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Recipients announced for Australia-Germany HyGATE Initiative

On behalf of the Australian Government, the Australian Renewable Energy Agency has today announced conditional funding of up to AU\$50 million and €40 million has been awarded by Australia and Germany across four projects as part of the German-Australian Hydrogen Innovation and Technology Incubator (known as [HyGATE](#)).

ARENA, on behalf of the Department of Climate Change, Energy, Environment and Water (DCCEEW), has teamed up with Germany's [Federal Ministry of Education and Research \(BMBF\)](#), through [Project Management Jülich \(PtJ\)](#), to administer HyGATE.

Australia and Germany committed funding up to AU\$50 million and €50 million, respectively, to the HyGATE initiative which opened in March 2022. The objective of HyGATE is to strengthen Australian-German cooperation on reducing the cost of producing hydrogen from renewable sources and to stimulate the innovation process in both countries.

ARENA and PtJ have awarded conditional offers of funding to the following projects:

| Company (Australian lead applicant) | Company (German lead applicant) | Project Name | ARENA Funding (AUD) | BMBF Funding (EUR) |
|-------------------------------------|-----------------------------------|--|---------------------|--------------------|
| ATCO Australia | Fraunhofer IST | ScaleH2 | \$0.8 million | €4.7 million |
| Hysata | Fraunhofer IPT | High-Efficiency 'Capillary-fed' Electrolyser Pilot Project | \$8.98 million | €5.9 million |
| Edify Energy | Siemens Energy Global GmbH | Edify Green Hydrogen Project | \$20.74 million | €16.4 million |
| Vast Solar | Fichtner GmbH | Solar Methanol | \$19.48 million | €13.2 million |

HyGATE brings together Australian and German industry and research partners to deliver new hydrogen projects, with the projects primarily occurring in Australia.

Organisations that have received funding through ARENA and PtJ have been chosen based on their ability to deliver on one or more of the specified outcomes of the funding round, including:

- Demonstrating highly innovative technology across the value chain of renewable hydrogen.
- Reducing the cost of hydrogen production, transport, storage and use, and supporting the commercial viability of renewable hydrogen.
- Developing an Australian-German supply-chain for renewable hydrogen.
- Encouraging cross-country collaboration and knowledge sharing between Australian and German organisations.
- Providing price discovery and transparency in relation to the current and projected economics for renewable hydrogen technologies.

The Australia-Germany Hydrogen Accord, announced in June 2021, builds on the respective strengths of the two countries. Australia has the potential to be a world leader in the production and export of clean hydrogen and Germany holds expertise in hydrogen technology and is planning to import significant quantities of hydrogen in the future.

ARENA CEO Darren Miller said the HyGATE Initiative was a great next step in helping to commercialise renewable hydrogen.

“We’re excited to be able to announce these four hydrogen projects that demonstrate the benefit of global collaboration to achieve a new export industry in renewable hydrogen and push us further towards the goal of net zero emissions.

“HyGATE highlights our strong relationship with Germany. Through our joint support we will bring together Australian innovation and state-of-the-art German renewable hydrogen technology for the benefit of both countries,” Mr Miller said.

For more information on the HyGATE funding round, please visit ARENA’s [HyGATE funding page](#).

Quotes attributable to Minister for Climate Change and Energy Chris Bowen MP:

“Collaboration with Germany will help grow Australia’s hydrogen export market and support our nation’s vision of becoming a renewable energy superpower.”

“These projects demonstrate Australia’s role as a world leader in renewable energy production, reducing the cost of hydrogen production and paving the way for exports.”

Further information on funded projects:

ATCO Project

The ScaleH2 project supported by NSW Powerfuels presents a pathway to the development of a 1 GW electrolyser and 800 ktpa ammonia facility in the Illawarra region of NSW. The Australian and German research component of the project has the potential to deliver valuable advancements in relation to electrolyser efficiency, green steel technologies, enhanced catalysts, coating and plate technologies and underground storage solutions.

Quote to be attributed to Karen Nielsen, Managing Director, Global Renewables at ATCO

“ATCO has set its sights on exports to global markets and the ScaleH2 project will further advance our ambitions to expand our capabilities as a hydrogen leader in Australia and the globe. The ScaleH2 project, with our partners, will accelerate understanding across industry of hydrogen’s economic potential towards a clean energy future.”

Hysata Project

Hysata’s ‘capillary-fed’ electrolyser represents a step change in hydrogen technology that will deliver the most efficient electrolyser in the world. The Hysata electrolyser operates at 95% system efficiency (41.5 kWh/kg), delivering a giant leap in performance and cost over incumbent technologies, which typically operate at 75% or less. This high efficiency, coupled with a simple approach to mass manufacturing and low supply chain risk puts the company on a path to delivering the world’s lowest cost green hydrogen at multi-gigawatt scale.

Quote to be attributed to Paul Barrett, CEO of Hysata

“Australia has a once-in-a-generation opportunity to be a global leader in green hydrogen and we are delighted to see the Government backing Australian innovators. Our technology will enhance sovereign manufacturing capabilities, create high skilled jobs and position Australia as a green hydrogen powerhouse by providing electrolyzers for domestic projects and exports.”

Edify Project

The project “EGH2” involves the deployment of a 17.5 MW Siemens Energy electrolyser with 21 MW solar PV integrated behind the meter to produce renewable hydrogen for domestic industrial and transport applications. Edify is negotiating a range of offtake agreements. The project is the first stage of a planned 1 GW green hydrogen production facility that will export hydrogen globally through the Port of Townsville.

Edify is committed to strengthening the broader Australian-German supply chain. The project will be delivered under a partnership between Edify Energy and Siemens Energy, capitalising on Edify’s extensive experience in developing some of Australia’s largest renewable energy facilities and Siemens Energy’s leading expertise in electrolyser and energy technology. Edify and Siemens Energy have also partnered with several leading research institutes in Germany and Australia to deliver a number of accompanying research packages aimed at further deepening the scientific collaboration between Germany and Australia.

Quote to be attributed to John Cole, CEO of Edify Energy

“We are excited to be a leading player in the development of Green Hydrogen technology, generation and ecosystems in Australia. Being a successful proponent of the HyGATE funding is a testament to Edify’s successful track record delivering world-class innovative renewable energy projects. Australia’s place on the world stage as a leading provider of green hydrogen is taking shape and we look forward to doing what we do best – delivering the economic, environmental and social benefits of green hydrogen to communities of Northern Queensland and the world.”

Vast Solar Project

The project “Solar Methanol” (SM1) involves the development of a methanol production plant using renewable energy. It seeks to address an emerging market need for supply of sustainable shipping and aviation fuels to power international industry and ensure domestic energy security. The plan consists of a 10 MW electrolyser producing green hydrogen for solar methanol production.

Quote to be attributed to Craig Wood, CEO of Vast Solar

“We are delighted that the Australian and German Governments support and recognise the need for green fuel created by Australian-made, clean, low-cost dispatchable power. SM1 will act as the catalyst for the solar methanol industry in Australia. We are immensely proud of the pioneering work done by the Solar Methanol Consortium which has the potential to make a significant contribution to the world’s decarbonisation challenge.”