PORT of NEWCASTLE

CLEAN ENERGY PRECINCT

ENABLING THE **PORT OF THE FUTURE** IN NEWCASTLE

PORT OF NEWCASTLE: AUSTRALIA'S DEEPWATER GLOBAL GATEWAY

WHO WE ARE:

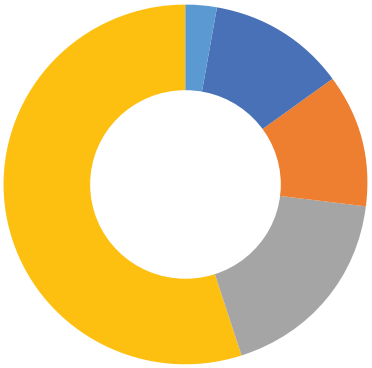
- The largest port on Australia's east coast
- The world's largest coal export port
- Australia's energy port, enabling businesses to successfully compete in international markets.

WHAT WE DO:

- Contribute tens of billions of dollars' worth of trade annually to the Australian economy
- Manage capacity for more than 10,000 ship movements and over 200 million tonnes of cargo per year
- Handle over 25 different types of trade, from grains and coal to fuels and energy infrastructure equipment, and everything in between.

OUR POTENTIAL:

- Significant land available with enviable access to national rail and road infrastructure
- 50% of available deepwater shipping channel capacity
- Clear diversification strategy underpinned by:
  - » our Deepwater Container Terminal
  - » our Environmental, Social, Governance (ESG) commitments; and
  - » our Clean Energy Precinct.



PON's Income Mix 2024

- 12% Coal Property
- 12% Non-Coal Property
- 18% Diversified Trade
- 55% Coal
- 3% Other

PORT OF NEWCASTLE: 2023 AT A GLANCE

TOTAL TRADE VOLUME

152 MILLION TONNES

TOTAL TRADE VALUE

$48 BILLION

4,426 SHIP MOVEMENTS

WORLD'S LARGEST COAL PORT

777 HECTARE SITE

50% AVAILABLE CHANNEL CAPACITY

388ha VACANT LAND

AUSTRALIA'S LARGEST EAST COAST **PORT**

UNDERPIN ALMOST **9,000 JOBS**

5★ GRESB RATING

ECOPORTS CERTIFIED

25 DIFFERENT **CARGOES**

MEALS AND GRAIN EXPORTS

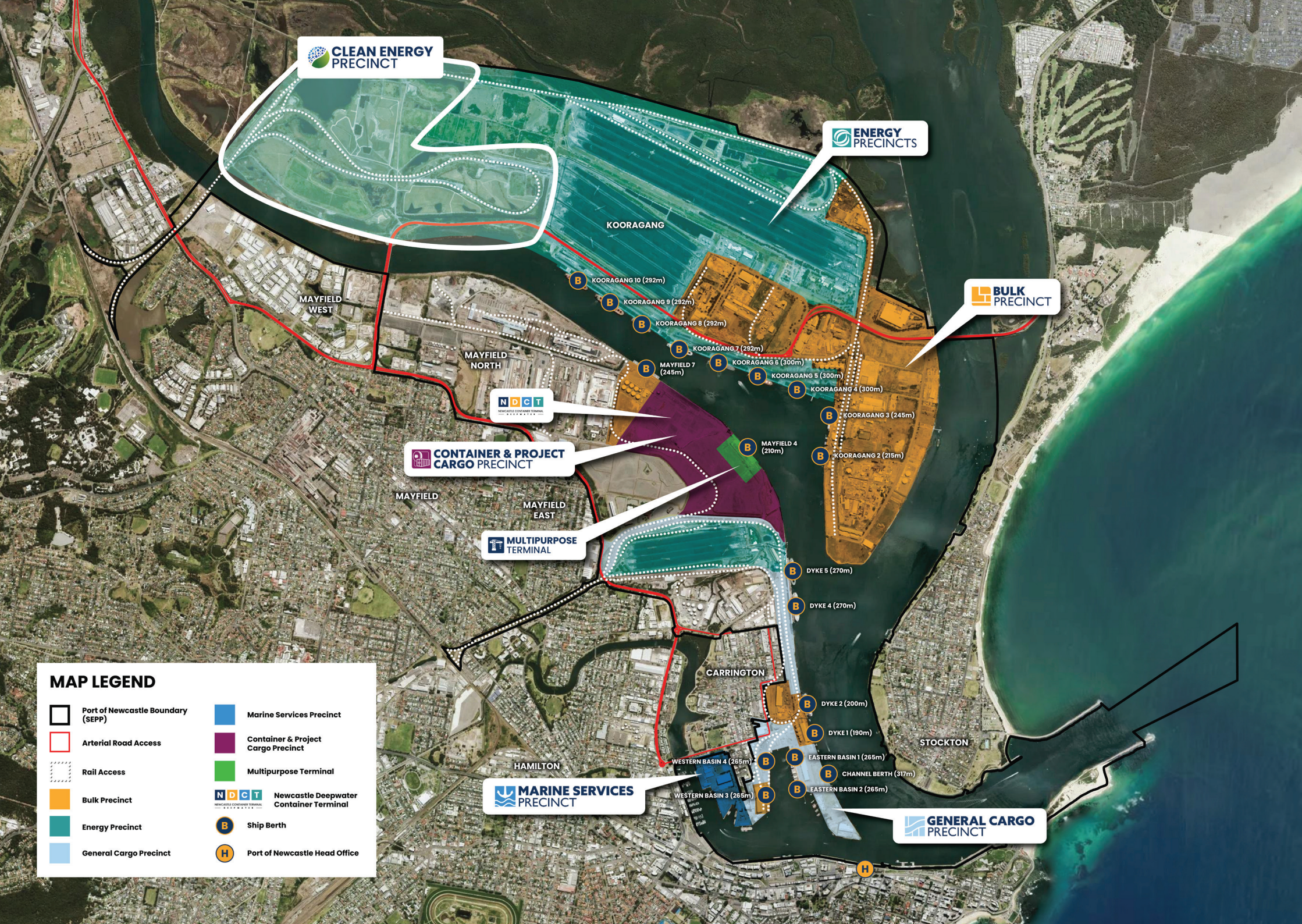
163,841 MASS TONNES

COAL EXPORTS

144,493,142 MASS TONNES

FERTILISER IMPORTS

163,841 MASS TONNES


CLEAN ENERGY PRECINCT
ENERGY PRECINCTS
BULK PRECINCT
CONTAINER & PROJECT CARGO PRECINCT
MULTIPURPOSE TERMINAL
MARINE SERVICES PRECINCT
GENERAL CARGO PRECINCT
KOORAGANG
MAYFIELD WEST
MAYFIELD NORTH
MAYFIELD
MAYFIELD EAST
CARRINGTON
HAMILTON
STOCKTON
KOORAGANG 10 (292m)
KOORAGANG 9 (292m)
KOORAGANG 8 (292m)
KOORAGANG 7 (292m)
KOORAGANG 6 (300m)
KOORAGANG 5 (300m)
KOORAGANG 4 (300m)
KOORAGANG 3 (245m)
KOORAGANG 2 (215m)
MAYFIELD 7 (245m)
MAYFIELD 4 (210m)
DYKE 5 (270m)
DYKE 4 (270m)
DYKE 2 (200m)
DYKE 1 (190m)
WESTERN BASIN 4 (265m)
WESTERN BASIN 3 (265m)
EASTERN BASIN 1 (265m)
CHANNEL BERTH (317m)
EASTERN BASIN 2 (265m)
MAP LEGEND
Port of Newcastle Boundary (SEPP)
Arterial Road Access
Rail Access
Bulk Precinct
Energy Precinct
General Cargo Precinct
Marine Services Precinct
Container & Project Cargo Precinct
Multipurpose Terminal
Newcastle Deepwater Container Terminal
Ship Berth
Port of Newcastle Head Office

CLEAN ENERGY PRECINCT:
BRINGING THE ENERGY FUTURE INTO NEWCASTLE

Port of Newcastle's Clean Energy Precinct will enable the production, storage, domestic distribution, transmission, and international export of clean energy, including hydrogen and green ammonia.

Located on a 220-hectare parcel of land on Kooragang Island, the **Clean Energy Precinct** aims to position Australia as a major global player in hydrogen production and exports, and that the Hunter Region is considered a clean energy powerhouse by 2030.

Port of Newcastle's Clean Energy Precinct has received a $100 million funding grant for hydrogen readiness from the Australian Government, administered by the NSW Government.

With the **Clean Energy Precinct**, Port of Newcastle will be a catalyst for employment, growth, and diversification, including energy to support future growth and reduce reliance on coal.

CLEAN ENERGY PRECINCT:
OUR COMPETITIVE ADVANTAGE

Port of Newcastle's ambition to deliver the Clean Energy Precinct is underpinned by three pillars:

1. Power and water access and existing infrastructure.

2. Unrivalled Port capability, supply chain access, and demand from an existing customer base.

3. Skilled people to support a centre of excellence for a new energy economy in the Hunter.

Three of NSW's top five electricity and gas users are within 20km of the Port.

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.

> *Through the Clean Energy Precinct, Port of Newcastle will support all hydrogen and clean energy projects in the Hunter by providing land, utilities, storage, transport and export infrastructure and services – in turn generating over 5,800 jobs, new educational pathways and expanded economic growth.*
>
> **Craig Carmody - CEO Port of Newcastle**

PORT OF NEWCASTLE
DRIVING A CLEAN ENERGY ECONOMY

CLEAN ENERGY PRECINCT: EXPECTED BENEFITS

The Clean Energy Precinct will make a significant contribution towards the energy future of the Hunter Region, with positive impacts to its economy, environment, and skills market.

> $4.2 BILLION

added to the gross regional product in the Hunter Region by 2040[1]

+5,800

NEW HUNTER REGION JOBS BY 2040[1]

660,000 TONNES

ANNUAL REDUCTION IN DOMESTIC CARBON EMISSIONS[2], EQUIVALENT TO TAKING ABOUT 143,478 PETROL-FUELLED CARS OFF THE ROAD FOR A YEAR

Support ~1.6 gigawatts in renewable energy generation (2), equivalent to powering about 1.7 million average Australian households for a year

~1 million tonnes annual reduction in export carbon emissions [2], equivalent to taking about 217,391 petrol-fuelled cars off the road for a year

PRODUCTION OF AND EXPORT DEMAND FOR GREEN AMMONIA >600,000 KTPA FROM 2030 ONWARDS

Use of 1.6 gigawatts of electricity and 22 megalitres of recycled water with no impact on utilities or our community

RE-SKILLING **16,000** EXISTING MINING EQUIPMENT TECHNOLOGY SERVICES (METS) WORKERS

[1] Based on the number of full-time equivalent job years created during ramp up to 2031. Source: Port of Newcastle Green – Economic Impact Assessment 2022.

[2] Based on indicative demand profiles and volumes figures received from partners by way of Letters of Support. These demand profiles contemplate scaled increments as technology and the industry at large mature.

CLEAN ENERGY PRECINCT: ENVISIONED

WHAT THE CLEAN ENERGY PRECINCT WILL DO:

- Production and export, all in one precinct
- Provide common use, open access, and shared infrastructure, reducing costs
- Drive decarbonisation
- Propel diversification
- Create new low carbon job pathways
- Capture export opportunities
- Support Australia's clean energy economy and the Hunter Region's future prosperity.

PROPOSED PROJECT DEVELOPMENT

Ancillary and civil works

- Site buildings
- Offices and administration facilities
- Internal roads
- Car parking
- Warehousing
- Laydown areas
- Storage yards
- Staging areas
- Clean energy storage facility
- Associated pipeline infrastructure

Electrical

- Grid connection
- Transmission infrastructure
- Substation
- Switchyard

Water and recycled water

- Network connection
- Supply corridors

CLEAN ENERGY PRECINCT

While there will be significant variations once the Clean Energy Precinct becomes a reality, this artist's impression from 2023 provides an idea of how the port of the future may look.

PORT of NEWCASTLE
CLEAN ENERGY PRECINCT

Artist's impression

PORT OF NEWCASTLE
POWERED BY PARTNERSHIPS

Federal Minister Chris Bowen and Port of Newcastle CEO Craig Carmody with the Clean Energy Precinct's supporters. (July 2023)

- Partnerships are critical in supporting Port of Newcastle's Clean Energy Precinct, helping scale up infrastructure and position Australia as a major hydrogen and ammonia producer and exporter by 2030.
- The Clean Energy Precinct has already attracted a broad range of local and international support. It has secured 15 Memorandum of Understanding (MOU) agreements and 15 letters of intent from other organisations.

GOVERNMENT

NSW Government
Port Authority of New South Wales
NSW Government | Department of Climate Change, Energy, the Environment and Water
NSW Government | Transport for NSW
NSW Government | Department of Planning, Housing and Infrastructure
ARTC

PORT OF NEWCASTLE
PROJECT PARTNERS

CLEAN ENERGY PRODUCERS

KEPCO
origin
ORICA

ELECTRICITY

Lumea
Transgrid

WATER

conexa infrastructure partners
Hunter Water

TRANSPORT / STORAGE

TECHNOLOGY

Mitsubishi Heavy Industries

SKILLS AND TRAINING

The University of Newcastle Australia
nier
NSW Government | TAFE NSW
CSIRO

INTERNATIONAL PARTNERS

Platform ZERO
SK ecoplant
Daewoo E&C
KOSPO
KOEN

PORT of NEWCASTLE

CLEAN ENERGY PRECINCT

AUSTRALIA'S DEEPWATER GLOBAL GATEWAY:

DIVERSIFYING FOR THE FUTURE AND **INVESTING** TO SUPPORT THRIVING COMMUNITIES, **LOCAL** JOBS AND A **PROSPEROUS** HUNTER REGION

Headquarters: Level 4 251 Wharf Road Newcastle NSW 2300

CONNECT WITH US AND FIND OUT MORE

+61 2 4908 8200
energy@pon.com.au
www.pon.com.au

August 2024