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Offshore wind could power Portland aluminium smelter

On behalf of the Australian Government, the Australian Renewable Energy Agency (ARENA) has today announced \$1.5 million in funding to Spinifex Offshore Wind Farm Pty Ltd (a wholly owned subsidiary of Alinta Energy Ltd) to conduct a wind resource assessment and accelerate early stage development activities for a 1,000 MW offshore wind farm project off the coast of Portland, Victoria.

The offshore wind farm is proposed to be connected to the National Electricity Market (NEM) via the existing substation at the Portland Aluminium Smelter and supply renewable electricity to the smelter which will decarbonise its operations.

The smelter has capacity to produce approximately 358,000 tonnes of aluminium per annum (more than 20% of national aluminium production) and represents approximately 10 per cent of Victoria's total electrical demand. The wind farm aims to demonstrate the direct integration of variable renewable energy generation with a large, continuous, industrial load.

This \$3.47 million project is phase 1 of Spinifex's proposed development pathway for the wind farm and aims to improve understanding of its commercial viability. The project includes scope to procure and deploy land-based Light Detection and Ranging (LiDAR) equipment to validate the wind resources at the proposed Portland site. Spinifex will also conduct stakeholder and community consultation activities and begin scoping activities for relevant planning and environmental studies required under the *Offshore Electricity Infrastructure Act 2021*.

The development of offshore wind farms internationally has accelerated over the past decade. Offshore wind farms benefit from higher capacity factors, increased turbine size and efficiency, as well as an increased site availability by avoiding onshore land constraints.

The [Offshore Electricity Infrastructure Act 2021](#) commenced on June 2. There are currently over 20 offshore wind projects in early stages of development in Australia.

ARENA CEO Darren Miller said this project would be the first time ARENA has funded a project which proposes to directly integrate variable renewable energy with an aluminium smelter, supporting the transition to low emissions metals.

"Metals production, especially aluminium, represents one of Australia's most energy intensive industries. We have a real need to help reduce emissions from smelters, which require a steady and sizeable supply of electricity to operate. Offshore wind could be a potential part of the solution space to this problem," Mr Miller said.

"Further, the early stage wind resource assessment of the Spinifex project will provide the industry with valuable insights regarding commercial, technical and regulatory aspects of offshore wind developments in Australia.

Alinta Energy MD & CEO Jeff Dimery welcomed ARENA's support and emphasised the project's unique potential.

"Spinifex has terrific potential because the region has strong wind and the project has a ready-made grid connection point, a potential customer, a port, and suitable topography. Given the offshore wind industry is in its infancy, the support from ARENA will be critical to reaching the next stage," he said.

For more information on the project, visit arena.gov.au/projects.