



# Pure Hydrogen

## ASX Announcement

### Secures funding to fast-track development of turquoise hydrogen project

- Pure Hydrogen has entered into agreement with Turquoise Group Pty Ltd which will invest AU\$1.6 million and assume management of the Turquoise Hydrogen project, targeting commercialisation of the technology in collaboration with French plasma technology company, Plenesys.
- Pure Hydrogen will retain a 40% non-dilutable stake in Turquoise Group (TG) for 3.5 years which is the expected commercialisation phase.
- Pure Hydrogen will hold the exclusive rights to acquire hydrogen produced by Turquoise Group within Australia for 20 years at prices based on a sliding scale linked to the value of the carbon offtake products.
- Commissioning in late CY23, a demonstration pilot plant located at Turquoise Group's Brisbane facilities will decompose methane into hydrogen and solid carbon with the view to reforming the solid carbon into high value carbon products such as graphene with net-zero carbon emissions.
- The Plenesys designed AC plasma torch system, the 'engine' of the demonstration pilot plant, is due to arrive at Turquoise Group's Brisbane facilities in Q3 CY23.
- Once a successful demonstration is achieved, Turquoise Group plans to build commercial modules that can be installed anywhere methane gas is available.

**Sydney, 29 June 2023:** Australian clean energy company Pure Hydrogen Corporation Limited (**ASX: PH2** or '**Pure Hydrogen**') announced it has reached an agreement for the funding to advance the development of a Turquoise Hydrogen (Methane Pyrolysis) technology (*refer ASX Announcement 14 March 2022*). As previously disclosed the Turquoise Hydrogen technology is being developed jointly in collaboration with French plasma technology company, Plenesys.

Under the terms of the agreement, Turquoise Group (TG) will make an initial A\$1.6m investment to advance the development of the project. Further funds will be raised for a commercial module to be progressed in 2024. Pure Hydrogen will retain a 40% interest in TG for the first 3.5 years via a non-dilution mechanism and maintains the right to appoint a representative to the TG board.

Pure Hydrogen has the exclusive right to purchase all hydrogen produced by TG in Australia, for a period of 20 years. The hydrogen pricing mechanism is on an agreed benchmark price linked to the value-add of the carbon products, where the increased value of associated carbon products will result in a lower net hydrogen manufacturing cost saving, benefiting Pure Hydrogen.

**Pure Hydrogen Managing Director Scott Brown said:** *"We are pleased that the Turquoise Hydrogen Project is funded to accelerate the next phase of the turquoise hydrogen manufacturing facility in Australia. Pure Hydrogen will be carried while still maintaining a 40% undiluted shareholding for 3.5 years, thus maintaining healthy upside exposure to this unique development project, which will include future access to low-price hydrogen within Australia produced with net-zero carbon emissions."*



*“Pure Hydrogen will have rights to buy all of the hydrogen offtake produced and not consumed by TG. This agreement is testament to the potential value of the development assets, and the AU\$1.6m in funding is expected to provide sufficient capital to mature the project. Pure Hydrogen’s ability to purchase all future Australian hydrogen produced by the Turquoise Group helps secure our future as a low-cost hydrogen supplier of choice to Australian customers in the transportation and industrial sectors.”*

*“The agreement is in line with Company’s partnering approach where we seek to unlock value by taking equity stakes in hydrogen-focused technologies and businesses, thus reducing capital expenditure and shareholder dilution, as well as maintaining a focus on 100%-owned company opportunities such as the development of hydrogen powered commercial fleets and hydrogen hubs.”*

**Turquoise Group’s Chief Operating Officer, Andrew Thompson added:** *“We are delighted to be able to enter into this agreement with Pure Hydrogen and look forward to charting the next stage of the growth of Turquoise Group. We are very confident in developing what will be a commercial Turquoise Hydrogen process of converting methane to hydrogen and high value carbon products, including Graphene. Once proven, we are confident of significant opportunities to grow the company globally.”*

#### **Additional Background**

In line with our partnering model, the agreement has been structured to accelerate and commercially de-risk the turquoise hydrogen project, which is being developed in collaboration with French plasma company Plenesys.

Mr Ron Prefontaine, Chairman of Pure Hydrogen will be appointed to the board of Turquoise Group to represent Pure Hydrogen as a non-executive Chairman.

Turquoise Hydrogen is manufactured by decomposing methane into its two elemental components, hydrogen gas and solid carbon. TG is also targeting continuous carbon reformation to value-add carbon products produced in the manufacturing process.

The Turquoise Hydrogen manufacturing process consumes five times less electricity than an equivalent capacity green hydrogen electrolysis process, consumes no water and produces no direct CO or CO<sub>2</sub> emissions. When operated with renewable electricity and bio-methane, the process can also become carbon negative.

A demonstration pilot is currently under development in Brisbane and planned for commissioning by late 2023. The HyPlasma torch system being developed by Plenesys will be the ‘engine’ of TG demonstration pilot. Once commissioned, TG will carry out a comprehensive testing and optimisation programme designed to increase value to the solid carbon, with the primary objective to reform the carbon into high-quality graphene products.

Once sufficient carbon value-add is proven, TG will proceed with the development of commercial modules to produce hydrogen and solid carbon products in markets across Australia, the Asia Pacific and Sub-Saharan Africa - wherever methane gas is available.

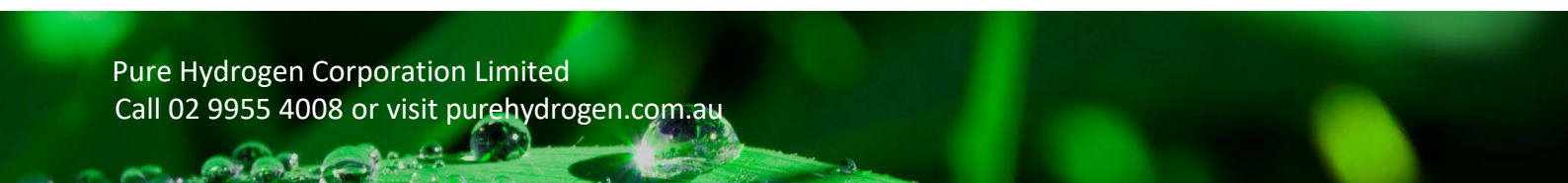
#### **For further information, please contact:**

Pure Hydrogen: Managing Director - Scott Brown +61 2 9955 4008

Non – Executive Director – Adam Giles + 61 2 9955 4008

Released through: Ben Jarvis, Six Degrees Investor Relations, +61 (0) 413 150 448

This announcement has been authorised by the Managing Director of Pure Hydrogen Mr Scott Brown.  
Or visit the website: [www.purehydrogen.com.au](http://www.purehydrogen.com.au)





### **About Pure Hydrogen Corporation Limited**

Pure Hydrogen is a clean energy-focused company seeking to become the leader in the development of Hydrogen and Energy Projects through the use of cutting-edge technology processes. It plans to supply hydrogen fuel to both Australian customers and regional Asia Pacific markets, through the production of Green, Emerald, and Turquoise Hydrogen. Concurrently, the Company is developing natural gas projects directly in Australia and Botswana and through a strategic investment it holds in a Botswana- focused energy company listed on the Australian Securities Exchange.

Strategically, Pure Hydrogen will also prioritise incubation for early-stage companies or projects within the clean energy sector, with the aim of realising profits from those investments.

For further details [www.purehydrogen.com.au](http://www.purehydrogen.com.au)

### **About Turquoise Group Pty Ltd**

Turquoise Group is an Australian start-up clean energy company, headquartered in Brisbane, focused on commercialising Turquoise Hydrogen technology. Turquoise Hydrogen is produced through the decomposition of methane gas into hydrogen gas and solid carbon. This approach is highly energy efficient compared with green hydrogen, is a water-free process and without direct CO or CO<sub>2</sub> emissions.

While the hydrogen gas can be sold as a clean fuel, Turquoise Group's key value driver is the continuous reformation of solid carbon into superior carbon products, including high quality graphene.

Graphene is a revolutionary material with the capacity to transform and disrupt established markets and technologies. To date, high manufacturing costs have hindered its widespread use. Turquoise Group aims to mass produce low-cost, high-quality graphene to unlock its true potential as a substitute feedstock for a wide range of next-generation products.

