

## What is the Port of Newcastle's Clean Energy Precinct?

*A new market in clean energy is required to meet emission reduction targets globally. The Hunter Region has been identified by the NSW and Commonwealth Governments as a priority location for this new industry in Australia, with the Commonwealth Government committing \$100-million funding contribution to this landmark project.*

*As Australia's deepwater global gateway, and a long-term energy trader, Port of Newcastle is a critical enabler for clean energy future products and technology development.*

*Port of Newcastle has earmarked a 220-hectare parcel of available land to establish a dedicated Clean Energy Precinct for all forms of clean energy and associated technologies through establishing a large-scale clean energy production precinct, supported by common user, shared, infrastructure with electricity supply and services.*

*The Port's Clean Energy Precinct will enable the development of clean energy in the Hunter with common use, open access, shared infrastructure across clean energy storage, transport and export facilities, positioning the Hunter Region as a clean energy enabler, a global gateway and catalyst for employment, growth and diversification, and the decarbonisation of industry.*

*The Clean Energy Precinct will support hydrogen and ammonia production and storage, distribution and export for all clean energy vectors (e.g., methanol, SAF and biodiesel) enabling a credible pathway to scale for export, with capacity to diversify the Hunter Region and decarbonise industry across NSW and Australia.*

## Where will the Clean Energy Precinct be located?

*The Clean Energy Precinct will be located on a 220-hectare parcel of land on Kooragang Island. This piece of land was once the industrial wasteland of the former BHP Steelworks site and has been remediated for future use. Port of Newcastle intends to regenerate the site to support a new clean energy economy.*

## Why Port of Newcastle?

*Port of Newcastle's diversification to the Clean Energy Precinct will support Australia's largest embedded utilities network. Three out of the state's top five electricity and gas users are located within 20 kilometres of the Port and the Precinct will integrate clean energy production and storage with the Hunter's Hydrogen Hub gateway projects, the state's Renewable Energy Zones and offshore wind developments.*

*Our Clean Energy Precinct pillar will position Newcastle as a leading hub for all traditional and future clean energy products and technologies through establishing a dedicated precinct for all forms of energy, future fuels, and associated technologies. This landmark project will enable Port of Newcastle to be a catalyst for employment, growth & diversification and a key driver of Australia's strengthening green economy.*

*Furthermore, Port of Newcastle is more than just a port; it exists to build Australia's prosperity with responsible, integrated and innovative supply chain solutions. With trade worth about \$37-billion to the national economy each year, Port of Newcastle enables Australian businesses to successfully compete in*

international markets with our key destination markets predominantly with close partners in Asia, such as Japan, Taiwan and South Korea.

The Port currently handles over 25 different types of trade, 4697 ship movements and 166-million tonnes of cargo annually. However, with a deepwater shipping channel operating at 50% of its capacity, significant Port land available, and enviable access to national rail and road infrastructure, Port of Newcastle is positioned to further underpin the future prosperity of the Hunter, NSW and Australia.

### **Why is Port of Newcastle transitioning to clean energy?**

Port of Newcastle is diversifying, not transitioning. As the world's largest, and most efficient, coal export port. Port of Newcastle is on an exciting and ambitious diversification journey underpinned by three pillars: our Clean Energy Precinct, Newcastle Deepwater Container Terminal and our ESG Strategy, with the goal of generating more than 50% of revenue from sources outside coal by 2030.

We view diversification as must do in order to support the future of the Port and the Region and, as custodians of the Region's critical asset, Port of Newcastle is diversifying its trade as it strives to create a safe, sustainable and environmentally and socially responsible future.

Global demand for clean energy is driving the development of this new economy and with capacity, and the future of coal demand anticipated to fluctuate, the Port sees opportunity to be a global leader in the enablement of this diversified industry.

### **Who is behind the Port of Newcastle Clean Energy Precinct Project?**

For the past three years, Port of Newcastle has self-funded and received competitively awarded ARENA funding toward the early-stage development of the project. The project has also attracted a \$100-million Commonwealth Government grant.

Port of Newcastle believes that partnerships, both local and international, which bring together infrastructure, investment, knowledge, skills and resources, will be critical in the establishment and scale-up of a domestic clean energy economy and export trade pathway at Port of Newcastle.

By combining local, Australian and international expertise and research, we can remain agile in this globally emerging landscape and work collaboratively to provide a faster pathway to scale.

The Port's Clean Energy Precinct project has attracted a broad range of local and international support, with 15 Memorandum of Understanding Agreements secured and 15 supporting partner letters of intent or support for the once-in-a generation project across skills and training, mobility, heavy industry, export and bunkering, clean energy production, power, generation, gas network and electricity market.

Memoranda of Understanding agreements have been formalised with coNEXA, EnergyCo, Energy Estate, Eurus Energy, Fortescue Future Industries, Hunter Hydrogen Network, KEPSCO (Korea), Lake Macquarie City Council, Lumea (Transgrid), Mitsubishi Heavy Industries (Japan), MOL Group (Japan), Orica, Origin, Platform Zero (Rotterdam) and University of Newcastle.

2023

Among those to also pledge their support formally for the Port's Clean Energy Precinct plans are AGL, Ampcontrol, Aurizon, bp Australia, Business Hunter, Hunter iF, Hyundai Australia, Infrabuild, Jemena, Keolis Downer, Linde Engineering, NewH2, Newcastle City Council, Snowy Hydro and Westrac.

Collectively, these relationships represent key industry support across clean energy production, mobility, export and bunkering, energy generation, transport, infrastructure, offtake, agriculture, education, innovation, research and development.

## PROUDLY ENABLED BY THE FOLLOWING MOU PARTNERS



## PROUDLY SUPPORTED BY THE FOLLOWING PARTNERS



### What are the stages of the project?

The project stages include development application lodgement and approval for utilities connection; commercial agreement for production, offtake and supporting industry; delivery of infrastructure to accelerate green hydrogen production projects; and trials for clean energy export.

The stages fall across the following broad categories:

1. Engineering design to support construction readiness and further enablement of this state significant, Australian-first project;
2. Purchase and delivery of items that are critical to determining the capacity of the Clean Energy Precinct and key commercial drivers for the precinct;
3. The development of the electricity and water supply utilities;
4. The development of storage, distribution and export facilities for clean energy; and
5. The development of clean energy production facilities (e.g., hydrogen production, ammonia production and other forms of energy).

### What stage is the project at?

2023

*Port of Newcastle has undertaken significant industry and community engagement and feasibility investigation since the conceptualisation of this diversification opportunity in 2020.*

*At present (July 2023), the project is progressing toward the Secretaries Environmental Assessment Requirement (SEARs) lodgement stage for a State Significant Development (SSD) with the NSW Government Department of Planning and Environment.*

### **How long will the stages take to complete? When will it be complete?**

*Pending planning and legislative requirements and timeframes, we anticipate that the project will support large scale enablement of the clean energy economy in the Hunter Region within the decade.*

### **Companies in Korea and Japan are listed as exporting partners – what does this mean for local supply?**

*Domestic supply remains a priority. The Clean Energy Precinct project will accelerate clean energy production driving domestic decarbonisation across a range of hard to abate industries, skills and training pathways in Australia enabling clean energy industry development, new jobs for existing (and future) energy industry workers within our region, NSW and across the country. Collaborative Precinct relationships will unlock global export markets with key existing markets of Japan and Korea including with companies Port of Newcastle and Australia already has established export relationships with.*

### **What is involved in producing renewable energy, storing it and exporting it?**

*Producing renewable energy and utilising this energy to produce hydrogen and ammonia for exporting involves a combination of renewable energy generation, conversion and transportation technologies. Developing the necessary infrastructure for the export of hydrogen and ammonia is crucial. This includes constructing terminals, storage facilities, and transportation infrastructure like pipelines, ships, or trucks. Depending on the export destination, infrastructure needs may vary, and specific agreements and logistics arrangements need to be established. Port of Newcastle's Clean Energy Precinct intends to offer best practice infrastructure to support safe renewable energy production, storage and export.*

### **What are the safety risks? Should I be concerned?**

*As with all Port of Newcastle operations, staff and community safety is paramount to the organisation and underpins every decision.*

*Hydrogen and ammonia require careful handling and safety measures throughout the production, storage, and transportation processes.*

*Port of Newcastle are consulting with SafeWork NSW, Department of Planning and Environment and the Office of Energy and Climate Change to ensure all hazards are identified, assessed and mitigated.*

*Port of Newcastle will work as necessary to ensure stringent safety protocols, including leak detection systems, proper training, and adherence to international safety standards, are adopted to ensure the safe export of hydrogen and ammonia.*

## Is hydrogen for ammonia manufacturing safe?

Generally, all port operations pose some level of risk, however the Port of Newcastle is well versed in minimising risk and promoting strong safety culture and management.

The manufacturing and storage of ammonia and hydrogen is considered safe if proper safety measures and protocols are followed. Both ammonia and hydrogen can pose risks if mishandled or stored improperly. However, with appropriate precautions, these risks can be minimised.

Port of Newcastle intends to continue to prioritise community and employee safety and will ensure appropriate risk management and response plans are in place, safety procedures are adopted, training and safe handling management protocols are adopted, and community concerns are addressed.

## How many jobs will this project create?

This project has the potential to create an estimated 5800 jobs and create flow on career pathways for generations of TAFE and University students and re-skilling opportunities for the region's highly skilled workforce.

## How can I ask questions, get more information or raise concerns about this project?

Community, neighbours and industry will be engaged with regularly through all stages of the project. Community will be invited to engage in a variety of consultation sessions throughout the development stages of the project.

To stay informed either:

1. Check our regular updates regarding the progress of this project on the Port of Newcastle website at [www.portofnewcastle.com.au/majorprojects](http://www.portofnewcastle.com.au/majorprojects).
2. Register for our community information sessions by emailing [Energy@portofnewcastle.com.au](mailto:Energy@portofnewcastle.com.au)
3. Reach out to one of our Community Liaison Group representatives to raise concerns or learn more about the project. To find the representative for your local area, visit <https://www.portofnewcastle.com.au/community-and-news/community-liaison-group/>