

August 2022



Project overview

Alinta Energy is investigating the development of a **1000MW offshore wind farm** near Portland in Victoria.



The Spinifex Offshore Wind Farm could supply the nearby Portland Aluminium Smelter with up to **100 per cent renewable energy** and connect into the east coast electricity grid.

Powering the community

100 per cent renewable energy would be a significant step towards decarbonising Victoria's grid, as the wind farm would produce around 10 per cent of the state's demand and the smelter currently uses around 10 per cent of the state's electricity.

The Spinifex Offshore Wind Farm would **bring long term economic benefits to the region**. It has the potential to further improve the long-term viability of the Portland smelter, the largest employer in the region with about 470 direct employees and 160 contractors.

The project would also create more than 1000 jobs during construction and 100 more in operations, with significant flow on effects to the local regional economy.

Why Portland?

Various sites around Australia were assessed against specific criteria and Portland was by far the most attractive because of these

5 attributes

It is very windy

which means we can harness more wind energy and convert it to electricity



Portland Aluminium Smelter

is a potential customer for the electricity produced by the project and working with us to establish the feasibility of the project



There is an existing high voltage substation

at the smelter that the project could connect to, so we would not need to build long transmission lines over private land to access the grid



The surrounding ocean environment has great potential

for an offshore wind farm



There is an existing all-weather deep water port

that could support development, construction and operational activities



Project Specifics

COMPONENTS

The project will involve wind turbines and subsea array cables connecting to an offshore high voltage substation and then subsea export cables connecting to an existing substation at the Portland Aluminium Smelter.



LOCATION

10-30km

from the Portland shoreline in Victoria's south west



INVESTIGATIONS

Final project area will be confirmed after various investigations are undertaken to determine the wind farm layout



AREA

Approximately **700km² has been identified** for investigation but the final footprint is expected to be an area less than half that size

THE PROJECT IS IN THE PRE-PLANNING PHASE

This involves investigations regarding the wind resource, ocean conditions and environmental and social constraints, informed by early engagement with key stakeholders, including local Traditional Owners and the community.

Legend

Investigation area

Proposed subsea cable

Victorian waters



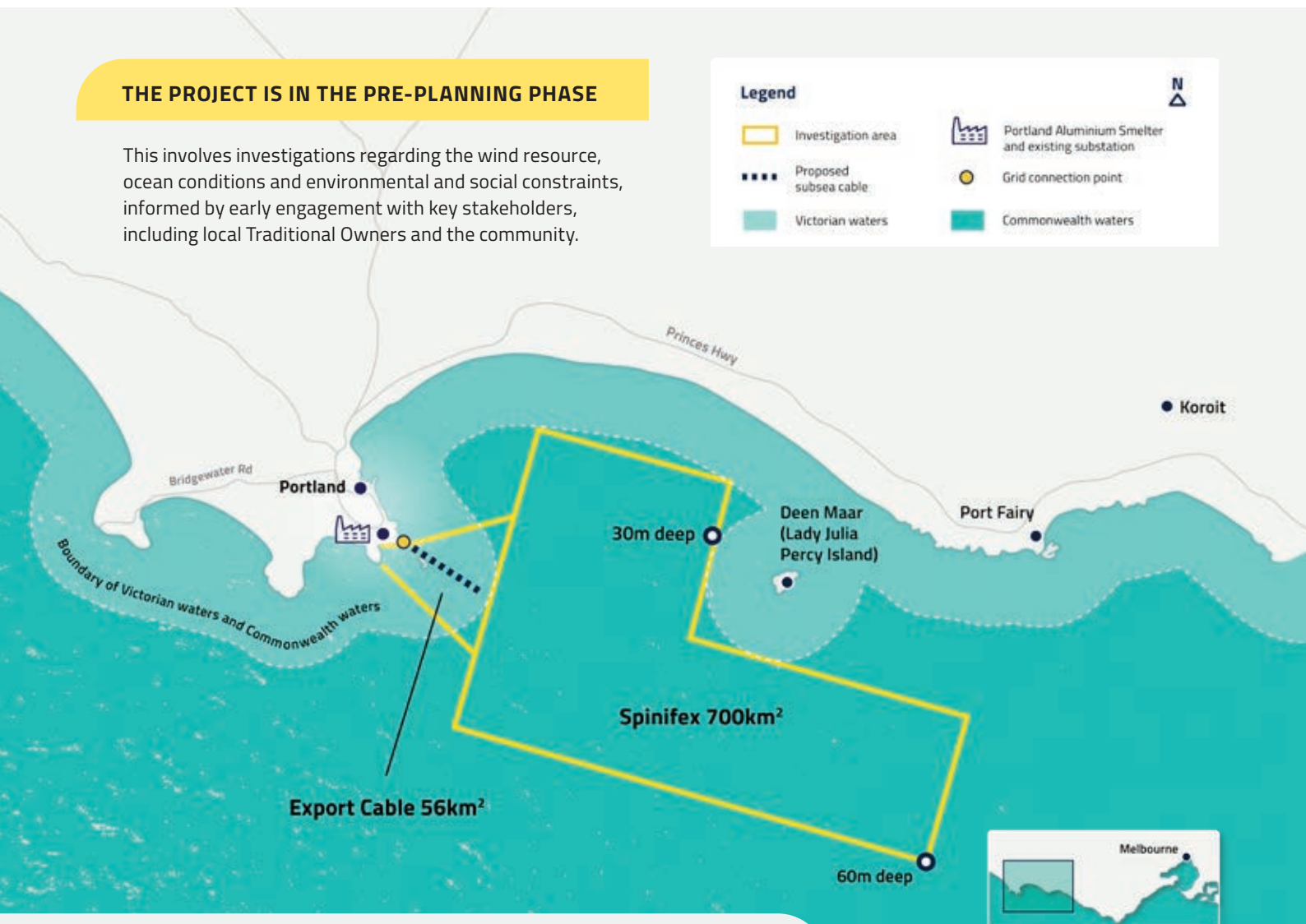
Portland Aluminium Smelter and existing substation



Grid connection point



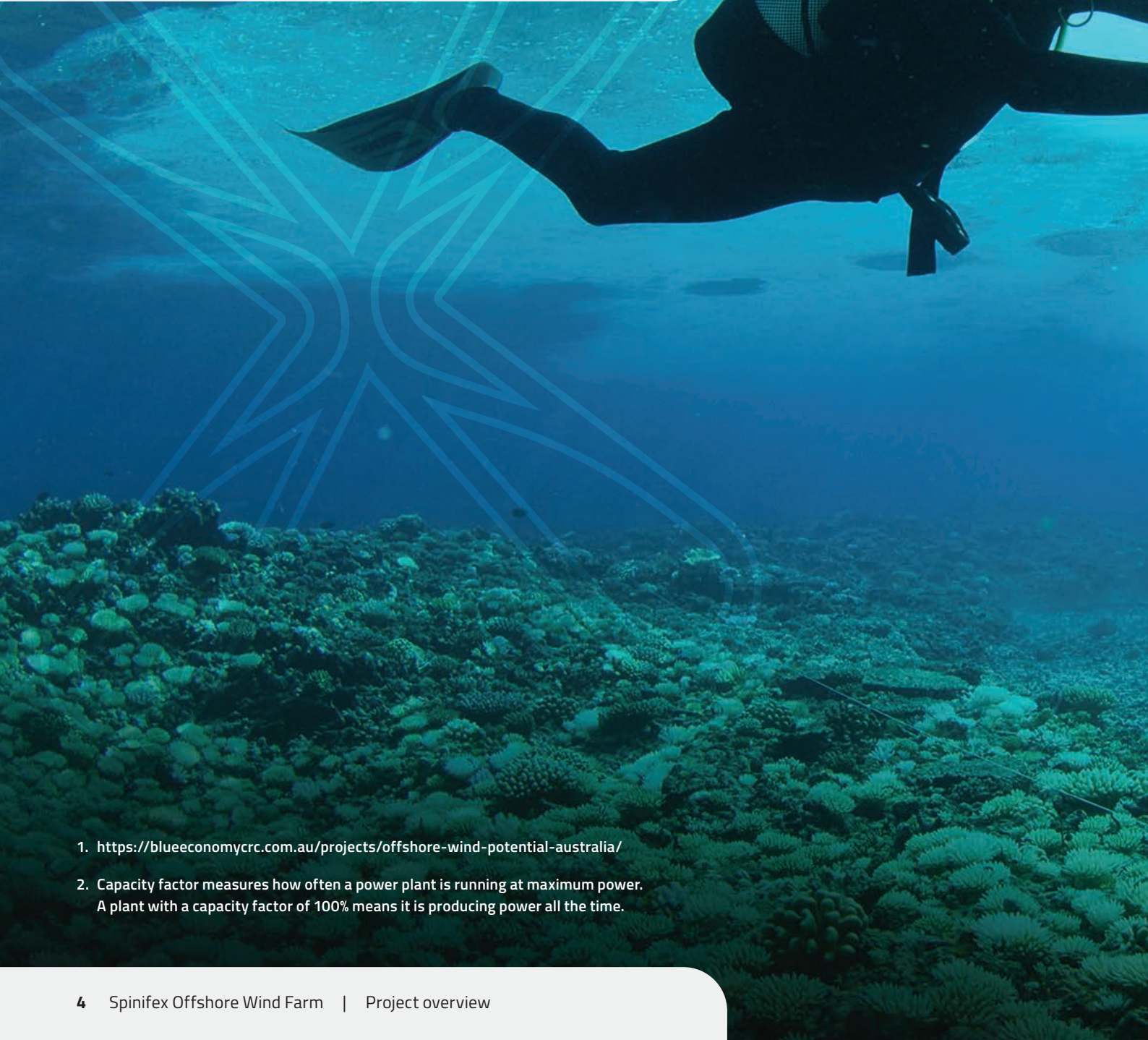
Commonwealth waters



World class wind resource

Western Victoria is renowned for its high-quality wind resource

On shore wind sites in Moyne, Corangamite and Golden Plains are highly sought after by developers. The high-quality onshore wind resource is also reflected offshore. According to the Blue Economy Cooperative Research Centre¹, a 55 per cent capacity factor² could be achieved 25km from the Portland shoreline.



1. <https://blueeconomycrc.com.au/projects/offshore-wind-potential-australia/>

2. Capacity factor measures how often a power plant is running at maximum power. A plant with a capacity factor of 100% means it is producing power all the time.

Timelines

Environment
and social
investigations
and approvals

2022 – 2025

Construction
and commission

2025 – 2027

Operations

2027 – 2057

A great customer

The Portland Aluminium Smelter is responsible for 10 per cent of Victoria's energy load and is looking at ways to decarbonise their operations. This requires large scale renewable infrastructure that is not currently available. An appropriately sized offshore wind farm, using the high-quality wind resource in the region would potentially be able to provide the smelter's average annual energy needs.

Alinta Energy and the Spinifex project have established a Memorandum of Understanding with the Portland Aluminium Smelter **to investigate the possibility of the wind farm supplying electricity to the smelter** with any excess being exported to the National Electricity Market (NEM). While Alinta is funding development activities, the Portland Aluminium Smelter is providing resources to support the technical, commercial and engagement workstreams.

An ideal location

Of all the locations along the Victorian coast, **Portland Bay is the only location near a potential load and high voltage grid connection.** The Portland Aluminium Smelter is the largest energy user in proximity to the open ocean in Victoria. The associated switchyard at the smelter site is perfectly situated for potential offshore electricity projects to connect to, being about 2km from the coastline.

Alinta Energy has also commenced discussions with the Port of Portland regarding the Spinifex project, given the opportunities an existing port brings to offshore electricity projects and the opportunities the offshore wind industry may provide for the port. A Joint Working Group has been established to discuss utilising port land for the grid connection, construction and operations, and allowance for shipping lanes within the wind farm design.

Portland Aluminium Smelter, Portland Victoria



Well known and trusted developer

Alinta Energy is committed to net zero greenhouse gas emissions by 2050 and underwriting or directly investing in 1,500MW of large-scale renewable energy by 2025, including solar power, battery storage and major wind farm operations.

Alinta Energy recently built WA's largest wind farm, the Yandin Wind Farm, and Australia's largest remote solar project – the Chichester Solar Gas Hybrid project.

Alinta Energy employs



800
people

Alinta Energy is committed to net zero greenhouse gas emissions



by
2050



Putting local communities at the heart of development

Alinta Energy is committed to operating transparently and respectfully. We respect the rights, interests, aspirations, and knowledge of the local community in and around the Portland area. **We will engage openly, inclusively, and meaningfully. We will thoroughly investigate cultural, social, environmental, and economic uses and values within the areas potentially impacted by the project.**




This will drive well informed, collaborative decision making from the very early initial design phase and throughout the development and operation of the project. Early discussions have already commenced with local Traditional Owners, fishing, tourism and industry groups and government authorities. We have a comprehensive consultation plan to take us through to the next phase of development.



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CONTACT

If you want to find out more about the project, provide feedback or get involved in upcoming consultation opportunities:

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