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# Is ammonia the next LNG?



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Low-emissions ammonia presents an opportunity for Australia to build a parallel export business mirroring the early rise of the liquefied natural gas (LNG) sector.

Similarly to what LNG did in the past, low-emissions ammonia allows Australia to supply a new, decarbonising energy source to critical export markets in Asia, who already have a well-established strategic relationship with Australia and see the country as a preferred supplier.

Australia is already the largest LNG supplier in the world with 87.6 million tonnes per annum of export capacity, supporting export revenue of \$92.8 billion in 2022. The country already boasts the necessary infrastructure, relationships, technical expertise and political support.

Many companies are looking at electrolysis-based hydrogen and ammonia projects, but these face cost, schedule, and technology challenges. Companies recognising the early-mover potential for low-emissions ammonia from gas with carbon capture and storage (CCS) include Woodside (pursuing a project near Perth) and Mitsui and Wesfarmers (pursuing a project in the mid-west).

One company that recognised this opportunity early and has made significant progress is ASX-listed Hexagon Energy Materials through its WAH<sub>2</sub> low-emissions ammonia project in the Pilbara region of Western Australia.

The WAH<sub>2</sub> project aims to convert natural gas into ammonia using proven technology, capture the associated CO<sub>2</sub> for sequestration at a nearby third-party facility, and export the product via existing facilities at the nearby Port of Dampier.

Hexagon describes WAH<sub>2</sub> as one of only five proposed low-emissions ammonia export projects in Australia that use natural gas feedstock and CCS – and the only one that has the advantages of access to an existing deepwater port and multiple, mature CCS projects nearby.

The company is working towards entry into front-end engineering and design (FEED) in mid-2024 and project sanction in 2025. First production is anticipated in 2028, in good time to contribute to 2030 decarbonisation targets.

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