



# Building the Hydrogen Eco System

Pure Hydrogen  
Corporation Limited

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(ASX: PH2)



Brisbane Mining Investment Conference 2024

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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.

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 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 relished 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%.

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



### HYDROGEN FUEL CELL TECHNOLOGY

**Equity interests in hydrogen fuel cell vehicle companies HDrive and H2X**

Global distribution rights for HDrive vehicles and rights to distribute H2X vehicles and equipment across Australia, US, Europe, Malaysia and India.

Delivering at least 8 vehicles in 2024 including a Taurus Prime Mover; two waste trucks and two buses in 2024.

\$125 million funding facility partner identified, allowing Pure Hydrogen to lease vehicles and supply hydrogen on long term contracts.

Commitments from quality clients are building with orders expected.



### H2 PRODUCTION AND DISTRIBUTION

**Becoming a hydrogen utility as third- party sellers for production/ supply companies.**

Short-term: Developing Green Hydrogen production plants in modular form located close to customers.

Medium-term: Emerald and Turquoise Hydrogen production plants featuring partner technology.

Due diligence and approval processes are currently underway

## HOLISTIC HYDROGEN PORTFOLIO



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# HYDROGEN ECO SYSTEM



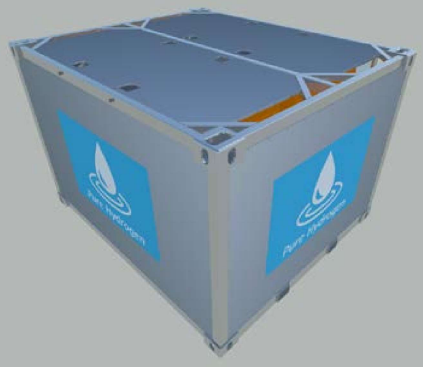
Hydrogen  
Production/  
Supply

- Green
- Turquoise
- Emerald

Hydrogen  
Storage and  
Transport  
And refuelling

Hydrogen Fuel  
cell devices

- Trucks
- Buses
- Generators





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MULTIPLE  
ACTIVITIES  
ADVANCING TO  
COMPLETION  
THIS YEAR



**PEPSICO**

Australia & New Zealand

**Customer:**

Pepsico

**Device:**

Taurus HFC Prime Mover



**Solo** Resource Recovery

**Customer:**

Solo Resources

**Device:**

HFC Garbage Truck



**J.J. Richards**  
& Sons Pty Ltd

**Customer:**

JJ Waste

**Device:**

HFC Garbage Truck



**AMPC**  
AUSTRALIAN MEAT PROCESSOR CORPORATION

**Customer:**

Australian Meat Processing Corporation

**Device:**

HFC 50Kw Hydrogen Generator



**turquoise group**

**Producer:**

Turquoise Group  
(PH2 holds 40% investment stake)

Brisbane-based commercial demonstration plant for the manufacture of turquoise hydrogen and graphene



**NH<sup>2</sup>**  
NUTCHER HYDROGEN  
**Nutcher Hydrogen**

**Customer:**

US based Nutcher Hydrogen

**Device:**

Taurus HFC Prime Mover and 54-seater coach



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As at March 2024

First Revenue expected this month

**3** six-month trial commitments

**8** firm vehicle orders for delivery in 2024

**>100** truck options<sup>1</sup>

**\$125m** leasing facility<sup>2</sup>

GROWING DEMAND FOR PURE'S H<sup>2</sup> FUEL CELL VEHICLES + BEV



1 subject to successful trials. 2 subject to conditions precedent. Image: render of the Solo general waste collection

# HDRIVE TRUCKS AND BUSES



## Refuse Truck

ENERGY TYPE:  
H2 Fuel-Cell Electric

AXLE CONFIGURATION:  
6x4

RANGE:  
≥250km

TOP SPEED:  
100km/h



## 15 - 70T Heavy Truck

ENERGY TYPE:  
H2 Fuel-Cell Electric

TRACTION BATTERY:  
73.57 kWh, CATL

RANGE:  
≥400km

HYDROGEN FUEL CELL:  
160 to 400kW, Ballard

TOP SPEED:  
100km/h



## Low Floor City Bus Range

ENERGY TYPE:  
H2 Fuel-Cell Electric  
or Battery Electric

PASSENGER CAPACITY:  
13 to 80 Passengers

RANGE:  
≥500km

HYDROGEN FUEL CELL:  
60 to 200kW, Ballard

TOP SPEED:  
100km/h

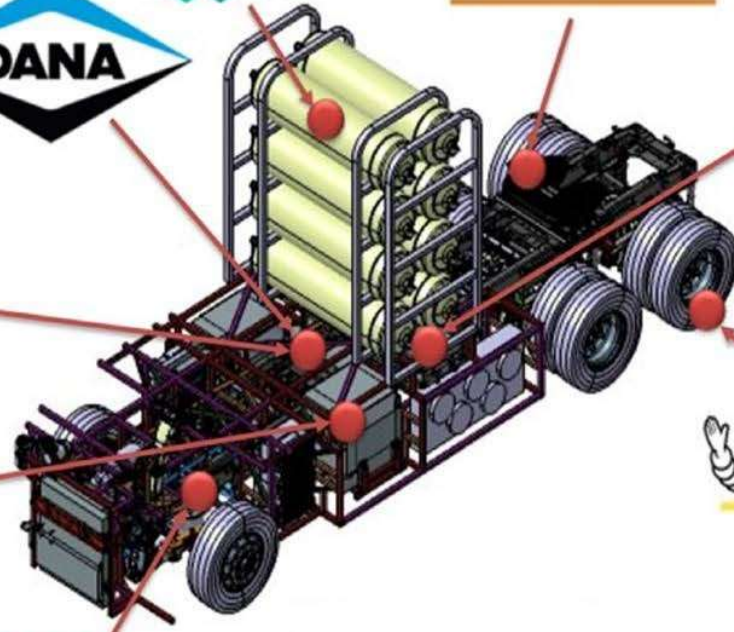


HDrive supports the leading global component suppliers, with growing support of Australian product development and assembly.



see. think. act.

HIGH  
QUALITY  
COMPONENTS



SMART TECHNOLOGY  
FOR SMARTER MOBILITY



 Pure Hydrogen

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60%-OWNED  
HDRIVE  
INTERNATIONAL  
Pure Hydrogen



Assembly capability of up to 200 vehicles per month





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**US MARKET  
ENTRY  
PRESENTS  
MASSIVE  
OPPORTUNITY**

60%-owned Hdrive has secured a Purchase Order to supply a 6x4 50T Prime Move and 54-seater coach.

- Valued initially at US\$1.22m with first 2x vehicles due for delivery in CY24
- Purchase Order secured with California-based Natcher Hydrogen, a specialist heavy vehicle dealership
- Vehicles will initially be used as demonstration vehicles for potentially much larger commercial orders
- A key beachhead to enter the large and lucrative US market





# HDRIVE WASTE COLLECTION VEHICLES

- Established a market-leading position in the waste management sector in Australia
- Trials secured with two large waste management groups in Australia - JJ Richards & Solo
- JJ's is one of the Australia's largest waste management companies with a 2000+ vehicle fleet; early 2024 vehicle trial in SE Qld
- Solo services ~15,000 customers and has signed up for a trial of a FCEV refuse truck in Tweed region commencing mid 2024
- Potential for multi-vehicle fleet orders post successful trials



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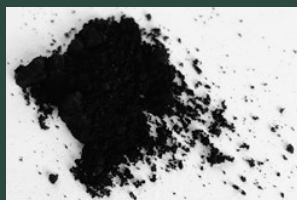
## DEVELOPING A PORTFOLIO OF GREEN HYDROGEN MICRO-HUBS

In CY24, Pure Hydrogen plans to produce green hydrogen from a micro-hub.

- Pure Hydrogen plans concept sites for its micro-hub strategy, within close proximity to its customers
- Micro-hubs will produce green hydrogen using on-site solar and green electricity
- Electrolysers will be module built and delivered to sites fully assembled
- Micro-hubs are easily scalable in-line with increasing demand
- There will be 24-hour refuelling for hydrogen Fuel cell technology vehicles, trucks and devices
- Pure Hydrogen is exploring partnership opportunities with its customers to install micro-hubs within their depots



# HYDROGEN TURQUOISE GROUP



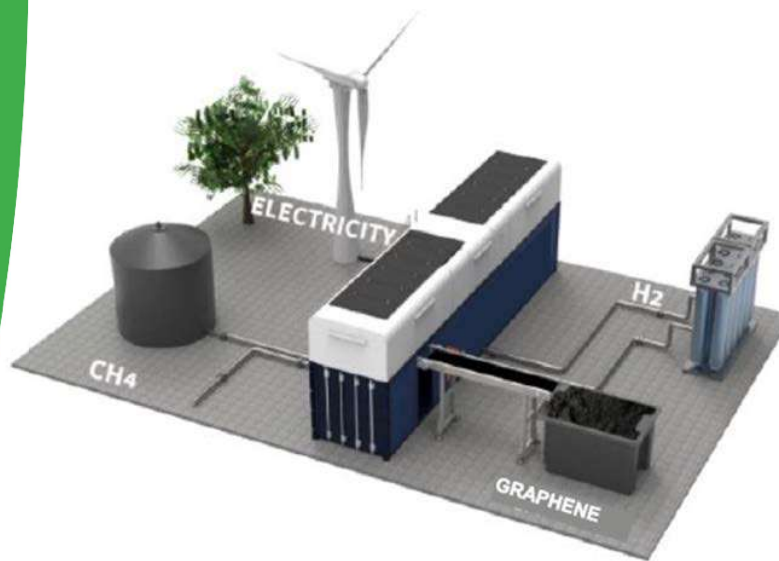
Turquoise Demonstration Plant currently being installed and expected to be operational next month. Methane pyrolysis: Consolidating the world-first and patented 3-phase plasma torch, the 'engine' of the system.

The technology solution is highly energy efficient, is a water-free process without direct CO or CO2 emissions.

The process splits methane gas (CH4) into solid carbon powder (C) and hydrogen gas (H2) components.

Key value driver is the continuous production of bulk volumes of high-quality graphene (solid carbon powder).

## Graphene, the wonder material.



## Profitable green business model

**Two valuable products manufactured with no direct emissions.**

Turquoise Group's technology is modular, allowing multiple modules to be installed to meet customer requirements.

- Each module has a production capacity of 50tpa Hydrogen and 150tpa of Graphene
- Modules are sized to a standard 40ft shipping container. When powered with renewable electricity, there are low scope 2 emissions.
- If biomethane is utilised as a feedstock, the process can become carbon negative.



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# PURE HYDROGEN PRIORITIES



- Trials of the Taurus Prime Mover and Garbage Trucks
- Confirmation of potential orders of Hdrive Trucks and Buses
- Commercial Demonstration plant for Turquoise Group in Brisbane
- First Green Hydrogen Micro Plant in Queensland
- Progress emerald and turquoise hydrogen efforts, alongside partners

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# APPENDICES





## AN EMERGING INTEGRATED HYDROGEN UTILITY

- Supplying high-quality, low-cost Hydrogen on long-term contracts
- Selling Hydrogen-electric devices and vehicles, generating ongoing demand for Hydrogen supply
- Offering ancillary services to support Hydrogen-electric devices, including the supply and service of electrolysers and refuelling pods
- Maintaining a CAPEX-light approach to Hydrogen production, through partnering with investors and companies seeking carbon abatement opportunities and access to valuable carbon by-products



## 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.



**The Hon. Adam Giles**  
Non-Executive Director

The Hon. Adam Giles was the 10th Chief Minister of the Northern Territory and held office from 2013 thru 2016. Since leaving politics, Adam has held several senior corporate roles, including a long-term engagement with Hancock Prospecting.



**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.



**Ron Prefontaine**  
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.

## Leadership team



**Les Nelson**  
GM 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.



**Gareth Forde**  
Hydrogen Technology

Gareth has over 20 years' experience in hydrogen, oil and gas, water, energy and process engineering. He is a Registered Professional Engineer of Queensland in both Chemical and Environmental Engineering.



**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.



**Ben Kiddle**  
CEO HDrive International

Ben has significant experience across zero-emission heavy and light commercial fleet. He held senior management roles across adjacent sectors including a key role in the business of Custom Denning, across business development and aftersales support.

## Other Corporate Information

**Cash Position**  
**31 Dec 2023:**  
**\$8.564m**

**Shares on issue:**  
**355m**

**Market Capitalisation:**  
**\$39.43m**

(based on the closing share price of \$0.11 on 12 March 2024)

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## PEPSICO H2 FUEL CELL TRUCK TRIAL

PepsiCo has committed to running a trial program with Pure Hydrogen to build and deliver the first hydrogen powered prime mover in Australia.

- First trial globally for PepsiCo
- Potential of an initial order of 10 or more subject to a successful six-month trial
- Pure Hydrogen have exclusive rights to the truck design globally
- Trial planned to commence Q2 CY2024 at a Pepsi Co depot in Queensland



# HYDROGEN POWER GENERATION – MYNT

First approved Hydrogen Fuel Cell Generator in Queensland.

- Mynt Technologies is a leading Australian power generator manufacturer, manufacturing hydrogen electric power generators. The Purple H2 is designed to provide a clean energy alternative solution to diesel generators in base load applications for mining, industrial, agricultural and construction clients
- Trial secured with Australian Meat Processing Corporation to be used in an Abattoir in Qld to help reduce carbon emissions in the the Red Meat industry
- H2 Generators can be used also as a conduit for the BEV market as a clean green source of remote power to help with EV Charging.





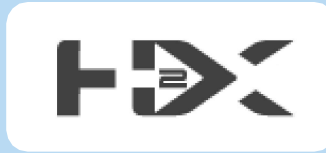
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A FOUNDATION OF STRATEGIC INVESTMENTS, JOINT VENTURES AND PARTNERSHIPS

### Partnering with Hydrogen truck, buses and hydrogen fuel cell devices manufacturers



Hdrive  
– Trucks and busses  
(PH2: 60%)



H2X  
– Fuel cell Utes and Vans  
(PH2: 20%)



Hydrogen Fuel Cells Generators



AusShips  
– Marine Vessels



Advik Hi-Tech  
– India JV



Ballard  
– Hydrogen fuel cells

### Underpinned by market-leading Hydrogen manufacturing technology providers



Omni Emerald Hydrogen  
(PH2 100%)



Turquoise Group  
– Turquoise Hydrogen  
(PH2: 40%)



Auyun  
– Green Hydrogen



CIMC ENRIC  
– Green Hydrogen

# GLOBAL HYDROGEN DEMAND IS GROWING



**Government support** has increased as many are investing in research and development for the production and usage<sup>1</sup>



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

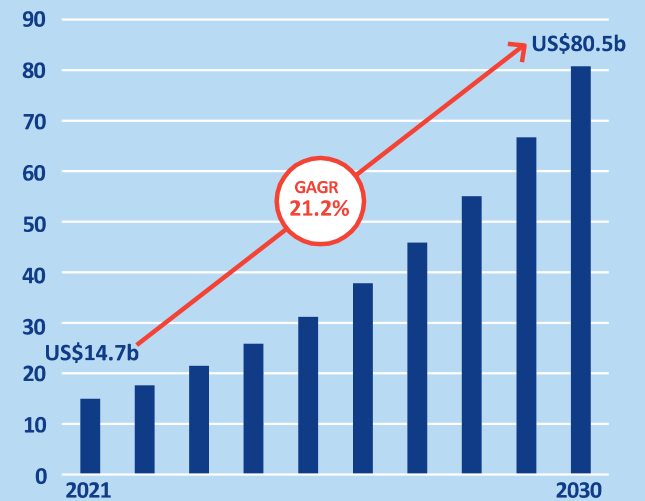


The cost of producing hydrogen is falling due to the continual **advancement in technology** making it cheaper to produce hydrogen from renewable sources<sup>1</sup>



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

**THE GLOBAL HYDROGEN FOR FUEL CELL MARKET WAS VALUED AT US\$14.7 BILLION IN 2021 AND IS PROJECTED TO GROW AT A CAGR OF 21.2% FROM 2021 TO REACH US\$80.5 BILLION BY THE YEAR 2030<sup>1</sup>**



“Deloitte’s 2023 analysis of the global potential of the green hydrogen market predicts steady and significant growth, with the market reaching a value of US\$1.4 trillion by 2050.”

[www.springwise.com](http://www.springwise.com)



## *Pure Hydrogen*

Pure Hydrogen's aim is to be the lowest cost hydrogen producer and supplier of hydrogen devices and equipment.

### Contact

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