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ARENA gets cracking on commercial scale hydrogen

On behalf of the Australian Government, the Australian Renewable Energy Agency (ARENA) today announced a funding round of up to \$70 million to help fast track the development of renewable hydrogen in Australia.

ARENA's hydrogen funding round is expected to play a material role in supporting commercial scale deployments of renewable hydrogen in Australia.

Hydrogen - or carriers like ammonia - are potentially a way for Australia to export renewable energy. Electrical energy can be readily converted into hydrogen via electrolysis that separates hydrogen from oxygen in water, and when produced using renewable electricity, is entirely emissions free.

At present, hydrogen is used in the industrial and chemical sectors and is derived primarily from natural gas. In the future, hydrogen will be used in a range of applications from industrial applications to household appliances, remote power, transport, for greening or storing energy in our existing gas network, and represents a significant long term export opportunity.

In developing the round, ARENA will investigate funding for projects that involve commercial scale deployments of electrolyzers, particularly over 10 MW in scale, to drive the commercialisation of key component technologies and facilitate cost reductions for producing renewable hydrogen.

ARENA CEO Darren Miller said while Australia is in a good position to become a major exporter of renewable hydrogen, this funding will help to kickstart a domestic hydrogen industry, by driving down the cost of producing renewable hydrogen at scale.

"The hydrogen sector is still in its infancy, and while key technologies like electrolyzers are available, there are few large scale systems deployed and they are still expensive."

"There is a need to develop local skills, supply chains and delivery capabilities of large scale renewable hydrogen projects. ARENA's support can help to establish this new industry as well as progressing research and development to unlock greater cost reductions and efficiency improvements. Knowledge shared from the projects funded under this round will be vital for the industry."

ARENA recently updated its investment priorities with one of the three priorities focusing on accelerating hydrogen, highlighting the importance it will play in reducing emissions and providing a new industry for the Australian economy.

"But if we want to build a hydrogen industry, we need to get cracking -- which is why ARENA is looking at a competitive funding round that will drive technological innovations and help bridge the commerciality gap."

ARENA has already committed more than \$44 million towards hydrogen development including early stage research and development and pilot projects. ARENA's previous funding in renewable hydrogen includes a \$20 million funding round for early stage R&D. ARENA has also supported Dyno Nobel and Queensland Nitrates to investigate creating ammonia from renewable energy, BOC to produce green hydrogen via electrolysis, Jemena to trial injecting hydrogen into the gas network, ATCO to build a hydrogen hub at their Jandakot headquarters and Toyota to build their Australian Hydrogen Centre project to produce hydrogen for both mobile and stationary applications.

ARENA will commence a stakeholder consultation process to help inform the parameters of a large-scale funding round with formal applications expected to open in March 2020.