QFLEET ENVIRONMENTAL STRATEGY

For the Queensland Government motor vehicle fleet

Queensland Government

Minister's foreword

With the QFleet Environmental Strategy the Queensland Government is taking strong action on climate change and the risks it poses to our economy, industries, communities and environment.

The government's plan to transition Queensland to a zero net emissions future is set out in *Pathways to a clean growth economy – Queensland Climate Transition Strategy*.

Motor vehicle tailpipe emissions make a significant contribution to the climate problem. Every kilometre driven by an internal combustion vehicle burns fossil fuel and creates emissions that not only contribute to climate change but can also be harmful to our health, making this a priority area for transition and adaptation initiatives.

The government cannot do without its motor vehicle fleet. It is an essential resource for the delivery of government programs and the provision of services to the people of Queensland. The challenge for government is to embrace those initiatives and bring about change that transitions our vehicle fleet and practices to deliver the best outcomes for Queensland, allowing us to continue strengthening our economy while protecting our precious natural environment.

As the agency responsible for the procurement and management of the government's fleet of more than 10,000 passenger and light commercial vehicles, QFleet is optimally positioned to explore the problem, identify opportunities, develop solutions and implement change.

With the introduction of this strategy, QFleet will lead Queensland Government fleet managers in delivering the government's low carbon future initiative. This initiative embraces leading edge vehicle technology and fleet management best practice, such as plug-in electric vehicles and car sharing networks, while being mindful of and preparing for emerging innovation including autonomous (driverless) vehicles and hydrogen fuel cell technology.

While this strategy has been developed focusing on those budget sector agencies that comprise the majority of QFleet's customers, it will also provide a model for other fleet managers in both the public and private sectors.

The Honourable Mick de Brenni MP
Minister for Housing and Public Works, Minister for Digital Technology and Minister for Sport

Introduction

QFleet was established in 1991 to provide the Queensland Government with centralised management, oversight and reporting of its fleet (except for the Queensland Police Service and emergency services fleets).

Operating as a commercialised business unit, QFleet provides services to government departments, agencies and approved government-funded organisations.

Services include:

- vehicle procurement
- fleet selection, leasing, management and advisory services
- vehicle servicing and repairs
- operational advisory support and fleet reporting
- strategic advice including policy implementation, development and monitoring
- used vehicle sales by public auction.

As the government's fleet manager for more than 25 years, QFleet draws on a wealth of skills, knowledge and expertise; and has established strong relationships with customer agencies.

QFleet has a sound platform of leadership and influence from which to roll out the fleet environmental strategy.

In July 2017 *Pathways to a clean growth economy – Queensland Climate Transition Strategy*, (Climate Transition Strategy) was released by the then Deputy Premier, Minister for Transport and Minister for Infrastructure and Planning, the Honourable Jackie Trad MP and the then Minister for Environment and Heritage Protection and Minister for National Parks and the Great Barrier Reef, the Honourable Steven Miles MP. In the document the Queensland Government made three key climate change commitments:

- achieving zero net emissions for Queensland by 2050
- setting an interim emissions reductions target of at least 30 per cent below 2005 levels by 2030
- powering Queensland with 50 per cent renewable energy by 2030.

QFleet's emission levels are influenced by the size and make-up of the fleet and the number of kilometres driven. These three factors change over time as a reflection of the services being delivered by government agencies, and the vehicles selected by those government agencies for this purpose.

The trend of ongoing manufacturer driven improvements in fuel efficiency and greater introduction of electric vehicles will continue to reduce the emissions of the QFleet fleet. The average emissions of the new car fleet in Australia is forecast to reduce by approximately 2.7 per cent per annum out to 2025, and then even

more dramatically after 2025 when electric vehicles are expected to become fully accepted and economically equal to non-electric alternatives.

The fleet comprises 6,505 passenger vehicles (64 per cent) and 3,449 light commercial vehicles (34 per cent). The opportunity for QFleet and its customers is to do better than the average industry improvements, particularly in the passenger cars and SUVs which have a large range of options with increasingly lower emissions levels. The challenges for QFleet will be both technical and behavioural.

The technical challenge is that many QFleet customer services require commercial vehicles and speciality vehicles which are large and heavy and have fewer low emissions options currently available. Emissions factors often need to be traded-off with functional requirements to deliver these services.

The behavioural challenge will be in ensuring the removal of personal preference from vehicle selection decisions, and ensuring the operation of agency fleets is in accordance with government and agency policy.

QFleet is already working with Queensland Government agencies, vehicle manufacturers and fleet managers in other jurisdictions to establish a knowledge base and develop the tools to navigate the transition to sustained fleet emissions reduction.

QFleet's environmental strategy is a continuation and expansion of this proactive role. This strategy builds on that work and will see QFleet take an even more proactive role in reducing its fleet's emissions.

This strategy demonstrates support for *The Future is Electric: Queensland's Electric Vehicle Strategy*, released in October 2017 by the then Treasurer and Minister for Trade and Investment, the Honourable Curtis Pitt MP and the then Minister for Main Roads, Road Safety and Ports and Minister for Energy, Biofuels and Water Supply, the Honourable Mark Bailey MP.

Environmental strategy summarised

The QFleet Environmental Strategy describes the actions and approach that QFleet will adopt over the next five years to encourage government fleet managers to make better choices in selecting vehicles and managing government fleets.

This strategy will ensure that QFleet's emissions are at least 30 per cent below its 2005 emissions levels by 2030 and provides a clear path to a zero net emissions position by 2050.

The strategy also provides leadership and a framework for use by other fleet managers to deliver similar outcomes.

Six main pillars of an environmentally sustainable fleet:

Leadership and cultural change

Inform

Empower

Report progress

Recognise success

Drive new technology take-up

Electric vehicles

Autonomous vehicles

Hydrogen fuel cell technology

Lower emission vehicle program

Preferred list of vehicles

Vehicle emissions data

Reporting

Develop new fleet solutions

Car sharing solution

Networking with other jurisdictions

Industry innovation

Better fleet operation and management

Reduce kilometres

Telematics

Biofuels

Policy

Carbon offsetting

Offset unavoidable emissions

Aboriginal carbon fund preferred option

The primary goal of each pillar is:

Leadership and cultural change	Decision makers and drivers seek ways to reduce emissions.
Drive new technology take-up	Double QFleet electric vehicle numbers each year for 4 years.
Increase vehicles with lower emissions	New cars in fleet meet QFleet's emission levels, progressively transitioning the fleet.
Develop new fleet solutions	Car sharing service with electric vehicles in CBD and regional areas replacing some traditional fleet.
Better fleet operation and management	Reduce kilometres driven by use of technology, education and management oversight.
Carbon offsetting	Offset unavoidable emissions remaining after Strategies 1 to 5 to demonstrate commitment to transition and meet targets.

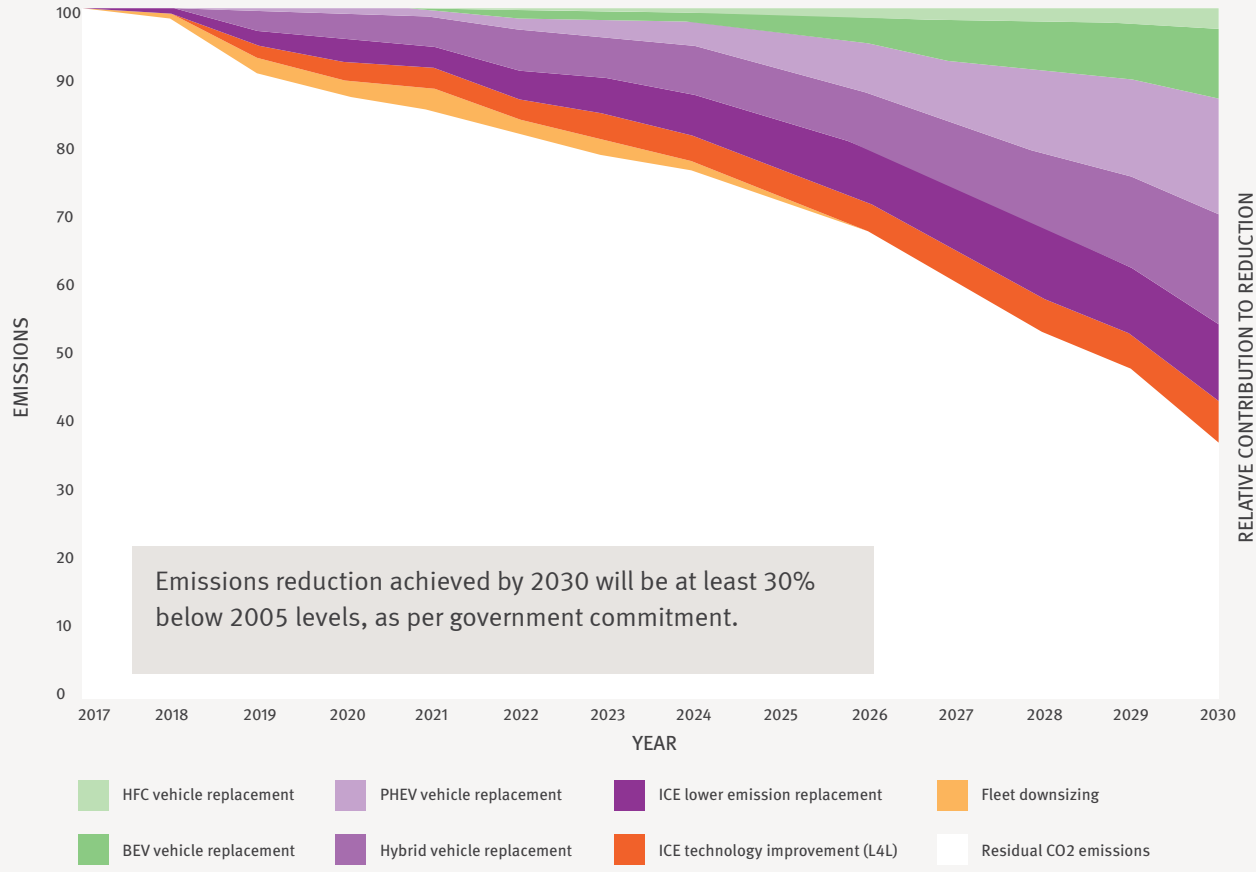
While the focus of this strategy is on QFleet's customers, the delivery of this strategy provides a broader benefit to other fleet managers in Queensland, and towards Queensland's low carbon initiatives by:

- demonstrating the viability of zero-and low-emission vehicles in fleets, pools and car sharing networks
- demonstrating a pathway for fleet managers to cost effectively invest in lower emission technology and operating practices
- increasing public and private sector awareness of the functional and environmental benefits of electric vehicles and low-emission/high fuel efficiency vehicles
- facilitating growth in industry capability and capacity, and advancing electric vehicle implementation.

These strategies will:

- deliver significant environmental outcomes
- be implemented in a way that will not compromise fleet safety or operational efficiency for agencies
- ensure continued value for money to government and taxpayers.

QFleet emission reduction projection 2018-2030



Strategy 1

Leadership and cultural change

Key goals:

- Decision makers and drivers think about how to reduce emissions.
- QFleet builds capacity and capability in low emission vehicles and fleet operation.

QFleet will take a multifaceted role in leading its customers to make changes in the way they think about vehicle selection, fleet management and driving vehicles.

This will lead agencies to recognise and value the environmental impact of their fleets and drive decisions and actions that reduce carbon emissions. This will include inspiring change, communicating success stories and experiences and building a centre of expertise.

Inspiring change

As creatures of habit, people can be passively resistant to change. This can be reflected in a like-for-like approach to vehicle replacement. QFleet will engage with customers to encourage them to seriously consider lower-emission vehicles when they need to replace a vehicle at the end of its lease.

Communication and demonstration

There is great value in sharing stories that educate and encourage change. QFleet will develop case studies and user-friendly educational materials that use real examples and people to demonstrate how change can occur and learn from experience.

Expertise in low-emissions fleets

QFleet will establish and be recognised for its zero-and low-emission vehicle expertise, focused on technology development and availability, fleet management practices, and policy and economic drivers for a low carbon vehicle fleet. Through proactive engagement with vehicle manufacturers, leading fleet managers across Australia and with relevant industry bodies, QFleet will keep abreast of developments in technology and practice and identify opportunities for partnership and collaboration.

QFleet will share with customers this knowledge and knowhow, and system resources to bring a consistently higher level of capability and capacity to Queensland Government fleet managers. This co-operation and consolidation of learning from experience will facilitate a faster response in embracing technology developments and implementing change to fleet management practices; improving outcomes for agencies and for government.

Strategy 2

Drive new technology take-up

Key goals:

- Double electric vehicle numbers each year until 2022.
- Demonstration model program for new zero-and low-emission vehicles.

Innovation and change in the vehicle sector is occurring at an increasingly fast pace. This is demonstrated by the surprisingly fast surge in popularity of ride sharing services, the quickly developing roll-out of driverless vehicle technologies, and the way in which leading electric vehicle developers like Tesla have captured the imagination of so many drivers worldwide.

QFleet will work with industry and fleet managers to understand these innovations and identify opportunities for early adoption of new technologies into the QFleet fleet.

In the next five years this will be focused on electric vehicles as multiple new models and options are expected to become available in Queensland. While forecasts vary, a common view is that by 2025 (give or take a few years depending on the forecaster) electric vehicle economics and charging station infrastructure will reach a tipping point that sees an across-the-board shift in passenger vehicles. QFleet will work with manufacturers to identify opportunities to lead this shift, and will demonstrate this through its own procurement practices.

In later years, as technology and infrastructure develop, this may include hydrogen powered vehicles.

Double EV numbers each year to 2022

Electric vehicle technologies are developing quickly. By working with vehicle manufactures and customer agencies, QFleet will double the number of electric vehicles in its fleet each year during the early stage of the strategy, from 2019 to 2022. This goal will be reviewed as additional suitable electric vehicles become commercially available in Australia.

Demonstration programs

Beyond educating and informing customer agencies about the environmental attributes of preferred vehicles, QFleet will engage with manufacturers to make best-in-segment/category vehicles available for agency fleet managers and drivers to experience. Particular attention will be paid to micro, small and electric vehicles, all of which are safe, comfortable and functional but are currently under-represented in the Queensland Government fleet.

Preparing for the future and autonomous fleets

The emergence of autonomous or 'driverless' vehicles is one of the most exciting transportation developments of recent years. While it is expected to be many years before widespread implementation of Level 4 and Level 5 automation – requiring very little or no driver intervention at all – autonomous technology such as lane departure warning, automatic reverse parking and autonomous emergency breaking are already available on some conventional vehicles sold in Australia.

Fully autonomous vehicles, computer programmed to achieve an ideal balance of safety, comfort and efficiency, hold the promise of optimal emissions management. QFleet will establish relationships with relevant bodies such as the National Transport Commission and Austroads to monitor developments in this space and will consider opportunities to partner with manufacturers as evaluation opportunities arise.

Strategy 3

Choose lower emission cars

Key goals:

- List of QFleet preferred lowest emission vehicles for each functional category.
- Customers choose lower emission vehicles from QFleet list that meet functional requirements.
- Progressively improve the environmental profile of the fleet.

QFleet will provide information, education and tools to its customers to enable them to make better choices in selection of government vehicles. This framework for action will create a 'no excuses' scenario by providing fleet managers with the necessary information and support to incorporate emissions into their vehicle selection decisions.

The framework will:

- address knowledge gaps and perceived operational barriers
- allow managers to assess their fleets' operational practices and emission profiles, identify opportunities for emission reduction and detect where opportunities are being missed
- assist senior management to overcome resistance stemming from misinformation and embedded agency culture.

Examples of what will be included in this framework are:

- To drive down emissions in customers' fleets, QFleet will provide a preferred list of safe, fit-for-purpose vehicles with higher emissions vehicles excluded. This list will also identify a maximum and optimum emissions threshold for each vehicle category to further inform vehicle selection decisions.
- QFleet will include industry updates relating to environmental content and the availability of lower emission vehicles in customer bulletins, Brisbane and regional customer forums and on the QFleet website. This communication will also highlight various fleet management practices that can improve overall environmental performance.

- QFleet will ensure the online vehicle selection and ordering tools it provides to authorised customers i.e. the Client Access System and Fleetscape, include up-to-date emissions information for each vehicle and variant offered, sourced from the Commonwealth Government's Green Vehicle Guide (GVG). (This excludes a small number of vehicles for which the GVG does not provide data.)
- QFleet's fleet consultants will possess the knowledge, skills and tools to assist and educate clients in improving their fleet environmental profiles from individual vehicle selection choices to whole-of-agency fleet replacement programming.
- QFleet's monthly reports provided to agency fleet managers and senior executives will be expanded to include environmental content. This will keep decision makers and influencers informed of the environmental profile and performance of their fleets — tracking change and highlighting opportunities for short-and long-term improvement.
- QFleet will prepare and distribute (electronically) to agencies a new publication with the working title of *Driving Fleet Emissions Down: Guidelines for improved environmental performance of the Queensland Government fleet*. Scheduled for publication during 2018, the guideline will provide clear advice about the steps that senior officers, fleet managers and drivers can take to contribute to reducing vehicle emissions.

The six key elements are:

- vehicle selection
- vehicle maintenance
- fleet allocation and deployment
- vehicle operation
- alternatives to driving
- additional considerations such as fuel selection in-vehicle technology.

Strategy 4

Develop new fleet solutions

Key goals:

- QFleet car sharing service with electric vehicles expanded in Brisbane.
- Car sharing service offered in select regional locations.
- Network and co-operate with other fleet managers.

Since it was established more than 25 years ago, QFleet has established a strong track record of delivering fleet efficiency and environmental outcomes and continues to build on this good work. An important contributor to QFleet's identification and development of new fleet solutions has been, and will continue to be, its engagement and co-operation with industry and other fleet managers outside of its current customer base.

Car sharing

Identifying an opportunity to explore innovation in centralised carpooling of Queensland Government motor vehicles in the CBD precinct, QFleet has established a practical model for agency car sharing in the Brisbane CBD.

A comprehensive proof of concept exercise demonstrated the viability of the model, and positive feedback from users — both fleet/pool managers and drivers— confirmed that the model improved time utilisation, reduced agency operating costs and increased agency efficiencies. Many of the efficiency gains, such as combining trips and better vehicle allocation, related directly to emissions reduction.

QFleet will engage with relevant agencies to gain their commitment and support for the roll-out of the car sharing facility to other Brisbane CBD precincts.

One of the expected additional benefits from full implementation is a projected net reduction of 30 motor vehicles across the CBD.

QFleet will expand the model to regional centres, commencing in the fourth quarter of 2018.

QFleet will ensure a practical and flexible car sharing vehicle mix, including low emission and electric vehicles.

Networking with other jurisdictions

QFleet is a member of two national fleet management organisations: the Fleet Management Benchmarking and Improvement Group and the Australasian Fleet Management Association. QFleet will engage with these professional bodies specifically in terms of fleet environmental improvement and emissions reduction.

Potential co-operation and networking opportunities for QFleet also exist across broader government fleets at the local government level. QFleet will investigate whether synergies exist with these bodies with a view to share learnings and knowledge and to collaborate on relevant projects of mutual benefit. Such co-operation may, for example, strengthen procurement capability or enable further expansion and success of QFleet's Brisbane and regional car sharing services.

Strategy 5

Better fleet operations and management

Key goals:

- Make available technology options that reduce kilometres driven and associated emissions.
- Improve understanding and observation of existing government policies related to biofuels and use of vehicles.

Telematics and analytics

As part of its value-add service QFleet has established a whole-of-government Standing Offer Arrangement for the provision of In-vehicle Monitoring Systems (IVMS) and Fleet Optimisation Services (FOS).

Commonly known as telematics, IVMS can include hardware in the vehicle to track and monitor use; a communication device in the vehicle to send and receive information; and a system to allow fleet administrators to view and interact with the data they receive.

FOS assists in reviewing and analysing fleet composition and performance based on the data gathered.

These technologies can improve agencies' ability to manage their fleets, with operational, safety and efficiency benefits including the ability to identify surplus vehicles, optimise trip routes, coordinate journeys and monitor vehicle activity and performance.

Several of QFleet's customers are already using the IVMS/FOS panel arrangement. With recent advances in this technology and more to come, QFleet will examine incorporating these in the roll-out and expansion of its car sharing model.

QFleet will continue to develop new and creative solutions to offer emissions reduction opportunities for its customers while meeting and exceeding their fleet operational needs, regardless of where they are located across the state. QFleet will also scope and trial the potential for incentives, both financial and non-financial, for fleet managers to make the necessary changes.

Biofuels

In 2017 the then Minister for Main Roads, Road Safety and Ports and Minister for Energy, Biofuels and Water Supply, the Honourable Mark Bailey MP announced in the Queensland Parliament the requirement for all compatible Queensland Government petrol vehicles to be refuelled using E10 where it is practical to do so.

In support of the *Increasing the use of ethanol blended fuel in the Queensland Government vehicle fleet: Retail fuel purchases* policy, QFleet's procurement negotiations for petrol vehicles with vehicle manufacturers will continue to specify that, to the greatest extent possible, only E10 compatible vehicles will be offered. A small number of non-compatible vehicles will be present in the QFleet fleet where no viable alternative is available to meet the fit-for-purpose needs of the customer agency.

QFleet has promoted E10 use to agencies through customer bulletins and its website.

QFleet will further promote the government's E10 policy at Brisbane and regional customer forums during 2018.

QFleet's monthly reports provided to agency fleet managers and senior executives will be modified to include a regular reminder about the E10 policy, as well as agency-specific information about the extent of E10 purchased compared with total petrol.

Strategy 6

Carbon offsetting

Key goals:

- Emissions that cannot otherwise be avoided will be offset.

Carbon offsetting is the process of removing or counterbalancing atmospheric carbon by matching the fleet's emissions with an activity that removes carbon from the atmosphere.

QFleet is offsetting the carbon emissions from the QFleet fleet for 2016-17, and the Department of Environment and Science will offset the whole-of-government fleet for 2017-18 and 2018-19 through the *Queensland Carbon Plus Fund*.

The priority of the QFleet Environmental Strategy is to minimise the impact of tailpipe emissions of QFleet's motor vehicle fleet, and in doing so supports the government's commitment in its climate transition strategy to 'demonstrate leadership by reducing emissions from Queensland Government operations'.

QFleet believes that the government's interim emissions reduction target of at least 30 per cent below 2005 levels by 2030, can be achieved by working with customer agencies to improve the fleet profile and improve fleet management practices to prevent carbon from entering the atmosphere in the first place. Offsetting will be employed if the proactive intervention outlined in this strategy cannot deliver the required reductions.

A progression to environmentally best practice

GENERAL FLEET PRACTICE	Where we are	Where we want to be	ENVIRONMENTAL BEST PRACTICE
	Little or no consideration of emissions	Emissions taken into account for each vehicle selection decision	
	Simple like-for-like replacement	Careful consideration of current operational requirements	
	Vehicles selection decisions made in isolation	Balanced, whole-of-fleet replacement program	
	Selection based on personal preference (make/model)	Selection driven by government policy and fit-for-purpose assessment	
	Contemporary vehicle fleet mindset	Consideration of new technology	
	Focus on barriers to electric and small/micro vehicles	Proactive approach to adopting electric and smaller vehicles	
	Automatic replacement of every vehicle	Consideration of fleet downsizing based on whole-of-fleet utilisation	
	All vehicles owned (leased) by agency/office	Smaller fleet, supplemented by QFleet car sharing vehicles	

Delivering the strategy

Focus area	Action items
Government Climate Transition Strategy	• Ensure that the QFleet fleet meets government's interim emissions reduction target of at least 30 per cent below 2005 levels by 2030. • Ensure that the QFleet fleet achieves zero net emissions for Queensland by 2050.
Vehicle procurement	• Specify minimum standards for vehicle emissions in procurement negotiations with manufacturers. • Engage with manufacturers to make low emission vehicles and electric available to agencies for evaluation to promote uptake.
Vehicles offered	• Provide customers range preferred list of safe, fit-for-purpose vehicles, with higher emissions vehicles having been excluded.
Advice to customers	• Identify maximum and optimum emissions thresholds for each vehicle category to inform selection decisions. • Ensure that the Client Access System and Fleetscape include up-to-date Green Vehicle Guide emissions information. • Include environmental content, industry updates and fleet management advice in QFleet's customer bulletins, Brisbane and regional customer forums and website. • Prepare and distribute guidelines for improved environmental performance to customer agencies. • Modify QFleet's monthly reports to include agency-specific fleet environmental profile and performance content.
Innovation	• Engage with relevant agencies to gain their commitment and support for the roll-out of the car sharing solution to other Brisbane CBD precincts. • Investigate the feasibility of expanding the car sharing model to regional centres including Cairns and Townsville in 2018-19.
EVs or Innovation	• Include low emission and electric vehicles in the car sharing vehicle mix. • Double the number of electric vehicles in the fleet each year from 2019 to 2022.
Networking with other jurisdictions	• Engage with national fleet management organisations in terms of fleet environmental improvement and emissions reduction. • Investigate whether synergies exist with government fleets at local government level in terms of fleet environmental best practice and car sharing services.

Focus area	Action items
Biofuels	• Continue to ensure, as far as is practical, that QFleet petrol vehicles are E10 compatible. • Continue to promote E10 use to customer agencies through customer bulletins, Brisbane and regional customer forums and the QFleet website. • Modify QFleet's monthly reports to include agency-specific E10 data.
Carbon offsetting	• Purchase carbon offsets if emissions reduction actions cannot deliver the government's required interim fleet emission reductions of at least 30 per cent below 2005 levels by 2030.
Reporting to government	• Provide the Minister for Housing and Public Works, Minister for Digital Technology and Minister for Sport, the Honourable Mick de Brenni MP, with an implementation progress report for this strategy six months after its release. • Provide the Minster for Housing and Public Works, Minister for Digital Technology and Minister for Sport with biannual updates (or as often as required by the Minister).

Strategy monitoring and review

Six months after the release of this strategy, the Minister for Housing and Public Works, Minister for Digital Technology and Minister for Sport, the Honourable Mick de Brenni MP, will be provided with a report.

This report will detail the implementation of the strategy — summarising progress to date and identifying any strategy revisions or enhancements. Reports will continue to be provided on a six-monthly basis, or as often as required by the Minister.

A report will also be made publicly available on the Department of Housing and Public Work's website.

Referenced documents

Pathways to a clean growth economy – Queensland Climate Transition Strategy

https://www.qld.gov.au/environment/assets/documents/climate/qld-climate-transition-strategy.pdf

The Future is Electric: Queensland's Electric Vehicle Strategy

https://publications.qld.gov.au/dataset/the-future-is-electric-queensland-s-electric-vehicle-strategy/resource/7e352dc9-9afa-47ed-acce-2052cecfec8a

Increasing the use of ethanol blended fuel in the Queensland Government vehicle fleet: Retail fuel purchases

https://www.dews.qld.gov.au/__data/assets/pdf_file/0004/681979/gov-e10-policy.pdf

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