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## Renewable hydrogen to be produced at Brisbane gas facility

On behalf of the Australian Government, the Australian Renewable Energy Agency (ARENA) today announced \$950,000 in funding for gas company BOC for a renewable hydrogen production and refuelling project in Queensland.

The \$3.1 million pilot project will involve the installation of a 220 kW electrolyser and a 100 kW solar array at BOC's Bulwer Island gas facility to produce green hydrogen via electrolysis, and will utilise the industrial gas equipment and infrastructure onsite. The electrolyser will have the capacity to produce 2400 kilograms of hydrogen per month.

The project also includes a hydrogen refuelling station in Brisbane. In addition to supplying BOC's existing industrial customers, 50kg per day of renewable hydrogen will be produced by BOC for the vehicle refuelling station.

Hydrogen from fossil fuels is currently produced at BOC's Altona steam methane reformer in Melbourne. Once this project is complete, green hydrogen produced at Bulwer Island will reduce the need to transport hydrogen. The electrolyser will be configured to produce hydrogen via electrolysis drawn from the onsite solar or grid sourced renewable energy via a power purchase agreement.

ARENA CEO Darren Miller said BOC's project would demonstrate the production and use of renewable hydrogen in refuelling, and in existing gas production and supply chains.

"BOC's project is a great example of leveraging current industrial gas equipment and infrastructure, and will also trial renewable hydrogen in refuelling. Producing hydrogen on site will reduce shipping costs, while being able to help grow the local Brisbane fuel cell vehicle market and also meet demand from local industry."

"Hydrogen is a huge opportunity for Australia, both in our domestic economy and internationally as an emission-free energy source but it is still in its early stages. In Australia, hydrogen has applications across transport, heavy industry, and as energy storage injected into our existing gas networks. Internationally, we are well placed to become a leading exporter of hydrogen," Mr Miller said.

Last year ARENA commissioned a report by ACIL Allen Consulting to look into the opportunities for Australia from hydrogen exports. The report found that Australia is in a strong position to become a leading exporter of hydrogen, as global demand increases over the next decade, predicting Australia's hydrogen export industry could be worth \$1.7 billion annually to the economy and create 2,800 jobs by 2030.

ARENA has thrown its weight behind Australia's increasing focus on hydrogen as an alternative fuel source. Previously, ARENA has supported Toyota's hydrogen centre at their Altona former car manufacturing plant, ATCO's hydrogen microgrid in Western Australia and Jemena's power-to-grid gas demonstration in western Sydney. Last year, ARENA also awarded \$22.1 million to 16 hydrogen research projects. ARENA is also contributing to the National Hydrogen Strategy being led by Chief Scientist Alan Finkel.

"ARENA is playing a leading role in helping to get Australia's hydrogen economy off the ground by supporting innovation from early stage research to demonstration-scale projects like this," Mr Miller said.

BOC South Pacific's Managing Director John Evans said this will leverage BOC's existing infrastructure and expertise across the entire hydrogen supply chain, and support the growth of hydrogen as a zero emission fuel.

"BOC is delighted to be working with ARENA and our project partners to establish a local supply of renewable hydrogen in Queensland that can be easily scalable and replicated across the country.

"Through this project, we will deliver added environmental value to our industrial customers and facilitate the introduction of hydrogen fuel cell electric vehicles in Queensland - while also enhancing our own production processes at Bulwer Island."

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