

## Hydrogen's potential to power Australia past COVID-19

Kim Ho,

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*by Dr Fiona Simon, CEO of the Australian Hydrogen Council*

Australia's hydrogen plans are powering through COVID-19, according to a recent survey by the Australian Hydrogen Council.

Almost 80 per cent of Australian Hydrogen Council members who responded to the survey reported that COVID-19 had not negatively affected their hydrogen strategy.

This is despite most respondents advising that their overall businesses were impacted by the pandemic's economic fallout.

One of the leading concerns from members was that government commitments to hydrogen might reduce in these uncertain economic times.

We have been pleased to see this is not the case so far, with governments reinforcing their hydrogen commitments in several ways, including:

- ARENA's current \$70 million funding round, which will see funding of key projects aiming to get green hydrogen production to scale
- The Federal Government guaranteeing \$300 million through the Advancing Hydrogen Fund, which allows for concessional financing of hydrogen projects.
- The Tasmanian Government's \$50 million funding round for renewable hydrogen projects
- The release of the Federal Government's *Technology Investment Roadmap* discussion paper, which shows a clear role for hydrogen, and will sit alongside the National Hydrogen Strategy





These actions show a commitment to lower our emissions and a recognition that scalable technologies, such as hydrogen, are the primary way to do so.

There are also lessons we have learned from our COVID-19 experience which can apply to our development of renewable and clean energy such as hydrogen.

First, we have seen drops in pollution across the globe, and these show communities what clean air looks and smells like. This is less of a problem for Australia, but that does not mean we should welcome particulates in our air.

The COVID-19 economic shutdown is clearly catastrophic, and we need to get industries going again. However, in doing this we now have a clearer vision (both actually and figuratively) of the public benefit we should be working toward as we manage the energy transition.

Second, the pandemic and the recent oil fluctuations have shown that Australia needs to value energy diversity in the interests of economic security. Hydrogen is made, not found. It can be made in different ways across a range of environments.

Local hydrogen production can provide high volumes of energy to industry, cities and homes across Australia, and create local jobs. It can also bring new design and manufacturing opportunities in fuel cell technologies for the automotive, aviation and marine industries.

Third, Australia has been a major energy exporter for nearly a century and hydrogen is our new energy export commodity. We are already negotiating with countries such as Korea and Japan who will take as much hydrogen as we can produce.

If we are to succeed in realising the hydrogen vision, it is vital that Australia develops large-scale hydrogen production capacity at a competitive cost. The federal government has recognised this in setting a 'H2 under 2' target – that is, driving the cost of producing hydrogen under \$2 per kilogram – as its first goal under the *Technology Investment Roadmap*.

There are many variables involved with this apparently simple target, and we need to account for multiple pathways to get there.

The good news is that Australia is in a particularly advantageous position to meet the target and manage the challenges. Besides our country's obvious physical advantages in land mass and solar penetration, there is also significant goodwill, motivation, technology, market skills and experience across the organisations in the hydrogen ecosystem.

This remains the case despite COVID-19's unprecedented disruption to our economies and our lives.