

# UPDATE #17

[portkemblahydrogenhub.com.au](http://portkemblahydrogenhub.com.au)

Date: 1 April 2022

Busy times at Port Kembla continue.

Busy times at Port Kembla continue. This Port Kembla Hydrogen Hub Update contains information on the following key projects and initiatives:

- NSW Hydrogen Hub Funding – Media Release
- BlueScope Advanced Steel Manufacturing Precinct at Port Kembla secures \$55m grant
- NSW Offshore windfarm update
- Release of the Oceanex offshore wind investment and supply chain report

## **\$4 billion industry response to hydrogen hubs**

28 March 2022

**The Hunter and Illawarra Hydrogen Hubs have received a major boost with more than \$4 billion in potential investment proposed in response to a recent call for expressions of interest.**



Acting Premier Paul Toole said this huge commercial interest shows how much the regions are set to benefit with renewable energy and new low carbon technologies.

"Hydrogen Hubs will provide huge economic benefits for the Hunter and Illawarra, helping to secure jobs of the future," Mr Toole said.

"It also represents a huge export potential for our state, with the international market for green hydrogen expected to meet 24% of the global energy demand by 2050, estimated to be worth \$900 billion."

Treasurer and Energy Minister Matt Kean said the overwhelming response includes private sector plans to develop up to 5900MW of electrolyser capacity, more than eight times our 700MW target.

"The market has spoken. This is an overwhelming level of commercial interest and it shows our policies are sending the right signals to energy investors, making NSW the go to state for energy investment," Mr Kean said.

"Twenty-one individual projects have told us they want to produce almost 268,000 tonnes of green hydrogen each year, which is enough to fuel 26,000 trucks. Hydrogen is integral to decarbonising many parts of the economy, including heavy industry and heavy transport."

The NSW Government has committed \$70 million to accelerate the development of Hydrogen Hubs in New South Wales, starting with the Hunter and Illawarra.

Hydrogen Hubs will be pivotal in helping NSW scale up the emerging green hydrogen industry by working with industry to support innovation and minimise the cost of infrastructure.

To learn more see [Developing hydrogen hubs for NSW](#).

# BlueScope promises steel for first NSW-built wind turbines after securing \$55m grant

[ABC Illawarra](#) By [Tim Fernandez](#)

Posted Tue 15 Mar 2022 at 6:47pm



BlueScope Steel CEO Mark Vassella. (ABC Illawarra: Tim Fernandez)

BlueScope Steel has secured a \$55.4 million federal government grant to upgrade its steelmaking capabilities, including the capacity to build components for wind turbines — a first for New South Wales.

## Key points:

- BlueScope Steel receives a \$55.4 million grant to establish a new steelmaking precinct at Port Kembla
- The precinct includes a new plate steel mill capable of producing steel for use in renewable projects such as wind turbines
- Energy Minister Angus Taylor says the funding will shore up the supply of Australian steel for use in the renewable and defence sectors

The grant will contribute to setting up a \$217 million advanced steel manufacturing precinct at the Port Kembla Steelworks.

The precinct is forecast to employ hundreds of people in steel manufacturing once operational, as well as more than 1,000 indirect jobs.

"[It is] a fantastic opportunity for the region to benefit from further investment in the steelworks but also investment in capability that currently doesn't exist in New South Wales," BlueScope Steel chief executive Mark Vassella said.

"Wind towers are typically imported into NSW, they are made in other parts of Australia, but they are not made in NSW."



Mr Vassella says NSW imports wind turbine components from other states or countries. *(ABC Illawarra: Tim Fernandez)*

[In 2020, BlueScope pledged \\$20 million](#) towards building energy infrastructure supply chains and reducing NSW's reliance on importing equipment and resources.

The new precinct proposal includes an overhaul of the existing plate mill, which was built in the 1960s, as well as the development of a pipe mill capable of manufacturing the steel commonly used in renewable technology components like turbines.

"This is about improving the quality of the plate we will produce that will allow us to use it in applications like defence and wind towers," Mr Vassella said.

"We will also be working with partners looking at how we develop a wind tower industry."

## Nation's manufacturing 'destiny'

The funding is part of the federal government's \$1.5 billion manufacturing fund [announced by Prime Minister Scott Morrison in September 2020](#).

With defence shaping up as a key election issue, Energy Minister Angus Taylor visited BlueScope for the announcement, where he said the funding was important for Australia's sovereign manufacturing capability.



Energy Minister Angus Taylor says the federal grant will ensure sovereign capacity to manufacture steel for military vehicles. (ABC Illawarra: Tim Fernandez)

"That is what this announcement today is all about, a \$55 million contribution to a \$217 million project focused on making sure that we are able to produce the products that are needed so we have control over our own destiny in Australia," Mr Taylor said.

"Having access to high-quality plate for armoured vehicles and for patrol boats in an environment like we are facing today is crucial.

"As well as making sure we have the steel we need for the renewables build that is going on around the country."



# Wollongong, Newcastle leading the way for offshore wind farms in NSW

[ABC Illawarra](#) By [Nick McLaren](#), [Lindsay McDougall](#), and [Melinda James](#)

Posted Thu 17 Feb 2022 at 2:55pm



The Arkona wind farm operating in the Baltic Sea. (Supplied: Eskil Eriksen)

The answer to the growing demand for zero-emission energy is blowin' in the wind, to quote Bob Dylan, if the burgeoning growth in Australian offshore energy proposals is any indication.

## Key points:

- OceanEx and Bluefloat/Energy Estate are vying to build offshore wind farms in the Illawarra and Hunter
- The most advanced proposal in Australia, the Star of the South off eastern Victoria, could be completed by 2028
- The projects are gearing up to start providing jobs in areas such as steel fabrication, marine logistics, warehousing

At least 18 offshore wind farm proposals are on the drawing board, made possible due to the federal government passing its crucial Offshore Electricity Infrastructure Bill late last year.

The most advanced proposal, the Danish-owned 2,200-megawatt Star of the South project off eastern Victoria, with transmission lines mapped to the Latrobe Valley, could be completed as soon as 2028.

Plans are also underway for Western Australia, South Australia and multiple other sites in Victoria, while New South Wales has four high-profile schemes: two in the Hunter and two in the Illawarra.

"We certainly see the Illawarra and Newcastle-Hunter as the two stand-out Australian projects," OceanEx chief executive Andy Evans said.

OceanEx, which also has projects for Ulladulla and Eden on the NSW South Coast and Bunbury in WA, is favouring Wollongong and Newcastle because of their links to heavy industry and a deep-sea port.

"Obviously you have got decades in steel manufacture production, logistics, engineering; it's really quite unique compared to the rest of the world to have such a strong skill set and region so close to a deep-water port in particular," Mr Evans said.



Denmark's first offshore wind farm was built just nine years ago. (ABC)

It's a view backed by Nick Sankey from BlueFloat Energy, which, together with Energy Estate, has plans for a 1,600MW floating wind farm off the Illawarra coast, as well as similar-sized plants for the Hunter, Ulladulla and Victoria's Gippsland Coast.

He says like the OceanEx scheme, BlueFloat's Wollongong Offshore Wind Project would use floating turbines up to three times larger than those used on land.

"We are moving now towards floating technologies where the individual turbines, and we are talking around about 15MW per turbine, will sit floating on the water with big counterweights to weight them down and they will be secured by mooring lines," Mr Sankey said.

"The Wollongong project would potentially contain over 100 of the turbines all situated separately around in the area.

"They will be connected to two floating substations which are then connected in a cable which comes onshore and connects to the electricity grid around the Wollongong region.

## Employment opportunities

The offshore wind farms have the potential to create considerable employment opportunities, both in the ports and at sea during construction and in so-called backroom office jobs.

"It's a real variety [of jobs] welding, fitting and turning, everything involved in steel production, steel fabrication, so shaping the steel to what's required, marine logistics based at the port and out to sea, land-based logistics," Mr Evans said.

"The support jobs are really detailed as well, whether it's legal, finance, administration, warehousing, a real variety. It's really broad, we will really capture a lot of people."

OceanEx predicts 3,000 direct jobs over a four-year construction period for one project alone, with around 300 permanent ongoing local jobs.



The Walney Extension offshore wind farm off the coast of Blackpool, Britain. *(Reuters: Phil Noble)*

Sven Teske from the University of Technology Sydney's Institute for Sustainable Futures was part of a team analysing national offshore wind resources and grid connection possibilities plus access to port facilities.

"Port Kembla had good wind conditions, a strong connection to the grid, a deep working harbour and some space in the harbour," Professor Teske said.

Planning is also underway in Wollongong and Newcastle for emerging low-emission industries seeking new clean energy as coal and gas are phased out.

"We actually see offshore winds not only as a normal electricity source for the electricity demand we have currently in Australia, but also to produce hydrogen or ammonia or other synthetic fuels," he said.

## Environmental considerations

The offshore wind farms will need to address concerns around visual impact as they will be visible from the coast, and that will not be popular with some people.

"Yes, they will be visible," Mr Sankey said.

"We are currently conducting some visual simulations to assess what they would look like from the shoreline, and that will be part of determining how far out these turbines will go."

Detailed environmental assessments would also be needed to determine impacts on marine life, with the fishing and other industries likely to be affected.



Mr Evans from OceanEx said it had commissioned detailed environmental studies.

"Obviously we're aware of other stakeholders — fishing and Defence and the like — so our role as good developers even at this early stage is to try to minimise any of those impacts."



The North Hoyle offshore wind farm in the Irish Sea. *(Reuters: Phil Noble)*

Professor Teske says like any other large-scale infrastructure project, environmental and cultural heritage needs to be assessed, evaluated and monitored.

He says assessments conducted overseas are showing offshore wind farms and national parks can coincide.

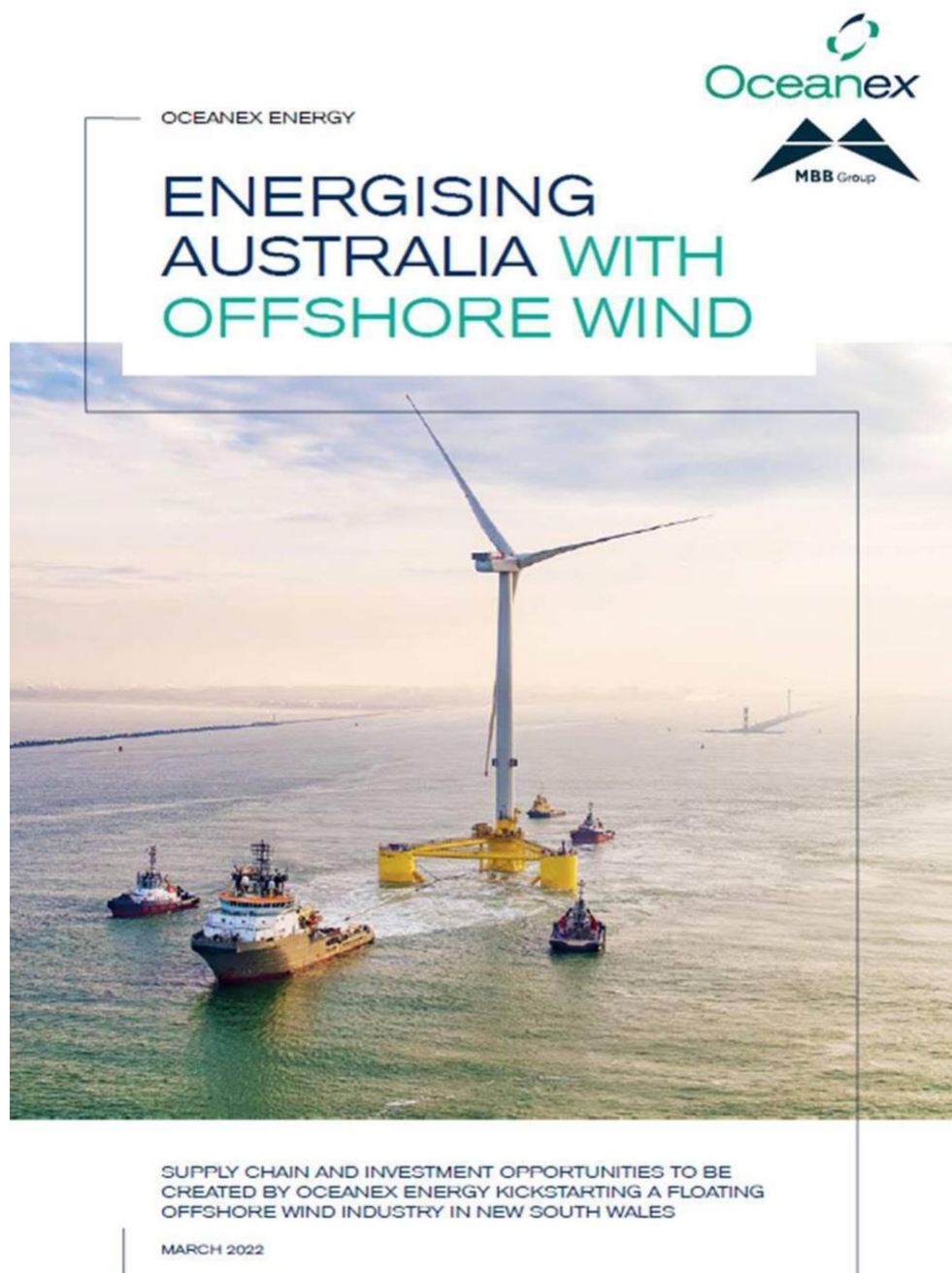
"I am originally from Germany and there are quite a few offshore wind farms built close to national parks in the last 10 years and there are no problems with that," he said.

"But it's very important to talk to the local population, the local people, to actually get their buy-in."

# OCEANEX SUPPLY CHAIN AND INVESTMENT OPPORTUNITIES REPORT

Oceanex has released the above report that can be downloaded from their website [here](#).

The 130 page report provides detailed information on why NSW is a superior location for offshore wind investment. It includes several immediate actions that need to be undertaken to realise the significant opportunities for developing a new industry in the State.





# Executive Summary

"Australia has an opportunity to be an energy superpower, New South Wales will lead the country..."

Our major trading partners see as part of their energy future, this state has the skills, infrastructure and renewable energy resources to compete globally."

PREMIER of NSW, HON. DOMINIC PERROTTET MP

## Benefits for NSW and Australia from Oceanex's NSW Offshore Wind Portfolio (4 Projects, Total 8,000MW)

**\$30b+**

Estimated capital expenditure for 4 priority wind projects (8,000MW) and \$200m+ development expenditure per project for a five year period

**3,000+**

Estimated direct jobs per project during construction period of 3-4 years

**35-65%**

Estimated local content used to construct offshore wind during construction period

**300+**

Estimated direct jobs per project during the operations and maintenance period of 30 years

## FURTHER INFORMATION

For further information about the Port Kembla Hydrogen Hub, please visit the Hub [webpage](#) or contact:

**Nigel McKinnon**

**Deputy Director, Illawarra-Shoalhaven**

Regional Development Branch | Department of Regional NSW

**M** 0418 259 055 | **E** [nigel.mckinnon@regional.nsw.gov.au](mailto:nigel.mckinnon@regional.nsw.gov.au)

Level 1, Block F, 84 Crown St, Wollongong NSW 2500

[nsw.gov.au/regionalnsw](http://nsw.gov.au/regionalnsw)

