

Proposed Offshore Wind Area; Indian Ocean off Bunbury, Western Australia – Submission

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Executive Summary

I hereby submit to you that offshore windfarms should not be approved for any location off the coast of Western Australia and specifically not in the currently proposed area, Geographe Bay.

My submission is based on the globally significant biodiversity of the area, the destruction to native marine habitats, disruption to annual migrations of many species, the cost of generating energy using offshore windfarms, and impact to the general amenity, recreational, tourism and reputational value of the area.

Background

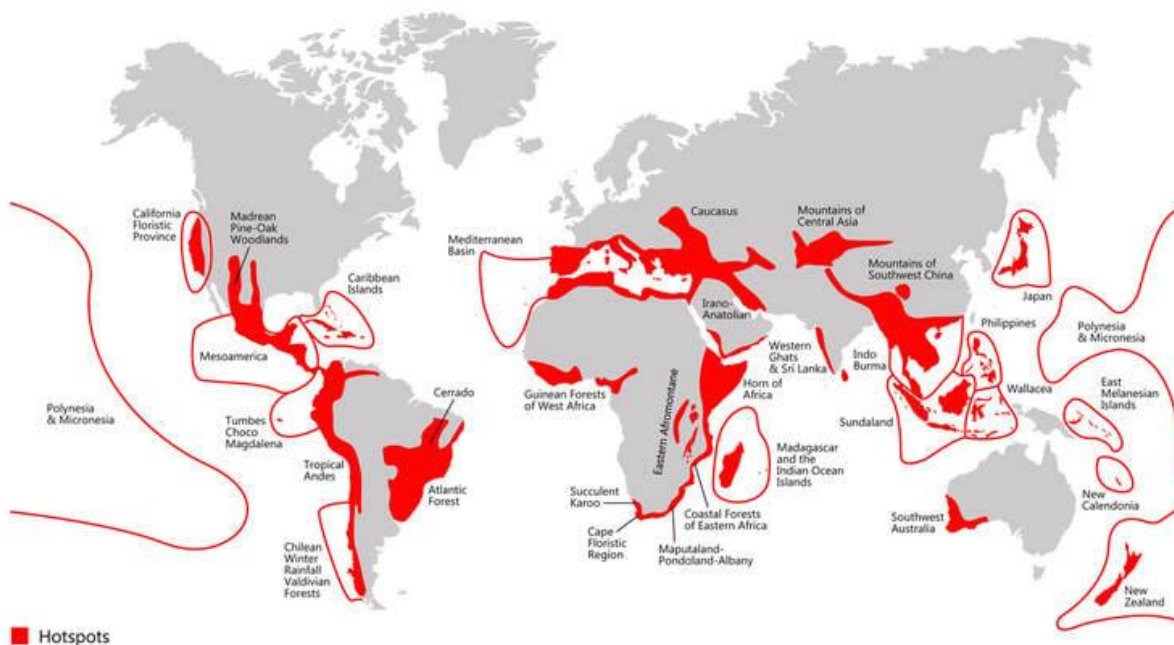
Assessment and Suitability

The research used to determine the selection of areas deemed suitable by DCCEEW for offshore wind projects considered only wind and infrastructure and the larger market opportunities for the offshore wind sector. These assessments and included no environmental, ecological, social, or cultural aspects.

<https://blueeconomycrc.com.au/project/offshore-wind-potential-for-australia/>

Coral Reef and Environmental Damage

The South West of Western Australia is recognised global biodiversity hotspot, with species here that exist nowhere else on earth.



<https://www.tropicalconservationfund.org/biodiversityhotspots.html>

The proposed area covers significant marine features such as Naturaliste Reef and what is locally known as the “blade coral” which extends offshore from Binningup south into Geographe bay between 20 -28 kilometres offshore. Whilst these are the main areas frequented by recreational divers, there is nothing to suggest that the rest of Geographe Bay is simply a barren sandy desert, and many locals are now sounding the area and taking photos and videos to prove otherwise.

These reefs and the entire area are the homes and breeding grounds for unique species of fish found only in W.A. such as Dhufish, Baldchin Groper, and Western Blue Groper, and many other demersal and pelagic species breed and spawn in these water, as do as Western and Southern Rock Lobster, with the western rock lobster being a significant export industry. Southern Bluefin tuna are also prevalent in these waters.

W.A.’s demersal fish have been subject to severe measures by the state government to protect their numbers, including revised bag and size limits, marine sanctuaries, and closed seasons in recent years.

Humpback whales migrate through the region annually, also blue whales, southern right whales, and minke whales frequent the entire area, with emerging evidence of a Southern Right Whale nursery in Geographe Bay.

The Southern Right Whale is now listed as an endangered species under the Environment Protection and Biodiversity Conservation Act 1999

There is an annual salmon run along the coast of South and South West W.A. and I have personally seen salmon on and around the Naturaliste reef system, as have I seen turtles in the area from Bunbury to Cape Naturaliste as far as 40 kilometres offshore.

Southern Bluefin tuna are also prevalent in these waters, and grey nurse sharks colonies have been increasing over recent years and seahorses are also frequently seen clinging to seaweed on the surface during summer.

It is absolutely counterproductive to the conservation of these species to destroy their habitat and disrupt their breeding and migration patterns for up to 50 years (the proposed life of the Skyborn proposal), which at face value would not meet the NES impact guidelines under the EPBCA 1999

https://www.dcceew.gov.au/sites/default/files/documents/nas-guidelines_1.pdf

It would seem impossible to rehabilitate and end of life due to possibility of irreversible damage to pristine reef systems over <50 years of operation, would you even consider clearing native or old growth forest to build a wind farm onshore?

The proposal declared area sits right in the middle of the Leeuwin current. This is a warm current that tracks down the Western Australian coast bringing warm nutrient rich waters that support carry marine species as far as the Australian Bight and feed to coral systems that spread as far as the southern ocean.

<https://marinewaters.fish.wa.gov.au/mwwp/wp-content/uploads/2019/06/leeuwin-current-poster.pdf>

The discussion paper "Artificial Reefs With reference to marine parks and reserves" commissioned by the Marine Parks and Reserves Authority and Department of Environment and Conservation, highlights the possibility of offshore oil and gas infrastructure on the North West Shelf being left in place once decommissioned. If this sets a precedent then there is no reason to believe that offshore wind farm infrastructure will be removed from the ocean at its' end of life.

Tourism / Amenity

Western Australia is a global tourism hotspot and the South West is very much a focus of this with Mandurah recently being awarded Australia's top tourist town.

The Margaret River and wider Capes region is a globally recognised wine producer and is globally recognised as a legendary surfing destination with major international surfing competitions held there with professional and recreational surfers from all over the world coming to visit all year 'round.

The Busselton Jetty is a major tourism drawcard, and there is a thriving whale watching industry in Geographe Bay and the Capes region as this is a major migration path and resting area for number of species of whales.

International cruise ships such as the Coral Princess, as well as U.S. military ships have also made stops at the port of Bunbury. The visual amenity of the entire region will be permanently marred by offshore wind turbines.

Research and Reputational Significance

Bunbury is a globally recognised centre for cetacean research, with colonies of bottlenose dolphins resident in Koombana Bay and Geographe Bay.

The Ningaloo Reefs in the north west of the state and Exmouth gulf are globally significant for a number of species including the breeding of humpback whales, dugongs, and orcas, as well as being a global tourism destination for whale shark watching and research.

The Houtman Abrolhos islands in the mid-west are a globally significant breeding and fishing ground for western rock lobster, as are waters further south, this being a major export commodity.

Rottneet Island off the Perth metropolitan coast is a globally significant island and home to the iconic Quokka, which is found nowhere else in the world, other than Western Australia.

Bremer Bay and the Perth Canyon is a globally significant hotspot for marine research due to the upwell of currents and nutrients that bring a variety of whales from the southern and Antarctic oceans to the region, and is also a major tourism drawcard for Western Australia.

In short, there is literally nowhere along the coast of Western Australia that is suitable for the construction of offshore wind farms that would not significantly impact its ecology and therefore our international reputation as a nation that values its' pristine marine environment as globally significant research and eco-tourism assets.

https://www.marineresearch.org.au/?page_id=197&fbclid=IwAR3rHg4N9wHiM_IKmrQiy5ciJt-CFWAwXyNYEB351cOQoOols8nrtbkbBCc

The Ocean Accounting Pilot for Geographe Marine Park data assessment report conducted by the Institute for the Development of Environmental-Economic Accounting group highlights the lack of data in many asset groups and the importance of filling these "data gaps". This clearly indicates how little is known about Geographe Bay's marine environment.

https://eea.environment.gov.au/sites/default/files/2020-12/data_assessment-gmp_ocean_accounts.pdf

Cultural and Recreational Significance

These waters and the reefs and ecosystems they are home to are of significant value to local communities for fishing, diving, and other recreational activities. We regularly hunt and fish in a sustainable manner, targeting only the specific fish and lobsters we want to keep, there is no drag netting, no bycatch or consequential killing of unwanted species. There is a plethora of hard and soft coral species, nudibranch, sea stars, and grass and kelp beds that should be left untouched for future generations to explore and enjoy.

The waters of Geographe and Koombana bay and the wildlife they support are available for everyone to see at the Dolphin Discovery Centre in Bunbury, and testament to the value as a recreational fishery can be seen at any of the local offshore fishing clubs along the coast from Mandurah, to Busselton and beyond.

Reliability / Predictability

Wind farms are not a reliable predictable source of power as output is intermittent throughout the day, and therefore require the use of back up generation or battery storage for smoothing peak load requirements.

It is likely that due to the unpredictability of suitable winds and peak load requirements due to the volatile nature of the weather in South Western Australia, that backup sources of power will be required more than expected.

Energy Costs / Economics

W.A. state government has paid each household \$1400 in energy bill relief since October 2020 due to the already high cost of power being a key risk factor in financial hardship for many Western Australian families.

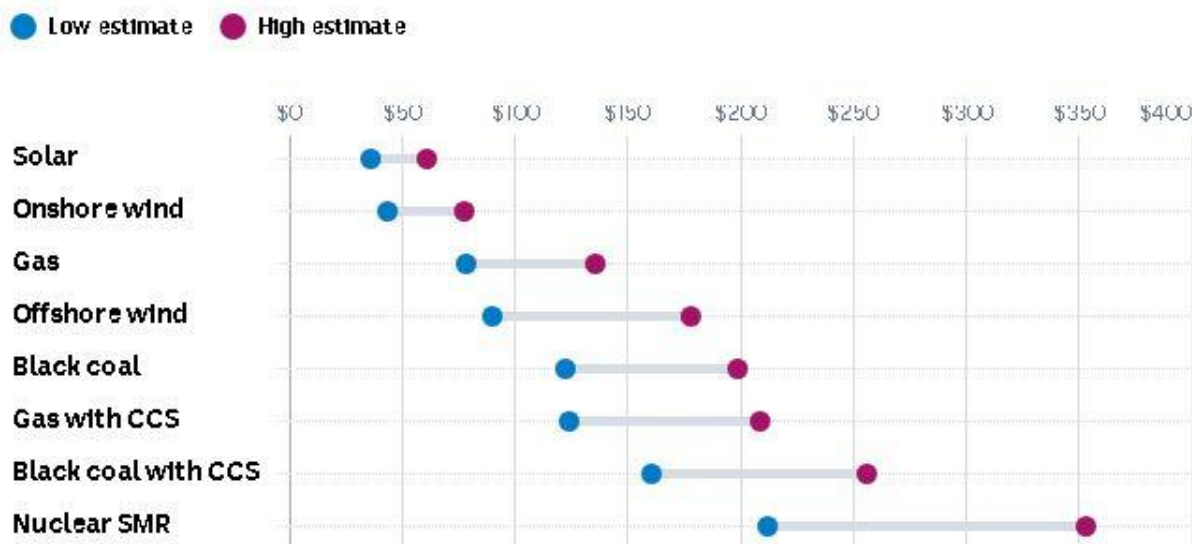
Power generated by offshore wind costs more than twice as much as onshore wind generation and Western Power are not in favour of offshore windfarms due to the cost.

With many overseas projects being scrapped or losing money, it makes no sense to follow in their footsteps. Orsted, for example, has cancelled wind projects at a cost of AUD \$6.3 billion in the U.S.A. as they are no longer economically viable.

A recent review of annual reports by two Swedish economists revealed that Sweden's losses amount to AUD1.9bn between 2017 and 2022

The economics of offshore wind farms simply do not stack up, and are only viable for the investors and developers due to taxpayer funded subsidies made possible under the Renewable Energy Act 2002, and paid for by the consumer under the Capacity Investment Scheme which underwrites revenue with taxpayers contributing 90% of agreed revenues below the negotiated revenue floor.

Estimated cost of power sources in 2030



Figures are cost per megawatt hour. CCS is 'carbon capture and storage', reflecting the costs if coal and gas projects were required to offset their emissions with CCS technology. A cost was included for nuclear SMRs despite CSIRO and AEMO stating they could not be operational until 2038.

ABC News / Source: CSIRO and AEMO GenCost / Get the data

Alternatives

Solar power
Onshore windfarms
Nuclear / Nuclear SMR
Hydrogen (not modelled)
Hydro-electricity (not modelled)

Although not modelled by CSIRO / AMEO, Hydrogen fired power generation should be investigated, and as DCCEE has published the National Hydrogen Strategy, the use of hydrogen for baseload power generation seems to be a glaring omission

Industrial scale production and shipping of liquefied Hydrogen gas has already been established by Kawasaki Heavy Industries, who have demonstrated a supply chain for liquefied hydrogen between Japan and Australia there is already a hydrogen plant being constructed in the South West of W.A.

<https://www.ft.com/partnercontent/kawasaki-heavy-industries/what-is-needed-for-hydrogen-to-really-take-off.html>

Infinite Blue Energy (IBE) has unveiled a bold new plan to transition large users of fossil fuel based electricity in NSW to Green Hydrogen by 2027

<https://www.energyinnovation.net.au/article/project-neo-to-kickstart-green-hydrogen-baseload-power-in-nsw>

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the EPBC Act a whale sanctuary was established in all commonwealth waters. This protects all cetaceans (whales, dolphins and porpoises). Under the act it is an offence to kill, injure, or interfere with cetaceans. The Southern Right Whale is also listed and endangered species under this very act.

It is absolutely unconscionable to propose and promote wind farms in the precise location of annual whale migrations within a declared sanctuary, as the inevitable impact of forcing whales to change their migration path is itself interfering with cetaceans, one species of which is endangered.

Being that the DCCEEW, the same department responsible for establishing the sanctuary, is now promoting wind farms in within the sanctuary, it seems inconceivable that the department would ever prosecute any wind farm developer for operator for breaches of the EPBC Act in relation to whales or other endangered species.

Australia has made international commitments to protect significant animals and has the stated objective under DCCEEW's proposed new Nature Positive Laws of managing nature better for the future by protecting and repairing nature, with matters of national environmental significance including threatened species (the southern right whale), migratory species (southern right, humpback, and blue whales), and commonwealth marine waters, all of which apply to the area being proposed for offshore wind projects.

An investigation of whale deaths since 2015 in the United States indicates a direct correlation between increase mortality rates and offshore wind farm preparation and construction, with the National Oceanographic and Atmospheric Administration (NOAA) declaring three Unusual Mortality Events since 2016.

<https://saverightwhales.org/media/wind-industry-activity-strongly-correlated-with-whale-deaths-new-study-finds>

The Geographe Bay area is bounded by Ramsar wetlands, with Peel-Yalgorup to the north and Vasse – Wonnerup to the south. These wetlands are critical to the survival of many migratory species and both land and sea components of offshore wind farms have the potential to impact these birds. Australia has obligations under international treaties as well as the EPBC Act to protect these wetland and the birds that depend on them.

<https://www.dbca.wa.gov.au/management/wetlands>

The proposal to impact 7.647 square kilometres of pristine marine ecosystems seems diametrically opposed to these commitments and objectives for both land and sea animals, and their ecosystems.

Blue Economy CRC, established with \$300million dollars of federal funding, whose research you relied upon to identify areas suitable for wind farms, state that "Detailed research is required to assess cost benefits to energy, environmental and social systems" and I respectfully request a moratorium on offshore wind farms in Australia until this research has been conducted and the effects fully understood.

Net Zero by 2050

The CSIRO and AEMO have stated that current renewable energy technologies will not achieve net zero by 2025, meaning that fossil fuelled generation of electricity will be required to compensate for the inconsistency of wind and solar energy into the future.

Nuclear and pumped hydro-electricity are the cleanest and most reliable sources of electricity currently available and proven throughout the world.

It is totally irresponsible to take such a huge economic and environmental risk with offshore wind when it will not achieve government goals and proven alternatives exist.

Security of Critical infrastructure Act 2018

The critical infrastructure act explicitly defines electrical transmission infrastructure as critical, and as such all energy generation and transmission facilities should remain under Australian sovereignty and 100% owned and controlled by Australian governments and entities and not by taxpayer subsidised foreign corporations and conglomerates.

Conclusion

I would like to respectfully remind you of your obligations under the Under the Offshore Electricity Infrastructure Act 2021 when making a decision on this matter

- (1) In deciding for the purposes of paragraph 17(3)(d) whether an area is suitable for offshore renewable energy infrastructure, the Minister must have regard to the following:
 - (a) the potential impacts of the construction, installation, commissioning, operation, maintenance or decommissioning of offshore renewable energy infrastructure in the area on other marine users and interests;
 - (b) any submissions received in accordance with the notice under section 18;
 - (c) any advice received as a result of the consultation mentioned in paragraph 17(3)(c);
 - (d) Australia's international obligations in relation to the area;
 - (e) Australia's greenhouse gas emissions reduction targets.

When considering the issues raised in this submission, I implore the Minister to deny any application for a declared area and any submission to build an offshore wind farm in the South West of Western Australia, or indeed anywhere off the coast of Western Australia, as there are more environmentally sound and cost effective means of powering the South West Interconnected System.



Photograph taken by myself at approximately 32m depth, 28 kilometres from Bunbury at a bearing of approximately 310°

Addendum

Please take some time to view the videos I have personally taken whilst scuba diving on these amazing coral meadows, there are literally acres of them in Geographe Bay, although we are limited by recreational diving depths there is evidence to suggest that these reef systems extend across the entire region in question, as I have seen video taken at a depth of 47 metres with same types of coral and fish species. There is also a video taken on 26 March 2024 which contrasts the difference between an artificial reef and the natural reef less than 4 nautical miles away, at approximately same distance from shore.

<https://youtu.be/QLgk9o7nw7Q>

<https://youtu.be/LVdH7VZJvak>

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You wouldn't do it to Ningaloo, please don't do it to Geographe Bay !