



# **ASX Announcement 10 December 2024** NH3 Clean Energy Limited (ASX:NH3)

# NH3 Clean Energy and Australian Gas Infrastructure Group sign Memorandum of Understanding on CO<sub>2</sub> Transportation for WAH<sub>2</sub> Project

NH3 Clean Energy Limited ('NH3' or 'the Company') (formerly Hexagon Energy Materials Limited) is delighted to advise that it has signed a non-binding Memorandum of Understanding ('MOU') with Australian Gas Infrastructure Operations Pty Ltd ('AGIO'), a subsidiary of Australian Gas Infrastructure Group ('AGIG'), regarding the construction of pipelines for the transportation of CO<sub>2</sub> from the Company's WAH<sub>2</sub> Clean Ammonia Project.

The MOU documents will support collaboration between NH3 and AGIG to further explore the development and funding of a CO<sub>2</sub> transmission pipeline ('Pipeline') from NH3's WAH<sub>2</sub> clean ammonia Project to either of two third-party sequestration projects nearby. The pipeline would be built, owned and operated by AGIO.

The MOU contemplates concurrent Front-End Engineering and Design (FEED) studies on the WAH<sub>2</sub> Project and the Pipeline in 2025 to support the negotiation and execution of a Definitive CO<sub>2</sub> Transportation Agreement prior to the WAH<sub>2</sub> Project and Pipeline achieving their respective Final Investment Decisions.

NH3 expects to enter additional memoranda of understanding over the coming weeks and months with other parties for other aspects of the WAH<sub>2</sub> Project including CO<sub>2</sub> sequestration, additional gas supply, infrastructure and offtake. These will support the WAH2 Project's entry into FEED which is planned to commence at the end of 2024.

NH3 Clean Energy's Chairman Charles Whitfield commented:

"We are delighted to have entered into an MOU with Australian Gas Infrastructure Group ('AGIG') to develop agreements around CO2 transportation. It has always been part of the WAH2 strategy to partner with "best in class" service and input providers to benefit from their expertise and the efficiency that they bring to the WAH2 Project. Having AGIG as the builder, owner and operator of CO<sub>2</sub> pipeline infrastructure would offer NH3 opportunities to improve the economics and timeline of our project. This MOU, on the heels of the recent gas supply announcement with Chevron demonstrates the acceleration of project tempo as these key partnership agreements fall into place."

## AGIG CEO Craig de Laine commented:

"AGIG believes that a range of energy sources and technologies will be needed to reach net zero as quickly and efficiently as possible, and we see significant potential for Carbon Capture and Storage to contribute to the energy transition and help our customers to decarbonise. We are excited to work with NH3 Clean Energy on this project, which will be key to establishing the Pilbara Carbon Capture and Storage hub and providing a platform for hard-to-abate industry in the region to reduce carbon emissions"













## About the WAH<sub>2</sub> Project

The WAH<sub>2</sub> project is NH3's flagship project to supply low-emissions ammonia to the decarbonising powerhouse economies of the Asia Pacific, including Japan and South Korea as well as being a source of decarbonised "bunker" fuel for powering bulk carriers carrying iron ore from Australia to Asia. The project is well placed as Asia's energy transition drives an increasing demand for low emissions energy.

The Project is progressing towards its target of entering front end engineering and design (FEED) at the end of 2024.

#### 1.1 Pre-FEED Technical Activities

Technical activities are being led by Petrofac Asset Solutions Australia Ltd as lead engineer and Topsoe A/S as technology provider.

Topsoe has completed its pre-FEED scope and optimisation of ancillary process and services by Petrofac continues to plan with results to-date suggesting a lower carbon intensity than the PFS Base Case<sup>1</sup> could be achieved.

Preparation of an updated overall cost estimate and the FEED project execution plan is underway.

### 1.2 Land Allocation

NH3 has been allocated land in the Maitland Strategic Industrial area by the Western Australian Government. The 40 Ha site's proximity to an existing deepwater port and infrastructure is a key asset that underpins the competitiveness of the WAH<sub>2</sub> Project.

The terms of the Option to Lease for the land allocated to NH3 for the WAH<sub>2</sub> Project have been agreed in-principle with Development WA and final approvals are pending.

### 1.3 Input and Infrastructure Agreements

NH3 has executed a Key Terms Agreement<sup>2</sup> with the Water Corporation of Western Australia for the supply of sufficient volume of water for Phase 1 of the WAH<sub>2</sub> Project, and has agreed an Indication of Gas Supply with Chevron<sup>3</sup> covering 60% of WAH<sub>2</sub> Phase 1 requirements.

With the CO<sub>2</sub> transportation MOU signed with AGIO, the project is well on its way to securing three of the most critical input components.

NH3 continues to progress confidential commercial discussions with other key input and service providers regarding further gas supply, CO<sub>2</sub> sequestration and infrastructure. These discussions have included confidential indicative pricing from third parties for several key aspects of the project, have continued to reduce uncertainty and have tended to come in under PFS Base Case assumptions<sup>1</sup>, providing opportunities to improve project economics.

<sup>&</sup>lt;sup>1</sup> HXG ASX 'WAH<sub>2</sub> Project Pre-Feasibility Study' updated announcement dated 2 August 2023.

 $<sup>^2</sup>$  HXG ASX announcement 'WAH $_2$  Project – Water Supply Key Terms Agreement' dated 11 March 2024.

<sup>&</sup>lt;sup>3</sup> HXG ASX announcement 'Hexagon and Chevron Australia agree on Indication of Gas Supply' dated 4 November 2024.





An economic update will be provided by NH3 prior to FEED-entry once the ongoing confidential commercial discussions are completed.

#### 1.4 Sales and Offtake

NH3 has stated that the two main sources of demand for clean ammonia in the region will be from the displacement of coal in thermal power generation (in countries like Japan and South Korea) and from the displacement of marine fuel oil and diesel in the marine bulk carrier fleet.

NH3 has signed a memorandum of Understanding with Oceania Marine Energy Pty Ltd ('Oceania')<sup>4</sup> regarding the potential development of a low-emissions ammonia bunkering business at Dampier.

This could create a valuable, additional, domestic market for NH3's WAH<sub>2</sub> Project that would require no additional capital expenditure and be complementary to NH3's primary objective of exporting low-emissions ammonia from WAH<sub>2</sub> to help decarbonise power generation in Asia.

Confidential commercial discussions continue to progress with potential off-takers and strategic partners and will ramp up as the pre-FEED technical work and financial modelling is completed.

### 1.5 Timeline

NH3's target is WAH<sub>2</sub> FEED-entry at the end of 2024, leading to a final investment decision in early 2026 and the start of production at the end of 2028.

FEED-entry will require the completion of planned technical work and finalisation and execution of conditional commercial agreements for key aspects of the project. Given the interdependency between the commercial agreements, their sequencing and timing will be determined as they progress.

#### **Authorisation**

This announcement has been authorised for release by the Board of Directors.

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<sup>&</sup>lt;sup>4</sup> HXG ASX announcement 'WAH<sub>2</sub> Project – Ammonia Bunkering Memorandum of Understanding' dated 13 May 2024.





## **About NH3 Clean Energy Limited**

NH3 Clean Energy Limited (ASX: NH3) is an Australian company focused Future Energy project development and Future Energy materials exploration and project development.

The Company is developing a business to deliver decarbonised hydrogen (low-emissions ammonia) into export and domestic markets at scale, via its WAH<sub>2</sub> Project. The Company plans to use renewable energy to the greatest extent practicable.

The Company 100% owns the McIntosh Nickel-Copper-PGE project and the Halls Creek Gold and Base Metals project in Western Australia. The Company has two joint ventures on its Graphite properties.

To learn more, please visit www.nh3ce.com or www.nh3cleanenergy.com