

Green Fleet

Logan City Council
Sustainable Fleet Strategy 2021-2026



Acknowledgement of Country

Logan City Council acknowledges the Traditional Custodians of the land, pays respect to Elders past, present and emerging and extends that respect to all Aboriginal and Torres Strait Islander peoples in the City of Logan.

The smoking ceremony is an ancient custom among Indigenous Australians and is believed to ward off bad spirits.



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Introduction

Executive summary

Logan City Council's vehicles and plant play an active role in delivering essential services to the community.

Council is recognised as being progressive in its approach to environmental sustainability and sustainable fleet management, and we actively encourage our contractors to adopt comparable practices. We take our environmental and social responsibilities seriously. We understand the collective impact of individual action to mitigate climate change can be significant.

We encourage using green and clean technology and innovation at every opportunity. We lead and promote behavioural and cultural change. These are all critical elements of this strategy and its impact initiatives.

The strategy spans 5 calendar years. It:

- focuses on initiatives that can be implemented at different levels across the organisation
- aims to reinforce and stimulate current and new practices and sound decision making
- identifies new opportunities in decarbonisation and the field of sustainable fleet management and operations.

Why do we need a strategic document?

More than half of Australia's local governments have zero emissions targets. Approximately 58 per cent of Australia's largest councils aim to bring their own operational emissions to zero by 2050.

Ipswich Council has also committed to achieving certified carbon neutrality by the end of 2022. Over the next 30 years, local governments will transform their operational assets to optimise service delivery and reduce their environmental footprint.

Historically, one sector has fallen behind in the race to zero emissions – mobility. Although the latest National Greenhouse Gas Inventory Report¹ recorded a 12.1 per cent drop in emissions from transport, this was due to the short-term effects of COVID-19 restrictions.

As major procurers of vehicles, plant, equipment, fuel and oils, Logan City Council plays a fundamental role in influencing and delivering positive change to the environment.

Australia's cities and communities are poised to move beyond COVID-19 restrictions. It is critical we play a part in maintaining the reduction in transport emissions and having a strategy in place so that Council and the community benefit from our sustainable and climate wise actions.

The document will:

- establish direction and impact initiatives to assist Council in our journey to a carbon neutral and green city by 2022
- support Queensland's target to achieve zero net emissions by 2050
- respond to Queensland and Commonwealth emissions targets
- create a roadmap on how we intend to transition to a greener cleaner Australian fleet
- align with current and future Council strategies and policies and ensure all stakeholders share the same vision, have the opportunity to collaborate and are all driving in the same direction
- inspire smart business decisions to support the vision of fleet hybridisation and alternative fuels
- align with our adopted sustainability policy and framework to incorporate sustainable principles into decision making across our organisation.

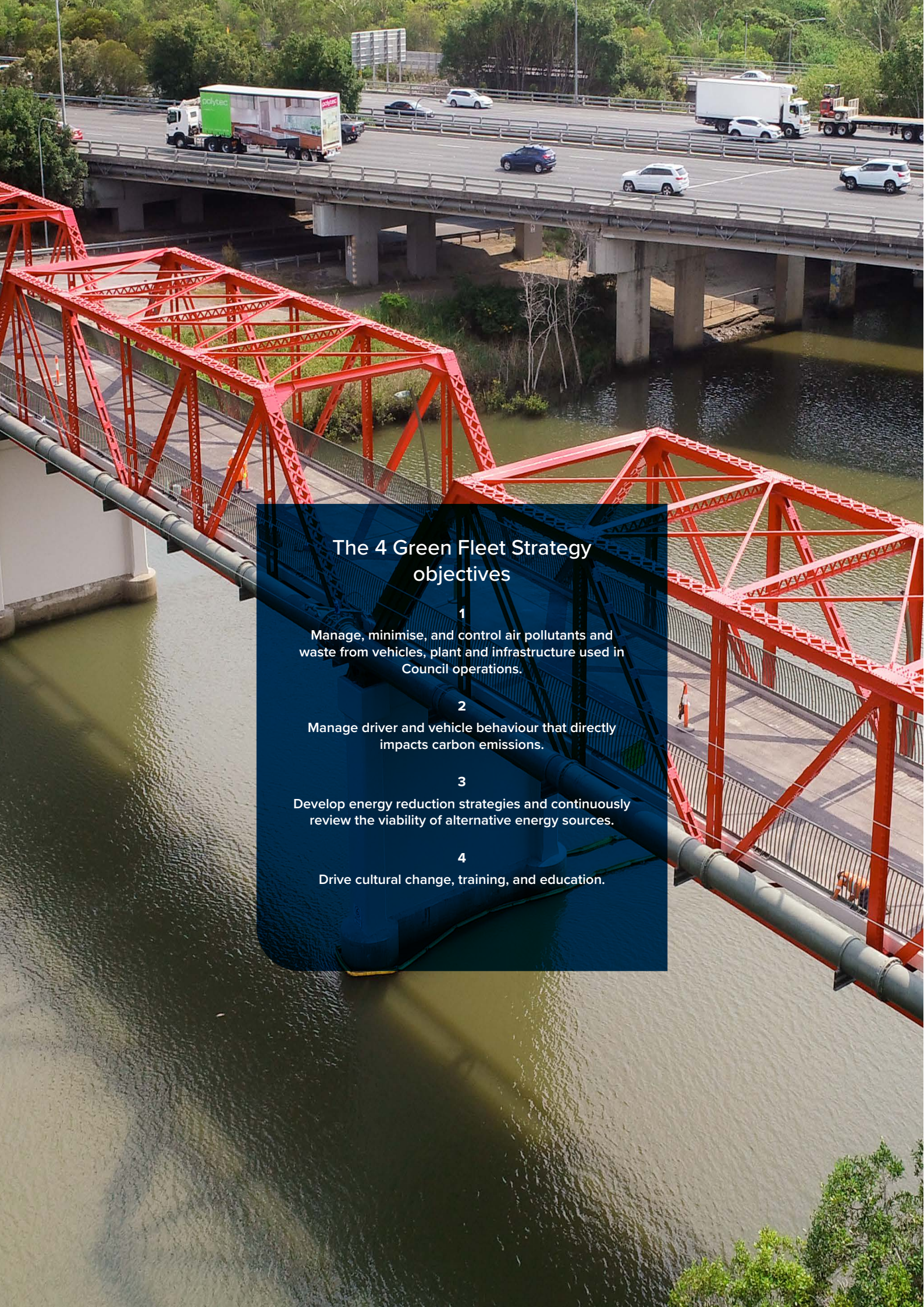
How the document was developed

The document was developed by Council through consultation with internal stakeholders, local government bodies, industry standards, best practice, and local knowledge.

How will the document be implemented?

- The document will be an evergreen strategy – as changes occur, procedures will be revised to reflect these changes. Policies, legislation, emissions standards, and strategic connections will also be updated to remain relevant to the point in time.
- Stakeholder engagement and support will be key to objectives, such as the uptake of hybrid and electric passenger and commercial vehicles, and the journey to cultural change.
- Projects developed from the objectives will contribute to branch business planning, our operational plan and the corporate plan.
- Impact initiatives will provide opportunities for committee reporting and gaining Council support.
- A monitoring and milestone process will be introduced to assess the impact and effectiveness of projects and initiatives against current baseline emissions intensity.
- Sustainable fleet initiatives and projects will be funded through efficiency savings and budget.

¹ March 2021 figures - Transport



The 4 Green Fleet Strategy objectives

1

Manage, minimise, and control air pollutants and waste from vehicles, plant and infrastructure used in Council operations.

2

Manage driver and vehicle behaviour that directly impacts carbon emissions.

3

Develop energy reduction strategies and continuously review the viability of alternative energy sources.

4

Drive cultural change, training, and education.

Strategic fit

The overall theme of this strategy is to reduce emissions, energy resource and usage. However, this theme must be balanced against meeting Council needs.

In depicting the reductions, we need to calibrate them against Council's obligation to meet its service and growth commitments.

This is the essence of sustainability and links to the corporate plan:

Focus Area 1: Maintaining current levels of service

Key Priority 1.2: Undertake service level reviews as appropriate to ensure we are delivering services that are financially sustainable and meet community needs.

The Green Fleet Strategy supports the priorities and goals identified in organisational strategies and policies, and supports or is related to these plans and initiatives:

Strategic document	Strategic link	Strategy
Logan City Corporate Plan 2021-2026	Focus Area 3 – Environment	Key Priority 3.8: Progress the provision of clean, green, sustainable , and cost-effective fleet solutions. Major Project: Prepare a Green Fleet Strategy Key Priority 3.6: Increased use of renewable energy, energy efficient technology and carbon reduction projects.
	Focus Area 1 – Maintain Current Levels of Service	Priority 1.2: Deliver services that are financially sustainable and meet community needs.
Asset Management Strategy 2020-2023	Asset management planning for sustainable service delivery	Taking a strategic, lifecycle approach to the management of assets. Ensuring the most cost-effective lifecycle approaches to managing assets are considered using a risk management based approach while meeting levels of service.
Plant Fleet Services 2018-2021 Asset and Services Management Plan DM#12286289		Asset management planning for sustainable service delivery.
Carbon Reduction Strategy and Action Plan 2018-2022	Carbon Reduction Objectives	Strategic Objective No 2 – Avoid and reduce carbon emissions. Strategic Objective No 3 – Embrace innovative renewable energy technology.
Sustainability Framework	The 4 pillars of sustainability – economy, community, governance and environment Sustainability position – impact initiatives	Council is committed to applying the principles of sustainability to all of its decision making. Specifically, we will meet this commitment by considering the principles of sustainability in: <ul style="list-style-type: none"> • use of resources including gas, electricity, water, fuel, renewable energy, and construction materials • Procurement practices • encouraging, training, and supporting staff in adopting sustainable principles and practices to achieve sustainable behaviour change in the workplace • improved fleet management practices, through: <ul style="list-style-type: none"> • continuous investigation • focusing and implementing sustainable initiatives and opportunities through fleet procurement • operating in alignment with the carbon reduction strategy plan.

Strategic document	Strategic link	Strategy
Sustainability Policy		Council is committed to applying the principles of sustainability to all its decision making - specifically including capital investment and infrastructure projects.
Energy Management Framework 2016-2021	Strategic Outcome 3 Identifying and implementing energy management technology and business solutions	Reduce Council's energy costs and carbon footprint through innovation and new technology. 10% reduction in the average fuel efficiency of Council's fleet of cars and trucks, in litres per 100 kilometres, with 2015/16 used as the base year.
Queensland Climate Transition Strategy	Queensland State Government Strategy	Powering Queensland with 50 per cent renewable energy by 2030. Doing our fair share in the global effort to arrest damaging climate change by achieving zero net emissions by 2050. Demonstrating our commitment to reducing carbon pollution by setting an interim emissions reduction target of at least 30 per cent below 2005 levels by 2030.
Queensland Government – Hydrogen Industry Strategy 2019 - 2024	Hydrogen Industry strategy	Develop a domestic hydrogen industry, including the production of competitively priced renewable hydrogen.
Selection, Purchase, Allocation and Use of Council's Passenger Vehicle Fleet - Management Directive	Maximise the use of Council-owned vehicles, plant, and fleet Minimise the number of vehicles, their cost and impact on the environment	All passenger vehicles purchased will be rated against the 'Green Vehicle Guide' CO2 emissions meter and must achieve 10 litres or less fuel consumption per 100 km.
Cities Power Partnership	Partnership Action Pledges	5 x pledges <ol style="list-style-type: none"> Renewable Energy – Install renewable energy on Council buildings. Renewable Energy – Support community facilities accessing renewable energy through incentives, support, or grants. Energy Efficiency – Adopt best practice energy efficiency measures across all council buildings, and support community facilities to adopt these measures. Collaboration – Set up meetings and attend events to work with other cities on tackling climate change. Collaboration – Support the local community to develop capacity and skills to tackle climate change.
Procurement Policy		Council's Procurement Policy includes a priority concerning environmental protection, together with commitments on conducting business with ethical and socially responsible suppliers and to progressively increase the proportion of its procurement expenditure on sustainable goods and services.
Green Building Guide		By increasing the focus on green buildings, Council can improve the quality and performance of its built assets over their lifespans, live up to its public commitments on sustainability and carbon neutrality, and show leadership in the community.

Vision:

Where do we want to be?

Vision

We are dedicated to sustainable leadership and a green future for the City of Logan. This will be achieved through collaboration, and authentic and capable leadership in public sector fleet management.

Mission

Provide the organisation with fleet solutions that are capable, dependable, safe, innovative, and economically and environmentally sound, while ensuring continuous improvement.

Principles of sustainability

The strategy aligns its principles with Council's sustainability framework:

Environment - We will deliver services and activities in a manner that:

- avoids and reduces waste, energy consumption and carbon emissions
- is water efficient
- uses recycled or reusable goods wherever practical
- protects and enhances our natural environment.

Community - We will ensure access to services, facilities and amenities that promote a community that is:

- healthy and active
- inclusive and connected
- safe and resilient.

Economy - We will promote a prosperous local economy and develop local job opportunities.

Governance - We will govern in an ethical and transparent manner, providing opportunities for community participation in decision making. We will make decisions in the interests of the community.

We will do all of the above while considering the environment, social, economic and governance implications of decisions.





Three generations enjoying Logan's waterways

Outcomes

Target 1

Manage, minimise, and control air pollutants and waste from vehicles, plant and infrastructure used in Council operations.

Focus

Collaboration
Effective partnership
Customer service
Innovation and technology
Effective and timely maintenance
Influencing internal and external stakeholders
Environmental management
Quality management principles

Outcomes

We will set aspirational targets for minimising carbon output.

We will make fleet and equipment choices based on cost/benefits ratio, efficiency, safety, sustainability, diplomacy, and psychology.

We will have an understanding of, and a focus on, our customers and the key drivers of demand to allow us to deliver strategic and sustainable asset management solutions without compromising on efficiency and productivity.

We will maximise the recycling and reuse of products used in the fleet industry to the greatest extent practical.

We will reduce indirect emissions through manufacturing efficiencies of Council vehicles and plant.

Target 2

Manage driver and vehicle behaviour that directly impacts emissions.

Focus

Innovation and technology
Culture
Education
Compliance
Risk management
Workplace health and safety
Behavioural telematics
Transport demand management

Outcomes

We will strategically use Council's telematics monitoring system to drive high engagement among asset operators and drive down costs and drive up efficiencies.

We will provide tighter controls and an emphasis on personal responsibility.

We will ensure risk mitigation and safety management.

We will ensure compliance with policies, legislation, and regulatory requirements.

We will examine current practices, adopt efficient journey planning techniques and identify underused assets.

We will undertake continuous improvement.

Target 3

Develop energy reduction strategies and continuously review the viability of alternative energy sources.

Focus

Innovation and technology
Effective partnerships
Collaboration
Communication
Engagement

Outcomes

We will study vehicle behaviour for alternative fuel suitability versus internal combustion engine.

We will build and sustain close relationships with internal stakeholders, local government bodies and manufacturers.

We will be proactive in creating opportunities and taking measured risks.

We will collate, validate, compare and benchmark fleet metrics against other councils.

Target 4

Driving cultural change, training and education.

Focus

Early adopters who can influence others
Communication
Collaboration
Effective partnerships

Outcomes

We will incentivise staff to adopt or invest in low emission vehicles.

We will encourage driver behaviour changes and style, to support eco-driving becoming the norm rather than the exception.

We will enhance health, safety and environmental outcomes through behaviour change, training and education.

We will develop internal training programs for the Logan Learning Hub.

Policy position

Our Sustainability Framework embeds the application of sustainability principles into Council's decision making and operations, through our four pillars of sustainability: **environmental, community, economy, and governance.**

To deliver on our sustainability framework, we will embed sustainable fleet management principles in our fleet acquisition and management decisions and encourage the use of green and clean fleet technology and innovation at every opportunity practical.

In terms of environmental sustainability, it requires us to deliver services and activities in a way that:

- avoids and reduces waste, energy consumption and carbon emissions
- is water efficient
- uses recycled or reusable goods wherever practical
- protects and enhances our natural environment.

We must do this while considering the social, economic and governance implications of decisions.

Since it was endorsed by Council in early 2018, our Carbon Reduction Strategy and Action Plan has provided a strategic corporate driver for addressing the greenhouse gas emissions resulting from our operations.

The document provides the pathway for Council to achieve its 2022 carbon neutrality target by providing a mechanism to:

- monitor carbon emissions
- avoid and reduce emissions
- embrace renewable energy
- offset emissions.





Where are we now?

We have been consistently delivering and implementing a range of actions through current organisational strategies, policies and initiatives. We have also been providing innovative solutions for efficiency improvement, technological advancement, waste management, emissions reduction, and safety.

The Energy Management Framework 2016-2021 provided energy reduction targets of 10 per cent in average fuel efficiency of Council's fleet of cars and trucks. This was measured in litres per 100 kilometres, with 2015/16 used as the base year.

The targets are presented below as annualised KPIs, matched with actual data available. Of all vehicles identified, light and heavy commercial vehicles had the greatest energy reduction.

Understanding where we are now is critical in establishing a baseline to work from and to create realistic and achievable performance measurements and targets.



Fuel efficiency - cumulative annual fuel reduction target

	5-Year Target	Year 1 2016/17	Year 2 2017/18	Year 3 2018/19	Year 4 2019/20	Year 5 2020/21
Target	-10%	-1%	-2%	-4%	-7%	-10%
Actual	-10%	-9.11%	-13.76%	-22.77%	-20.09%	-18.65%

The table below shows the work we have done to get to where we are now, in relation to our impact targets.

Where are we now?	1. Pollution and waste minimisation	2. Driver and vehicle management	3. Energy use reduction	4. Training, education, and culture change
Vehicle selection guide	✓			
Fleet composition	✓			
Heavy commercial fleet emissions monitoring and management	✓			
Light commercial/passenger fleet emissions	✓			
Engine drive type as percentage of fleet	✓			
Electric and hybrid vehicles	✓			
Electric and hybrid assets by type	✓			
Recycling - tyres	✓			
Recycling - waste oil and contaminants	✓			
Monitoring fuel use and carbon emissions	✓			
Council vehicle wash bay facilities	✓			
Green Stamp environmental accreditation	✓			
Strategic servicing model		✓		
Electronic pre-start inspections introduced		✓		
Vehicle load monitoring		✓		
Fleet driver handbook		✓		
Paperless mobility and data collection – Strategic Asset Maintenance System		✓		
In vehicle management system (IVMS)/telematics		✓		
On-site renewable energy generation			✓	
Self-sustaining workshop energy requirements			✓	
Staff training				✓
Quality management accreditation ISO 9001				✓

Impact target 1

Pollution and waste minimisation

Vehicle selection guide

The vehicle selection guide was adopted by the Executive Leadership Team in 2020. It provides us with the opportunity to reduce emissions at every vehicle replacement and improve the organisation's environmental profile.

The Council vehicle selection guide will reduce direct and indirect emissions and reduce fleet running costs. This guide creates economies of scale, and greener outcomes, including:

- more efficient and simplified maintenance processes and procedures
- a reduction in the quantity of parts and consumables held on-site
- fewer deliveries of maintenance items
- less waste
- fewer resources to source parts and consumables.

All 5- and 6-cylinder passenger vehicles have been removed from the vehicle selection guide. Passenger and light commercial fleet choice are now 4-cylinders only or hybrid vehicles.

The vehicle selection guide will be updated annually to account for changes in the availability of models that deliver improved fuel efficiency, lower emissions, and use alternative fuels.

The average emissions intensity of the passenger vehicles chosen for the vehicle selection guide is lower than the national average:

- Council fleet - 172g CO₂-e/km
- private fleet - 174g CO₂-e/km
- business fleet - 186g CO₂-e/km
- government fleet - 191g CO₂-e/km.

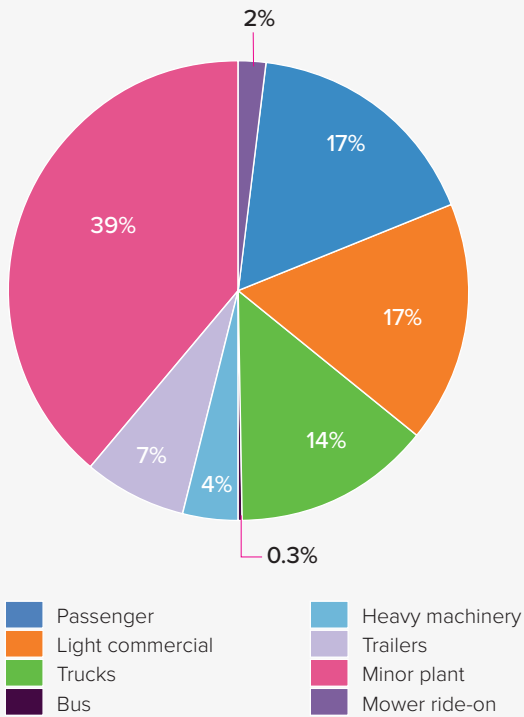
Additional statistics:

- Europe Fleet - 120.4g CO₂-e/km
- Japan Fleet - 114.6g CO₂-e/km
- United States of America Fleet - 145.8g CO₂-e/km.

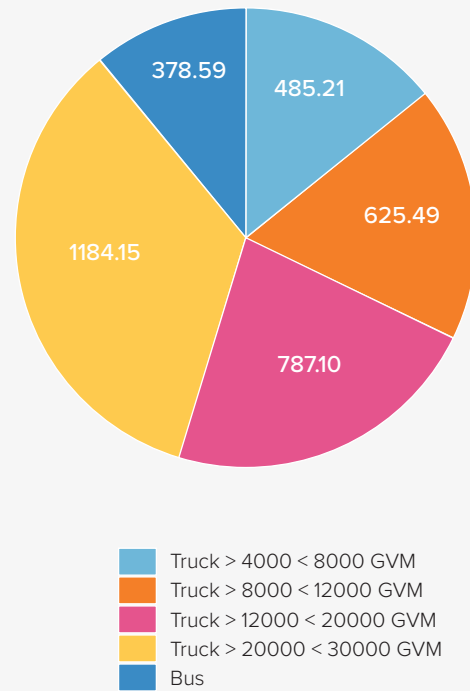


Breakdown of Logan City Council fleet and emissions

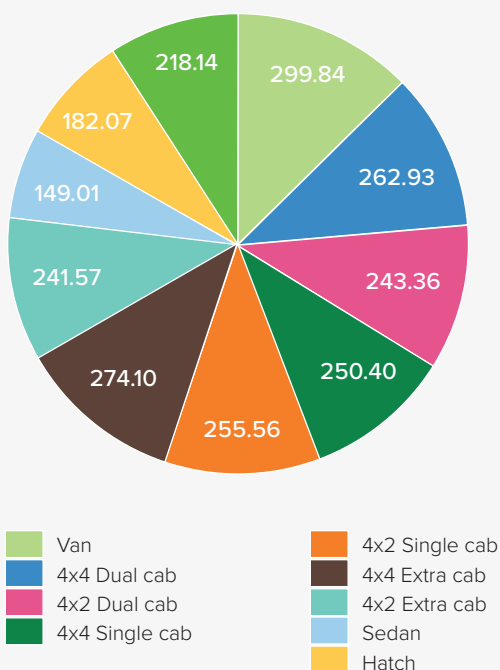
Fleet composition



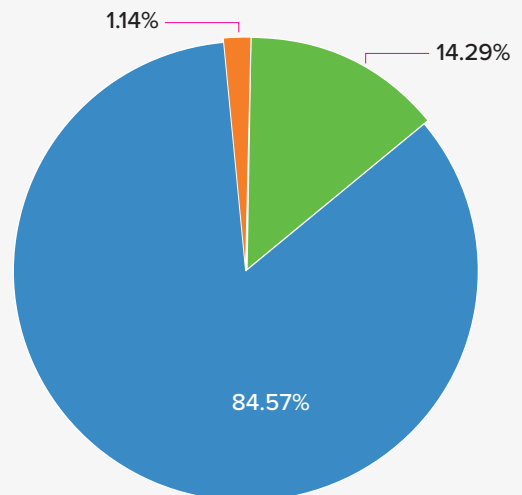
Heavy commercial fleet - average g CO2-e/km



Light commercial/passenger fleet - average g CO2-e/km



Engine drive type as % of passenger fleet



Electric and hybrid vehicles

The Covid-19 pandemic has interrupted 10 successive years of growth in electric vehicle sales. Future sales are predicted to stay on track to account for more than half of all new passenger vehicles sales globally by 2040, and nearly one-third of the world's car fleet. Electric vehicles will also make up 67 per cent of all buses, 47 per cent of 2-wheelers and 24 per cent of light and medium commercial vehicles by 2040.

One of the primary ways state and local governments are creating more sustainable transport systems is by introducing electric vehicles, with the accompanying supportive infrastructure.

Electric vehicles provide economic benefits to the state by reducing fuel costs and shifting consumption away from imported oil to locally produced electricity sources.

In response to the Carbon Reduction Strategy and Action Plan action to 'Trial the use of plug-in electric vehicle technology', significant trialling and testing took place before electric vehicles were introduced into Council's fleet.

Council staff were engaged throughout the evaluation process to gain stakeholder buy-in.

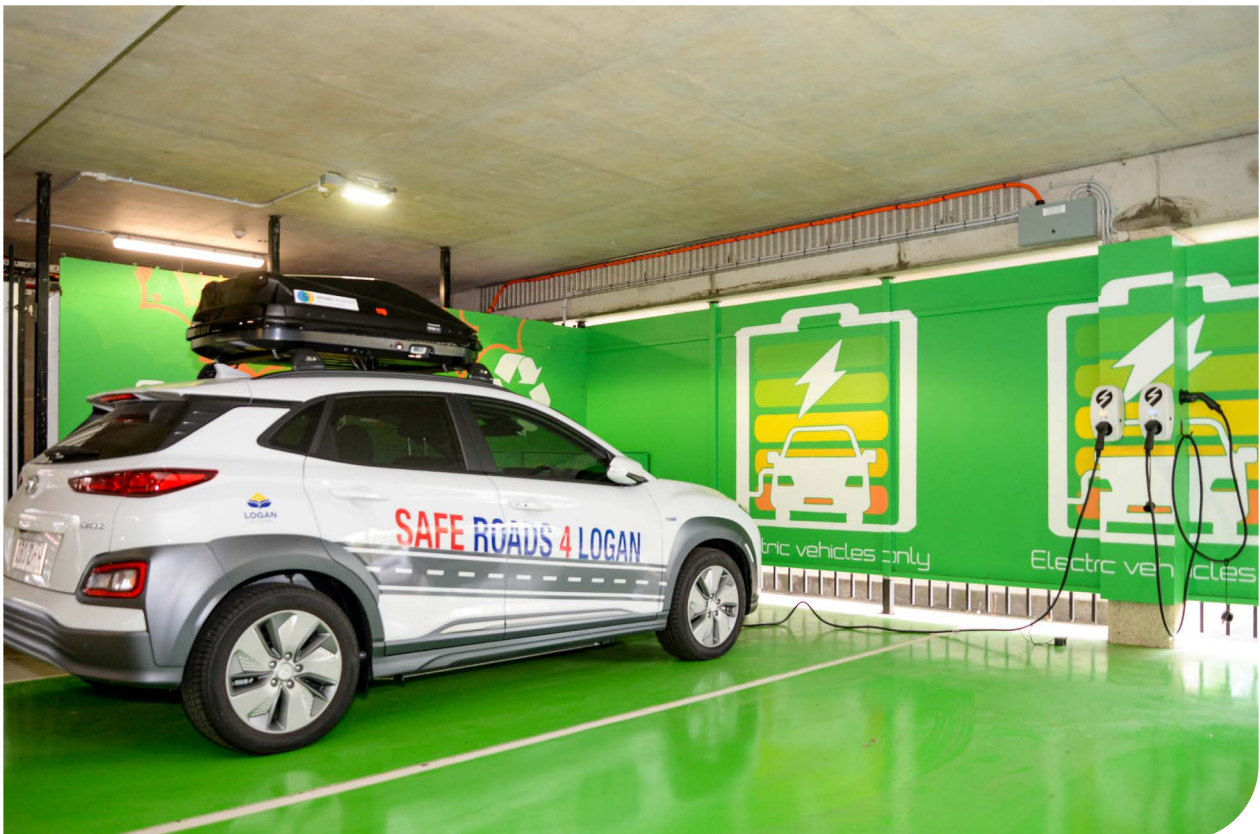
Council's first 2 electric vehicles were purchased and allocated to the Community Service Directorate – City Standards and Animal Care, and are highly visible in the community. This promotes sustainability and safety.

Council's hybrid and electric vehicles now account for 15 percent of the passenger fleet.

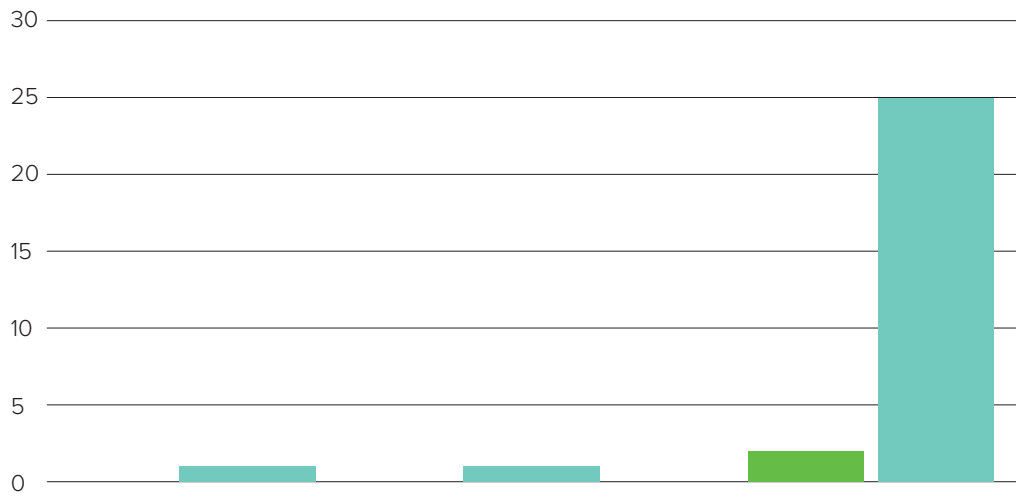
Council's fleet includes a 25-tonne hybrid dozer which operates at Council's waste and recycling facility. Carbon emissions have significantly reduced since it was introduced to our fleet.

The future for electric vehicles for Council is dependent on:

- trucks and larger vehicles real world trialling
- a decrease in capital and whole-of-life costs through economies of scale
- future renewable energy installation opportunities at community and Council facilities.



Electric and hybrid assets by type



	Trucks	Heavy machinery	Passenger Vehicles
Electric Vehicle	0	0	2
Hybrid Electric Vehicle	1	1	25

Recycling: tyres

Tyre supply contractors undertake daily site fleet checks for tyre pressure, alignment, wear, and damage.

Operating with the correct tyre pressures reduces tyre wear and can improve fuel economy by up to 20 per cent, lowering fleet emissions and reducing waste.

At end-of-life, Council tyres are recycled and crumbled into different sizes for various recycled applications. These include adhesive products, noise reduction, anti-slip on ship decks, sports fields, shooting ranges and equestrian arenas.

Recycling: waste oil and contaminants

Waste oil is sent offsite and made into fuel oil for use in ship boilers.

Oil filters are crushed onsite and sent away for recycling into household appliances and storage tins.

Waste rags are sent to Narangba, Queensland, where they are fixated with fly ash and sent to landfill.

Contaminants are removed from oily water onsite to a predetermined level through depot oil/water separators before the wastewater is disposed of through sewerage.



Treatment of waste water is an important pillar of waste minimisation.

Monitoring fuel use and carbon emissions

Plant Fleet Services maintains a whole-of-fleet emissions and fuel usage reporting mechanism. A project to convert this into a TechnologyOne dashboard, with additional asset class-specific fuel usage data, will start in late 2021. This new dashboard will be available to all Council executives.

Council vehicle wash bay facilities

We have a dedicated vehicle wash bay and surface water treatment area that complies with the Environmental Protection Act 1994, and the Motor Vehicle Workshop Code of Practice, and aligns with Council's Sustainability Policy and Sustainability Framework.

We have a separate paint wash bay to ensure no paint residue makes it into drains/stormwater. The paint bay also has its own settlement tank to prevent paint residue from entering the water pre-treatment/oil separator system. This reduces maintenance costs, improves efficiencies, and increases the life of the system.

Three rainwater tanks (total 67,500 litres) are now the primary supplier for use in the wash bay.

Wastewater collection now goes through a multi-stage process treatment system comprising:

- 2 underground holding sediment separation tanks
- the primary sump
- silt basket
- oil water separator package.

This ensures all oil and waste contaminants are adequately treated before dispensing into the stormwater system.

Bunding has been installed on the system perimeter to contain contaminants for treatment. This prevents the system unnecessarily processing stormwater.

Green Stamp environmental accreditation

Green Stamp is a program run by the Motor Trades Associations of Australia and is the highest level of accreditation available.

Council has gained Level 3 accreditation. This level is based on the principle of continual improvement in environmental practices. We have now moved beyond legislative requirements by incorporating sound environmental and sustainability management practices into daily operations. These include:

- improving storage practices for chemicals and other hazardous substances
- pre-treating wastewater from the Marsden Depot workshop before it is directed to the approved disposal outlet
- managing spills to prevent pollution of ground and stormwater systems
- correctly disposing of waste products
- air quality management
- conserving energy and resources
- developing and implementing environmental management plans
- improving staff awareness of third-party disposal processes.



Impact Target 2

Driver and vehicle management

Strategic servicing model

The strategic service model provides for:

- Improved economic stock holding of parts.
- Improved waste and recycling practices.
- Improved customer service through optimum program delivery (the primary focus).
- Council maintain a maintenance ratio of 70 per cent planned maintenance and 30 per cent reactive maintenance. This ensures vehicles are operating at optimal performance, which controls emissions and fuel consumption levels.

The strategic service model will allow us to reach maintenance ratios of 80/20 per cent planned/unplanned maintenance. This will further improve vehicle performance and reduce environmental impacts.

Electronic pre-start inspections

Asset fault identification and reporting now occurs quicker through the new electronic pre-start inspection program. This has resulted in minor mechanical issues being detected before they develop into mechanical failures.

We have created further efficiencies by reducing asset downtime and removing the requirement for operators to travel to depots to submit paperwork weekly. This also further reduces fuel and carbon emissions.

Vehicle load monitoring

We have developed a strategy to minimise overloading by installing digital on-board mass devices. This eliminates unnecessary weight and reduces fuel usage, while meeting compliance with regulators such as the Department of Transport and Main Roads, and Heavy Vehicle National Law Chain of Responsibility.

Fleet Driver Handbook

We have introduced a Fleet Driver Handbook, delivered to more than 550 staff members via individual inductions.

The handbook pack also contains a tyre pressure and tyre tread gauge, and a windscreen repair patch – all of which help to encourage a culture of care, and to minimise waste and fuel usage.

The handbook provides advice on fuel-efficient and eco-driving techniques to reduce carbon emissions and fuel consumption.

Paperless mobility and data collection – Strategic Asset Maintenance Management System

The Strategic Asset Management and Maintenance System Project is a Council-wide business transformation project. It introduced improved processes and technologies to achieve the best performance from our city's physical assets useful life.

It aims to streamline, and transition away from, paper-based systems and move to portable electronic systems that:

- improve productivity and efficiencies
- provide smarter ways of working
- perform strategic fleet maintenance management
- reduce paper waste.

Impact Target 3

Energy use reduction

Renewable energy

One of the 4 strategic objectives of Council's Carbon Reduction Strategy and Action Plan is to 'embrace innovative renewable energy technology'.

We installed a 100-kilowatt solar PV system at the Marsden Depot in May 2019. Over its first year of operation, the system:

- generated 154 megawatt hours of renewable electricity – equating to emissions savings of 143 tCO₂-e
- provided 43 per cent of the entire depot's total electricity needs
- saved 139 tonnes of CO₂-e emissions
- reduced the site's electricity costs by \$21,600.

This is a vital step in the organisation achieving energy reduction targets set under the Energy Management Framework. It is also providing a cost-effective method of reducing carbon emissions as part of Council's 2022 target of achieving carbon neutrality for its operations.

This initiative set a firm direction for the installation of further large solar PV systems across Council operations.



Impact Target 4

Training, education and culture change

Staff training

Hybrid and electric vehicle technology require specialised maintenance and repair practices and equipment.

In anticipation of an increase in electric hybrid vehicles within Council's fleet over the period of this strategy, Plant Fleet Services (PFS) technicians have completed the following trade training:

- diagnose and repair high voltage rechargeable energy storage systems in hybrid electric vehicles
- depower and reenergise hybrid electric vehicles
- service and maintain electrical components in hybrid electric vehicles.

As a result of COVID-19, there has been an increase in online training, conferences and workshops which has made attendance and learning more affordable and accessible to staff that would not normally have access, resulting in operational staff being exposed to new learning opportunities.

Staff training in maintenance, repair, and control of refrigerant gases in vehicles and plant in line with Australian Code of Practice and the Department of the Environment, and Water Resources will be increased where budget permits.

Quality Management Accreditation ISO 9001:2015

Plant Fleet Services (PFS) have completed a 12-month journey to create, document and implement a Quality Management System (QMS) on our business processes, processes which have now been accredited to International Standard ISO 9001:2015.

Benefits include:

- greater efficiency, cost saving and less waste
- better and consistent control of operations, major business processes and projects
- a better understanding of customer needs
- regulation of successful working practices
- regulatory risk and compliance management
- increased customer satisfaction
- improved participation of employees
- better internal communication
- additional staff training tool
- processes and documents leaned
- business sustainability and growth opportunities
- continuous improvement.



Quality
ISO 9001





Where are we going?

Listed below are the key industry initiatives we aim to investigate, support, and potentially deliver in the future. The table indicates the expected result area for each of the industry initiatives in terms of our impact targets.

Where are we going?	1. Pollution and waste minimisation	2. Driver and vehicle management	3. Energy use reduction	4. Training, education, and culture change
Renewable energy - power purchase agreements			✓	
Renewable energy certificates			✓	
Electric vehicle feasibility study	✓		✓	
Hybrid vehicles and plant	✓		✓	
Vehicle emission standards	✓			
Electric vehicle charge stations for Council and the community			✓	✓
Cities Power Partnership			✓	✓
Queensland Transport and Logistics Council – Hydrogen Working Group H2Q			✓	✓
Commercial vehicle selection and design	✓			
Selecting cleaner greener passenger vehicles	✓		✓	
Vehicle leasing		✓		
Driver behaviour – driving to reduce fuel consumption and improve road safety		✓	✓	✓
Training and further development		✓		✓
Plant Fleet Services Green Fleet Team			✓	✓
Circular economy	✓		✓	✓
Digital oil management system	✓			
Alternative fuels	✓		✓	
Introducing a grey fleet policy	✓			
Energy efficiency			✓	
Enterprise Asset Management System		✓		

Renewable energy – power purchase agreements

The landscape of renewable energy in Australia has changed drastically. Renewables now make up more than one-fifth of Australia's total energy output and are now the cheapest form of new build electricity generation. Corporate renewable power purchase agreements have been crucial in driving the energy transition in Australia and helping to realise corporation's climate change targets. A power purchase agreement could offer the potential to not only significantly increase the use of renewable energy at Council facilities but to even power future electric vehicle fleet using 100 per cent renewable energy. The Health Environment and Waste Branch continues to investigate and pursue options for provision of renewable electricity through a power purchase agreement.

Renewable energy certificates

Council is currently moving through an expression of interest process for a renewable energy power purchase agreement. Depending on the responses received and subject to Council approval, it's possible this could result in Council's operations being entirely powered by renewable electricity from October 2022 onwards.

Even when powered by standard grid derived electricity, electric vehicles have a lower operational carbon footprint than their petrol- or diesel-powered equivalents. However, it is possible to go further by purchasing sufficient renewable energy certificates to effectively make the electricity used to power an electric vehicle entirely renewable. The purchase of renewable energy certificates could be classified as part of the cost of the fuel. Rather than buying petrol, we buy electricity plus renewable energy certificates. This will ensure electric vehicles are entirely 'clean and green', regardless of whether there is solar on the roof of the building where the charge station is located.

Electric vehicle feasibility study

Electric vehicle feasibility studies will begin in 2021. The project will compare the whole-of-life costs of electric versus internal combustion engine vehicles. It will also analyse the current behaviour pattern of Council's combustion engine fleet. The study will form the basis of a business case for transitioning a selection of the passenger fleet to electric vehicles.

Hybrid vehicles and plant

Hybridisation powertrain technology can reduce fuel consumption through the elimination of low efficiency engine operation at low vehicle speeds, regenerative braking energy recovery and electrification of accessory loads. Through consultation and education with stakeholders, we will explore opportunities to swap out similar sized trucks and cars, at scheduled replacement, with hybrid drivetrain vehicles.

The opportunity exists to continue trialling heavy earthmoving hybrid technology with the Health Environment and Waste Branch, in an ideal testing environment that offers many variable operating conditions. The trialling provides valuable data on fuel and emissions reduction.

Vehicle emission standards

We will adopt lower emission vehicle technology and match it to business application. This will ensure maximum effectiveness of emissions reduction, in other words; selective catalytic reduction or AdBlue, diesel particulate filters and exhaust gas recirculation applications.

Euro 6 emissions standards in Council trucks will see a 95 per cent reduction in particulate matter, compared with Euro 5.

We will introduce the Tier 4 emission standard for non-road diesel engines (plant) where possible.

We are also setting emissions targets for contractor-supplied vehicles and plant, through strict benchmarking of engine standards. We are working closely with them to achieve this.

Electric vehicle charge stations for the community

Electric vehicles are acknowledged as an emerging transport trend in Council's integrated local transport plan Way2Go: Connecting Logan. Council has undertaken a feasibility study into the potential to provide electric vehicle charge stations at Council community facilities for use by the public. These could help to drive uptake of electric vehicles in the local community by helping to normalise the technology, while addressing the range anxiety associated with electric cars. Internal consultation on these opportunities continues.

Cities Power Partnership

As a member of the National Cities Power Partnership, Council has access to expert advice on climate related topics, including the use of new technologies that will help to drive emissions reductions.

Council's Green Fleet Strategy aligns with a potential alternate fifth pledge as a Cities Power Partner:

'Ensure Council fleet purchases meet strict greenhouse gas emissions requirements and support the uptake of electric vehicles.'

Queensland Transport and Logistics Council – Hydrogen Working Group H2Q

Council has signed up as a member of the Hydrogen Working Group 'H2Q', a federally-funded initiative to boost hydrogen collaboration across the nation.

H2Q Queensland Hydrogen Cluster is an industry led hydrogen cluster focused on sustainably growing the industry ecosystem in Queensland. With the hub based in Brisbane, H2Q connects firms, the H2 start-up community, academic and research organisations, industry councils and government agencies to contribute to the hydrogen value chain.

Commercial vehicle selection and design

We will review and modify our procurement, evaluation and selection process. This will see more strategic design and selection of commercial vehicles for intended application, where power-to-weight ratio matching is a consideration in vehicle suitability.

We will evaluate current needs when replacing vehicles, establishing whether the vehicle needs to be replaced at all or if there is an opportunity for consolidation of service provision.

We will work with stakeholders to decide whether smaller vehicles will still suit their intended application.

We will take strategic advantage of any opportunity to replace current vehicles with hybrid or electric alternatives.

We will create a 'catalogue' of commercial vehicles to suit different application/trades (for example, plumbers, concreters, water engineers, inspectors and field service technicians).

We will consider aerodynamics when designing bespoke commercial vehicles, and make recommendations to staff on how to reduce aerodynamic drag on current vehicles (for example, unnecessary loads, unused roof racks etc.).

Selecting cleaner greener passenger vehicles

A vehicle selection guide was introduced in 2020. The guide is continually evolving to include more cost effective and green vehicles

We will include adaptive cruise control (ACC) into the vehicle selection guide. It offers smoother, steadier vehicle operation and is one of the building blocks for autonomous driving. Future advances, such as vehicle-to-vehicle communications and freeway platooning will likely further smooth traffic flow and congestion reduction, boost fuel economy and contribute to the reduction of greenhouse gas emissions.

We will introduce automatic idle shut-off technology into the vehicle selection guide. Switching off engines for short idle times or prolonged periods of delay will save fuel, reduce carbon emissions, and reduce overall operating costs.

Vehicle leasing

We will formally adopt start-on-the-job vehicle arrangements. This is a vehicle use process that allows Council officers to travel directly from their place of residence to the work site, effectively removing the need for personal vehicle travel and additional commercial vehicle travel. It reduces costs and emissions, while improving efficiencies.

The private use component of vehicle leasing will be further limited to specific employment level, reducing fringe benefit tax and fuel costs.

We will no longer provide a vehicle to newly-appointed executive officers, reducing fringe benefits tax and fuel.

Driver behaviour: driving to reduce fuel consumption and improve road safety

We will introduce reward and recognition schemes to promote energy conserving driving. This will not be limited to passenger fleet. It will also be a strategy for the medium to heavy commercial fleet.

Engine idle reduction programs will be implemented through in-vehicle monitoring systems.

Addressing driving behaviour, such as braking, accelerating and tailgating, as well as simply slowing down, could yield an average fuel saving of 31 per cent.

Training and further development

We will future-proof our fleet maintenance technicians by providing technical training in repairing high voltage energy storage systems in hybrid and electric vehicles, in anticipation of an increase in electric and hybrid vehicle uptake.

We will also upskill staff in eco-driving awareness.

Circular economy

We will reduce the environmental impact of our fleet by identifying manufacturers that recycle and remanufacture end-of-life parts at a high percentage of total asset.

Digital oil management system

We will install a new digital oil management system, which will improve efficiencies in the workshop, and reduce labour time, cost, and waste.



Alternative fuels

An obvious investigation focus for sustainable fleet management is fuel choice.

Some fuels offer lower costs and greater distance per litre compared to petrol. On face value, this presents a compelling case for change. However, as with all things, there are advantages and disadvantages. Higher vehicle procurement costs and lower resale values need to be factored into any evaluation before any decision should be made to switch to alternative fuels.

Biofuels

- Biofuels, comprising ethanol and biodiesel, are among the main alternatives to petrol and diesel used for motor vehicles in Australia.
- Use of biofuels can be increased by requesting commercial vehicles and plant that have an approved bio-fuel' rating, for example, B5, B10 etc. supported by manufacturer warranties.

Renewable/green hydrogen

- Hydrogen is a priority low emissions technology.
- The Queensland Government is committed to developing a sustainable hydrogen industry, which places Council in a good position when considering hydrogen vehicles for future fleet.
- Hydrogen fuel cells can overcome many of the limitations of battery electric technologies and are seen as a more logical fit for heavy-commercial vehicles and transport.
- Hydrogen vehicles will remain in a niche market for fleet vehicles until there is:
 - further investment into fuelling infrastructure
 - increased availability of passenger and commercial vehicles
 - a reduction in the high capital cost of these assets
 - a shared understanding of technology, possibilities and risk.

Introducing a grey fleet policy

The grey fleet presents a challenge not only associated with workplace health and safety duty of care, but also for reducing carbon emissions. Employee-owned vehicles are typically older or less fuel efficient than Council provided vehicles, and therefore more damaging to the environment. By having a comprehensive grey fleet policy in place, Council has the opportunity to set minimum standards on safety, vehicle age and emission levels before permitting use of employee-owned vehicles.

Energy efficiency

The Plant Fleet Services workshop has numerous energy-saving technologies, including electricity sub-metering, LED office lighting, and solar PV. There are plans for this to be expanded via the installation of a wall mounted lithium-ion battery, combined with the retrofit of LED high-bay lighting throughout the entire workshop. We intend for the battery to store excess solar power for use during the evening, while providing essential learnings that could enable this technology to be used more widely across Council's other facilities.

Enterprise Asset Management System

This system involves:

- technology replacement aligned with new ways of working
- improved financial sustainability
- strategic life cycle cost management through predictive modelling
- real-time, active, cost-effective asset management
- optimised inventory management
- improved asset performance through efficient use of data
- strong environmental leadership through data insights.



Consideration of biofuel use is an important part of our alternative fuel strategy.

Key areas of interest

The following key areas of interest will provide guidance in significantly reducing emissions and air pollutants from vehicles and infrastructure used in Council operations. These key areas align with Council's **Corporate Plan, Focus Area 3 – Environment**, specifically:

- Key Priority 3.6: Increased use of renewable energy, energy efficient technology and carbon reduction programs.
- Key Priority 3.8: A clean, green, sustainable and cost-effective fleet with the supporting major project being to prepare a Green Fleet Strategy.

They also align with Council's Carbon Reduction Strategy and Action Plan, and the Sustainability Framework - Pillars of Sustainability:

Manage, minimise, and control air pollutants and waste from vehicles, plant and infrastructure used in Council operations.

The use of increasingly fuel-efficient vehicles provides several benefits, including reduced fuel costs, reduced carbon emissions, and enhancing Council's eco-friendly corporate identity. We aim to continue to pursue opportunities for electric, hybrid and alternative vehicles.

We also aim to continue to:

- reduce emissions from non-road diesel engines
- ensure environmental compliance of depots and infrastructure that supports fleet operations
- reduce any negative impacts of our own activities.

Manage driver and vehicle behaviour that directly impacts carbon emissions

We will:

- use GPS asset tracking and establish new capability through strategic asset tracking and management
- grow organisational awareness of the benefits and opportunities from strategic asset tracking
- implement the right technology to provide the data to be more efficient with assets and minimise waste
- identify opportunities to right size the fleet.

Develop energy reduction strategies and continuously review the viability of alternative energy sources

We will:

- encourage more sustainable fleet infrastructure where possible, subject to thorough cost benefit analysis.

Driving cultural change, training, and education

We will:

- raise awareness and encourage our employees and contractors to be proactive in reducing emissions and waste
- create e-training programs.



How are we going to get there?

Council will implement the following specific goals from our impact initiatives to support the vision of:

- reducing the greenhouse gases produced by Council
- improving our carbon emission profile.

Impact Target 1 - Pollution and waste minimisation

Specific goal	Measure	Attainability	Relevance	Timing
Make our fleet greener	20% reduction in pollution and waste	Based on experience with our fuel reduction and emissions data and recycling program	Highly relevant to sustainability	2026
Stimulate a cleaner greener contractor's fleet	100% of contractors fleet compliant with contractual requirements	Subject to collaboration from contractors and impact the ability to deliver current service levels	Highly relevant to sustainability	2022 -2026
Transition our passenger fleet away from internal combustion engine technology	>50% of vehicles to be electric or hybrid	Subject to confirmation of cost feasibility and availability of funding	Highly relevant to sustainability	2026

Impact Target 2 - Driver and vehicle management

Specific goal	Measure	Attainability	Relevance	Timing
Increase driver 'green' behaviours	100% of drivers to be trained and 100% of vehicles to be fitted with GPS monitors	Training and in-vehicle behaviour monitoring are successful in many other workplaces	Highly relevant to sustainability	2026

Impact Target 3 - Energy use reduction

Specific goal	Measure	Attainability	Relevance	Timing
Adopt Cities Power standards on lowering emission levels for new vehicle purchases	100% of purchases	Cost justifications to be confirmed	Highly relevant to sustainability	2024
Increase renewable energy sources in fleet infrastructure	Replace 25% of non-renewable energy	Based on Marsden Depot success, power purchase agreements, and renewable energy certificates	Highly relevant to sustainability	2022 -2026

Impact Target 4 - Training, education and culture change

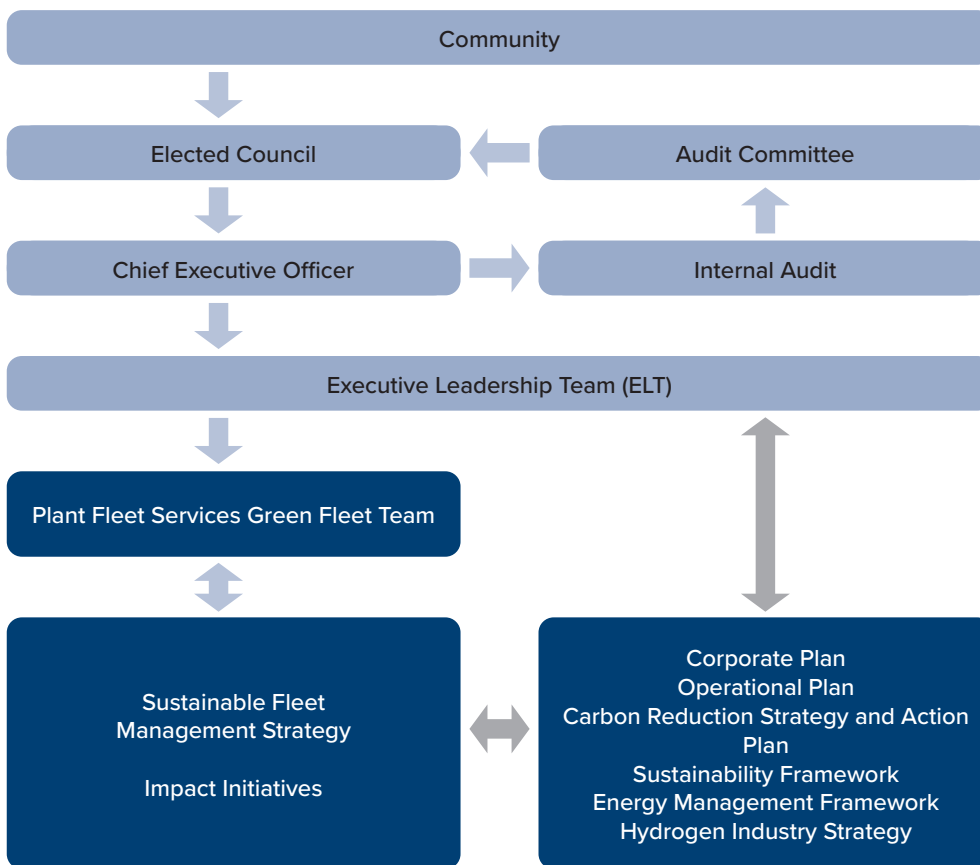
Specific goal	Measure	Attainability	Relevance	Timing
Appoint a Green Fleet lead to champion sustainability and increase awareness and commitment as the focal point for culture change in sustainability	>80% employee awareness of Council's green fleet story	Subject to inter-branch co-operation	Highly relevant to sustainability	2022



Performance measurement

The Green Fleet Strategy defines target goals, objectives and deliverables from impact initiatives, and identifies the associated risks. It is essential Council implements an active performance measurement model that supports identified success criteria. This will effectively monitor how sustainability initiatives are delivered. It will also assess the associated outcomes achieved for Council and the community.

The high-level definition of the governance model is provided below.



The implementation of the Green Fleet Strategy will be governed by the Plant Fleet Services Green Fleet Team. Individual projects will have performance measures specific to the project. The measures of the Green Fleet Strategy will focus on:

- **Impact Initiative 1** - Pollution and waste minimisation – 20% emissions reduction
- **Impact Initiative 2** - Driver and vehicle management – 100% trained, 100% fitted with monitoring equipment
- **Impact Initiative 3** - Energy use reduction – Replace 25% of non-renewables in fleet infrastructure
- **Impact Initiative 4** - Training, education and culture change - >80% employee awareness of Council's Plant Fleet Services Green Fleet Team story.

A baseline for these measures will be established and targets set. These will be governed by the Plant Fleet Services Green Fleet Team.

Impact initiatives

The initiatives to be undertaken to achieve our specific goals are listed below. Each of these actions will be framed as SMART goals when framing operational plans and budgets.

Impact initiative no.1

Manage, minimise, and control air pollutants and waste from vehicles, plant and infrastructure used in council operations

Actions	Timeframe	Links with key areas of interest
1.1 Working from Council's carbon emission sources and baseline on asset types, identify opportunities and potential strategies to reduce direct and indirect fleet emissions.	2022–2024	Pollution and waste minimisation Training, education and culture change
1.2 Implement a fuel management KPI monitoring system and data capture to ensure savings, fuel consumption and emissions reduction is tracked.	2022–2023	Pollution and waste minimisation
1.3 Incentivise car allowance participants to invest in low emissions vehicles.	2022–2023	Pollution and waste minimisation Training, education and culture change
1.4 In collaboration with People and Culture Branch, develop a Council-focused Grey Fleet management directive for private-owned vehicles used for work purposes to ensure the organisation has oversight of fleet age and condition and to manage financial, environmental, health and safety concerns.	2022–2023	Pollution and waste minimisation Training, education and culture change
1.5 Introduce electric vehicles onto the vehicle selection policy and a strategy to incentivise staff to support.	2022–2026	Training, education and culture change energy use reduction
1.6 Green Fleet lead – Develop a strategy to use willing, early adopters of alternative and lighter vehicles to advocate and stimulate change within branches.	2022–2026	Training, education and culture change
1.7 Set a target for all Council electric vehicle charging at Council locations to be zero emissions via the use of innovative renewable energy solutions.	2022–2026	Energy use reduction
1.8 Set a target for a minimum of one zero emission vehicle in each branch; other branches to offset this target where possible.	2021–2026	Pollution and waste minimisation
1.9 Introduce a selection of diesel-electric hybrid commercial vehicles into the fleet to replace like-sized trucks without compromising operational efficiency.	2021–2026	Training, education and culture change pollution and waste minimisation
1.10 Review all Council grid backup generators, evaluate life expectancy and develop a strategy with managers to replace with Tier 4 emissions units as minimum.	2021–2022	Pollution and waste minimisation Energy use reduction
1.11 Transition the diesel commercial fleet to low emission Euro 6 to coincide with 2027 Australian emission standard.	2021–2026	Pollution and waste minimisation Training, education and culture change
1.12 Set and meet emissions targets for wet and dry contract vehicles - indirect emissions managed through contractor-supplied commercial vehicles - Euro 4 emission standards as a minimum.	2021–2022	Pollution and waste minimisation Training, education and culture change
1.13 Set and meet emissions targets for wet and dry contract vehicles - indirect emissions managed through contractor-supplied commercial vehicles - Euro 5 emission standards as a minimum.	2025–2026	Pollution and waste minimisation Training, education and culture change

Actions	Timeframe	Links with key areas of interest
<p>1.14 Set and meet emissions targets for contractors - indirect emissions managed through contractor-supplied commercial vehicles - Euro 6 emission standards as a minimum. Note that this activity is a logical extension of standards compliance. The new standards will come into effect beyond the time scope of this strategy and will therefore be the subject of annual review until then.</p>	2027–2037	Pollution and waste minimisation Training, education and culture change
<p>1.15 Evolve the passenger fleet selection policy to increase financial and environmental benefits for staff and the organisation.</p>	2022–2026	Pollution and waste minimisation Training, education and culture change
<p>1.16 Support the strategic accommodation review to establish a south-west Logan super depot that will provide opportunities to reduce kilometres travelled to and from work sites.</p>	2021–2026	Pollution and waste minimisation
<p>1.17 Deliver key stages of the upgrading of Marsden Depot workshop facilities to improve sustainable work practices, efficiencies, compliance, and safety.</p>	2021–2023	Pollution and waste minimisation
<p>1.18 Deliver an environmental management and corporate industry operational and environmental risk gap analysis report for Council depot, to support improved environmental performance – Stage 2 of the Green Stamp accreditation.</p>	2021–2022	Pollution and waste minimisation Training, education and culture change
<p>1.19 Set a target to increase control of compliance and emission standards by working with partners to demonstrate value and savings by increasing Council owned assets and reduce external hired assets.</p>	2022–2026	Pollution and waste minimisation Training, education and culture change Driver and vehicle management
<p>1.20 Set a target to review current and future suppliers that can provide evidence of a harvest and recycle program for fleet products and consumables used in Council operations.</p>	2022–2023	Training, education and culture change
<p>1.21 Identify opportunities and create a strategy to reduce carbon miles on assets and goods used in Council fleet operations – buy local.</p>	2022–2026	Training, education and culture change Driver and vehicle management
<p>1.22 Create a commercial vehicle catalogue to suit different applications and trades with the aim of reducing indirect emissions through manufacturing efficiencies.</p>	2021–2026	Training, education and culture change Pollution and waste minimisation
<p>1.23 Deliver actions consistent with the Quality Management Manual – maintain the required standards for transport, air quality, water quality, noise, flora, fauna, and waste management.</p>	2021–2026	Pollution and waste minimisation
<p>1.24 Support and contribute to the development of a Green Building Design Guide to help staff incorporate sustainability principles into all new and renewal building works and consider the impact over the full life cycle and the environment.</p>	2021–2026	Pollution and waste minimisation

Impact initiative no.2

Manage driver and vehicle behaviour that directly impacts carbon emissions

Actions	Timeframe	Links with key areas of interest
<p>2.1 Review and improve the framework for telematics use. In consultation with stakeholders, develop a Council-focused policy for the appropriate and effective use of in-vehicle monitoring systems in Council assets.</p>	2021–2022	Training, education and culture change
<p>2.2 Undertake a cost and benefit analysis and provide a report to ELT recommending Council passenger fleet has vehicle monitoring systems installed.</p>	2022–2023	Training, education and culture change
<p>2.3 Right-sizing the fleet: Collate, visualise, validate, compare and analyse Council fleet metrics.</p>	2022–2024	Pollution and waste minimisation Training, education and culture change
<p>2.4 Deliver a driver behaviour framework to improve the life cycle of fleet; reduce fuel, maintenance, and waste products; reinforce positive habits; and provide a reward and recognition system for consistent improvements identified.</p>	2021–2023	Training, education and culture change Pollution and waste minimisation
<p>2.5 Deliver an electric and hybrid vehicle and plant assessment project, to help determine efficiency and operational cost savings and outline which Council vehicles and plant would benefit from transitioning to electric or hybrid vehicle.</p>	2022–2023	Training, education and culture change Energy use reduction

Impact initiative no.3

Develop energy reduction strategies and continuously reviewing the viability of alternative energy sources

Actions	Timeframe	Links with key areas of interest
3.1 Set a target to increase local generation of renewable energy such as solar PV systems on Marsden Depot buildings to provide clean energy for workshop operations and electric vehicle charge stations.	2022–2024	Energy use reduction
3.2 Pursue opportunities for grant funding for hydrogen initiatives and installation of electric vehicle charge stations across Council.	2021–2026	Energy use reduction
3.3 Develop strong and collaborative partnerships with key industry bodies to deliver impact initiative outcomes.	2021–2026	Energy use reduction
3.4 Support efforts and opportunities in procuring clean energy through carbon offsetting, corporate renewable power purchase agreements and renewable energy certificates.	2022–2026	Energy use reduction
3.5 Install lighting throughout the Marsden Depot that uses energy-efficient technologies, subject to a cost/benefit analysis, and considers renewable energy technologies.	2021–2022	Energy use reduction
3.7 Develop a structured approach in investigating and planning for future changes that are likely to be driven by new/changing technology.	2021–2026	Energy use reduction
3.8 Identify energy baseline and efficiency opportunities for the Plant Fleet Services depot buildings and operations, through programmed monitoring of sub-metering readings and initiating strategies to improve energy efficiency and cultural change.	2021–2023	Energy use reduction Training, education and culture change
3.9 Install and trial an onsite renewable energy storage systems at Marsden Depot with a view to providing sound data to support renewable and clean energy business decisions and projects.	2021–2022	Energy use reduction
3.10 Work collaboratively across the organisation on hydrogen strategy projects and explore all opportunities to trial/introduce hydrogen and hydrogen vehicles to the fleet.	2021–2026	Energy use reduction Training, education and culture change
3.11 Investigate, evaluate and integrate cooling and heating options and engineering for high idle time plant and equipment.	2021–2026	Energy use reduction Training, education and culture change

Impact initiative no.4

Drive cultural change, training, and education

Actions	Timeframe	Links with key areas of interest
<p>4.1 Establish a Green Fleet Team who will take a proactive leadership role in strategy direction, fostering a culture of change and encouraging sustainability practices across the organisation.</p>	2022–2023	Driving cultural change, training, and education
<p>4.2 Set a target for key staff to participate in ongoing knowledge sharing forums, conferences, workshops, and activities that provide information and support to sustainable impact initiatives.</p>	2021–2026	Training, education and culture change
<p>4.3 Explore opportunities to collaborate with the 3 tiers of government on emission reduction programs and in developing low-emission standards, regulations, policies, and strategies, and to share knowledge, experiences, successes, and failures.</p>	2021–2026	Training, education and culture change
<p>4.4 Develop e-Learning training courses for the Logan Learning Hub, directed at eco-driving and safe driving.</p>	2021–2022	Training, education and culture change
<p>4.5 Deliver an eco-driver training program for all drivers of Council vehicles.</p>	2022–2023	Training, education and culture change Pollution and waste minimisation
<p>4.6 Develop a program of initiatives to make driving-related work practices more sustainable and encourage an eco-driving culture.</p>	2022–2026	Training, education and culture change Pollution and waste minimisation
<p>4.7 Incentivise car allowance participants to invest in low emissions vehicles.</p>	2022–2023	Pollution and waste minimisation Training, education and culture change



Green Fleet Strategy - Summary

Benefits

Through our Green Fleet Strategy we bring benefits to our community and the environment we all share.

- Cleaner air with less polluting emissions
- Preservation of our resources by using more renewables
- More awareness and practice of sustainability through 'green' behaviours

We deliver these benefits and still deliver the services our community needs.

Our vision

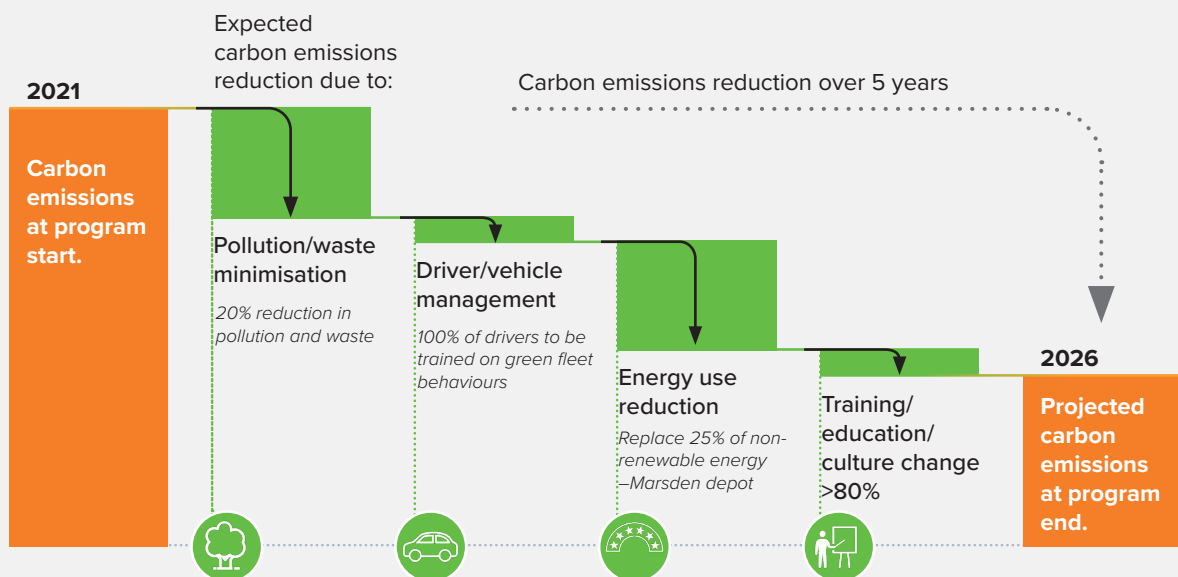
City of Logan, a green city full of pride, opportunity and culture.

Our purpose

To make a positive difference in people's lives through the quality of the services we provide.

Green Fleet Targets

This graph shows the expected reduction of total carbon emissions over the rollout of the Green Fleet Strategy 2021-2026.



Principles of sustainability

The Green Fleet Strategy aligns its principles with Council's sustainability framework:



Environment - Council will deliver services and activities in a manner that avoids and reduces waste, energy consumption and carbon emissions; is water efficient; uses recycled or reusable goods wherever practical and protects and enhances our natural environment, while considering the social, economic and governance implications of decisions.



Community - Council will ensure access to services, facilities and amenities that promote a community that is healthy and active; inclusive and connected, safe and resilient, while considering the environmental, economic and governance ramifications of decisions.



Economy - Council will promote a prosperous local economy and develop local job opportunities while considering the environmental, social and governance ramifications of decisions.

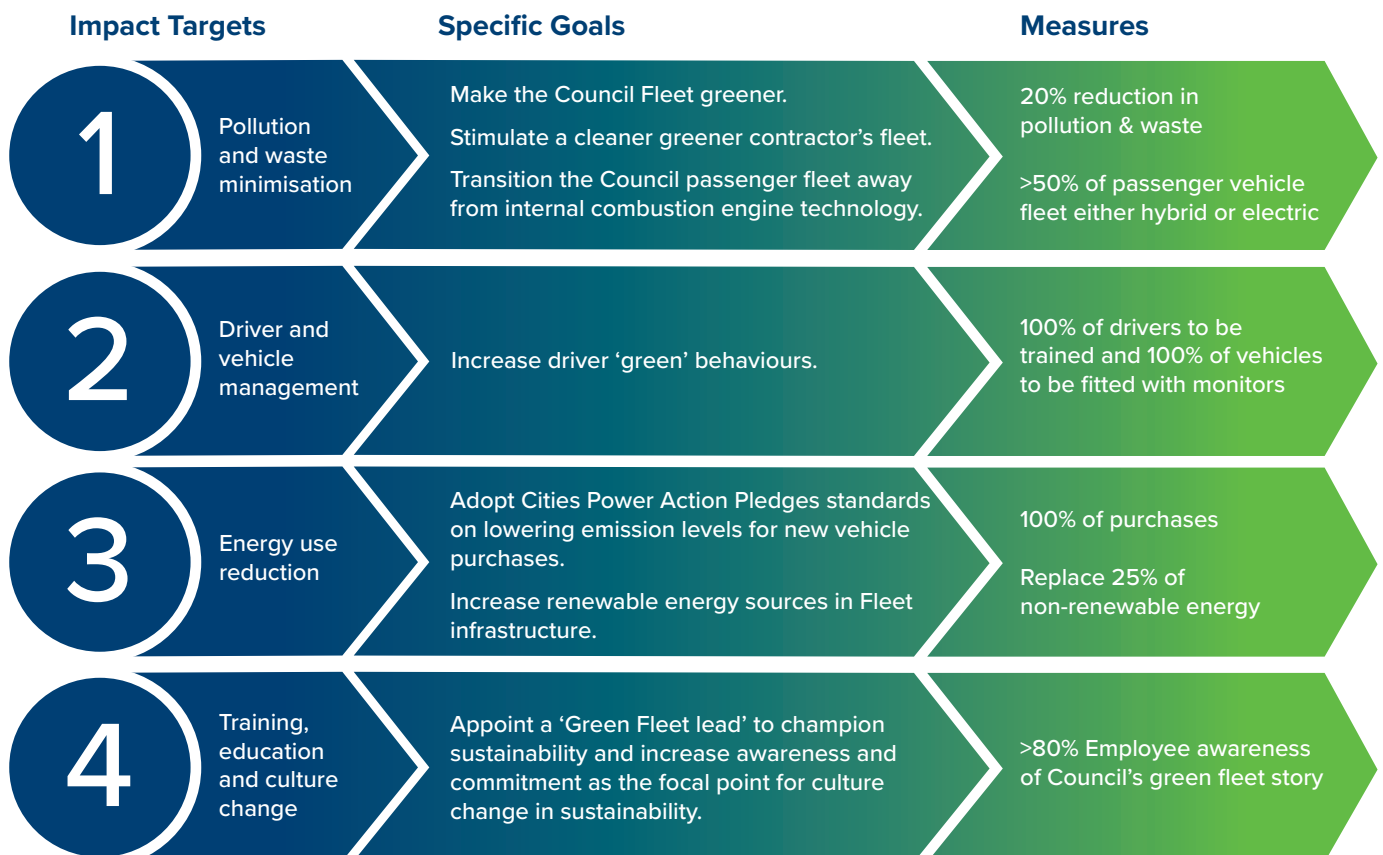


Governance - Council will govern in an ethical and transparent manner, providing opportunities for community participation in decision making and make its decisions in the interests of the community while considering the environmental, social, and economic ramifications of decisions.

Sustainable Fleet vision

Council is dedicated to sustainable leadership and a green future for the City of Logan which will be achieved through collaboration and authentic and capable leadership in public sector fleet management.

Sustainable Fleet Purpose: Provide the Council organisation with fleet solutions that meet service requirements and are capable, dependable, safe, innovative, economically and environmentally sound whilst ensuring continuous improvement.



Glossary of terms

Term	Description
Carbon emissions	The release of greenhouse gases and/or their precursors into the atmosphere over a specified area and period of time.
Impact initiatives	Initiatives that shape practices, influence others and support the 5-year strategy.
Grey fleet	A term used to identify those vehicles that are employee-owned vehicles and used on Council business. The grey fleet poses financial, environmental and health and safety concerns.
Green Stamp	An environmental program run by the Motor Trades Associations of Australia. It requires quarterly and annual auditing to ensure continued accreditation.
Eco-driving	A way of operating a vehicle to control and reduce unnecessary fuel consumption, improve drive and road safety and minimise risk.
Fuel efficiency	The relationship between fuel usage and distance travelled/hours used.
Telematics	The combination of telecommunications and informatics. It is a range of technologies that leverage connectivity (internet or short-range communications technology) with location, diagnostic or other information to provide convenience (for example tyre inflation notification or setting the vehicle's internal temperature), safety (for example location-based warnings or road conditions), and communications services.
IVMS	In-vehicle management system. A system that transitions from telematics to IVMS and is connected to the vehicles software system (CANBUS).
EV	Electric vehicle.
PHEV	Plug-in hybrid electric vehicle
ICE	Internal combustion engine
OEM	Original equipment manufacturer
REC	Renewable energy certificate
Diplomacy (within this document context)	Applying interpersonal skills, communication, leadership, conflict resolution and emotional intelligence to navigate professional interactions and determine successful outcomes.
Strategic service model	A model developed in 2021, which allows Plant Fleet Services to monitor asset performance, productivity, and workforce planning.
Quality Management ISO 9001:2015	A collection of business processes focused on consistently meeting customer requirements and enhancing their satisfaction. It is aligned with the organisations purpose and strategic direction.
Electronic pre-starts	A series of checks on vehicles and equipment delivered through a mobile phone that reinforces safe operation of asset and also identifies faults.
SAMMS	Strategic Asset Maintenance Management System
EAMS	Enterprise Asset Management System
ELT	Executive Leadership Team
CLT	Collective Leadership Team

Risk measurement

Increasing changes in community expectation for sustainability creates risk for delivery of Council's services and risks for successful implementation of the Green Fleet Strategy.

The table below outlines the high-level risk areas for successful delivery and defines a proposed risk mitigation strategy.

Risk Description	Likelihood	Impact	Risk	Mitigation action
Late positioning for federal/state grants for alternative fuels and electronic vehicle charge stations.	Probable	High	Major	Focus on possibilities for short term 'catch-up' once strategy is approved. Engage with collaborators to ensure coordinated approach.
Impact initiatives do not achieve sustainability balance and thus impact Council service delivery.	Very possible	High	Major	Regularly review and monitor impact initiative progress and preparedness to adjust programs to realign performance
Setbacks to overall strategy due to lack of widespread support for impact initiatives.	Very possible	High	Major	Share context and provide relevance. Publicise business case details and progress against targets.
Setbacks to overall strategy due to lack of resources to support impact initiatives.	Very possible	High	Major	Ensure budget model supports additional resources. Seek ELT and Council support where required.
Incorrect hydrogen technology purchasing priority (vehicle or hydrolyser first).	Very possible	High	Major	Adopt appropriate quality management standards. Consult closely with hydrogen working group and technology providers.
Fuel reduction target not met due to low support for driver behaviour monitoring.	Very possible	High	Major	Recognise contributions and show appreciation. Develop an incentive program for drivers linking good behaviours to broad climate goals.
Cost overruns of alternative fuel assets.	Very possible	High	Major	Closely monitor costs. Ensure robust predictive modelling and market analysis.
Unsatisfactory hydrogen fuel quality in retrofitted units.	Possible	High	Moderate	Ensure rigorous design and planning assurance, solid lines of communication with original equipment manufacturers, and written approvals are provided. Develop memorandum of understanding with providers if and when required.
Compliant fleet reduction caused by contractors not meeting Council emissions targets.	Probable	Medium	Moderate	Provide carrot and stick incentives to encourage contractors to meet emissions targets and/or transition to Council-owned assets. Use other contractors.
Changing roles and responsibilities for decisions relating to new technology are not managed.	Possible	Medium	Moderate	Form the Plant Fleet Services Green Fleet Team. Train and assess competencies and add new technology skills to workforce.
Failing to apply the right strategical approach for leading cultural change.	Possible	High	Moderate	Share context and provide relevance. Use expert assistance in building the culture change program.
Unforeseen operational service costs.	Possible	Medium	Moderate	Widely research service cost applications with other councils and original equipment manufacturers.
Unfavourable perceptions of high capital outlay due to unawareness of whole-of-life benefits.	Probable	Medium	Moderate	Publicise business case details and progress against targets.
Vehicle warranty voiding by testing alternative fuels on current fleet.	Possible	Medium	Moderate	Review market offerings for core system suite upgrades.
Extended manufacturing and delivery lead time for alternative fuel vehicles.	Probable	Medium	Moderate	Anticipate roadblocks to enable progress. Apply strategic replacement model.
Lack of skilled resources required to maintain alternative fuel assets.	Possible	Low to medium	Minor	Ensure current workforce skills are up to date and invest in further staff training. Ensure apprentices have training modules built into TAFE studies. Have local suppliers available to support service requirements.
Unknown factors associated with new technology such as management costs and residual.	Possible	Low	Minor	Start pilot projects in branches and establish criteria to centralise on a business case basis.

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