

PRESS RELEASE

13 December 2021

Desert Bloom Hydrogen: ground-breaking, commercial-scale green hydrogen project to proceed in NT outback

- The \$US10.75 billion project, which will produce green hydrogen at less than \$US2/kg by 2027 and export ~410,000 metric tonnes of hydrogen when at full operation, has been granted Major Project Status by the Northern Territory government.
- The project has funding commitments from Sanguine Impact Investment and agreements with key offtake partners.
- Strategically located in the Australian outback – with access to the world’s highest solar irradiation, key pipeline, transport, and port infrastructure – the project uses proven technology in innovative ways to produce commercial quantities of hydrogen without impacting water resources or causing environmental degradation.

Tennant Creek, Northern Territory, Australia: Technology company Aqua Aerem has announced that its breakthrough \$US10.75 billion 10GW Desert Bloom Hydrogen project has been granted Major Project Status by the Northern Territory government, paving the way for the production of commercial quantities of green hydrogen from 2023.

This world-first project, which marks a significant step forward in Australia’s bid to become a global leader in clean hydrogen, will commence works in 2022 and will produce ~410,000 metric tonnes of green hydrogen per year for domestic and export use when at full scale.

Aqua Aerem is backed by Sanguine Impact Investment, which is providing the capital for the project, and has executed an agreement with one of Japan’s largest gas buyers and distributors to invest in the project. An agreement with Territory Generation (the NT’s power utility) has been signed with the intention to offtake hydrogen from the initial stages of the project.

As the only truly green commercial-scale hydrogen plant in Australia, Desert Bloom Hydrogen utilises breakthrough atmospheric water capture technology, powered by off-grid solar, to produce commercial quantities of renewable hydrogen with no impact on scarce local water resources or the environment.

Aqua Aerem co-founder and chief executive officer Gerard Reiter said the project was “transformative” in the way it had managed to overcome water supply and solar/electrolysis integration problems that have so far held back global renewable hydrogen production.

“With today’s announcement, the pathway for green hydrogen becomes a reality,” Mr Reiter said.

“Our air-to-water technology, which solves this previously intractable water supply problem, is a world first; invented and developed here in Australia. This technology will open the door for green hydrogen projects to be located where the best renewable power sources are available, which is generally in the driest areas of the planet.

“Within two years, Desert Bloom will supply hydrogen for power generation in the NT, and within five years, it will produce green hydrogen for export at less than \$US2/kg.”

Initially based at Tennant Creek, close to existing gas and pipeline infrastructure that can be repurposed for hydrogen, the project will consist of a series of modular and portable 2MW Hydrogen Production Units (HPUs) that each generate water, heat, electricity, and hydrogen. Desert Bloom Hydrogen will comprise of approximately 4000 HPUs at its peak.

“The project has multiple competitive advantages,” Mr Reiter said.

“It uses proven technology and has its own water supply. It benefits from the world’s best solar resources, does not require large sunk costs before it begins producing, and it is located at the ‘energy corridor’ of rail, road and gas pipeline infrastructure linking directly to Darwin Port.

“It also offers the most direct, cost-effective route to Asian export markets.”

Mr Reiter said these breakthroughs and the capital and operating costs savings made by the project would enable the production of green hydrogen at less than \$US2/kg within five years.

“It will assist in positioning Australia as a major player in the rapidly evolving global hydrogen market,” he said.

“Importantly, the project will be an economic boost for the Territory, creating up to 1000 construction jobs and more than 120 full-time positions to operate and maintain the project.

“It will also promote skills development and education pathways and be a catalyst for new advanced manufacturing and regional development.”

NT Chief Minister Michael Gunner said the development of projects such as Desert Bloom Hydrogen would see the Territory play a lead role in the emerging renewable hydrogen market.

“Being the ‘comeback capital’ means diversifying the projects we have in the Territory – and Desert Bloom now marks the Territory’s 14th Major Project that’s in the works,” he said.

“Territorians will see the benefits on the ground in Central Australia and in the Top End with around 1000 jobs and \$1 billion a year in export revenue from this project alone – it’s good news for the Territory.”

Aqua Aerem and Sanguine Impact Investment have applied rigorous environmental and social frameworks to the project, which was successfully piloted in early 2021.

Emeritus Professor Barry Hart AO of the Water Studies Centre at Monash University has been appointed project adviser on water and climate issues.

Media contact: Rebecca Urban 0411 790 304

About the Partners

Desert Bloom Hydrogen is being developed by Aqua Aerem, a company majority owned by Sanguine Impact Investment and incorporating original project proponents, Axcentium and Ahurei.

Sanguine Impact Investment invests in sustainable infrastructure and energy transition projects in selected emerging markets and developing economies.

With an experienced team of nearly 50 in-house developers and asset managers, Sanguine brings extensive experience in financing, developing, and owning large infrastructure and provides Aqua Aerem with a partner with the financial capability and experience to deliver the project.

www.aqua-aerem.com