**The South Australian Ornithological Association Incorporated trading as Birds SA**
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**(ABN 76 339 976 789 - Not For Profit)**

24 August 2023

To: DCCEEW Offshore Renewable Energy Team, via email: offshorerenewables@dcceew.gov.au

**Re: Offshore renewable energy infrastructure area proposal: Southern Ocean Region off VIC and SA**

**Introduction**

Birds SA is the operating name of the South Australian Ornithological Association, which is the longest running ornithological association in Australia, having been established in 1899. The Association currently has approximately 1,000 members with new memberships growing strongly. Birds SA is affiliated with the national bird conservation organisation, BirdLife Australia.

Primary objectives of Birds SA include:
• to promote public understanding of the importance of South Australian birds and their natural habitats;
• to support the conservation of Australian birds and their natural habitats;
• to take action, including advocacy, to maintain, protect or enhance the conservation of South Australian birds and their natural habitats.

Further information about Birds SA can be found at: https://birdssa.asn.au/

Birds SA welcomes the opportunity to contribute to this consultative process.

**Comments on the Proposal**

An offshore windfarm in the area between Pt MacDonnell and Warrnambool would pose a major risk to an exceptionally important area for marine biodiversity and an unacceptable level of threat to numerous species listed on the EPBC and/or covered by international conservation agreements.

The area proposed is influenced by the Bonney Upwelling, a natural ocean phenomenon resulting from spring winds driving a change in ocean currents that powers a nutrient upwelling which supports fish, seabirds, seals, krill and whales. The continental shelf and the Bonney upwelling act as a flyway-foodway along which resident seabirds feed, and it forms part of a global migration route and feeding area for several seabirds that breed in Australian and New Zealand waters and others that breed in the Antarctic and migrate into the Pacific. Butler et al., for example, (2002) found that:

*"The Bonney Coast has high productivity and most probably high species diversity due to the largest, most predictable upwelling event in southern Australia. In addition, it is one of 12 widely recognised and well-known feeding areas worldwide where Blue Whales are known to aggregate in relatively high numbers."*

The potential impacts of offshore windfarms on birds and other species in Australia are currently unknown. However, based on similar seabirds in the Northern Hemisphere, Reid et al. (2022) identified 36 high-risk and 26 medium-risk seabird species or subspecies as occurring in South Australia and the Bass Strait. Six of these are listed as Endangered under the EPBC Act: Southern Giant-Petrel, Gould's Petrel, Shy Albatross, Amsterdam Albatross, Grey-headed Albatross, and Northern Royal Albatross. Fourteen are listed as Vulnerable, and an additional seven listed as Migratory under the EPBC Act.

Negative impacts can result from the turbines themselves and from vehicle movements, seabed disturbance, lights and vibration, and the vortices generated by changes in wind patterns. Wind farms require transformer structures, cables, meteorological masts and long-term consideration of eventual disposal of these massive structures should be recognised. The structures are usually glass fibre/epoxy matrix composites to withstand all weather, but both materials are hard to break down and traditionally, the industry has dealt with leftover wind turbines through landfill. Hence any assessment should be on whole-of-life considerations. While land-based wind energy production is often cost effective, the case for ocean-based generation is less well developed.

There is significant evidence from windfarms operating in the Northern Hemisphere that they have a range of negative impacts on birds beyond the obvious one of collisions. These impacts depend on the species and include disorientation, displacement due to disturbance, habitat loss and barrier effects (Drewitt and Langston, 2006). The weather in Bass Strait is notoriously rough and often subject to low visibility due to low cloud cover which also increases the risks for birds.

Sixty species of seabird have been recorded from local bird watchers' day trips off Port MacDonnell since 2003. These include a number of species listed as threatened nationally and judged by Reid et al (2022) to be at the highest risk of impact from offshore wind farms:

- Shy Albatross *Thalassarche cauta* (Endangered)
- Northern Royal Albatross *Diomedea sanfordi* (Endangered)
- Southern Royal Albatross *D. epomophora* (Vulnerable)
- Wandering Albatross *D. exulans* (Vulnerable)
- Campbell Albatross *T. impavida* (Vulnerable)
- Buller's Albatross *Thalassarche bulleri* (Vulnerable)

The area is also part of the migratory route for Critically Endangered birds such as the Orange-bellied Parrot and Far Eastern Curlew.

In addition, many thousands of Short-tailed Shearwaters *Ardenna tenuirostris* feed and breed in the region after their epic migration across the Pacific Ocean each year. There are a number of other species that are listed as threatened at a state level such as the Furneaux White-fronted Tern *Sterna striata.*

With the information on bird species, which is available, additional weight needs to be given to the fact that many of these recorded species have long lives, are characterised by low productivity and slow maturation rates. This amplifies the potential impacts of bird losses. Little information is available on raptors, with southern osprey and sea eagle numbers important to consider.

Beyond the species themselves, Australia must consider its existing international commitments and agreements. Australia's international efforts to protect the feeding grounds of migrating shorebirds across the East Asian - Australasian Flyway loses credibility if we engage in activities on our own shores which threaten their existence. All the albatross that occur in the area are covered by the international Agreement for the Conservation of Albatross and Petrels (ACAP) to which Australia is a signatory.

**Summary**

The area proposed for offshore windfarms between Warrnambool and Pt MacDonnell is completely inappropriate given that:

1. The Bonney upwelling is an area of outstanding marine biodiversity and deserves the highest level of protection.
2. Many threatened species use the area and the impacts of offshore windfarms on these species in Australia is completely unknown.
3. Studies in the Northern Hemisphere show that offshore windfarms have significant impacts on seabirds.
4. Australia's international credibility as a supporter of the conservation of migrating shorebirds and seabirds would be threatened by allowing increased risks to endangered birds in our own territory.
5. While Australia has a clear and urgent need to implement renewable energy, this objective must not be achieved by inflicting an unquantified and long-term level of potential damage to a region of major marine biodiversity.

**References**

Butler et al., (2002). Assessment of the conservation values of the Bonney upwelling area : a component of the Commonwealth Marine Conservation Assessment Program 2002-2004 : report to Environment Australia

Drewitt, A.L. and Langston, R.H.W. (2006) Assessing the Impacts of Wind Farms on Birds. Ibis, 148, 29-42. http://dx.doi.org/10.1111/j.1474-919X.2006.00516.x

Reid, K., Baker, G.B., and Woehler, E. (2022), Impacts on birds from Offshore Wind Farms in Australia, Department of Climate Change, Energy, the Environment and Water, Canberra. CC BY 4.0. https://www.dcceew.gov.au/environment/epbc/publications

Regards,

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