

# QFleet Environmental and Electric Vehicle Transition Strategies



**National Public Sector Fleet Managers Conference 2018**



**Queensland  
Government**

# QFleet Environmental and Electric Vehicle Transition Strategies



## Strategies Overview

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**Queensland  
Government**

# QFleet Environmental Strategy and Electric Vehicle Transition Strategy for the Queensland Government motor vehicle fleet

Released May 2018 by

**Honourable Mick de Brenni MP**

Minister for Housing and Public Works,  
Minister for Digital Technology and Minister for Sport



# Beginnings

May 2016

**Honourable Anastacia Palaszczuk MP**  
Premier of Queensland and Minister for the Arts

**Honourable Dr Steven Miles MP**  
Minister for Environment and Heritage Protection  
and Minister for National Parks and the Great  
Barrier Reef



# Public Discussion Paper

## Advancing Climate Action in Queensland: Making the transition to a low carbon future:

- Invited Queenslanders to have their say on developing the right strategies to achieve a low carbon future.
- More than 6,000 submissions.



# Advancing Climate Action in Queensland: Making the transition to a low carbon future

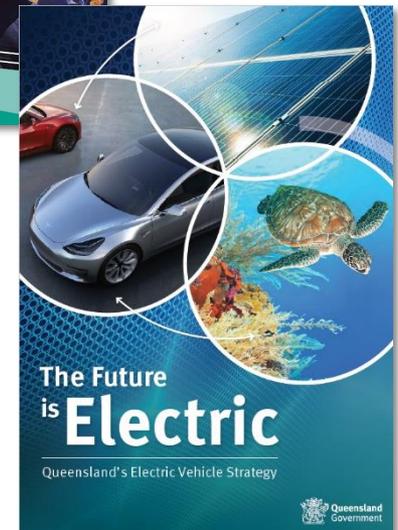
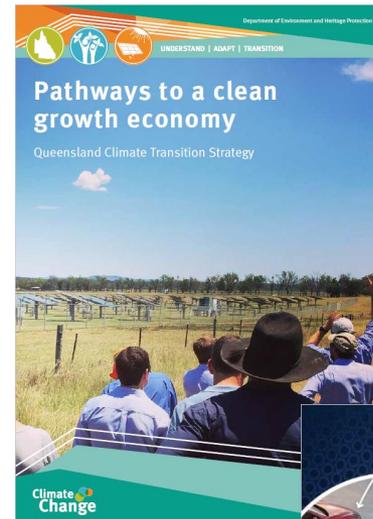
## What Queenslanders said:

- Queensland Government should:
  - lead by example
  - embed emissions reduction into government operations e.g. fleet management
  - take decisive action through emission reduction targets and policies
  - transition government fleet to electric vehicles



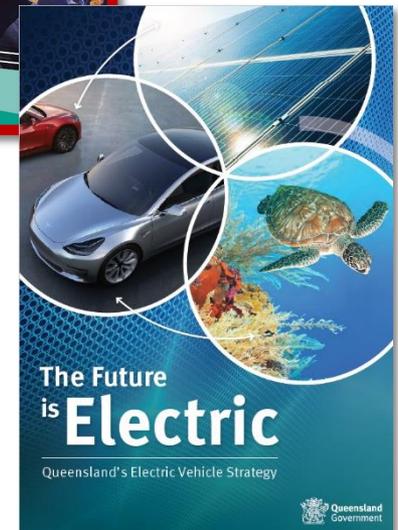
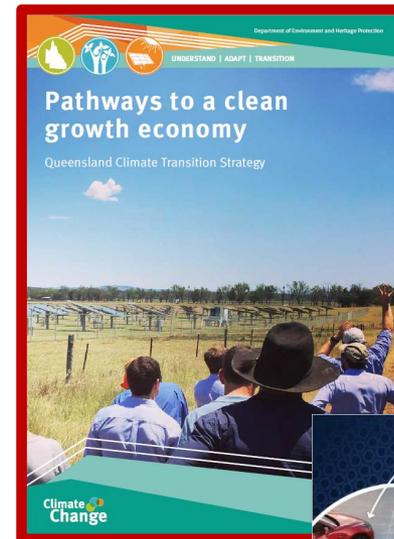
# Advancing Climate Action in Queensland: Making the transition to a low carbon future

## Government's response 2017



# Advancing Climate Action in Queensland: Making the transition to a low carbon future

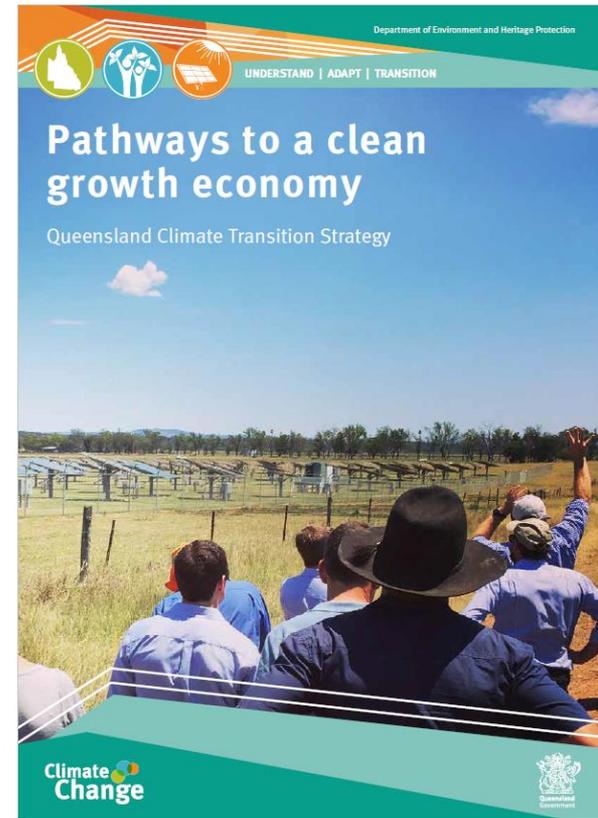
## Government's response 2017



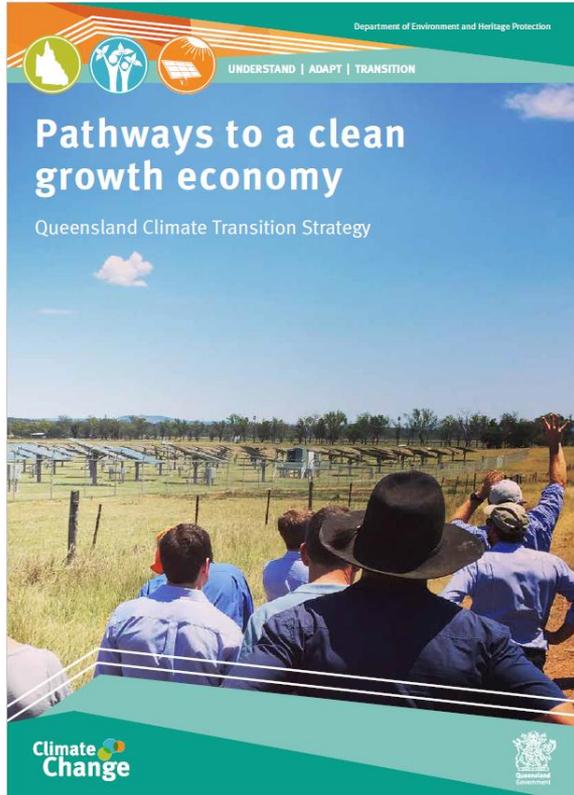
# QFleet Environmental Strategy

‘The Queensland Government has set a state target to reach zero net emissions by 2050, along with an interim target for at least a 30% reduction in emissions on 2005 levels by 2030. These actions include ... **government to drive zero net emissions targets through its own activities.**’

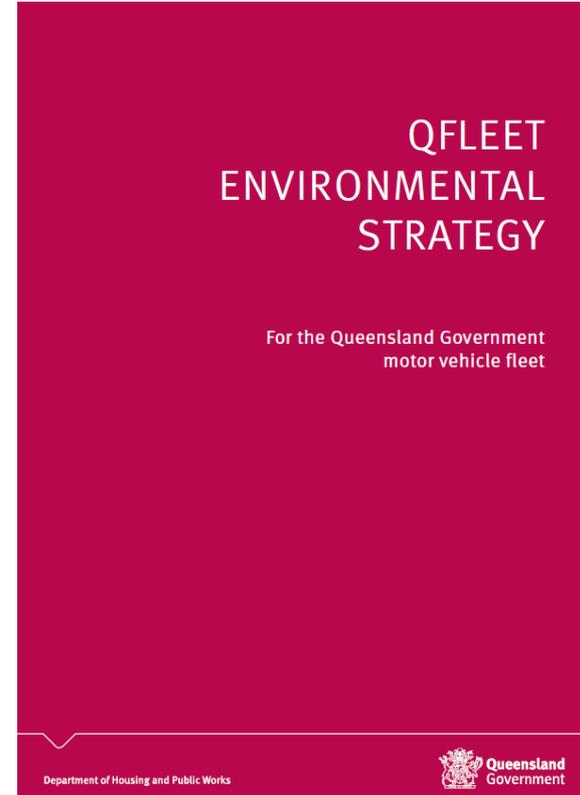
*Executive Summary, July 2017*



# QFleet Environmental Strategy



**Action 2.2:** Demonstrate leadership by reducing emissions from Queensland Government operations.



Released by the Hon Mick de Brenni MP, Minister for Housing and Public Works, Minister for Digital Technology and Minister for Sport  
*May 2018*

# QFleet Environmental Strategy

## 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

# QFleet Environmental Strategy

- **Provides a framework**
- **Strategic approach to progressively improve fleet environmental profile:**
  - vehicle selection
  - best practice fleet management principles, tools.
- **QFleet:**
  - work with manufacturers to offer lower emission vehicles
  - review vehicles offered to agencies
  - advice and reporting.
- **Agencies:**
  - consider emissions (GVG CO2) in all selection decisions
  - every replacement = opportunity to shift to lower emission vehicle.

# QFleet Environmental Strategy

**Example:** Vehicle selection – Toyota Camry nearing end-of-lease

## **Considerations:**

- Review vehicle's recent utilisation history in the context of current local fleet/pool.
- Consider car sharing as part of office transport solution.
- Is there a need to replace the vehicle at all?
- Can required tasks be performed in a smaller vehicle e.g. Corolla?
- Is there an opportunity to replace with an electric vehicle?
- If like-for-like is genuinely necessary, consider a hybrid Camry variant

# QFleet Environmental Strategy

**Example:** Vehicle selection – Passenger Light > Medium

Vehicle	Fuel Type	Fuel Consumption (L/100km)	Emissions (Grams CO <sub>2</sub> /km)
Toyota Camry	Petrol (ICE)	7.8	181
Toyota Camry Hybrid	Petrol/Electric	4.2	96
Toyota Corolla Ascent	Petrol (ICE)	6.0	139
Toyota Corolla Hybrid	Petrol/Electric	4.1	96

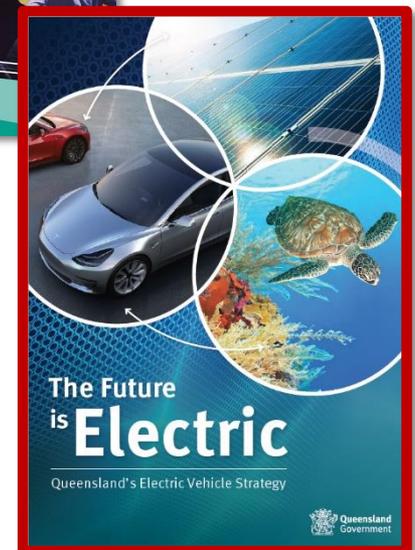
# QFleet Environmental Strategy

**Example:** Vehicle selection – Light Commercial ICE > PHEV

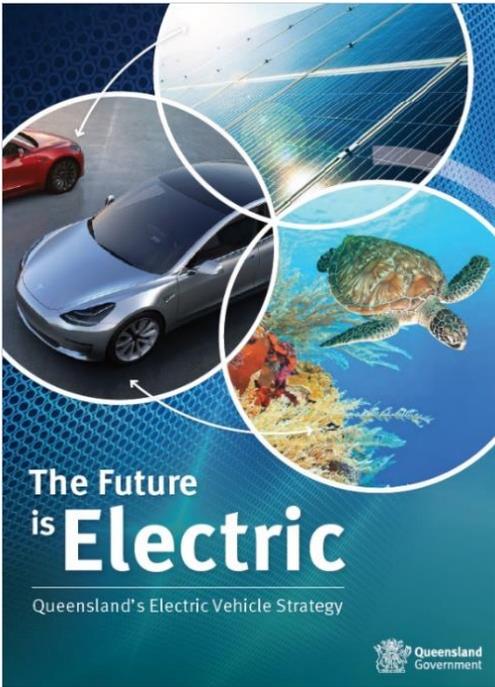
Vehicle	Fuel Type	Fuel Consumption (L/100km)	Emissions (Grams CO <sub>2</sub> /km)
Mitsubishi Outlander EDAS	Petrol (ICE)	7.2	166
Mitsubishi Outlander LS PHEV	Petrol Hybrid electric Plug-in	1.7	41

# Advancing Climate Action in Queensland: Making the transition to a low carbon future

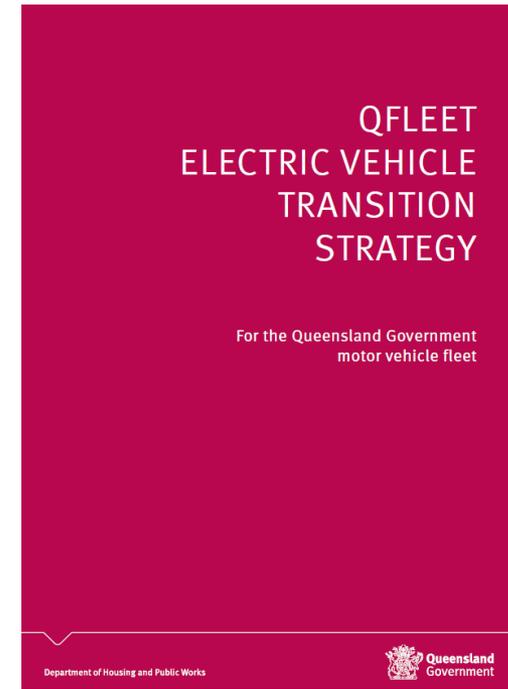
## Government's response 2017



# QFleet Electric Vehicle Transition Strategy



'The Queensland Government (will investigate) ways in which it can support a transition to EVs, including transitioning government vehicle fleets.'  
*October 2017*



Released by the Hon Mick de Brenni  
MP, Minister for Housing and Public  
Works, Minister for Digital Technology  
and Minister for Sport  
*May 2018*

# QFleet Electric Vehicle Transition Strategy

What is an EV?

Any vehicle fully or partially driven by an electric motor that can be plugged-in to recharge.

Two main types:

- the battery electric vehicle (BEV)
- the plug-in hybrid electric vehicle (PHEV).



# QFleet Electric Vehicle Transition Strategy

QFleet working with motor vehicle manufacturers to monitor EV intentions.

Early access to suitable EVs as they come to market:

- loan vehicles for hands-on evaluation by agencies
- inclusion in leased fleet offering.

A close-up photograph of the front of a blue car. The word "electric" is prominently displayed in large, silver, 3D block letters on the blue body panel. Above the letters, the red taillight of another car is visible, and the blue car's headlight and bumper are also in view. The image is partially framed by a white shape on the left side, which contains the text of the slide.

electric

# QFleet Electric Vehicle Transition Strategy

Suitability assessment based on:

- safety e.g. ANCAP rating
- public perception
- fit-for-purpose
- total cost of ownership
- recharging infrastructure.



# QFleet Electric Vehicle Transition Strategy

EVs currently available across the Australian market:

MANUFACTURER	MODEL	TYPE	
BMW	i3 94Ah – Small	BEV	✓
BMW	i3 94Ah Range Extender – Small	BEV	✓
BMW	i8 – Sports	PHEV	✗
Mitsubishi	Outlander LS – SUV	PHEV	✓
Mitsubishi	Outlander Exceed – SUV	PHEV	✓
Renault	Zoe – Small Sedan	BEV	✓
Renault	Kangoo – Small Van	BEV	✓
Tesla	Sports – (Various)	BEV	✗

# QFleet Electric Vehicle Transition Strategy

Anticipated new EVs scheduled for the Australian market:

MANUFACTURER	MODEL	TYPE	EXPECTED	
Hyundai	IONIQ – Small Sedan	BEV	Nov 2018	✓
Hyundai	IONIQ – Small Sedan	PHEV	Nov 2018	✓
Jaguar	I-PACE – Medium SUV	BEV	Nov 2018	✗
Mini	Countryman – Small Sedan	PHEV	Nov 2018	✗
Hyundai	Kona – Small SUV	BEV	April 2019	✓
Audi	e-tron – Sportsback	BEV	June 2019	✗
Hyundai	Nexo – Medium SUV	FCEV	June 2019	?
Nissan	Leaf – Small Sedan	BEV	July 2019	✓
Kia	E-Nitro – Small SUV	BEV	July 2019	✓
Tesla	Model 3 – Medium Sedan	BEV	Sept 2019	✓
Volvo	From mid-2019 all Volvos will be EV or PHEV			
Skoda	Superb – Large Sedan	PHEV	Oct 2019	?

# QFleet Electric Vehicle Transition Strategy

## Six focus areas of the EV transition strategy:

- replace existing vehicles with PHEVs
- introduce EVs into car sharing pools
- introduce BEVs via replacement programs
- incentivise EVs
- EV evaluation
- encourage manufacturers to schedule EV release.



# QFleet Electric Vehicle Transition Strategy

## Recharging infrastructure

‘Queensland Government will undertake analysis of buildings to understand opportunities and barriers to installing EV charging infrastructure to:

- support rollout of EV charging infrastructure in government owned buildings
- inform building guidelines and regulations so installation of EV charging infrastructure can become straightforward task.’

*The Future is Electric (2017)*



# QFleet Electric Vehicle Transition Strategy

## Recharging infrastructure

Economic Development Queensland  
Practice Note: *Electric Vehicle (EV) Charging Infrastructure.*

Designed to assist government authorities, town planners, developers and landholders to install EV charging infrastructure.

[www.dsdmip.qld.gov.au/resources/guideline/pda/guideline-electric-vehicles.pdf](http://www.dsdmip.qld.gov.au/resources/guideline/pda/guideline-electric-vehicles.pdf)

## Online App – PlugShare

Locates EV recharging stations on an interactive map for trip planning.

Download App or visit  
[www.plugshare.com](http://www.plugshare.com)



## Electric Vehicle (EV) Charging Infrastructure

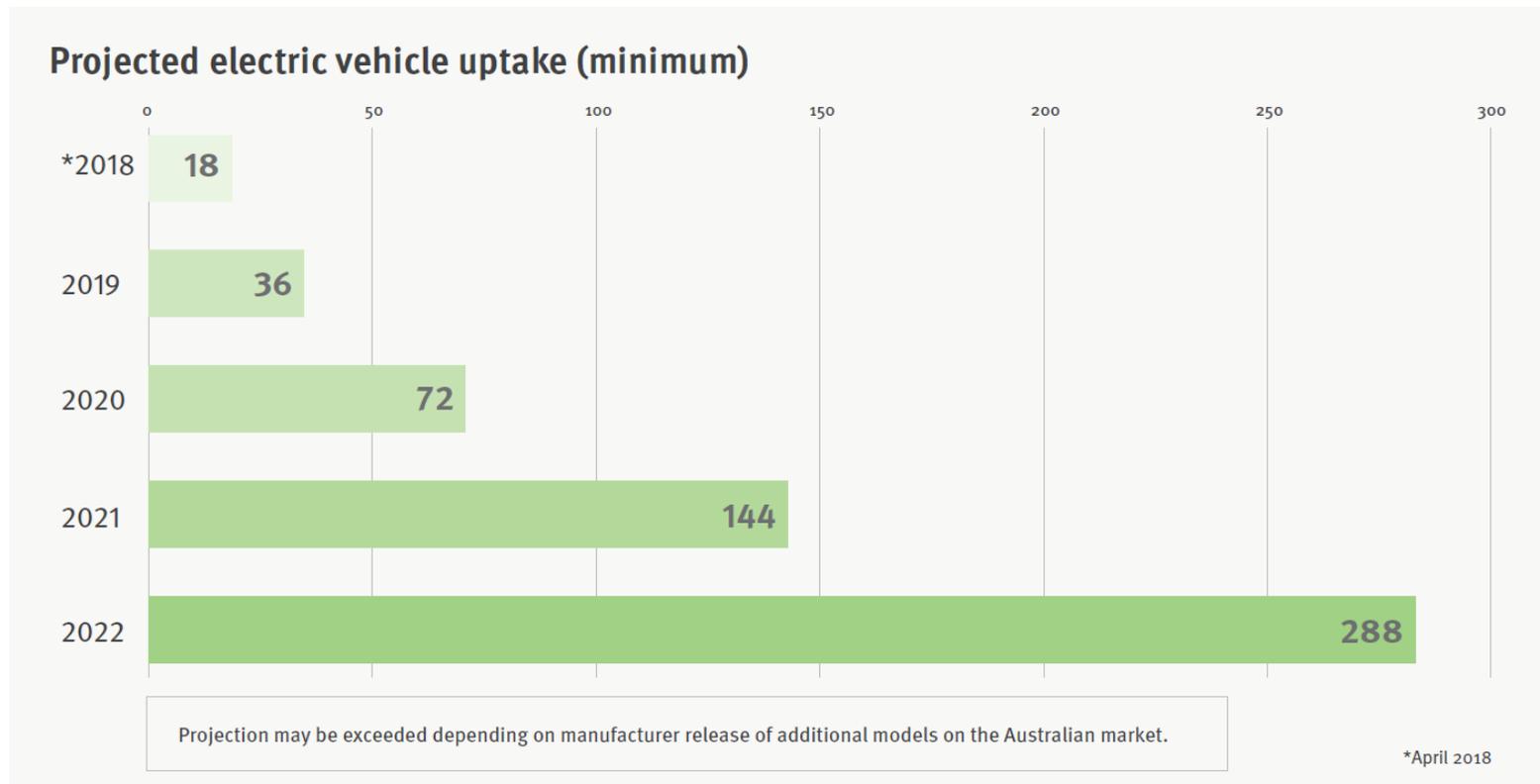


PRACTICE NOTE

March 2018

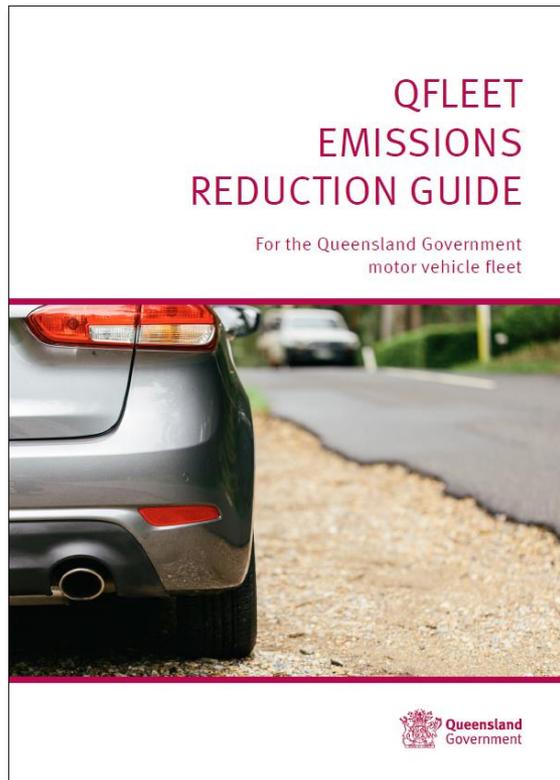
# QFleet Electric Vehicle Transition Strategy

QFleet expects to double the number of EVs in the fleet annually for the next four years.



# QFleet Environmental & EV Strategies

## QFleet Emissions Reduction Guide



# The journey to a lower emission Queensland Government fleet

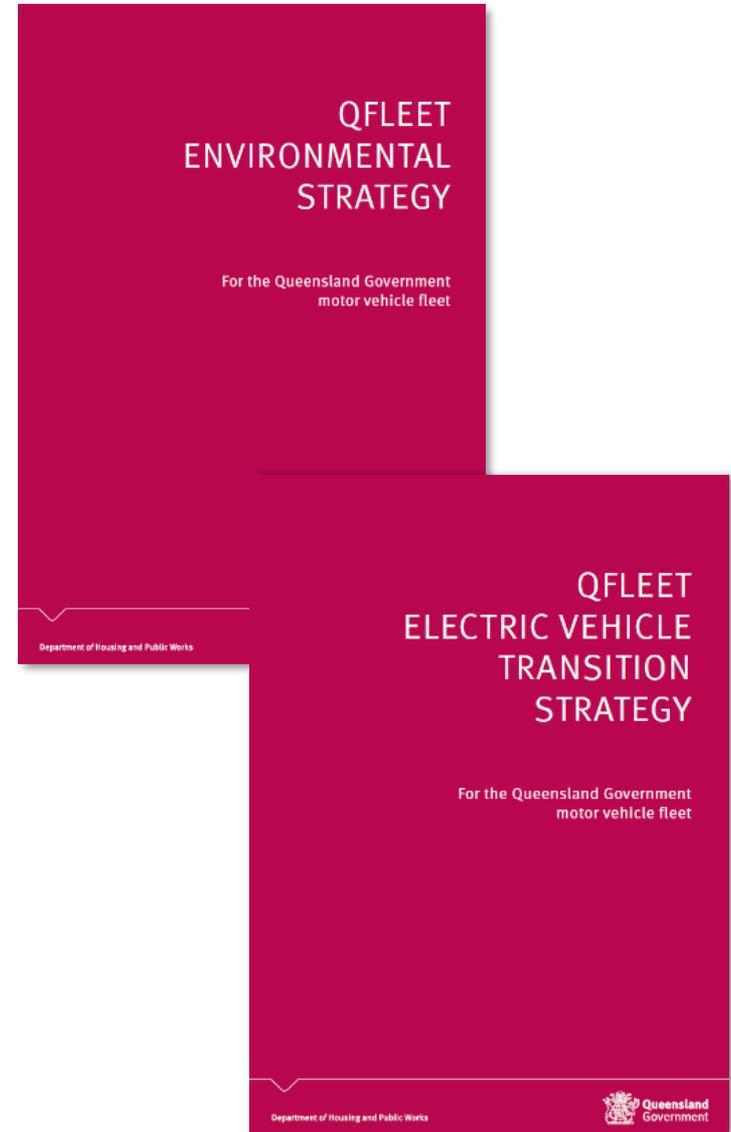
Everyone can influence the environmental impact of their agency's vehicles:

- CEOs who support the strategies and align departmental vehicle policy
- senior officers who authorise vehicle selections and vehicle utilisation decisions
- fleet managers who determine vehicle deployment
- agency carpool managers who allocate vehicles to tasks
- drivers who sit behind the wheel.



# The journey to a lower emission Queensland Government fleet

- Both strategies available at [www.qfleet.qld.gov.au](http://www.qfleet.qld.gov.au)
- Forums in Brisbane and regional centres.
- Advice and guidance available from QFleet fleet client services consultants.
- Environmental reporting component in monthly customer agency reports.
- Implementation advice in 'The Guide'.
- Update to our Minister after six months.



# The journey to a lower emission Queensland Government fleet

## Questions



# QFleet Environmental and Electric Vehicle Transition Strategies



**End of presentation – thank you**

[www.qfleet.qld.gov.au](http://www.qfleet.qld.gov.au)



**Queensland  
Government**

