

## Transport

Transport is Australia's third largest source of emissions – 19% in 2021. Road transport is the most significant contributor in the transport sector, with the biggest opportunity for near-term decarbonisation from light vehicles.

CSIRO's *Rapid Decarbonisation* scenario assumes that sales of conventional cars (ICE – internal combustion engine – vehicles) end by 2035.

While electric vehicles (EVs) become cheaper, more charging infrastructure and rooftop solar for home charging all accelerate EV uptake. By 2040, 73% of cars and light commercial vehicles on the road are electric powered.

Under the CSIRO scenario, decarbonisation of long distance and heavy transport accelerates through 2030–2040. As much as 56% of long-haul road transport is electrified by 2050 and the remainder uses low- or zero-emissions hydrogen.

Other commercial and passenger transport modes (rail, shipping and aviation) all feature expensive, long-lived assets, which are challenging to decarbonise requiring more innovation. Technologies in early stages of adoption in Australia will need to be in mainstream use by the 2030s.

The report's scenario projects that shipping begins to decarbonise in the 2040s as hydrogen carriers and advanced biofuels become commercialised. Similarly, air transport begins to decarbonise with a move towards the use of biofuels.

For more information, see infographic below and section 3.3 of the report *Pathways* to Net Zero Emissions – An Australian Perspective on Rapid Decarbonisation.

csiro.au/rapiddecarbonisation

# Transport

### 2050

Shipping transport emissions intensity is less than 10% of 2020

Air transport emissions intensity is less than 10% of 2020

### 2040s

Shipping industry has started to decarbonise via hydrogen/biofuels

Air transport has begun to decarbonise via biofuels

EVs make up 73% of light vehicles on the road

## 2045

All heavy road transport is a mix of electric and hydrogen

More than 90% of road vehicles are electric

#### 2035

Sales of new petrol and diesel vehicles end

## 2020

The transport sector is Australia's 3rd largest emitter, making up 19%

Australia trails other countries in fuel efficiency standards

EVs make up 2% of new car sales

## 2030s

EVs make up 23% of passenger and light commercial vehicles on the road

EVs reach cost parity with new internal combustion vehicles

EVs make up more than half of new car sales

#### Shipping

- Air transport
- Heavy vehicles
- Passenger and light commercial vehicles