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Submission in response to proposed Indian Ocean (off Bunbury, Western Australia) offshore wind area

The Clean Energy Council (CEC) welcomes the opportunity to make a submission on the proposed Indian Ocean area off the coast of Bunbury for offshore renewable energy projects as published by the Department of Climate Change, Energy, Environmental and Water (the Department).

The CEC is the peak body for the clean energy industry in Australia, working with close to 1,000 of the leading businesses operating in renewable energy and energy storage. As the peak industry body for offshore wind, we represent over 60 companies that are actively contributing to developing offshore wind in Australia, including many of the companies recently awarded Feasibility Licences in the Gippsland region.

We are committed to accelerating Australia's clean energy transformation and recognise the critical role offshore wind will play in decarbonising the nation's electricity network. Offshore wind also creates a significant opportunity for investment and economic development: benefits will flow directly from the construction and operation of projects that feed electricity into Australian grids, while also supporting the growth of a hydrogen export industry, which has the potential to contribute to significant amounts of export revenue as our exports of coal and gas decline.

The Indian Ocean proposed area presents strong opportunity for the development of offshore wind in Western Australia and the CEC supports inclusion of this region. The remainder of this submission will expand further on key considerations for assessing the chosen area as well as the arguments presented by the Department in supporting information as to why the Indian Ocean proposed area should be declared an area for offshore wind development under the *Offshore Electricity Infrastructure Act*.

The Indian Ocean proposed area and Bunbury region

The Indian Ocean proposed area is well suited to support offshore wind in Australia as it has strong and consistent winds, is in an area with a high and growing electricity demand, as is supported by existing transmission infrastructure and port capabilities. It also presents a strong opportunity for the West Australian economy through employment opportunities in both construction and ongoing maintenance phases, while also supporting retiring industries.

With high capacity factors between 44 and 52 percent¹, the Indian Ocean proposed area has already proved of strong interest, with several projects already proposed in the region from world leading developers.

Moreover, there is strong demand for a large volume of new clean capacity to be added to Western Australia's South West Interconnected System (SWIS), with the SWIS Demand Assessment finding that that approximately 50GW of new renewable electricity and storage is required by 2042².

Dimensions and suitability of the draft area

It is welcome to see the Indian Ocean proposed area is of a generous size, at approximately 7,674 square kilometres, with potential power generation of 20GW. We also recognise the Departments decision to establish the set the area 20km from land, which we assume is to counter previous community concern in relation to visual amenity.

Given this decision to set the area further from land, only half of the proposed area will be suitable for future fixed bottom foundations, that is in depths of less than under 80 metres.

The technology and global supply chains for fixed bottom wind turbines are well advanced and commercially mature, and this maturity also extends to installation vessels and an experienced workforce. Therefore, as a new market looking to establish, it is imperative we ensure we maximise the suitable seabed for fixed bottom turbines by ensuring the final declared area encompasses all the seabed in depths of under 80 metres.

It is worth noting, the current maximum depth for fixed bottom foundations is 60 metres, yet it is expected that as advancements in offshore turbine fabrication and installation vessel capabilities occur in the coming years, that this maximum depth could increase to between 70 and 80 metres.

We also expect that in the draft area there will be interest for development of floating offshore windfarms. However, approximately 35 percent of the draft area is in water depths between 200 to 1,000 metres. Beyond 200 metres, the additional technical complexity for floating offshore wind becomes uneconomic and we would expect that if proponents did explore project feasibility in these areas, they would struggle to reach final investment decision.

If an area is declared that is suboptimal, it will risk decreasing interest in the Australian offshore wind market, as investment remains abroad in more suited conditions, and increases the risk of projects not reaching final investment decision due to increased costs from suboptimal conditions. All of which could further exacerbate community trust and concern regarding development of offshore wind energy in Australia.

¹ Blue Economy CRC, *Offshore Wind Energy in Australia*, July 2021, p. 60

² Government of Western Australia, *SWIS Demand Assessment 2023 to 2042*, p. 5

To ensure the Indian Ocean declared area can attract necessary investment opportunities and increase the likelihood of success for projects, we would encourage the Department to ensure no reductions in size are made to the area in depths of less than 80 metres (to maximise fixed bottom sites), while also ensuring suitable sites for floating technologies of less than 200 metres are also prioritised.

Restrictions on the area

We support the Department's decision to not apply height restrictions in the Indian Ocean proposed area. Restrictions on turbine heights, such as were applied in the Hunter region, limit the turbines that can be used, and in some cases, may make projects unviable as they are unable to obtain discontinued models of turbines from manufacturers that meet the requirements. As the industry progresses with haste, we must ensure that any areas declared to support this offshore industry can be developed in alignment with contemporary technologies and turbines.

Similarly, should any restrictions be applied based on environmental grounds, there would need to be paired with clear and detailed analysis that is shared with the industry.

Proximity to existing transmission and load

It is welcome to see the Indian Ocean area situated close to the large industry loads of Kwinana and Collie, however, to ensure delivery of offshore wind generation to these areas it would require substantial and considered transmission upgrades.

The CEC urges the Department as well as the Western Australian Government to continue working together to ensure transmission capabilities connecting offshore generation into onshore networks are not overlooked in the early planning phases. Ensuring new transmission is built in advance of offshore developments will require coordination between government departments and network operators, and in consultation with developers. Ultimately helping to avoid delays in connecting offshore wind capacity.

This not just includes transmission planning to connect the offshore wind farms directly into the SWIS grid, but to ensure that the additional capacity generated by offshore regions is well considered in long term planning of the Wholesale Electricity Market (WEM) through the SWIS Demand Assessment planning process.

Proximity to Ports

The proposed region is well located with access to several ports including Kwinana and Bunbury. While upgrading of these facilities would be required to accommodate offshore wind infrastructure, these well-established ports will be able to provide deep-water access and skilled maritime personnel to support delivery and ongoing maintenance for the offshore wind industry.

Additionally, these ports could support ongoing operations and maintenance activities for offshore wind farms in the proposed area, further supporting employment.

The CEC would recommend consideration for how to best support development of offshore wind construction ports that would be required to establish offshore wind in the Indian Ocean offshore area as early in the development process as possible. Ports will be critical in achieving the

national target of 82 percent renewable energy by 2030, and without early and proactive development of Australian ports, clean energy infrastructure will potentially face bottlenecks due to insufficient capabilities at import terminals, dramatically increasing project costs and delivery times, and deterring foreign investment.

In line with this, it has been welcome to see the eagerness to support this new industry in the region through early industry coordination through groups such as the Bunbury Geographer Economic Alliance. Highlighting the regional willingness to support new industry.

The award process and other offshore regions

We recognise the extensive workload being undertaken by the Department, the Offshore Infrastructure Regulator and NOPTA to enable offshore wind deployment in Australia, which has already seen extensive interest from offshore wind developers both domestically and internationally. We are concerned however with the lack of clarity on timing of remaining feasibility award processes and future offshore area opportunities.

Given the extensive timelines and substantial cost, offshore wind developers are eager for as much information as possible at the earliest time to ensure they make the best decision for their entity. With the first Feasibility Licences now awarded for the Gippsland region, and the Hunter Feasibility Licence process in train, along with other proposed areas still yet to be formally declared or Licences issued, it is challenging for developers to determine the suitability of additional regions such as the Indian Ocean. The CEC and our members would welcome timelines for award for existing and future regions, as well as clear capacity guidance (proposed megawatts or square kilometres) for yet to be declared areas.

We also support the continued partnerships with Traditional Custodians of land and waters throughout the offshore wind area declaration and Feasibility Licence award process. Given the connections to Sea Country present in the Indian Ocean proposed area, we see the ongoing consideration and engagement with West Australian Aboriginal communities as imperative to establishing an equitable and socially sustainable industry for the long term.

As always, the CEC welcomes further engagement from DCCEEW to discuss any of the information presented in this submission. Further queries can be directed to Morgan Rossiter at the CEC (mrossiter@cleanenergycouncil.org.au).

Kind regards,

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