



Committee Secretary
Senate Standing Committees on Environment and Communications
PO Box 6100
Parliament House
Canberra ACT 2600

SUBJECT: Submission to “Offshore Electricity Infrastructure (Regulatory Levies) Bill 2021 and Offshore Electricity Infrastructure Bill 2021”

13 September 2021

Dear Senate Standing Committees on Environment and Communications,

On behalf of the Global Wind Energy Council (“GWEC”), thank you for the opportunity to make a submission to the Offshore Electricity Infrastructure (Regulatory Levies) Bill 2021 and Offshore Electricity Infrastructure Bill 2021 (“the Bill”).

GWEC is a non-profit industry association representing wind power around the world. We provide research and analysis on wind power in more than 80 countries, and our members represent more than 1,500 companies, organisations and institutions across the industry value chain.

We support the introduction of the Bill into government by The Hon Angus Taylor MP, Minister for Energy and Emissions Reduction, as the first step to unlocking Australia’s vast and untapped offshore wind energy potential. This is a critical step for Australia to move from development plans on paper (of which there are around 10 large-scale offshore wind farms under development, including Star of the South) to getting steel in the water by 2030.

A global [mapping exercise](#) commissioned by GWEC this year found that Australia’s Exclusive Economic Zone is home to 4,693 GW of offshore wind technical resource potential (the 6th largest in the world), including 1,572 GW of fixed-bottom offshore wind potential and 3,391 GW of floating offshore wind potential. **Exploiting just 2% of Australia’s technical resource would provide nearly double the entire generation capacity of the National Electricity Market.**¹

Growth of offshore wind globally is set to rapidly accelerate, driven by falling costs, continuing technological innovation and collective public ambition to secure a sustainable power mix. GWEC is forecasting 270 GW of offshore wind capacity worldwide by 2030, with potential for Australia to deploy more than 3 GW within this decade if enabling policy and regulation like the Bill is put in place.²

¹ <https://www.aer.gov.au/wholesale-markets/wholesale-statistics/annual-generation-capacity-and-peak-demand-nem>

² <https://gwec.net/world-installs-6-1gw-of-offshore-wind-in-2020-led-by-china/>



As an abundant and scalable clean energy resource, offshore wind can support Australia's energy security and cost-efficient transition goals. In Europe the sector has matured to where tender prices are equal to or below wholesale electricity prices. New markets in China, US and Taiwan are seeing prices fall dramatically. Offshore wind markets are also emerging in Japan, South Korea, India and Vietnam and more will follow.

Offshore wind is also an incredibly efficient and productive energy resource, with capacity factors higher than any other renewable energy technology. Fixed-bottom offshore wind projects are expected to reach average annual capacity factors nearing 50% by next year, while floating wind projects have already achieved average factors of 57%.³ Australia is blessed with world-class wind speeds and potential to deploy **both offshore wind technologies, which would out-compete the current coal and gas (both OCGT and CCGT) technologies on the national grid by capacity factor and cost.**⁴

With more than 35 GW of offshore wind installed worldwide, this industry has already created hundreds of thousands of jobs, revitalised port communities, generated a diverse supply chain and invested billions of dollars into local economies. For example, the US Department of Energy's National Renewable Energy Laboratory estimates that the country's 30 GW offshore wind target by 2030 could trigger nearly US\$ 100 billion in capital investment this decade.⁵ **There is no doubt that Australia can capitalise on the opportunity to develop an offshore wind sector for significant economic growth and inward investment.**

Offshore wind's diverse and highly skilled value chain offers enormous socioeconomic benefits at state and federal level. A study by the International Renewable Energy Agency has found that a typical 500 MW offshore wind project will generate around 10,000 jobs (i.e. one-year FTEs) over its 25-year project lifetime.⁶ **Many of these jobs could leverage Australia's existing supply chains in manufacturing, construction, operation and maintenance, while others offer a green reskilling opportunity to workers in synergistic sectors such as offshore oil and gas.**

The quality and size of Australia's offshore wind resource is such that it could export renewable hydrogen to other markets e.g. Japan and elsewhere at massive scale. **This would create a huge positive balance of payments to the Australian economy.**

GWEC welcomes the Bill's outline of a regulatory framework that is required to cover the full project lifecycle, from development to decommissioning. A clear and transparent framework for licensing and permitting, for instance, will help to mitigate development and litigation risk for project developers. Clarity around the procedures for grid connection and cabling will also ease project development, while integrated ocean planning and a robust government-led marine spatial

³ <https://www.irena.org/publications/2018/Sep/Offshore-innovation-widens-renewable-energy-options>; <https://ieefa.org/equinors-floating-offshore-wind-project-in-scotland-posts-57-capacity-factor-in-2020/>

⁴ "Wholesale electricity market performance report 2020," Australian Energy Regulator, 2020.

⁵ <https://www.nrel.gov/docs/fy21osti/80031.pdf>

⁶ <https://www.irena.org/publications/2018/May/Leveraging-Local-Capacity-for-Offshore-Wind>



planning (MSP) process will work to reduce cross-sector conflict between different ocean users. Of high importance are strong environmental and social impact assessment procedures, as well as the application of health and safety standards as the offshore wind sector expands.

GWEC welcomes the Bill's progress in these areas, as well as its recognition (in the Explanatory Memorandum) of the importance of public and private consultation. **There are many lessons to be learned from the international offshore wind experience to date, from licensing regimes to stakeholder consultation.** In particular we can channel the lessons learned in mature and new markets and adapt them to the political and fiscal backdrop in Australia. This will, as we have seen elsewhere, accelerate the adoption of offshore wind.

I chair GWEC's Global Offshore Wind Task Force, which brings together the leading private sector investors in offshore wind, and we are particularly keen to assist Australia in this regard.

The advancement of the Bill will be crucial to ensuring Australia can secure the benefits in job creation, industrial and port development and economic growth already delivered by offshore wind around the world. Thank you for the Committee's attention and consideration of this submission. GWEC is available for any further support or information via my email below.

Yours faithfully,

Alastair Dutton

Special Advisor and Chair of the Global Offshore Wind Task Force
Global Wind Energy Council
