



# Hydrogen Park South Australia (HyP SA)

A 5% renewable  
gas blend provided  
by the existing gas  
network

[agig.com.au](http://agig.com.au)  
[blendedgas.agn.com.au](http://blendedgas.agn.com.au)

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## About the Project

The future of gas is bright. As a business we are taking active steps to contribute to a low carbon economy.

We are developing a blended 5% renewable gas project at the Tonsley Innovation District in Adelaide, South Australia.

From mid 2020 to mid 2025, 710 properties adjacent to the Tonsley Innovation District will receive a blend of 5% renewable hydrogen with natural gas via the existing gas network. Blending hydrogen with natural gas helps to achieve our emissions goals because, when burned, hydrogen does not release any carbon emissions (only water vapour and heat) – so blended gas produces less carbon dioxide than 100% natural gas.



## Why is the Project Important?

Australia is committed to reducing carbon dioxide emissions to between 26% and 28% below 2005 levels by 2030.

Natural gas is an important part of our energy mix. We use it in homes and businesses to heat our buildings, heat water and to cook. It is also used by many large industries and to generate electricity. Compared to other energy sources, it is already low-carbon – providing 44% of Australian household energy but only 13% of household greenhouse gas emissions.<sup>1</sup> But we can do more.

Australia's gas sector is on the pathway to a cleaner energy future. We can achieve this by using renewable or carbon neutral gas, such as hydrogen.

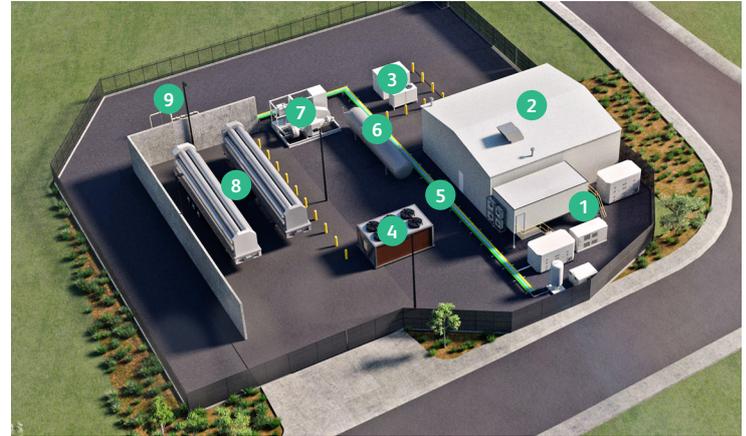
HyP SA will produce renewable hydrogen which we will blend with natural gas for supply to customers. We are also targeting direct hydrogen supply to industry and refuelling for vehicles.

HyP SA will:

- Demonstrate production and blending technology in an Australian context
- Underpin further research and Business cases – paving the way for commercial hydrogen production
- Facilitate gas and electricity network coupling, the gas network is like a giant battery that already exists – we can use it to store excess renewable electricity

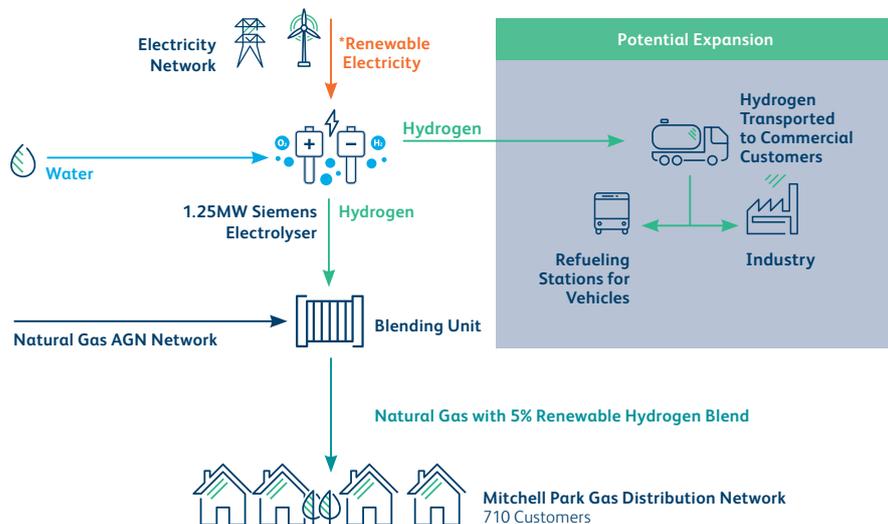
<sup>1</sup> ENA Gas Vision 2050

## Artist Impression



- 1 Electrical transformers, switchroom & air compressor
- 2 Electrolyser building (electrolyser, water purification)
- 3 Hydrogen dryer & purification unit
- 4 Electrolyser cooler
- 5 Hydrogen piping
- 6 Hydrogen storage vessel
- 7 Hydrogen compressor (potential expansion)
- 8 Hydrogen tube trailers (potential expansion)
- 9 Hydrogen & natural gas blending unit

## The Process



\*AGN will purchase (and voluntarily surrender) Large-Scale Generation Certificates (LGCs) to offset the amount of electricity and ensure the 5% hydrogen supplied to customers is renewable.

## About Australian Gas Networks

Australian Gas Networks (AGN) is Australia's largest gas distribution company. Part of Australian Gas Infrastructure Group, our networks serve almost 1.3 million homes and businesses in South Australia, Victoria, Queensland, New South Wales and the Northern Territory.

## Project Timeline

### 2018

#### Phase 1

August 2018 to Mid 2020

Planning, design and construction of onsite infrastructure at Hydrogen Park South Australia (located at the Tonsley Innovation District).

#### Phase 2

July 2019 to Mid 2020

Mitchell Park community introduced to the project and supported through ongoing engagement. Construction of the Hydrogen Park South Australia facility.

#### Phase 3

Mid 2020 to Mid 2025

Properties within the southern area of Mitchell Park will receive blended gas (5% renewable hydrogen with natural gas).

### 2025

#### Phase 4

Mid 2025

Project benefits are assessed with consideration given to the future supply of blended gas to residential to additional residential suburbs.

**An Australian Gas**  
Networks project

Designed by:



Constructed by:



## Renewable Gas for a Better Future - Project Snapshot



### A leading project

An Australian-first project of its type and scale



### Jobs

Building a new industry and jobs for Australians



### More than 700 homes

More than 700 homes and businesses in the project area



### Easy for customers

Customers receiving the blended gas will not notice any difference to their gas service



### CO<sub>2</sub> savings

Using renewable gas, such as hydrogen will help reduce carbon dioxide emissions



### Billing

The amount you pay your retailer for blended gas will be no different to the cost of 100% natural gas



### 5% renewable gas

Renewable hydrogen is expected to make up a maximum of 5% of the volume of gas in the network



### Safe

We deliver gas safely to millions of customers around Australia every day. All necessary approvals will be in place from regulators and government to enable us to deliver this blended gas product to your home or business