



Building the Hydrogen Eco System Becoming a Hydrogen Utility

Brisbane Mining Investor Conference 2023

Pure Hydrogen Corporation Limited

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Geological Information

The geological information in this presentation relating to geological information and resources is based on information compiled by Mr Lan Nguyen, who is a Member of Petroleum Exploration Society of Australia and the Society of the Petroleum Engineers and has sufficient experience to qualify as a Competent Person. Mr Nguyen consents to the inclusion of the matters based on his information in the form and context in which they appear. The information related to the results of drilled petroleum wells has been sourced from the publicly available well completion reports. The Company has used a conversion factor of 1.05 to convert Bcf amounts to PJs equivalent.

Page 15 - Notes 1. As reported in Announcement dated 4 May 2021 – the 1C 87.7 PJ, 2C 130.3 PJ and 157.9 PJ – the remaining prospective resource was 536 PJ

The total of 1.1 TCF 3C AND 14.9 TCF Prospective is a combination of Windorah gas project 770 Bcf and 8.8 Tcf, Venus Gas Project 157.9PJ 3C and 536PJ Prospective and Serowe Gas Project 200.7 Bcf and 10.072 Bcf best estimate – Pure Hydrogen has a 30% working interest in the Serowe Project.

Note 2 – The Contingent resources is a summary of of 2 reports for the Windorah Gas Project. One estimate prepared by DeGolyer and MacNaughton, a leading international petroleum industry consulting firm in June 2015 in respect of the Queenscliff Area and one estimate prepared by Aeon Petroleum Consultants in respect of the Tamarama area completed in August 2019. The Prospective estimate of 8.8 Tcf is based on the work by DeGolyer and MacNaughton adjusted for the permit that was relinquished by the Company.

Note 3 – As reported in the Announcement on the 12 April 2022 – the Serowe Project has contingent Resources of 1C 237.5, 2C 316.7 and 3C of 395.9 Bcf and best estimated of 10.07 Bcf – all figures 100%.

GLOBAL HYDROGEN DEMAND FOR HFC IS GROWING

The Global Hydrogen for Fuel Cell market was valued at USD 14.72 Billion in 2021 and is projected to grow at a CAGR of 21.2% from 2021 to reach USD 80.48 Billion by the year 2030 ¹



Increasing interest in using hydrogen as a clean energy source for powering vehicles and generating electricity, with zero emissions ¹



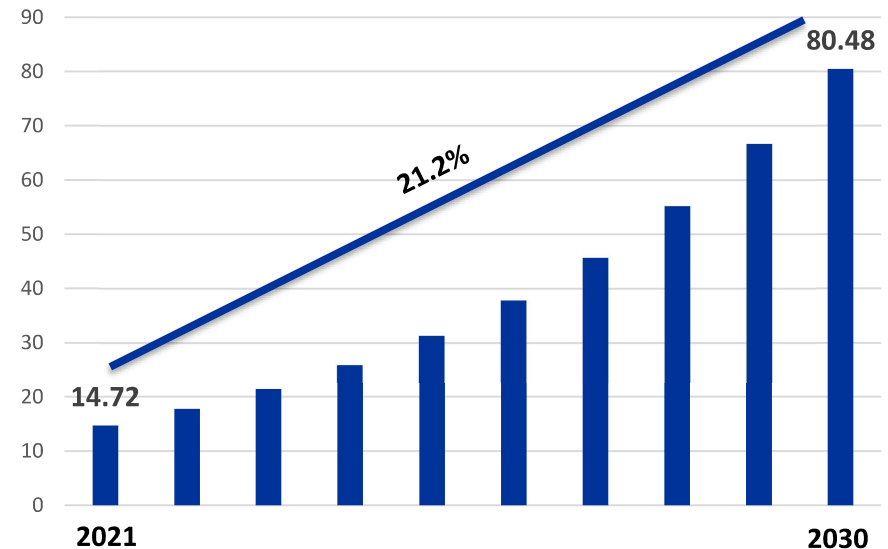
The cost of producing hydrogen is falling due to the continual advancement in technology making it cheaper to produce hydrogen from renewable sources ¹



Growing infrastructure for using and storing green hydrogen with increases in the number of refuelling stations for hydrogen powered vehicles and new storage facilities ¹



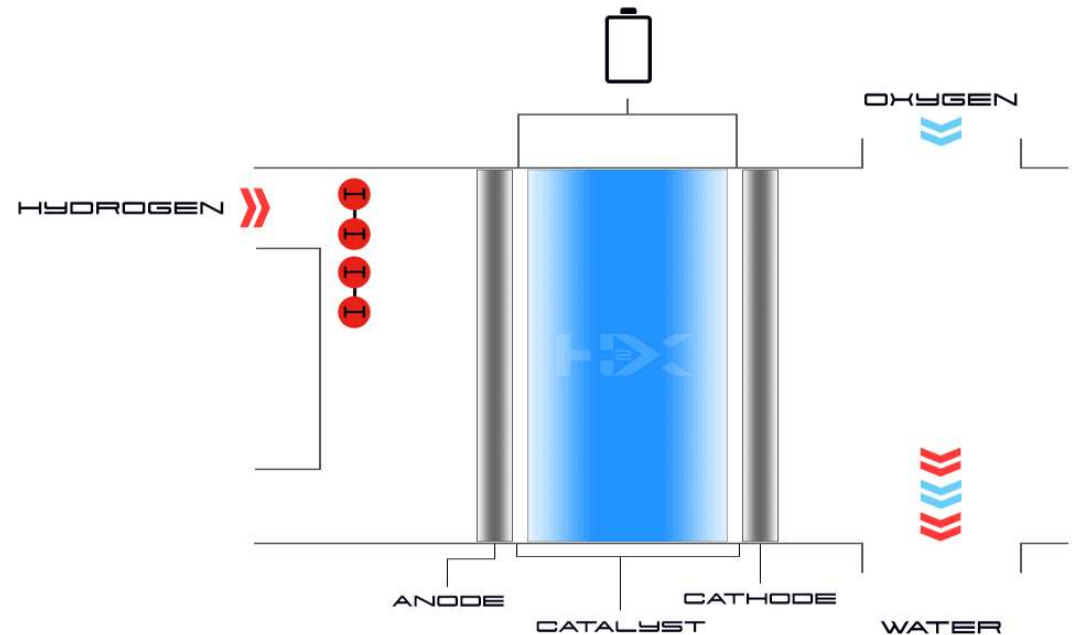
Government support has increased as many are investing in research and development for the production and usage ¹



HYDROGEN REVOLUTION BUILT ON FUEL CELL TECHNOLOGY

How it works

- Proton-Exchange Membrane Fuel Cells (PEMFCs), or Membrane Electrode Assemblies (MEAs) generate electricity and water by-product using hydrogen and oxygen gas streams
- Zero emissions at point of use
- There are no harmful emissions from power generation (CO_2 , NO_x)
- There are no moving parts, making fuel cells more reliable than traditional combustion engines
- **Fuel cells are 2-3 times more efficient** than internal combustion engines (ICE)



DEMAND FOR HYDROGEN

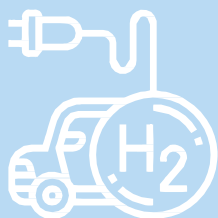


Image sourced from websites.

INVESTMENT HIGHLIGHTS - HOLISTIC HYDROGEN PORTFOLIO

Building an integrated hydrogen business which manufactures/distributes hydrogen and fuel cell vehicles, vessels, and generators.

HYDROGEN FUEL CELL TECHNOLOGY



- Equity* in hydrogen fuel cell vehicle company and power generation units.
- Delivering products to customers in 2023; waste trucks, generators, and prime movers.
- Agreements in place in Australia, Europe, Malaysia and India.

H2 PRODUCTION & DISTRIBUTION



- Developing Emerald & Turquoise Hydrogen production plants which are anticipated to be operating commercially in the next 12 months.
- Become hydrogen utility as third-party seller for production/supply companies.
- Targeting to build a network of hydrogen facilities across Australia focusing on manufacturing, storage, transport and supply.

NATURAL GAS OPERATIONS



- Uncommitted natural gas portfolio made up of three sites across Australia and Botswana.
- Leverage natural gas resources to be used as feedstock to convert into hydrogen and high value carbon products.
- Gas operations provide the net assets and potential for increased cash flow required to underpin the development of the hydrogen ecosystem.

Material interest included an interest of ~24%

HYDROGEN IS THE CLEAN ENERGY FUEL ALTERNATIVE

Our aim

To be the lowest cost hydrogen producer and supplier. Using technology and securing hydrogen supply primarily from Emerald and Turquoise manufacturing Hubs.

Our strategy

To sell hydrogen to customers on long term contracts. Pure Hydrogen will package long term Hydrogen fuel contracts to include devices such as Hydrogen Fuel Cell (HFC) Generators, HFC Trucks, Buses and marine vessels.

HYDROGEN – LOW COST CLEAN ALTERNATIVE

Competitor fuel service	Price Comparison (Energy Equivalent) in Litres
Petrol (Octane 95)	\$1.68
Diesel fuel	\$1.83
Hydrogen fuel	\$1.33

- The table represents the estimated per-unit savings for motor vehicle drivers, using hydrogen fuel as a substitute for petrol/diesel
- Estimated savings of +20% on per-unit costs for conventional fuel

* H₂ calculation based on forecast end-user sale price for clean hydrogen of \$12/kg, where 1L of petrol = 0.11kg of H₂ for the equivalent distance



H2 FUEL CELL TRUCK TRIALS: PEPSICO AND OTHERS

- Pepsico has signed up for trial program with Pure Hydrogen to build and deliver the first Hydrogen powered truck
- Will be displayed at the Brisbane Truck Show
- Potential of an initial order of 10 or more.
- Pure Hydrogen have exclusive rights to the truck design in Australia.
- Trial planned to commence Q2 CY2023 in Queensland.



Artist image: Proposed hydrogen fuel cell truck for PepsiCo

MARKET OVERVIEW

HYDROGEN AS A ENERGY SOURCE

Pure Hydrogen is seeking to be the H₂ supplier of choice in the Australian market.

- Similar to natural gas from a handling and safety perspective
- Hydrogen is very efficient when used in fuel cells for transport, vessels and power generation
- Hydrogen use today is dominated by industries such as oil refining, ammonia production, methanol production and steel production, with almost all of this hydrogen manufactured using fossil fuels (grey hydrogen),
- There is significant potential for emissions reductions from Pure Hydrogen's turquoise and emerald hydrogen manufacturing methods.

Hydrogen Manufacturing Methods

Grey	Produced by steam methane reforming without carbon capture, using natural gas	High carbon emissions
Blue	Produced by steam methane reforming with carbon capture, using natural gas	Low carbon emissions
Green	Produced by electrolysis, using water and renewable electricity	Zero carbon emissions
Turquoise	Produced by methane pyrolysis, using natural gas and 1/8 of electricity required for electrolysis	Zero carbon emissions
Emerald	Produced by waste to hydrogen technology, using biomass and heat	Net zero carbon emissions

Pure Hydrogen's will utilise clean energy green, turquoise and emerald hydrogen production techniques

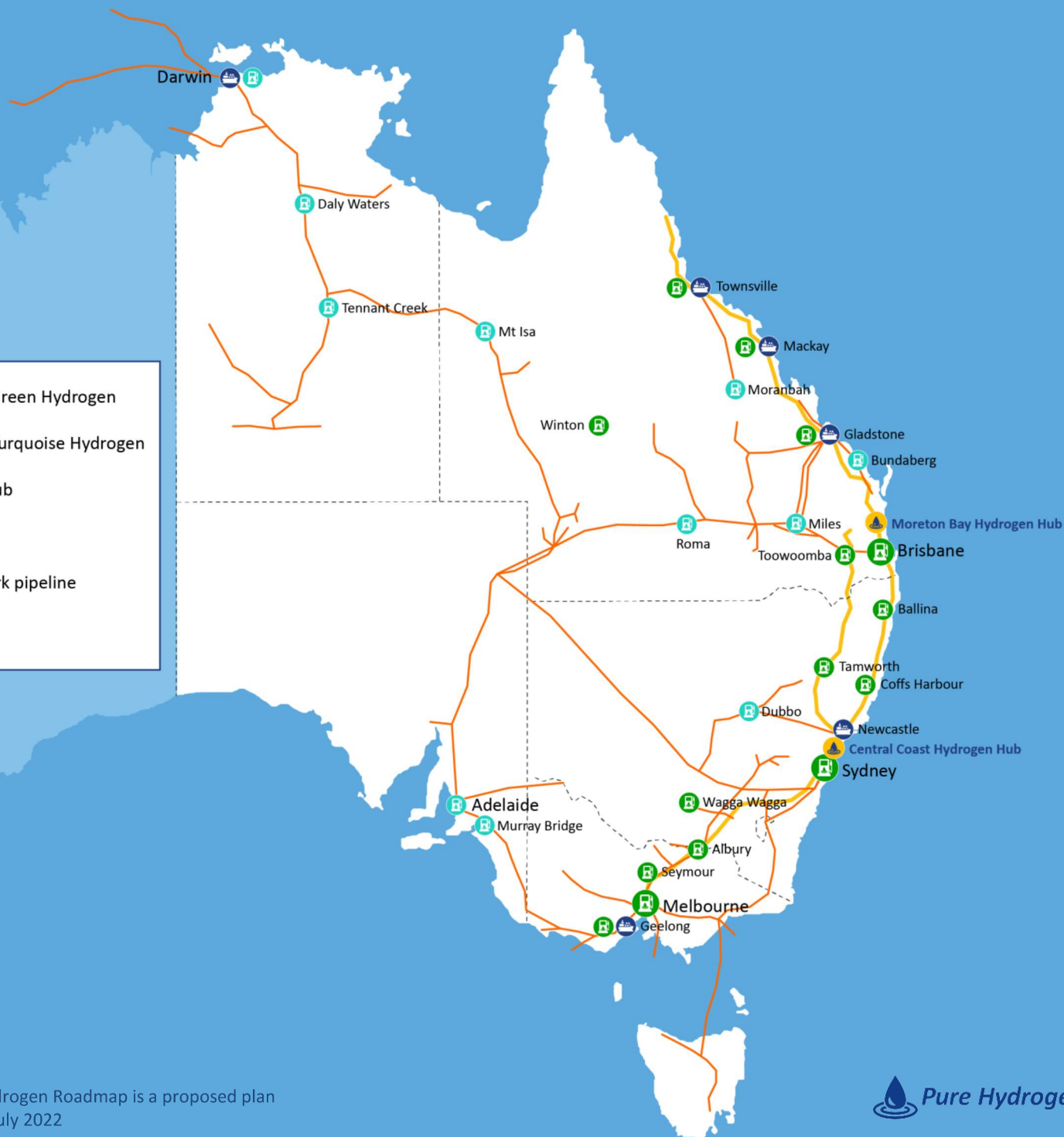
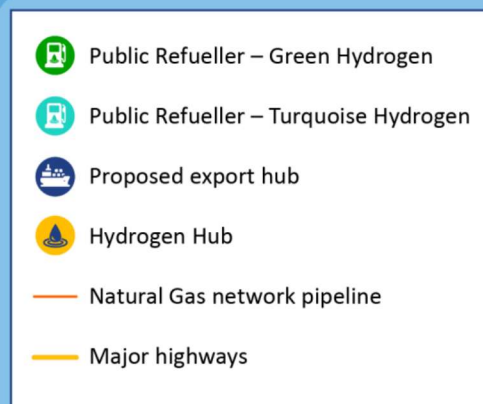
HOW TO PROFIT FROM THE CLEAN ENERGY REVOLUTION

Becoming a Hydrogen Utility

- Selling Hydrogen for high margins
= gross margins of 50% or more
- Selling devices that use Hydrogen
– for a margin and importantly
locking in demand for Hydrogen
– hence we will sell on long term
contracts
- Aligning with partners that can
supply or produce hydrogen so long
as we can be the off-taker (**Capex-
light**)
- Be a developer to assist in getting
hydrogen projects advanced into
the market – we will assist partners
develop Turquoise, Emerald and
Green Hydrogen Projects by being
the Off-taker.

Image sourced from websites.

Pure Hydrogen Roadmap



Disclaimer: disclaimer that the Pure Hydrogen Roadmap is a proposed plan which was previously announced on 7 July 2022

HYDROGEN JV AND PARTNERING STRATEGIES

PARTNERING WITH HYDROGEN MANUFACTURING TECHNOLOGY COMPANIES

- CAC H2 – Emerald Hydrogen.
- Plenesys – Turquoise Hydrogen.
- Omni – Emerald Hydrogen.



PARTNERING WITH HYDROGEN TRUCK, BUSES AND HYDROGEN FUEL CELL DEVICES MANUFACTURERS

- H2X – Fuel Cell Generators.
- BLK – Heavy haulage trucks.
- Loop – Hydrogen Fuel Cells.
- AusShips – marine vessels.
- Advik – India JV.



HYDROGEN FUEL TO REPLACE IMPORTED DIESEL

Pure Hydrogen is executing on a multi-faceted and integrated growth strategy

POWER GENERATION

- Off grid
- EV charging
- Back up for solar/wind
- Construction sites
- Farms and Mines



TRUCKS AND BUSES

- Garbage Trucks
- Prime movers
- Short and long haul buses
- Long term supplying service Stations



MARINE

- JV Aus Ships
- Battery Charging/ Hydrogen Fuel Cells
- Establishing marine refuelling stations



MORETON BAY HYDROGEN HUB

LEADING THE GREEN WASTE TO H2 MARKET

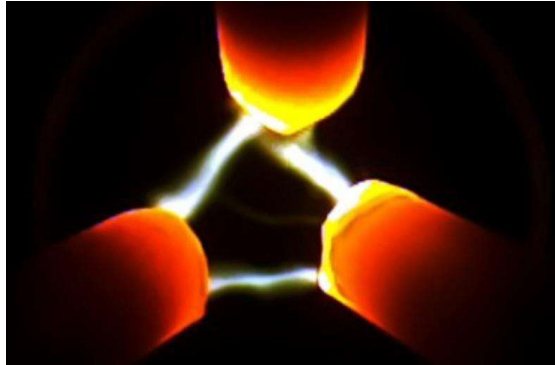
The Moreton Bay project is one of Pure Hydrogen's supply strategies to build and operate hydrogen hubs on the east coast of Australia.

- Pure Hydrogen has exclusivity for 100% of the H2 output
- Joint Venture with CAC-H2, a global renewable energy specialist
- CAC-H2 to provide waste-to-hydrogen conversion technology, with PH2 to manage distribution and sales
- Land area secured through option to acquire
 - 21-hectare lot adjacent to the Beerburram State Forrest, in proximity to major SEQ population centres
- Locations for two other Emerald Hydrogen hubs being secured.



TURQUOISE HYDROGEN – CH₄ to H₂ GAS AND SOLID CARBON

- Plenesys AI controlled AC plasma torch to decompose Methane in an Oxygen-free reactor
- An optimum High Temperature Plasma Arc splits CH₄ molecules into solid C and H₂ gas components

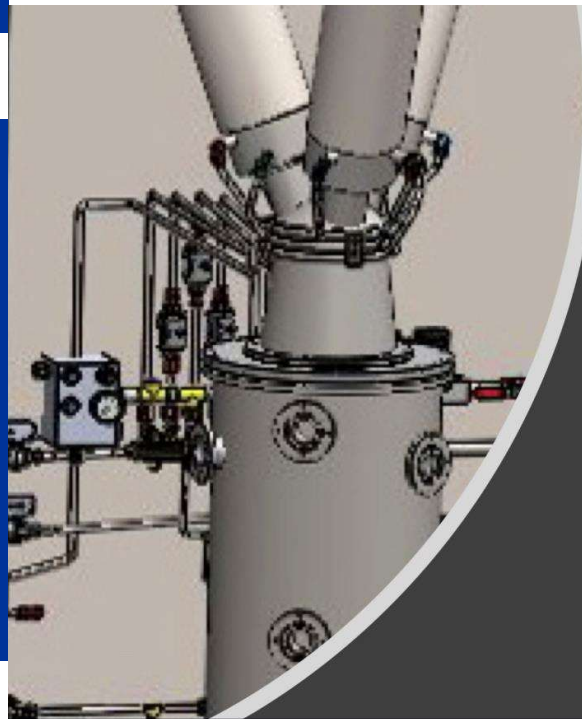


A/C Plasma Torches

Turquoise Hydrogen targets:

- Low cost H₂ and a high % of Graphene/Carbon Nanotubes
- 21st Century clean energy products

When powered with renewable electricity or H₂ fuel cells, the manufacturing process will be Zero Emissions – 'green 'hydrogen'.



Three AI focussed torches for total plasma control

Decomposes ~100% Methane in to ~100% H₂ gas and ~100% solid carbon atoms.



STRATEGICALLY DIVERSIFIED & CAPITAL LIGHT STRUCTURE

- Australia's most **diverse portfolio of hydrogen projects**, from production through to end-use fuel cell products, such as prime movers, generators and waste trucks.
- Expecting commercial production of hydrogen — Emerald, Turquoise and Green — in the short to medium term , which will be cost competitive.
- No debt and cash position of ~\$14.7 million at 31 December 2022 provides strong platform for growth & project advancement.
- Strategy de-risked by **capital light structure**:
 - Selling hydrogen for high gross margins of potential 50% or more.
 - Aligning with technology partners whose hydrogen devices Pure Hydrogen can sell for a margin, while locking in a long-term hydrogen supply contracts for customers.
 - A **utility model** where Pure Hydrogen is a third-party seller of the hydrogen for suppliers/producers.
 - Partnerships with companies which have the technology to develop & operate Emerald, Turquoise & Green Hydrogen plants, while Pure Hydrogen focuses on selling/distribution.



An artist's impression of the of the Moreton Bay Hydrogen Hub, which is expected to be operational in 2024.



Pure Hydrogen's aim is to be the lowest cost hydrogen producer and supplier by utilising technologies and securing hydrogen supply primarily from Emerald and Turquoise manufacturing Hubs.

Contact

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PROVEN BOARD AND LEADERSHIP TEAM

Board of Directors



Scott Brown
Managing Director

Scott has over 30 years' experience as a director and an executive in ASX-listed companies, including Real Energy, Objective Corporation, Allegiance Mining and Mosaic Oil.



Ron Prefontaine
Chairman and Non-Executive Director

Ron has over 40 years' experience in the oil and gas industry and was the Executive and Managing Director at two successful ASX-listed companies, Arrow Energy and Bow Energy.



Lan Nguyen
Non-Executive Director

Lan has over 25 years' experience in petroleum exploration, development and production in Australia and internationally, and was the Managing Director at ASX-listed Mosaic Oil.

Executive Management



Les Nelson
General Manager Operations

Les has over 30 years' experience working in industrial and retail markets, including 20 years at Australia's largest Liquefied Petroleum Gas distributor, Elgas Ltd, as General Manager.



Brendan Evans
Chief Financial Officer

Brendan is a Chartered Accountant with over 20 years' experience across a diverse range of commercial finance and management roles. Brendan has worked extensively in Australia and the United Kingdom for a number of large organisations principally within the oil and gas, mining and engineering.



Brendan Norman
CEO/CMO H2X Global

Brendan has held leadership and top management roles at various automotive groups in Australia, Africa, Middle East and Europe, including BMW Group, VW Group, Infiniti and Grove Hydrogen Auto.



Andrew Thompson
Hydrogen Production Technology

Andrew has over 30 years' experience in minerals processing, oil and gas in Australia, UK and Cuba, and has held executive positions at various companies including Arrow Energy.



Clint Butler
Sales Manager

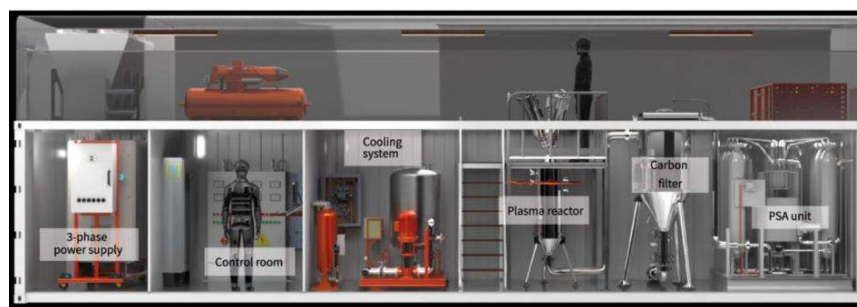
Clint has 15 years' experience and has worked with numerous multi-nationals in the Liquid Petroleum Gas industry and was the Executive Director for an energy monitoring company for 11 years.

BACK-TO-BASE AND INDUSTRIAL CH₄ TO H₂-C MODULES

Repeatable as markets grow.

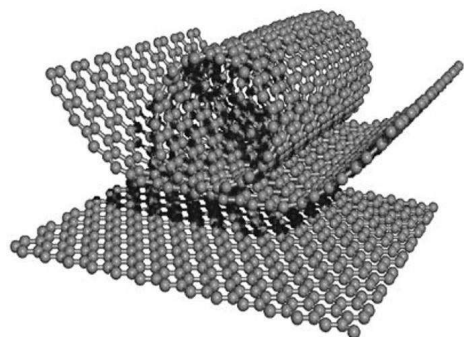
- Scalable
- No emissions
- Water not consumed in process

1500/5000 kg H₂ per day + 4500/15,000 kg Carbon Products



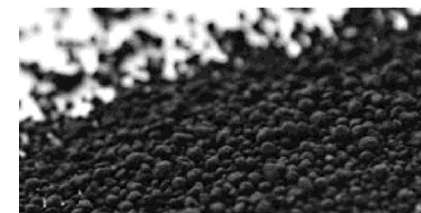
H₂

Value Driver = Carbon Products



Carbon
nanotubes
Graphene

100%
Carbon



Carbon
reforming

UNCOMMITTED NATURAL GAS DEVELOPMENTS

Independently Certified Contingent Gas Resources, net to Pure Hydrogen:

1C: 286 PJ • 2C: 576 PJ • 3C: 1,091 PJ

**100% PROJECT VENUS
SURAT BASIN CSG, QUEENSLAND**



123 Bcf 2C, and 560 PJ in Prospective Resources in the Walloon CSG¹

**100% WINDORAH GAS PROJECT
- COOPER BASIN GAS**



330 Bcf 2C and 8.8 TCF Prospective Resources - basin centered gas²

**30% PROJECT SEROWE
CSG, BOTSWANA (FARMED OUT) +
19.9% of BOTLA ENERGY**



317 Bcf 2C and Prospective Resource 8.008 TCF CSG³

Pure plans to build H2 supply Hubs adjacent to its gas fields as feedstock to manufacture turquoise hydrogen and high value carbon products