The future is here

Global interest in hydrogen as an energy carrier and fuel has escalated in recent years as a result of the global push to decarbonise. Emerging export markets, technology development and maturity, falling renewable energy costs, and credible policy commitments globally have driven this interest.

South Korea, Japan, the United States and Europe have made significant commitments to establishing successful hydrogen industries and have implemented programs to support the rapid scaling up of hydrogen production and use.

With our abundance of natural resources and existing infrastructure, Australia is ready to become a global supplier of hydrogen. The development of a commercial hydrogen industry is being supported at state and federal government levels, with policy, trade partnership and funding opportunities driving investment in the sector.

Queensland has a unique competitive advantage in the production of hydrogen given its close proximity to Asia, trade relationships, established infrastructure, manufacturing capabilities and renewable energy potential. The Queensland Government’s Hydrogen Industry Strategy 2019 – 2024 aims to drive the growth of a sustainable and competitive hydrogen industry in Queensland that creates economic growth, opportunities for export markets and employment, and supports the transition to a low carbon future.

The project

To help create momentum towards the longer-term goal of a hydrogen export market in Central Queensland and Australia, Stanwell Corporation (Stanwell) is investigating the development of a large scale hydrogen electrolysis project at our power station near the city of Rockhampton in Central Queensland.

Stanwell will initially install 10 megawatts (MW) of hydrogen electrolysis at Stanwell Power Station. The hydrogen produced through the electrolyser would be trucked from site to end use customers, or utilised on-site for secondary production processes such as ammonia, methanation or power generation.

Stanwell has the capacity to scale up the project, with available land, water and electrical connection. To deliver a carbon neutral hydrogen product, Stanwell will acquire renewable energy certificates to offset the energy input to its production process, or use biomass co-firing at Stanwell Power Station.

Project objectives

- **Export markets**: Position Central Queensland and Australia as a hydrogen exporter.
- **Flexible energy demand**: Use electrolysis as a flexible load/demand response tool.
- **Energy system benefits**: Deliver energy system benefits and facilitate renewable energy integration and investment.
- **Reduce production costs**: Reduce the levelised cost of hydrogen by deploying electrolysis at large scale, utilising low cost energy, land and demineralised water.
Project status

Stanwell completed a pre-feasibility study into the potential for a hydrogen demonstration project at Stanwell Power Station in June 2019. The study found no technical fatal flaws with the project, and identified a number of commercial pathways to deliver a viable project. The pre-feasibility study sourced technical and commercial advice from expert advisors. Potential suppliers, customers and other stakeholders were consulted as part of the investigations.

In July 2019, Stanwell progressed to a full feasibility study for the project at a cost of up to $5 million. Stanwell has sought a co-contribution from the Australian Renewable Energy Agency (ARENA) towards the cost of the study.

Deloitte has been appointed as a commercial advisor and Advisian as a technical advisor to the project. Throughout the feasibility study, Stanwell will continue to engage and consult with a broad range of stakeholders to identify potential business models to commercialise the project. This includes governments, investors, partners, suppliers, customers and community members.

Project timeline
Advantages

Be part of Australia’s largest hydrogen electrolysis demonstration project and put yourself at the forefront of Australia’s hydrogen industry development.

Extract maximum value by shaping the direction of the project to meet your strategic organisational needs.

Drive down the cost of hydrogen production to enable a future hydrogen export market.

Gain a stake in a project with strong potential for expansion to export scale.

Partner with a trusted Queensland Government Owned Corporation with a strong balance sheet.

Benefit from Stanwell’s strong reputation for financial and operational excellence.
The opportunity

You could be a part of this Australian-first project. Stanwell is looking for opportunities to establish commercial partnerships with:

- Investment partners
- Off-takers
- Original Equipment Manufacturers
- Government funding bodies

For further information on how you can realise the benefits of this project, contact Chris Peet, Manager Business Origination, Energy Trading and Commercial Strategy, +61 7 3335 7291 | +61 421 732880 | chris.peet@stanwell.com

Our business

Stanwell Corporation is a diversified energy business located in Queensland, Australia. We are owned by the Queensland Government and our profits go back to the people of Queensland to support the delivery of essential services. We play a key role in ensuring Queenslanders have a secure, reliable and affordable energy supply.

We own and operate more than 3,300 megawatts (MW) of generation capacity throughout Queensland, and supply around 30 per cent of Queensland’s annual electricity demand. Our portfolio includes generation, retail and energy resources.

Our operations use a range of different fuels and generation technologies, and we create value from our portfolio by switching generation between fuels depending on market conditions. We generate electricity; we have an electricity retail business providing electricity to large commercial and industrial customers; we trade gas and coal; and we provide services to the electricity market to keep energy secure and reliable.

We are exploring opportunities to evolve and renew our portfolio in response to the market and to support the Queensland Government’s 50 per cent renewable energy target. This includes investigating the potential for integrating hydrogen and biofuel biomass technologies at our coal-fired power stations.
What sets Stanwell apart?

We are Queensland Government owned and we operate for the benefit of the people of Queensland.

We are a diversified energy business – we generate electricity, we have an electricity retail business, and we trade gas and coal.

We are the largest electricity generator in Queensland with enough generation capacity to supply around 30 per cent of Queensland’s total electricity demand.

We have a competitive retail business, providing energy contracts to large commercial and industrial customers.

We have a strong wholesale presence (both physical and financial) and transact with a broad range of customers in numerous energy-related markets.

In 2018/19 our Net Profit After Tax (NPAT) was $736 million. Nearly 50 per cent of our net profit comes from sources other than the sale of electricity.

In 2018/19, our portfolio achieved 87.7 per cent availability and 95.9 per cent reliability.

In 2018/19, we received a number of awards in recognition of our commitment to best practice in health and safety management, process safety and continuous improvement culture.

We operate in ways which are ethical, professional and transparent. In 2018/19, we invested $290,000 in our local communities to support initiatives which deliver long-term value to our host regions.