NH3 Clean Energy

ASX Announcement | 10 June 2025

NH3 Clean Energy, Pilbara Ports and Oceania Marine Energy sign a Joint Development Agreement for the establishment of low-emissions ammonia bunkering operations

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NH3 Clean Energy Limited (ASX:NH3) ('NH3' or 'the Company') is delighted to advise that it has signed a Joint Development Agreement ('JDA') with Pilbara Ports Authority ('Pilbara Ports') and Oceania Marine Energy ('Oceania') with respect to proposed low-emissions ammonia bunkering operations at the Port of Dampier.

HIGHLIGHTS

- The objective of the non-binding JDA is to establish low-emissions ammonia bunkering operations at the Port of Dampier by 2030 to service iron ore carriers and support decarbonisation of the Pilbara-Asia maritime corridor.
- Pilbara Ports is the world's largest bulk export port authority with over 750 million tonnes per year of bulk commodities being shipped through its ports in the 2023-24 financial year.
- The JDA follows the International Maritime Organisation's recent announcement of its Net Zero Framework[1] which sets mandatory emissions limits and a global pricing mechanism for ships over 5,000 gross tonnes from 2027.
- Western Australia has the potential to be a world leader in reducing emissions from maritime shipping.
- The JDA outlines an integrated scope of work and timetable intended to support final investment decisions for the WAH_2 Project, bunker vessel and any port infrastructure by the end of 2026.
- NH3's CEO, Stephen Hall, will host a webinar to update investors on the implications of recent progress on 13 June 2025, details below.

EXECUTIVE SUMMARY

Approximately 300[2] bulk carriers currently export iron ore from the Pilbara to Asia. Sixteen bulk carriers using ammonia as fuel and bunkering exclusively at the Pilbara end of the route would require ~600,000 TPA of clean ammonia – more than 90% of the planned production capacity of WAH_2 Phase 1. There are currently 29 ammonia capable duel-fueled bulk carriers on order[3] for delivery prior to 2030.

[1] IMO 'IMO approves net-zero regulations for global shipping', 11 April 2025.
[2] Full time equivalent
[3] Ammonia Energy Association 'Low-Emission Ammonia Data (LEAD): Vessels', June 2025.

The JDA establishes the framework for how the parties intend to work together with the aim of establishing an ammonia bunkering service from Dampier Bulk Liquids Berth to anchorage by 2030.

The signatories recognise that an integrated and coordinated approach will be required with:

- Pilbara Ports responsible for the control and management of the Port of Dampier, for issuing bunkering licences and for safe operations within port waters;
- NH3 as the supplier of low-emissions ammonia from its WAH_2 Project; and
- Oceania as the bunker vessel owner and/or operator. Oceania is an Australian privately-owned company intending to establish a bunkering business at the Port of Dampier that would use bunker vessels to supply low-emissions ammonia via ship-to-ship transfer.

The JDA outlines an integrated scope of work and timetable intended to confirm the technical feasibility of bunkering operations, and thereafter secure primary environmental and regulatory approvals and have the formal agreements in place to support final investment decisions for the WAH_2 Project, bunker vessel and any port infrastructure by the end of 2026.

This JDA builds on NH3's previous MoUs and ongoing collaboration with Pilbara Ports[4] and Oceania[5]. It is seen as an important step towards future agreements with bunkering customers.

NH3's Chairman Charles Whitfield commented:

> *"This agreement sets a pathway for WA to become a global leader in the decarbonisation* of maritime transport. The scale of the Pilbara-Asia maritime corridor creates a globally significant opportunity to reduce GHG emissions and NH3 is extremely excited to join with Pilbara Ports Authority and Oceania with the aim of making this a reality. We look forward to being able to make more announcements around the WAH_2 Project in the coming months.*"*

Pilbara Ports' CEO, Sam McSkimming commented:

> *"Pilbara Ports is proud to partner with NH3 and Oceania to advance decarbonisation efforts* in the maritime industry. With approximately 4,000 vessel visits associated with bulk exports and more than 1,000 distinct bulk carriers visiting our ports annually, the Pilbara is a natural beachhead to kick start the clean fuel transition. The green iron corridor between the Pilbara and East Asia has the scale, stable demand, port infrastructure, and risk management experience, to support the significant investment *that maritime decarbonisation requires."*

Nick Bentley, Managing Director of Oceania Marine Energy commented:

> *"This Joint Development Agreement marks a major step forward towards our shared* commitment to establishing a world-class clean fuel bunkering capability at the Port of Dampier. Together with NH3 and Pilbara Ports Authority, we are laying the foundation for an at-scale ammonia bunkering operation that will be ready to support the global transition to low-*carbon shipping before 2030".*

[4] NH3v ASX 'NH3 Clean Energy and Pilbara Ports sign a MoU on Ammonia Shipment for WAH2 Project' announcement dated 11 February 2025.
[5] NH3 ASX 'WAH_2 Project – Ammonia Bunkering Memorandum of Understanding' announcement dated 13 May 2024.

1. WAH_2

The WAH_2 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.

With the conclusion of Pre-FEED, all the technical work required to be undertaken prior to FEED has been completed.

FEED-entry will require the completion of agreements with potential off-takers and strategic partners. Given the interdependency between the commercial agreements, their sequencing and timing will be determined as they progress.

FEED entry is anticipated in mid-2025, leading to a final investment decision late-2026 and the start of production in 2H 2029.

1.1 WAH_2 Tracking

Timing	Stage	Status
Q3 – Q4 2022	Complete scoping study	Achieved on time & budget
Q1 – Q2 2023	Complete WAH_2 Preliminary Feasibility Study Report Secure Option to Lease from WA Government over preferred project site Progress commercial discussions	Achieved on time & budget
Q3 2023 – Q2 2025	WAH_2 Pre-FEED Studies MOUs or other conditional commercial agreements for project inputs and offtake prior to FEED entry. FEED entry mid 2025	Achieved 1 month post guidance Ongoing
Q3 2025 – Q4 2026	FEED Studies Unconditional commercial agreements for project inputs and offtake prior to FID. FID late 2026	

2. Webinar

NH3's CEO, Stephen Hall, will host an investor webinar to provide an update on the Company's WAH_2 Project.

Date: Friday,13 June 2025
Time: 11AM AEST / 9AM WST
Registration Link: https://us02web.zoom.us/webinar/register/WN_dEDyOh54TI6Fx2-NycBXMA

Upon registering, attendees will receive an email containing information about joining the webinar. A replay will be made available via NH3's website and social media.

Questions can be sent in advance of the webinar to spitaro@nwrcommunications.com.au

Authorisation

This announcement has been authorised by the Board of Directors.

About NH3 Clean Energy Limited

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

NH3 is developing a business to deliver decarbonized hydrogen (low-emission ammonia) into export and domestic markets at scale, via its WAH_2 Project. The Company plans to use renewable energy to the greatest extent practicable.

NH3 100% owns the McIntosh Nickel-Copper-PGE project and the Halls Creek Gold and Base Metals project in Western Australia. The Company has an earn-in arrangement McIntosh graphite property.

To learn more please visit: www.nh3ce.com

FOR FURTHER INFORMATION,

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