

# Position statement:

## Road transport position

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### Hydrogen's role in decarbonising transport

Decarbonisation of Australia's transport sector is becoming increasingly urgent. Transport is Australia's second largest emitter, making up 19% of current greenhouse emissions.

Decarbonising road transport will only occur with a mix of batteries and fuel cells.

While both batteries and fuel cells can be used for light vehicles, hydrogen has particular value in the heavy transport sector.

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As noted in the National Hydrogen Strategy, hydrogen fuel carries significantly more energy than the equivalent weight of batteries. This is particularly useful for buses and trucks that carry heavy loads and must travel long distances or where battery weight compromises effective payload. It is also suitable for commercial use, where range anxiety and recharging/refuelling times affect the bottom line.

Hydrogen does have benefit for lighter vehicles as well. A fuel cell electric vehicle (FCEV) can be filled from a relatively familiar looking bowser in just

a few minutes. This will allow consumer road users to operate FCEVs in a similar manner to how they currently operate an internal combustion engine vehicle. This is of benefit to those who prefer the current mode of refuelling, including people without off-street parking that allows for overnight recharging.

Transport applications also provide significant hydrogen offtake potential, which can help grow the hydrogen industry and have the advantage of having a public profile and can also replace diesel now.

# The current barriers to FCEVs

The rollout of FCEVs in Australia is not as advanced as that of battery electric vehicles (BEVs).

The demand for FCEVs will not grow until an adequate refuelling network exists; however, investment in refuelling infrastructure is difficult to justify for the private sector in the absence of a significant vehicle fleet to use it.

Under such conditions, a market for FCEVs will not develop organically and government investment is required to drive demand and to contribute to infrastructure.

## What should be done



### 1. Develop a refuelling network through fleet adoption of FCEVs



Australian Hydrogen Council (AHC) considers that commercial and government fleets provide opportunities for FCEVs to establish a foothold. Many fleets operate on a 'back to base' basis and will require a single point refuelling station to be developed rather than rely on having access to refuelling infrastructure at several locations.

The purchasing power of fleet operators who buy multiple vehicles in a single transaction will help grow the penetration of FCEVs faster than individual purchasers.

Governments are well placed to lead this growth in the early days of the Australian hydrogen industry

as they can participate in pilots and trial programs without the primary focus on a financial return on investment, but instead with a greater eye to uncovering lessons to be shared with industry more broadly.

Funding and policy should initially focus on the development of a hydrogen refuelling network to service heavy vehicle transportation and to focus on commercial fleets located with, or close to, other hydrogen infrastructure. A more comprehensive refuelling network can develop on the back of lessons learned from these initial use cases.

### 2. Value the multiple lives for FCEVs



A number of AHC members have imported right hand drive FCEVs into Australia or are in a position to immediately manufacture them to client specification if required. Potential operators have however expressed a reluctance to adopt FCEVs due to this potential stranded asset risk.

The more the market for new FCEVs is stimulated and the technology is proved to be viable, the greater the demand for second hand

vehicles, especially as the cost of hydrogen and refuelling infrastructure comes down.

We suggest that fleet operators be incentivised to make their refuelling infrastructure available to secondary users of FCEVs (in a way which does not impede their commercial operations) as a means of ensuring that a market for old fleet stock can develop.



### 3. Incentivise FCEV uptake through policy settings

Governments can provide the right signals by setting targets and reducing barriers to vehicle purchasing. They can help create the demand that will draw through private investment in vehicles and infrastructure. This will give certainty to manufacturers and investors in the early stages.

Policy settings that will create demand for FCEVs will need to value the public benefit of clean hydrogen relative to incumbent fuels. This needs to be undertaken as part of a well-considered and articulated economy wide approach.

This means setting:

- A light vehicle CO2 emissions standard suitable for the Australian new vehicle market.
- CO2 emissions standard for new heavy vehicles (buses, trucks) to bring vehicles to Australia.
- Euro 6 noxious emissions standards for light and heavy vehicles.

We also urge governments to set a 50% zero emissions vehicle target for fleets of cars, buses and ancillary vehicles for 2030. This would include privately operated public transport fleets and government owned logistics providers.

Furthermore, governments must be mindful of measures which may disincentivise ownership of FCEVs. AHC is supportive of measures to promote fairness and equity among road users in terms of their contribution to road upkeep and maintenance. We are concerned that some policy approaches which have been mooted to address any inequity may be a deterrent to purchasing a BEV or FCEV.

We believe that the current transition from fossil fuels to low emissions technology presents an opportunity to reform taxes and excises associated with road use to better reflect future societal needs.

### 4. Understand and meet consumer information needs



Their transition to a hydrogen economy will require education and engagement. Commercial and private road users will rely on relevant and accurate information to assist with their purchasing decisions.

AHC considers two key industry-wide information gaps need to be addressed in order to facilitate the penetration of FCEVs into Australia's vehicle fleet. These information gaps relate to the following:

#### - GENERAL HYDROGEN INFORMATION

Interactions with FCEVs may be the closest that many Australians get to hydrogen infrastructure, and as such it is crucial to engage with motorists to drive acceptance of FCEVs as a zero emissions road transport option. We consider this to be a key element of a broader need to increase awareness and acceptance of hydrogen in the community.

#### - REFUELLING NETWORK INFORMATION

In order to drive the market for FCEVs for private use (as opposed to fleet operations with access to dedicated refuelling infrastructure) there should be information about the location of publicly accessible refuelling infrastructure.

