

Greening Australia's Gas Network



The Problem

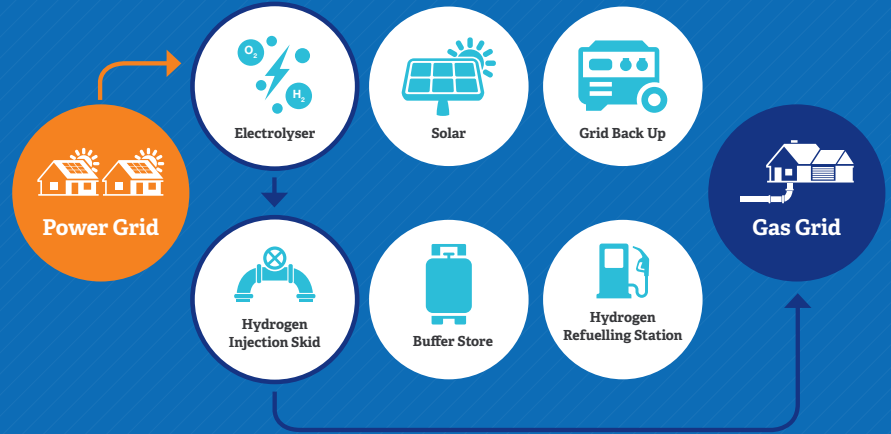
How do we develop affordable energy storage to complement renewable energy when the sun doesn't shine and the wind doesn't blow?

What is Jemena doing?

Introducing Jemena Project H₂GO. The Power to Gas trial is the first stage in investigating how excess renewable energy can be converted into and stored as hydrogen gas.

Hydrogen is a versatile, safe, carbon neutral, green gas enabling an integrated energy system.

Hydrogen can also support the gas grid and Australia's hydrogen vehicle industry.



Jemena Project H₂GO

Jemena Project H₂GO is expected to be operational in **2020**

It's a **five year** trial

The trial will test how existing gas infrastructure can be repurposed to support new energy forms

The trial will address the energy trilemma – affordability, reliability and sustainability

Why Hydrogen?

Hydrogen is a flexible fuel - it can be used as hydrogen or converted back into electricity bringing renewable energy to homes, business and industry as well as exported internationally.

Hydrogen produced from Jemena Project H₂GO could:

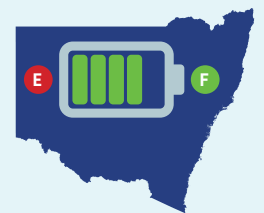
- Generate enough power to support 250 homes
- Provide daily electrical storage of up to 3MWh using the gas network as a battery
- Provide refuelling stations for hydrogen vehicles



Jemena Project H₂GO potential

Jemena Project H₂GO will test:

- if Power to Gas technology can be adopted more broadly across the NSW gas network
- long term storage options for excess renewable energy
- if hydrogen could enable renewable energy to be stored for weeks or months rather than minutes or hours (as batteries currently do).



Jemena Project H₂GO will make a significant contribution to decarbonising the entire energy sector.

Trial partnership

Jemena Project H₂GO is a \$15 million trial, co funded by Jemena and the Australian Renewable Energy Agency (ARENA) with both organisations contributing \$7.5m in funding.



About Jemena

With more than a century's experience and expertise in the utilities sector, Jemena owns and operates a diverse portfolio of energy and water transportation assets across the east coast of Australia.

Contact www.jemena.com.au

