconciliation of costs is challenging.
    - To achieve the nominated targets in this plan, the net capital expenditure for those vehicles will need to increase by approximately 17% (around $153,000 per annum).
    - The internal hire rate for electric vehicles should be increased as follows:
        - Leaseback vehicles: 15%
        - Work vehicles: 16%
        - Trucks: 26%

      These increased hire rates should cover the increased capital expenditure.
    - Due to the substantial fuel savings, operational costs will sufficiently low to not only afford the increased hire rates, but should realise a **net cashflow benefit to Council of $230,000 per annum**
    - Refer section 4 and section 5 below for details of these calculations.

- Vehicle availability
    - CNSWJO is facilitating regular 'EV drive days' to provide member Councils with the opportunity to test-drive the latest models of zero-emission vehicles.
    - Lachlan Shire Council representatives will attend these events, with the first drive day having been held at Mount Panorama on 5th of December 2024.
    - CNSWJO is creating a Regional Fleet Managers Group for the sharing of information around all things fleet, including electric vehicle trials, models, opportunities and challenges – which Lachlan Shire Council intends to support.
    - One such initiative of this group is the bulk procurement of high-demand electric vehicles that enter the Australian market such as electric or PHEV utility vehicles.
    - Another initiative is facilitating electric vehicle trials to help member Councils in the real-world testing of vehicles. Lachlan Shire Council, for example, tested the Foton 6T tipper for a week in January 2024.

- Depreciation
    - Council's potential exposure to accelerated depreciation of electric vehicles is a barrier to adoption.
    - Council's existing fleet features vehicles with resale values as much as 90% of their original purchase price.
    - The significant and continued price reduction in new EV models means that there is downward pressure on the value of second hand EVs.
    - Similarly, the technological improvements in new EVs i.e. improved battery performance and range could result in the obsolescence of 1st generation vehicles.
    - As the price of new EVs stabilises, EVs should begin to experience less depreciation than petrol and diesel vehicles, particularly over the typical Council turnover period of 3-5 years.
    - To minimise short term depreciation risk, Council may choose to procure electric vehicles under leasing agreements with known costs.
    - Part of CNSWJO's regional strategy is to assist Council in the resale of 2nd hand EVs to more receptive markets. i.e. bulk sale, transport, dealership etc.

- Vehicle Servicing
    - The servicing of electric vehicles can be separated into two categories:
        - Maintenance of the rolling chassis (tyres, brakes, suspension).
        - Maintenance of the battery and powertrain.
    - Council can already service the rolling chassis without any additional training by following the manufacturer's guidelines and service procedures. The maintenance of an electric battery and powertrain, however, does require speciality training.
    - Council's plan is, as part of rolling chassis servicing, to perform an inspection scan using a standard 'on-board diagnostics' (OBD) scanner to detect faults. Any faults or issues in the battery and powertrain are warranted by the manufacturer well within the Council's vehicle ownership duration and milage.
    - Therefore, Council's policy is to own EVs for no longer than the warranty of the vehicle.
    - To enable the required battery inspection and servicing of electric trucks (for example) CNSWJO is offering as part of its regional strategy combined training courses for Council mechanics.

- Behavioural Change
    - Drivers generally are accustomed to refuelling only when a fuel tank is near empty.
    - To succeed in this transition, Council's drivers will need to adapt to plugging-in vehicles to recharge at the end of each day to maximise range and limit the need for expensive public fast charging.
    - Council must ensure that it provides convenient and easy-to-use charging infrastructure and also adequate training on how to use it.
    - This includes providing easily accessible monitoring systems to fleet managers and drivers to help ensure that vehicles are charged prior to use.
    - Providing incentives for employees to trial electric leaseback vehicles may be helpful in overcoming resistance to change, for example, a reduction in the leaseback fee.
    - Similarly, by offering a highly capable and impressive electric pool car could help drivers to adopt this new technology and become champions of it.
    - Encouraging participation in 'EV drive days' will also help to showcase the technology in a collaborative and fun setting.
    - Whilst PHEVs are an attractive stop-gap, it is crucial that they are used predominantly as electric vehicles. The intent of these vehicles is to encourage behavioural change for regular charging and not to permit complacency and continued reliance on fuel.

- Vehicle Toughness
    - Independently of vehicle drivetrain, any electric vehicles being considered must be up to the tough driving conditions of bumpy and unsealed roads – the build quality of vehicles needs to be of a high standard.
    - Council must ensure that any vehicle trials are conducted in real-world conditions in-line with their expected duties.
    - Furthermore, the availability of bull-bars, driving lights and side steps is a requirement for any work vehicle, and an expectation of passenger vehicles.

Opportunities from Adoption of EVs

- Lower total cost of ownership
    - Electric vehicles are estimated to save Council approximately $2,000-$6,000 per annum per vehicle compared to the existing petrol and diesel fleet.
    - Greater savings are available for vehicles with higher use.
    - Lachlan Shire Council has assessed the following total cost of ownership for seven key vehicles classes (refer section 4 below).

- Reduced asset depreciation risk
    - Council's heavy and utility vehicles, which have a typical operating life of 4 -10 years, are particularly exposed to becoming stranded assets as low-cost electric vehicles become available within this ownership period.
    - Proactively seeking to diversify its heavy and utility fleet will reduce Council's risk of depreciation as the second-hand market inevitably begins to place lower value on the older technology.

- Environmental benefits
    - Council's annual fleet emissions are 1574 Tonnes CO2 p.a. (scope 1 + 3) based on the financial year ending 2023.
    - Lachlan Shire Council has the objective to achieve a target of **75% of new passenger vehicle purchases by 2030-31.**
    - Meeting these fleet targets will achieve a 7% reduction in vehicle emissions, and a total reduction in emissions of 114 Tonnes per annum (Scope 1 + 2 + 3).
    - This calculation is based on the following assumptions:
        - Council has already established a 50% renewables proportion for electricity as part of its electricity contract.
        - The carbon intensity of NSW grid sourced electricity creates 0.64kg of emissions (National Emissions Factors 2023 – Scope 2 + Scope 3)).

- Reduced fuel-price risk
    - Without oil, Council cannot function and a major fuel disruption to Australia would prevent Council from delivering essential services. Electric vehicles could substantially improve Council's resilience in this regard.
    - Since FY21, we have seen 58% increase in the average price of fuel. This equates to an additional **$314,000 per annum** in costs to operate the fleet.
    - The cost to run Council's fleet is directly tied to the price of fuel, so diversifying this risk through electrification helps to sure up Council's budget.
    - Council's electricity contract, on the other hand, is competitive and fixed until December 2030.

- Improved Vehicle Performance
    - Electric vehicles offer other advantages such as improved acceleration, handling and safety.
    - In some use-cases, for example in light plant (mowers) and trucks, the low-noise and low-vibration of an electric vehicle means less risk of workplace health impacts, and substantially improved driving comfort.
    - Furthermore, the power and torque of electric vehicles, especially in upcoming utility and truck segments should provide greater towing and load carrying capacity for Council operations.

Impact on Electrification of Council Vehicles

Below is a summary of the barriers to adoption, how it impacts Council, and the key actions that Council can take to address these barriers.

Barriers to Adoption	Impact to Council	Key Actions
Vehicle Range	Vehicles with low range are not suitable for use cases where drivers regularly travel >300km per day without access to charging.	• Install charging at depot, admin and operational facilities
Vehicle Charging	Vehicles require regular charging either overnight where they are stored or during the daytime when drivers are working.	• Install charging at depot, admin and operational facilities • Investigate at home charging options.
Vehicle Cost	Electric vehicles typically have a higher initial purchase price. This may require significant upfront capital and potential reallocation of funds from OPEX to CAPEX budgets.	• Assess total cost of ownership of EVs over purchase price. • Participate in CNSWJO bulk purchasing opportunities. • Investigate vehicle leasing options. • Investigate guaranteed buyback options.
Vehicle Availability	There is a lack of affordable electric utes in the market that meets Council's requirements.	• Model availability in the next 1-3 years appears to be primarily PHEVs. Council intends to trial and adopt these types of vehicles as they become available. • Participate in EV drive days. • Participate in CNSWJO bulk purchasing opportunities. • Support the CNSWJO Regional Fleet Managers Group.
Depreciation Risk	Council could be exposed to high depreciation if newer EV models are cheaper and reduce the value of second hand EVs.	• Investigate vehicle leasing options. • Investigate guaranteed buyback options. • Participate in CNSWJO resale of 2nd hand EVs to more receptive markets. i.e. bulk sale, transport, dealership etc.
Vehicle Servicing	Council mechanics are unfamiliar with the servicing requirements of electric vehicles. It is not viable for Council to rely on Original Equipment Manufacturer (OEM) servicing, both in terms of cost and local servicing capability.	• Adopt Council policy to own EVs for no longer than the warranty of the vehicle. • Council mechanics to participate in CNSWJO facilitated EV servicing training courses. • Service the rolling chassis in-house by following the manufacturer's guidelines and service procedures. • Perform an inspection scan in-house using a standard 'on-board diagnostics' (OBD) scanner to detect battery and drivetrain faults and rely on the manufacturer's warranty.
Behavioural Change	Drivers need to be trained to ensure that vehicles are regularly charged, including on how to use monitoring systems.	• Provide convenient and easy-to-use charging infrastructure • Provide training on charging and charge monitoring. • Provide incentives for EV leaseback vehicles. • Participate in EV drive days.

Similarly, there are a number of opportunities from adoption. This table describes how it could benefit Council, and the key actions that Council can take to capitalise on these opportunities.

Opportunities from Adoption	Impact to Council	Key Actions
Lower total cost of ownership	Reduced operational cost.	• Select EVs with lower TCO for suitable use cases • Include EVs on leaseback offerings
Reduced asset depreciation risk	The availability of affordable EVs in the future could expose Council's existing fleet to becoming stranded assets.	• Accelerated turnover of existing fleet as viable and affordable electric alternatives appear.
Reduced fuel price risk	Fuel costs have increased by 58% in the past three years. Council has no protection against future fuel price increases.	• Diversification of the fleet to EVs reduces fuel price risk, since our electricity contract is fixed until December 2030.
Environmental benefits	Under Council's 50% renewable energy contract: • Transitioning a petrol vehicle to electric reduces emissions by 78%. • Transitioning a diesel vehicle reduces emissions by 81%. Meeting the nominated 2031 fleet targets will achieve a 7% reduction in emissions, a total reduction of 114T CO2-e per annum.	• Lachlan Shire Council has the objective to achieve a target of **75% of new passenger vehicle purchases by 2030-31.**
Improved Vehicle Performance	Improved acceleration, handling, safety, power, torque and driving comfort.	• Council to pursue electric vehicles with equal or greater power, torque and load carrying capacity.

Section 4 - Business Case Analysis

This section of Council's **Zero Emissions Fleet Transition Plan** provides a business case analysis for the transition of specific Council vehicles to electric alternatives.

Critical variables and assumptions for this analysis include:

- Fuel cost – Average FY24 fuel cost is:
  - Petrol - $1.80 ex GST
  - Diesel - $1.85 ex GST
- Annual kilometres driven
- FBT applicable use proportion – the eligibility of the vehicle for FBT exemption based on leaseback arrangement.

Other variables include:

- Servicing cost – typically lower cost and frequency for EVs.
- Registration fee – similar for internal combustion and electric vehicles.
- Compulsory third-party insurance – similar for internal combustion and electric vehicles.
- Comprehensive insurance – EVs tend to have higher insurance premiums as repair costs are typically greater.
- Fuel efficiency – noting that OEM quoted efficiencies usually grossly underestimate fuel consumption, particularly in a regional setting.
- Years owned - the years the asset is held by Council before being sold.
- Asset life – ATO determined:
  - Cars - 8 years, light commercial vehicles (LCVs) up to 3.5T as 12 years, Trucks >3.5T as 15 years.

This analysis **does not** speculate the resale value of vehicles. Instead, it applies the ATO depreciation formula over the published asset life on a diminishing value method.

The vehicle classes assessed below are:

- Passenger Vehicle – Pool vehicle
- Passenger Vehicle – Leaseback vehicle
- Passenger Vehicle – Staff Retention
- Utility Vehicle – Dual cab ute
- Light Plant - Ride on mower
- Tipper Truck – 7T GVM truck
- Light Plant – Zero Turn Ride On Mower

Passenger Vehicle – Pool Vehicle

Below is the business case analysis of an electric vs. petrol medium-sized SUV pool car.

This example analyses the total cost of ownership of the Toyota RAV4 in comparison to an EV with higher capital cost. Lachlan Shire Council currently has a Toyota RAV4 as a pool vehicle.

Figure 5: Toyota RAV4

The inputs used for this comparison are:

	Toyota RAV4	**Equivalent EV**
Annual kms	18,390 km	
Years owned by Council	3	
Annual Fixed Costs		
Registration	$786	$786
CTP Insurance	$462	$462
Comprehensive Insurance	$1,400	$1,800
Servicing	$450 p.a.	$300 p.a.
Variable Costs		
Fuel Consumption	10.5L / 100km	18kWh / 100km
Avg Petrol/Electricity Cost ex GST	$1.80/L	$0.15/kWh
Advertised Retail On-Road Cost	$53,372 (incl GST)	-

Table 8: Passenger Vehicle Comparison

There is no fringe benefits tax (FBT) applicable to Council's pool vehicles.

Using these inputs, Council could afford to pay **$16,836 extra** (ex. GST) for an EV and break even (in terms of total cost of ownership) over 3 years (around 55,000kms).

To achieve an equivalent total cost of ownership, Council may transition this pool vehicle to an EV with a purchase price of up to **$64,108** (ex. GST).

This will achieve an annual scope 1 + scope 3 emissions reduction of 4,542 kg C02-e.

Passenger Vehicle – Leaseback

Whilst the example above is compelling for Council's pool vehicles, leaseback applications yield an even greater business case due to the FBT exemption benefits.

This example analyses the total cost of ownership of a Ford Everest Trend in comparison to an EV with higher capital cost. Council currently has 6 x leaseback Ford Everest Trends.

To provide additional incentive to drivers to make the switch to electric, this analysis examines salary contributions of **$90** per week (versus $110 per week as is existing). This reduced weekly contribution could be used as an incentive to encourage leaseback holders to take an EV.

Figure 6: Ford Everest

Under this scenario Council may pay up to the luxury car tax limit for an electric vehicle ($91,387 incl. GST) and achieve a **superior** TCO.

	Ford Everest	Equivalent EV
Annual kms	29,000 km	
Years owned by Council	3	
Annual Fixed Costs		
Registration	$786	$786
CTP Insurance	$462	$462
Comprehensive Insurance	$1,400	$1,800
Servicing	$450 p.a.	$300 p.a.
Variable Costs		
Fuel Consumption	8L / 100km	16kWh / 100km
Avg Petrol/Electricity Cost ex GST	$1.8/L	$0.15/kWh
Employee Weekly Contribution	$110 per week	$90 per week
FBT Proportion Payable	100%	0%
Advertised Retail On-Road Cost	$74,000	-

Table 9: Leaseback Vehicle Comparison

Using these inputs, Council could afford to pay **$17,496 extra** (ex. GST) for an EV and still achieve a net saving of **$35,314** (ex. GST) over 3 years (around 87,000kms).

This will achieve an annual scope 1 + scope 3 emissions reduction of 6,371 kg C02-e.

Passenger Vehicle – Staff Retention Option

Council may wish to encourage staff retention by offering vehicles without any leaseback fee. Normally this would be very expensive due to the Fringe Benefits Tax implications.

However, this example examines the total cost of ownership of the best-selling vehicle (of any type) globally – the Tesla Model Y. This analysis is based on the long-range AWD variant.

Figure 7: Tesla Model Y – Long Range AWD

Under this scenario, over three years, Council **halves** the cost of offering a vehicle.

	Diesel Vehicle	**Tesla Model Y**
Insurance, Registration, Servicing	$9,284	$9,144
Fuel / Energy Cost	$12,876	$2,088
Total Depreciation	$38,938	$38,938
Total FBT Payable	$39,739	$0
Total Cost over 3 Years	**$100,846**	**$50,170**
(Buy Price excl GST)	$67,642	$67,642
(Sale Price excl GST)	$28,804	$28,804

In fact, Council could give away the EV (forfeiting $28,804 in resale) and still be better off.

	Diesel Vehicle	**Tesla Model Y**
Annual kms	29,000 km	
Years owned by Council	3	
Annual Fixed Costs		
Registration	$786	$786
CTP Insurance	$462	$462
Comprehensive Insurance	$1,400	$1,800
Servicing	$450 p.a.	$0 p.a.
Variable Costs		
Fuel Consumption	8L / 100km	16kWh / 100km
Avg Petrol/Electricity Cost ex GST	$1.85/L	$0.15/kWh
Employee Weekly Contribution	$0 per week	$0 per week
FBT Proportion Payable	100%	0%
Advertised Retail On-Road Cost	$75,889	$75,889

Table 10: Leaseback Vehicle Comparison

This will achieve an annual scope 1 + scope 3 emissions reduction of 6,371 kg C02-e.

Utility Vehicle – Leaseback

This example analyses the total cost of ownership of the Ford Ranger Dual Cab in comparison to an EV with higher capital cost. Council currently has 8 x Ford Rangers provided as a leaseback.

Figure 8: Ford Ranger XL Dual Cab

The inputs used for this comparison are:

	Ford Ranger	**Equivalent EV**
Annual kms	24,000 km	
Years owned by Council	3	
Annual Fixed Costs		
Registration	$786	$786
CTP Insurance	$462	$462
Comprehensive Insurance	$1,400	$1,800
Servicing	$450 p.a.	$300 p.a.
Variable Costs		
Fuel Consumption	11L / 100km	25kWh / 100km
Avg Petrol/Electricity Cost ex GST	$1.85/L	$0.15/kWh
Employee Weekly Contribution	$110 per week	$90 per week
FBT Proportion Payable	50%	0%
Advertised Retail On-Road Cost	$50,880	-

Table 11: Utility Vehicle Comparison

A fringe benefits tax (FBT) proportion of **33%** is applicable to this work vehicle to reflect the usage of this type of vehicle used by Council staff for personal use.

Using these inputs, Council could afford to pay **$29,340 extra** (ex. GST) for an EV and break even (in terms of total cost of ownership) over 3 years (around 72,000kms).

To achieve an equivalent total cost of ownership, Council may transition this work vehicle to an EV with a purchase price of up to **$74,346** (ex. GST).

This will achieve an annual scope 1 + scope 3 emissions reduction of 7,019 kg C02-e.

Utility Vehicle – Work Ute

This example analyses the total cost of ownership of the Ford Ranger without FBT.

Council currently has 30 x Ford Rangers as office/depot work utes.

Figure 9: Ford Ranger XL Dual Cab

The inputs used for this comparison are:

	Ford Ranger	**Equivalent EV**
Annual kms	20,500 km	
Years owned by Council	4	
Annual Fixed Costs		
Registration	$786	$786
CTP Insurance	$462	$462
Comprehensive Insurance	$1,400	$1,800
Servicing	$450 p.a.	$300 p.a.
Variable Costs		
Fuel Consumption	11L / 100km	25kWh / 100km
Avg Petrol/Electricity Cost ex GST	$1.85/L	$0.15/kWh
Advertised Retail On-Road Cost	$50,880	-

Table 12: Utility Vehicle Comparison

There is no fringe benefits tax (FBT) applicable to this work vehicle (although the result is even more superior if FBT is applicable as a leaseback).

Using these inputs, Council could afford to pay **$18,534 extra** (ex. GST) for an EV and break even (in terms of total cost of ownership) over 4 years (around 82,000kms).

To achieve an equivalent total cost of ownership, Council may transition this work vehicle to an EV with a purchase price of up to **$63,541** (ex. GST).

This will achieve an annual scope 1 + scope 3 emissions reduction of 5,995 kg C02-e.

Tipper Truck – 7T GVM truck

This example analyses the total cost of ownership of a 7T Tipper Truck in comparison to an EV with higher capital cost.

Manufacturers such as Hyundai and Foton already offer electric trucks in this size and configuration, with the Isuzu NRR electric being released in 2025.

Figure 10: Isuzu NPR

The inputs used for this comparison are:

	Isuzu NPR	**Equivalent EV**
Annual kms	12,000 km	
Years owned by Council	5	
Annual Fixed Costs		
Registration	$1,098	$1,098
CTP Insurance	$462	$462
Comprehensive Insurance	$2,000	$3,000
Servicing	$1200 p.a.	$450 p.a.
Variable Costs		
Fuel Consumption	30L / 100km	60kWh / 100km
Avg Petrol/Electricity Cost ex GST	$1.85/L	$0.15/kWh
Advertised Retail On-Road Cost	$79,177 (incl GST)	-

Table 13: Tipper Truck Comparison

There is no fringe benefits tax (FBT) applicable to this work vehicle.

Using these inputs, Council could afford to pay **$52,220 extra** (ex. GST) for an EV and break even (in terms of total cost of ownership) over 5 years (around 60,000kms).

To achieve an equivalent total cost of ownership, Council may transition this work vehicle to an EV with a purchase price of up to **$122,639** (ex. GST).

This will achieve an annual scope 1 + scope 3 emissions reduction of 9,886 kg C02-e.

Light Plant – Zero Turn Ride-on Mower

The example below shows the business case analysis for a zero-turn ride on mower. This analysis compared one of Council's mowers with an electric alternative.

Figure 11: Ride on Mower Comparison – Toro vs Ecoteq

The two mowers have broadly similar performance characteristics. The electric variant, however, has less maintenance, quieter operation and can cut roughly double the grass area per hour of operation.

	Toro Z Master 7500	**Ecoteq EVO 74**
Cutting Width	72 inch	74 Inch
Max Power	37hp	37hp
Noise Level	~103dBA	78dBA
Weight	937kg	766kg
Slope rating	~15 degrees	20 degrees
Fuel Tank / Battery Size	47.3L	35kWh
Fuel Efficiency	~7.4L/hour	4.5kWh / hour
Fuel Cost/hour	$10-15	$1
M^2/hour of cutting	~9,000	18,800
Advertised Retail Cost	**$49,000**	**$96,000**
EV Cost premium		**$47,000**

Table 14: Ride on Mower Comparison

Although the electric mower is roughly double the capital cost of the diesel alternative, an equivalent TCO can be achieved within 2,000 hours of operation

Better yet, the electric mower's batteries can be reused again in a second mower for this mower's entire working lifetime. This means that the second mower can be purchased at a fraction of the cost of a new diesel mower.

An electric mower will achieve an annual scope 1 + scope 3 emissions reduction of 15,752kg CO2-e based on 667 hours of operation per year.

Heavy Plant

Heavy plant accounts for 19% of Council's fleet. The market for electrified heavy plant vehicles is still in its infancy, however, most plant manufacturers that currently supply Councils are beginning to offer electric plant vehicles.

Electric plant vehicles available include loaders, excavators, compactors, rollers, mixers, pavers, backhoes and more.

Figure 12: Volvo L25 Electric Compact Wheel Loader

One major challenge for Council operations is overnight charging of electric plant vehicles that do not return to depots overnight i.e. road projects. The use-case for electric plant vehicles will have to be assessed carefully to ensure they meet the needs of member Councils.

Section 5 – Council Targets

The table below details the actions and targets that Council will strive to implement as part of this ***Zero Emissions Fleet Transition Plan*** along with the outcomes that may be achieved as a result.

Vehicle Class	Transition Target	Outcome	
		Emissions Reduction	Annual Cashflow Savings
Passenger Vehicles ^	75% electric by 2030	61%	$110,000 p.a.

Table 15: Actions, Targets and Outcomes

*Savings of EVs compared to petrol/diesel including all costs (fuel, maintenance, insurance deprecation as per section 4)

^ Assumes electric vehicle costs 1.25 times equivalent petrol/diesel vehicle

Capital Expenses Impact

Council's annual CAPEX budget for the nominated proportion of the fleet would need to increase by approximately 25% ($92,986 p.a.) to be able to purchase the higher value electric vehicles.

If the depreciation rate is held constant (as per ATO guidelines), then resale revenue into the CAPEX budget will also increase, but only by $38,142 p.a.

This means an annual **CAPEX budget increase of $54,844 p.a. is required** (a net increase of 15% for the nominated proportion of the fleet).

Operational Expenses Impact

However, **operational expenses will decrease by $164,617 p.a**.

This means a **net cashflow benefit to Council of $109,773 per annum.**

If future resale values only equal the present level of fleet resale income (i.e. a substantially higher rate of depreciation is applied to electric vehicles), then there will still be a net benefit to Council of approximately $71,631 per year.

Action Plan

This table sets out a timeline of actions Council will undertake to meet the targets identified above.

Establishing suitable policies and infrastructure in the short term are essential for rapid EV adoption in the medium-term as vehicles are turned over and more affordable vehicles become available.

	24/25	25/26	26/27	27/28	28/29
Policy and Planning					
Establish at home EV charging policy for cost reconciliation for leaseback vehicles	X				
Establish financing options to reduce upfront capital constraints	X				
Review asset turnover duration in fleet procurement policy	X				
Introduce EV charging infrastructure as a required consideration in all Council planning processes	X				
Charging Infrastructure					
Install basic charging infrastructure at administration building	X				
Install basic charging infrastructure at depots	X				
Conduct a detailed fleet charging infrastructure assessment	X				
Expand charging infrastructure at administration building and other relevant council sites		X	X	X	X
Expand charging infrastructure throughout all depots		X	X	X	X
Encourage public destination charging installations i.e. hotels, clubs, attractions	X	X	X	X	X
Encourage public fast charging installations	X	X	X	X	X
Passenger Vehicles					
Electric pool vehicle trial	X				
All new pool vehicles to be electric if lower TCO		X			
Add electric vehicle options to leaseback offerings	X				
Incentivise EV offerings in leaseback policy	X	X			
All leaseback offerings to be electric			X	X	X
Utility Vehicles					
Monitor utility vehicle market	X				
PHEV/Electric utility vehicle trial		X			
Pursue electric utility vehicles for applications with lower TCO			X	X	X
Trucks					
Tipper truck trial	X				
Pursue electric trucks for applications with lower TCO		X	X	X	X
Light Plant					
Ride on mower trial	X				
Pursue electric light plant for applications with lower TCO		X	X	X	X
Heavy Plant					
Monitor market for electric plant options	X	X	X	X	X
Respond to market changes and pursue electric alternatives with lower TCO where suitable			X	X	X
Reporting and Monitoring					
Review fleet transition plan		X		X	
Review and report fuel, cost and emissions reductions		X		X	

Table 16: EV Transition Action Plan

Section 6 – Charging Infrastructure Planning

Council should plan to implement electric vehicle charging in two key locations:

1. Condobolin Depot
2. Council Administration Building

Council will also implement electric vehicle charging in operational facilities within each town.

Council Depot

The Council Depot in Condobolin is crucial for supporting an electric fleet.

Council has made provision for EV charging as part of the construction of the new works depot. The site has the following capacity to support an electric fleet:

Site Details	Value
Main Switch Rating	400A
Annual Energy Consumption	Unknown
Available overnight power capacity	~350A (242kVA)
Available overnight energy capacity (8pm-7am)	**2,664kWh**

Table 17: Depot Power and Energy Capacity

Vehicle Class	Estimated EV Future Count	Averaged daily EV charging needs	Total Daily kWh Required for Fleet
Passenger vehicles	8	6kWh (40kms)	48kWh
Utility vehicle	18	12kWh (48kms)	216kWh
Trucks	11	30kWh (50kms)	330kWh
Light Plant	Unknown	14kWh (3 hours)	-
		Total	**594 kWh**

Table 18: Depot Fleet Energy Requirements

Based on this assessment, the Council depot has **sufficient electrical capacity** to support a fleet size as is nominated above in the fleet targets.

These vehicles will require at least the following charging infrastructure, with a load management system to prevent site overload:

Charging Power	Charging Point Count
15A GPO	~10
7kW	8
22kW	29

Table 19: Depot - Number of Chargers

Council will need to plan for up to 47 spaces in the carpark with these charging points.

Council Administration

The Council administration building currently has the following capacity to support an electric fleet:

Site Details	Value
Main Switch Rating	150A
Annual Energy Consumption	94MWh
Maximum demand (if available)	51kVA
Available daytime power capacity	110A (76kVA)
Available overnight power capacity	135A (93kVA)
Available overnight energy capacity (8pm-7am)	**1023 kWh**

Table 20: Engineering Power and Energy Capacity

Vehicle Class	Estimated EV Future Count	Averaged daily EV charging needs	Total Daily kWh Required for Fleet
Passenger vehicles	21	6kWh (40kms)	126kWh
Utility vehicle	8	12kWh (48kms)	96kWh
		Total	**222 kWh**

Table 21: Engineering Fleet Energy Requirements

Based on this assessment, the Council administration can comfortably support its fleet.

These vehicles will require the following charging infrastructure, with a load management system to prevent site overload:

Charging Power	Charging Point Count
7kW	21
22kW	8

Table 22: Engineering - Number of Chargers

Council will need to plan for approximately 29 spaces underneath the carpark awnings with charging points. Council has an existing 32A EV charging circuit installed under the solar awning which should be modified to support 3 x 22kW chargers with static load management.

Other Operational Sites

Council also plans to install a small number of charging points in our operational facilities within each of the town.

This will include but is not limited to:

- Lake Cargelligo Depot
- Lake Cargelligo WTP
- Lake Cargelligo Office/Library
- Tottenham Depot

Recommended Charging Infrastructure Staging

The recommended staging for charging infrastructure is as follows:

Location	Short-term	Medium-term	Long-Term
Council Depot	• Install light plant GPOs as needed • Minor modifications to carpark to support initial charging points.	• Install charging points throughout as needed.	• Install charging points as needed
Council Administratoin	• Install 3 x 22kW initial charging points under awning using existing EV charging circuit	• Install new supply from MSB to carpark • Install charging points throughout as needed	• Install charging points as needed
Operational sites	• Install 1 x 22kW • charging point at each site	• Install charging points as needed	• Install charging points as needed

Summary of Actions

This **Zero Emissions Fleet Transition Plan** sets out the actions Council will take to reduce its dependence on liquid fossil fuels, reduce costs and promote sustainability through the introduction of electric vehicles into Council's fleet.

Council has identified the following reasonable targets and corresponding outcomes:

Vehicle Class	Transition Target	Outcome	
		Emissions Reduction	Annual Cashflow Savings
Passenger Vehicles	75% electric by 2030	61%	$110,000 p.a.

Key actions of Council's plan are to:

1. Investigate utility vehicles as the key to Council's fleet transition. Council will need to proactively monitor and respond to new utility options in the next 1-3 years as zero-emissions options become available in Australia. PHEVs may initially be suitable for utility and large vehicle categories.

2. Continue to transition to electric pool cars and begin to offer electric leaseback vehicles to employees, including a small discount in weekly contributions. Council's fleet procurement policies and leaseback offerings need to be updated to reflect this including establishing a mechanism whereby fuel savings are diverted back into the capital budget.

3. Focus on provisioning electric vehicle charging infrastructure in key locations:
   - Council Depot Condobolin
   - Council Administration Building Condobolin

4. Enhance the knowledge and support of its employees through a range of initiatives:
   - Attend 'EV drive days' such as the event held at Mount Panorama, Bathurst in December 2024.
   - Provide charging infrastructure and also adequate training on how to use it.
   - Provide monitoring systems to fleet managers and drivers.

5. And finally, Council intends to work closely with CNSWJO to support the initiatives being provided as part of the regional ***Zero Emissions Fleet Strategy***, including:
   - 'EV drive days' as was held at Mount Panorama, Bathurst in December 2024.
   - Participate in the CNSWJO Regional Fleet Managers Group for the sharing of information around electric vehicle trials, models, opportunities & challenges.
   - Participate in the bulk procurement of high-demand electric vehicles that enter the Australian market such as electric or PHEV utility vehicles.
   - Participate in electric vehicle trials, such as the electric Foton 6T tipper (completed January 2024).
   - Participate in training courses for the servicing of heavy electric vehicles.

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