# Japan, Korea underpin aspiring hydrogen projects

## **Angela Macdonald-Smith** Senior resources writer



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Japanese and South Korean investors are at the heart of six shortlisted projects vying for \$2 billion of funding on offer under the Albanese government's Hydrogen Headstart program, but the loudest advocate of the fuel, Andrew Forrest's Fortescue Metals Group, has missed out.

The shortlist underscores the critical role that Australia's traditional fossil fuel commodity customers in North Asia will have in underpinning the country's ambitions in clean energy exports.

Korea Electric Power Co's little-known Newcastle project has made the list – which was whittled down from 60 applicants – as has Stanwell Corporation's central Queensland project, in which Japanese firms Iwatani, Kansai Electric Power and Marubeni are foundation customers.



BP's ammonia and sustainable aviation fuel project at its former oil refinery site at Kwinana is on the shortlist for federal funding.

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[https://www.afr.com/companies/energy/hif-chooses-tasmania-for-lb-green-fuels-plant- 20220708-p5b06d] is also among the contenders, which must lodge their final bids for funding by late June ahead of a selection of two or three successful candidates later in 2024.

The shortlist includes the giant Murchison project in Western Australia funded by international investor Copenhagen Infrastructure Partners,

[https://www.afr.com/companies/energy/danish-fund-joins-huge-wa-hydrogen-venture-20201116-p56ew9] and supported by two Australian superannuation funds, that is targeting exports of wind and solar power to Japan and Korea in the form of green ammonia.

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Origin Energy's Hunter Valley Hydrogen Hub project, in which Orica is involved, aims to produce ammonia to ship to power utilities in Japan and Korea and has also made the shortlist. The final project is BP's sustainable aviation fuel and ammonia venture planned at its former oil refinery site at Kwinana [https://www.afr.com/companies/energy/bp-eyes-european-japanese-markets-with-perth-green-hydrogen-project-20230824-p5dz2o], in which Macquarie Capital is a partner and which wants to export to Japan and Europe.

But Fortescue, which is thought to have applied for funding for its Gibson Island project in Queensland [https://www.afr.com/companies/energy/hydrogen-fund-needs-to-close-the-gap-on-costs-ceos-20230510-p5d79e], did not make the list, nor did Woodside Energy for its H2Perth project. Ventures based on fossil fuels with carbon capture, such as Japan's \$3 billion lignite-based project in Victoria's Latrobe Valley, were not eligible, nor were hydrogen technology ventures such as Hazer Group's demonstration project in Perth.

KEPCO is a major customer of Australian coal, while Kansai Electric is a big buyer of LNG from ventures including Woodside's Pluto LNG and Inpex Corporation's Ichthys LNG.

# Project go-aheads in 2024

The selected projects are just a few of the dozens of hydrogen ventures planned around Australia, most of which are in the early stages of development. The federal government's resources and energy major projects list, published on Monday, [https://www.afr.com/politics/federal/coal-oil-and-gas-dominate-australia-s-resources-pipeline-20231217-p5erz2] cites 76 hydrogen projects, of which only three reached financial close this year.

Notably, none of the six projects is focused on pure hydrogen, which faces huge technical and cost challenges on transportation.

Hydrogen Headstart will fund "at least two flagship projects", the government said in July [https://www.afr.com/companies/energy/2b-hydrogen-fund-to-target-flagship-projects-20230706-p5dm9c], and will be structured as a production credit over 10 years to cover the gap between the cost of making the fuel and its sale price, rather than as a grant.

Copenhagen Infrastructure Partners partner Karsten Uhd Plauborg said initiatives such as Headstart "give our investors confidence and will accelerate investment in Australia".

The Murchison project, which would produce about 2 million tonnes a year of green ammonia, is being developed through CIP's energy transition fund, which the firm says is the largest dedicated renewable hydrogen fund worldwide.

Darren Miller, chief executive of the Australian Renewable Energy Agency, which is running the Headstart program for the government, said the six shortlisted projects "provide us with the best opportunity at fast-tracking our renewable hydrogen industry".

However, Hazer managing director Glenn Corrie said he hoped to see the program extended to technology ventures such as Hazer, that "can accelerate the energy transition by converting natural gas to clean hydrogen at scale, much faster and more affordable than other method technologies".



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<u>Angela Macdonald-Smith</u> writes on the resources industry with a focus on energy, including gas, oil, electricity and renewables. *Connect with Angela on Twitter. Email Angela at amacdonald-smith@afr.com*