

WA is driving energy future

By Meg O'Neill, CEO, Woodside Energy Ltd.

Published in the West Australian
Tuesday 26 October, 2021

It's with an eye on our past as the pioneer of Western Australia's LNG industry that Woodside is now looking to the future and adding new products such as hydrogen to our portfolio, so that we continue to supply the products that our customers need in a lower-carbon world.

Woodside's proposed hydrogen and ammonia production facility in the Kwinana and Rockingham industrial zones, which we call H2Perth, has the potential to position Western Australia as a powerhouse in this emerging industry that is expected to play a crucial role in the global energy transition.

Forty years ago it took courage and commitment from Woodside and our partners, government and customers to realise the North West Shelf Project, and it will take these same qualities to establish commercial-scale hydrogen production. Today, with the support of the state government and by applying our skills and experience as an LNG operator, Woodside is planning to forge a new legacy with H2Perth.

Much in the world has changed since the 1970s, but some things are the same. Back then the development of the LNG industry was driven by the world's need for a reliable, affordable and transportable source of energy that delivered superior environmental performance.

Today the world still needs such energy supplies, but there is growing urgency to source low or zero-carbon products as climate change accelerates and the need to decarbonise through an orderly transition becomes pressing.

At its full potential, H2Perth would be one of the largest facilities of its kind in the world, producing up to 1,500 tonnes per day of hydrogen that would be converted into ammonia and liquid hydrogen for export to customers in Asia and around the world.

Hydrogen produces zero carbon emissions when it is used as fuel and is emerging as a critical component in the world's transition to cleaner energy, while ammonia is currently the most established means of safely transporting hydrogen over long distances.

In export markets like Japan, South Korea and China, demand for both LNG and new energy sources such as hydrogen and ammonia is growing as governments establish national emissions reduction targets more closely aligned with the Paris Agreement.

Woodside has set its own corporate emissions reduction targets on our pathway to net-zero by 2050, and in line with those goals any carbon emissions generated from the H2Perth production process will be abated or offset.

But H2Perth would not only serve export markets. When fully operational, the facility would also be able to supply multiple hydrogen refuelling stations around Perth, providing a reliable and carbon-neutral energy source for local transport and heavy industry.

And there are other important benefits for Western Australia.

We anticipate H2Perth's large-scale, flexible demand for power would underpin an acceleration in our state's transition to renewable electricity generation, as well as provide grid stabilisation for the South West Interconnected System.

It would also support new local manufacturing jobs and contracting opportunities in both the renewable power and hydrogen production sectors.

The state government has already recognised the benefits of establishing Western Australia as a global leader in hydrogen and is working with Woodside to help make H2Perth possible.

The project site in the Kwinana and Rockingham Strategic Industrial Estates is on land that will be leased from the government and is ideally located close to existing gas, power, water and port infrastructure, as well as a skilled local residential workforce.

In the coming weeks Woodside will continue with detailed studies, modelling and community engagement on the proposal, along with ongoing customer engagement.

H2Perth is the latest demonstration of how Woodside is complementing our core LNG business with innovative new energy projects that will ensure we continue to prosper in a lower-carbon world.

Other projects in our new energy portfolio include the renewable hydrogen project proposed for the Bell Bay region in northern Tasmania. Last week, we launched a collaboration with US company Heliogen on a breakthrough solar technology project that would deliver clean energy with near 24/7 availability.

In July, Woodside joined with potential customers to study the feasibility of developing an ammonia supply chain between Australia and Japan, where the product would be used to decarbonise coal-fired power production. We are also participating in the Hynet and HyStation consortia in South Korea which are developing light vehicle and public bus fleet hydrogen refuelling infrastructure.

Our proposed merger with BHP Petroleum, announced in August, is designed to create a company with the scale and financial strength to accelerate the development of these and other lower-carbon technologies and projects that are cost-competitive and scalable as customer demand increases.

Woodside's LNG exports will continue helping Asia to reliably meet its energy needs and reduce emissions for decades to come. But we are excited by the potential of our new projects like H2Perth to make a meaningful contribution to the energy transition in Australia and globally.