



Pure Hydrogen

ASX Announcement

Turquoise Group enters construction phase for its commercial demonstration plant

- **Turquoise Group (TG) has confirmed the delivery of key equipment for the construction of its commercial demonstration plant, for the manufacture of turquoise hydrogen and graphene products.**
- **Pure Hydrogen holds a strategic 40% stake in the Turquoise Group, with exclusive long-term acquisition rights for hydrogen produced by TG in Australia at attractive market rates.**
- **The delivery leaves TG on track to complete construction and commissioning of the commercial demonstration plant in Q1 CY2024, which will be followed by testing and development programs.**

Sydney, 5 December 2023: Australian clean energy company Pure Hydrogen Corporation Limited (**ASX: PH2** or '**Pure Hydrogen**') is pleased to confirm that Turquoise Group ('TG'), in which it holds a strategic 40% stake, has taken receipt of key equipment from its international development partner to advance the construction and development of a commercial demonstration plant ('CDP') for turquoise hydrogen production.

Located in Brisbane, Queensland, the CDP is being developed by Turquoise Group in collaboration with Plenesys, who has designed the HyPlasma technology process – a plasma-based technique used to convert methane gas into turquoise hydrogen and solid carbon products.

Turquoise hydrogen is produced through the controlled decomposition of methane gas, which can then be converted into both hydrogen and solid carbon products such as graphene. The approach is highly energy efficient, water-free, and without direct CO or CO₂ emissions. Turquoise Group's key focus is on the continuous transformation of solid carbon into high value products, including high-quality graphene.

The international delivery of plasma-based methane pyrolysis equipment manufactured by Plenesys marks a major step forward in Turquoise Group's stated plan to develop and construct a commercial demonstration plant at its Brisbane facility and establish its position as a first mover in the emerging field of turquoise hydrogen production.

With all equipment now procured, Turquoise Group will proceed with the construction and commissioning stage of the CDP, which is scheduled for completion in Q1 2024. A six-month intensive test program will then follow, focusing on optimising hydrogen production and advancing graphene production capabilities.

Pure Hydrogen's strategic 40% investment interest in Turquoise Group is non-dilutive for a period of 3.5 years. The terms of the investment also stipulate that Pure Hydrogen will have exclusive rights to acquire hydrogen produced by Turquoise Group within Australia for a 20-year period at attractive market prices. The long-term price will be calculated on a sliding scale linked to the value of the solid carbon offtake products, including graphene, which will be a key part of the manufacturing process (*refer ASX Announcement 29 June 2023*).



The ongoing development of Turquoise Group's hydrogen production facility in Brisbane is in line with Pure Hydrogen's stated strategy to build out a multi-channel offering of hydrogen vehicles, supported by the establishment of an interconnected hydrogen ecosystem supplying net-zero hydrogen fuel sources at scale.

As part of that strategy, the Company has prioritised a partnership approach with companies, such as Turquoise Group and Plenesys, who have the technology and expertise to develop commercially viable solutions which are complemented by Pure Hydrogen's advantage in selling and distribution.



Image: State-of-the-art pyrolysis technology from Plenesys arriving at Turquoise Group's facility in Brisbane

Pure Hydrogen Managing Director, Scott Brown, commented: *"We are pleased to announce the next milestone with respect to the collaboration between Turquoise Group and Plenesys for the commercial demonstration plant in Brisbane. The delivery of the state-of-the-art pyrolysis technology from Plenesys followed an extensive period of engagement and planning to establish detailed specifications. With all equipment now successfully procured, the Turquoise Group can move towards construction and testing, with the view to proving the commercial viability of the emerging turquoise hydrogen technology. We look forward to providing further updates in CY2024 as the plant progresses through its testing phase."*





Turquoise Group CEO and Managing Director, Sam Taubert, commented: *“Following encouraging results from the prototype testing phase conducted by our technology partner, Turquoise Group remains confident in proving hydrogen and graphene production after the construction and commissioning phases of the CDP are completed in Q1 2024. A six-month intensive test program will then follow, focusing on optimising hydrogen production and exploring the full potential of our graphene production capabilities. Turquoise Group has ambitions to become a leader in clean technology. This technology will be pivotal in providing low-emission hydrogen and graphene production, while contributing to global decarbonisation efforts. Looking forward to 2024, subject to a successful testing phase, we anticipate numerous commercial opportunities that will reinforce the viability of this groundbreaking technology.”*

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This announcement has been authorised by the Managing Director of Pure Hydrogen Mr Scott Brown.

Or visit the website: 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

