

Hydrogen Park Gladstone

Response to Community Feedback

This document provides our response to key matters that have been raised during recent community engagement activities regarding our proposal to develop a new city gate station and renewable hydrogen production facility in South Gladstone.

This includes submissions made by the community during the Public Notification process for the development application for the project during August and September (GRC reference: DA/25/2021).

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In the spirit of reconciliation AGN acknowledges the Byellee, Gooreng Gooreng, Gurang and Taribelang Bunda people who are the traditional custodians of the land in Gladstone and its surrounds. AGN would also like to pay respect to Elders past, present and emerging, and extends that respect to all Aboriginal and Torres Strait Islander peoples today.

Artist's impression of the proposed HyP Gladstone project at Lot 43, South Gladstone



ABOUT THE PROJECT

Hydrogen Park Gladstone (HyP Gladstone) is a small demonstration facility designed to produce renewable hydrogen to start to decarbonise domestic gas supply in Gladstone.

The facility is planned to be located on Derby Street, South Gladstone on a 30 x 37 metre site (approx. 1,110 square metre), an area similar to around four tennis courts or one Olympic-size swimming pool.

The HyP Gladstone facility will use renewable electricity and water to produce hydrogen, which will then be blended with natural gas, creating a 10% renewable gas blend. The blended gas will be distributed to all homes and businesses using the existing natural gas distribution network in Gladstone.

The facility will be able to produce up to 2.75 kg of hydrogen per hour and store up to 10kg of hydrogen on-site. This is a similar amount of energy storage to 2/3 of one standard passenger vehicle's petrol tank, or four standard 8.5kg LPG bottles used on a typical gas barbecue in Australia.

HyP Gladstone is proudly supported by the Queensland Government with grant funding of up to \$1.78 million from the Hydrogen Industry Development Fund.

BENEFITS TO CUSTOMERS

As longstanding owners of the gas network in Gladstone and throughout Central Queensland, our customers have told us they expect gas infrastructure to play a role in the decarbonised future.

We consider it our responsibility to pursue projects such as HyP Gladstone to deliver lowest cost decarbonisation whilst retaining safe and reliable energy supply.

Through HyP Gladstone, our customers will receive Australia's lowest carbon gas through the existing network, with approximately 57 tonnes of carbon dioxide emissions saved per annum. This is the equivalent of removing around 19 petrol passenger vehicles from the road.

Importantly, customers will pay no more than if they were receiving 100% natural gas.

BENEFITS TO COMMUNITY

HyP Gladstone provides the opportunity for Gladstone to embrace its new credentials as a world leader in decarbonising gas supply, attracting new industry and giving sustainability credentials to local businesses such as tourism and hospitality.

In addition to its direct environmental benefits, HyP Gladstone is a small but important step to catalyse further development of the region's emerging renewable hydrogen industry, creating new jobs and opportunities for economic growth.

The project's proposed location in South Gladstone provides ideal access for stakeholders seeking a real-life experience of a renewable gas future. It is expected to host a wide range of visitors from school, trade and university students and the general community through to Ministers, Ambassadors and international delegations as well as industry leaders.

Want to know more?



AGN will continue to provide regular updates to the community throughout the project.

If you have any further questions or would like to be kept informed about receiving renewable blended gas, visit our website by scanning the QR code.



CO2 savings

Emissions reduction equivalent to **19 cars off the road.**



Small scale storage

Equivalent to **4 standard 8.5kg LPG bottles** on site.



No new network costs

Customers in Gladstone will pay no more for the 10% renewable gas blend than for 100% natural gas



Gladstone sustainability credentials

Australian first project to deliver 10% renewable blended gas to homes and businesses



Supporting future skills development

Building a new industry and jobs for locals

OUR PLANS FOR HYP GLADSTONE

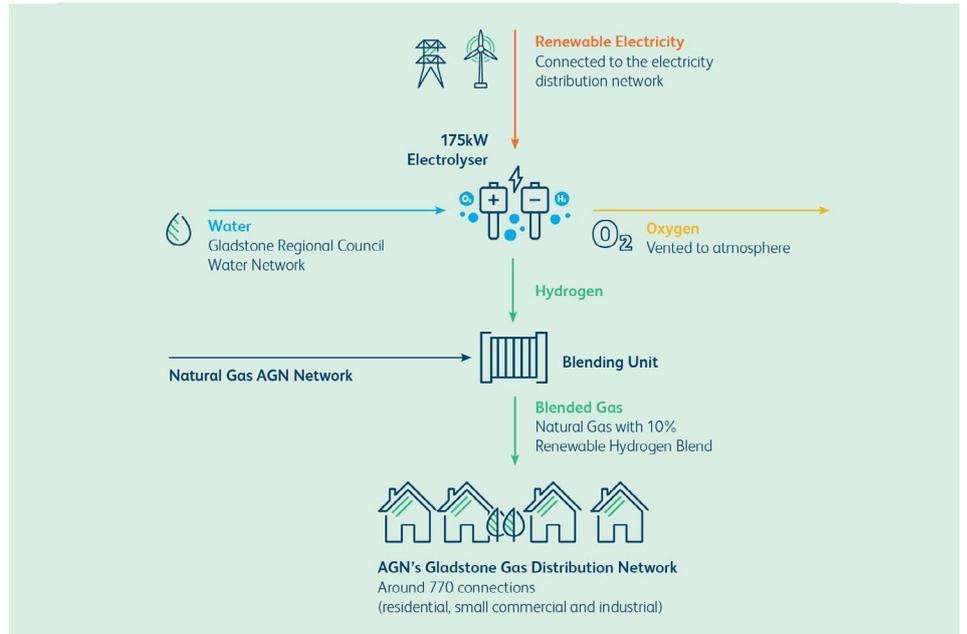
Hydrogen Park Gladstone is a small demonstration facility designed to produce hydrogen to start to decarbonise domestic gas supply in Gladstone and break down barriers to entry for the renewable hydrogen industry. There are no plans to expand production capacity at this site.

The proposed production capacity at the site is more than capable of achieving our ambition for 10% renewable blended hydrogen by 2030. As we seek to increase to more than a 10% blend, we expect this demand would be met by both increased use of the existing production capacity at HyP Gladstone and other renewable hydrogen sources.

There is potential to develop a refuelling facility (similar to a small petrol station) alongside HyP Gladstone. This station would be used for up to three hydrogen fuel cell vehicles or one hydrogen fuel cell bus. This concept is at an early stage and would be subject to a separate Development Application and approvals process in the future, which would consider all relevant issues including traffic and noise.

SUPPORTING LOCAL SKILLS DEVELOPMENT

HyP Gladstone will upskill professionals, technicians, tradespeople, and engineers throughout Gladstone and wider Central Queensland.



By way of comparison, construction of our recently commissioned Hydrogen Park South Australia (HyP SA) project involved over 100 personnel providing over 30,000 hours.

We will ensure our lead construction contractor for HyP Gladstone sources labour and materials locally in Gladstone and surrounds wherever possible.

In addition to technicians, tradespeople and engineers during the construction phase, the types of contracts we will seek to acquire locally include transport; cranes and hire equipment; consumables and amenity provisions; welding and fabrication; raw materials; and accommodation.

On an ongoing basis, HyP Gladstone has potential to create new roles including for locally based facilities managers and maintenance staff.

AGN's Memorandum of Understanding with CQUniversity Australia enables collaboration on research projects, workforce training opportunities and community engagement. Once operational, there is potential for CQUniversity students, educators and researchers to access HyP Gladstone to develop skills and understanding in hydrogen technologies which will be crucial for workforce development.

There is further opportunity for collaboration with Gladstone State High School which has received a \$2 million Queensland Government investment in hydrogen industry training.



AGN project engineer standing with the proposed electrolyser unit to be used at the site.

Community consultation

Following project funding agreement in July 2020 and after a period of detailed engineering, design and planning, HyP Gladstone's community consultation program – involving tens of thousands of residents – commenced.

Our approach to stakeholder engagement has been co-designed with the community and aims to raise awareness and understanding of the project and its ambitions to start to decarbonise the local gas supply.

We wanted to make sure the people of Gladstone can connect with us and have their say in a COVID safe setting.

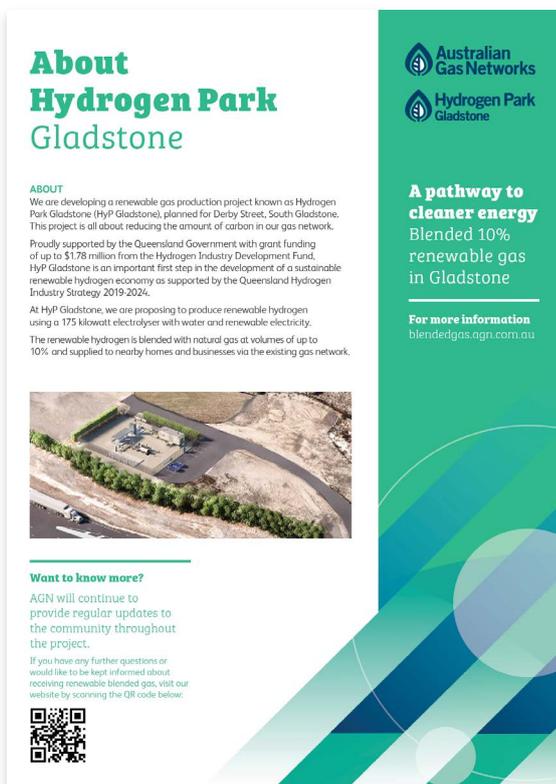
The program provided multiple avenues for the Gladstone community to receive information and provide feedback, including:

- A 'Welcome Pack' to approximately 4,700 homes and businesses throughout Gladstone including a letter, brochure, fridge magnet, and Free Gas Efficiency Audit postcard;
- Door-knocking key commercial and industrial connections to introduce the project;
- Presence at community events and landmarks, including sponsors and speakers at industry conferences and hosting a scaled model at CQUniversity's Leo Zussino grand court area;
- More than 100 personal briefings, engagements and presentations to key stakeholders and the community;

- Radio, digital and print advertising in Queensland and Gladstone media outlets;
- Social media advertisements which reached more than 17,000 unique people in Gladstone;
- A webpage dedicated to HyP Gladstone which has attracted 1,339 pageviews while the Gladstone page on the AGIG website attracted 4,267 page views.

To support the engagement process, a suite of brochures, fact sheets, FAQ's, electronic newsletters and videos were created and posted on this dedicated project webpage to ensure the community could access more detailed information at their own pace.

In addition to the above, the Gladstone community has had the opportunity to provide feedback on the project through the Development Application's public notification period. The following is a summary of our response to this feedback.



Materials in the 'Welcome Pack' received by approximately 4,700 homes in August 2021.

Public Safety

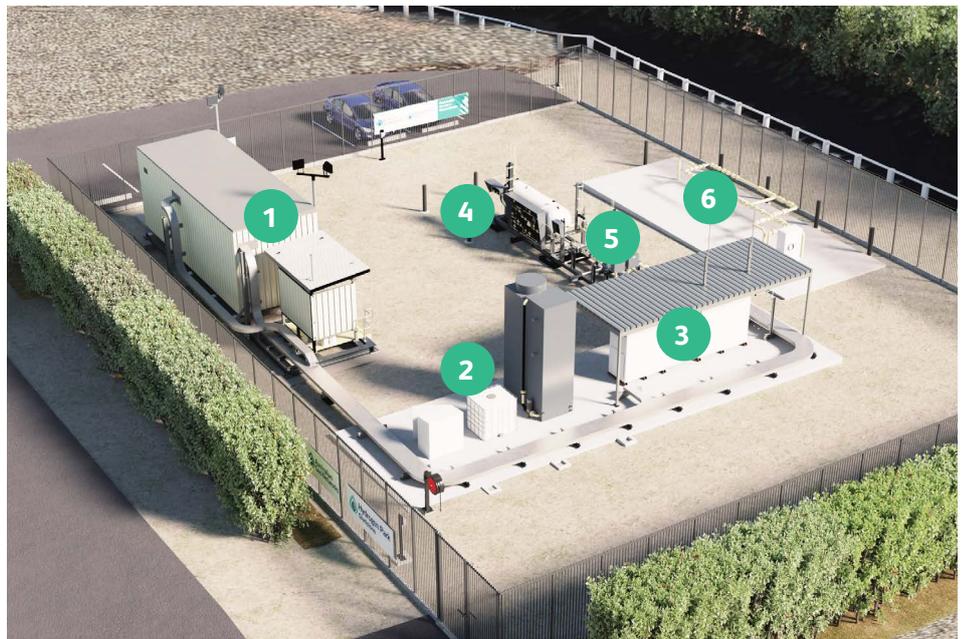
We heard residents wanted to understand the potential risk of harm from an explosion at the site and if its impact on public safety had been explored thoroughly, and by an independent source.

Our response

Complementing the existing suite of safety documents that have informed the facility's design, we have engaged an independent consultant to prepare a Quantitative Risk Assessment (QRA) for the project that demonstrates that the proposed facility does not present an unacceptable risk to nearby sensitive land uses. Key findings include:

- In the extremely unlikely event of a fire or explosion occurring at the site, the QRA shows that hazardous effects would not reach any nearby homes, schools or the CQUniversity/TAFE campus on the southern side of Derby Street.
- The risk of injury to a pedestrian standing on the path adjacent to the site for up to 1 hour per day, 5 days per week and 45 weeks per year (i.e: on their way to school or nearby residences) is around 1 in 33,000,000 per year.
- The risk of death to an individual standing at the boundary of the proposed site, 24 hours per day 365 days per year is less than 1 in 1,000,000.

In addition to the Development Application process with Gladstone Regional Council, we are further subject to regulation by government bodies including *Resources Health and Safety Queensland* and the *Office of the Petroleum and Gas Inspectorate* that are designed to ensure our commitment to safety, reliability and service continue. We will have all necessary approvals in place before production begins.



- | | | | |
|---|--|---|-------------------------|
| 1 | Communications room and gas analyser hut | 4 | Hydrogen storage vessel |
| 2 | Water purification unit and services | 5 | Hydrogen blending skid |
| 3 | Electrolyser unit (under shelter) | 6 | Gladstone city gate |

Access and security at the site

We heard residents wanted to know more regarding the operational management, security and emergency response arrangements for the site, including remote operations, fire fighting capabilities and bushfire plans.

Our response

While the site will largely operate on an unmanned basis from our Control Room – consistent with common practice for city gate stations and renewable energy facilities around Australia – we will also have in place contracts with suitably qualified local service providers to provide on-site support as required.

In addition, we will have dedicated personnel on site during key phases of the project's construction, commissioning and operations

to ensure stable operation of the facility, necessary training, and routine maintenance requirements.

A Fire and Emergency Management Plan will be finalised in the lead up to operations and will be informed by appropriate consultation with Queensland Fire and Rescue Service (QFRS). This plan will cover how AGN will respond to various types of emergencies, including fire, explosion, gas leak, medical emergency and security threats.

In the case of an emergency, the control room can trigger an immediate emergency shutdown of the facility that manages the site until suitably trained local personnel are able to respond to any issues that may arise at the site in a timely and efficient fashion.

Site location and suitability

We heard residents wanted to understand the suitability of the site and its location for the proposed project, including the site selection process and proximity to residential dwellings and public facilities.

Our response

We ran a rigorous site selection process prior to selecting the site at Lot 43 Derby Street, South Gladstone as the preferred location for the facility. Two factors influenced site selection for the facility:

1. The existing Breslin Street City Gate that currently provides Gladstone's gas supply is nearing the end of its operational life and requires relocating.
2. Renewable hydrogen production is ideally co-located with the City Gate to deliver customers a renewable hydrogen blended product via their existing supply.

As with all essential services infrastructure, supply points need to be located at existing networks and close to customers. For this reason, it is not viable to locate hydrogen production or the City Gate away from Gladstone's existing gas supply network.

Of the limited number of sites available, the Derby St site was preferred after carefully balancing network planning considerations, environmental and natural constraints, public safety and proximity to sensitive land uses and availability of suitable land.

Hydrogen is already produced and used around Australia today, including at AGN's existing Hydrogen Park South Australia (HyP SA) facility located in the Adelaide suburb of Tonsley. The HyP SA project includes a larger electrolyser (1.25MW) and stores a higher volume of hydrogen (up to 40kg). The HyP SA site is located adjacent to the TAFE SA site (140m) and the nearest residential properties are approximately 230m away.

Given the larger size of the HyP SA facility, its relationship to surrounding sensitive land uses is relatively similar to what is proposed for HyP Gladstone.

Aesthetics

We heard residents would like to see improved aesthetics of the site to fit in with the residential surroundings.

Our response

We have updated the proposed fencing style to be more sensitive to the amenity of the local area.

We have also committed to providing additional landscaping around the proposed compound that will provide visual screening for areas not already screened by the existing landscaped mound along Derby Street, which will be maintained and enhanced.

A commitment to seal the existing track will also improve the overall appearance of the site from surrounding vantage points.

OLD artist impression



NEW artist impression



Noise

We heard residents wanted to understand the potential noise impacts to nearby residences including noise from operations and potential alarms, and voiced concerns regarding the use of predicted background noise levels in the previously submitted noise assessment.

Our response

We have updated the noise assessment report to incorporate noise data taken at 8 locations surrounding the proposed site for a week from 24 September to 1 October 2021.

The updated noise assessment demonstrates compliance with both day and night-time noise criteria at all sensitive receptors, with noise contributions from HyP Gladstone anticipated to be significantly below the estimated existing transportation and industrial noise.

It is not unreasonable to conclude the facility noise may be almost completely masked by the traffic noise and existing industrial noise.

The facility's design does not contain any local audible alarm sirens. All alarms will be monitored remotely 24/7 from the AGIG control room.

It is also noteworthy that while the proposed development will be capable of operating 24/7, HyP Gladstone is expected to operate for approximately 8 hours per day on average to meet network requirements.

This gives us operational flexibility to ideally operate during the day, when there is significant renewable electricity generation in Queensland (predominantly solar).

Traffic and access

We heard residents wanted to understand the development's potential impacts on traffic in a school zone and residential area, and increased heavy vehicles.

Our response

Given there will be no personnel on-site on a day-to-day basis, traffic impacts at site during operations will be minimal, typically up to two passenger vehicles or light rigid trucks on average once per month.

Traffic impacts associated with construction of the project will be short term in nature and managed in accordance with a traffic management plan to be developed in consultation with Council.

Any future refuelling proposal at the site would be of a small scale and subject to a separate approvals process including consideration of the relevant traffic impacts.

Dust

We heard dust from the site has been the source of complaints from nearby residents in the past.

Our response

We have committed to providing a sealed access track to the proposed compound to address the potential for dust impacts to nearby residences.

Sealing the access track will also improve conditions for access to the balance of Lot 43.

This measure and others to control the potential impact of construction dust will be detailed in a Construction Environmental Management Plan (CEMP) to be developed for the project.

Renewable energy

We heard residents would like to understand how the facility can utilise renewable electricity when the site is grid-connected.

Our response

When HyP Gladstone purchases electricity, we will require that the retailer on behalf of HyP Gladstone, also purchase and surrender Australian Government-managed GreenPower Large-scale Generation Certificates (LGCs). By purchasing GreenPower LGCs, this means that the retailer must secure only renewable electricity to meet 100% of HyP Gladstone's requirements and this also certifies that our electricity is 100% renewable and our Hydrogen is green.

More information on GreenPower can be found here: greenpower.gov.au

The Australian Government is also currently developing a Hydrogen Guarantee of Origin (GO) certification scheme to provide transparency about carbon emissions associated with hydrogen production. We are actively supporting the GO scheme including participation in industry consultations and once this scheme is finalised, we will look to migrate to the new scheme.



Find out more

 Go online and visit blendedgas.agn.com.au

 Email our project team at communityengagement@agig.com.au

 Call 1300 001 001 and press option 8 to speak to our friendly team