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WWF Submission to the Offshore Wind Industry Consultation Inquiry

The World Wide Fund for Nature-Australia (WWF-Australia) welcomes the opportunity to make a submission to the Offshore Wind Industry Consultation Process inquiry.

WWF-Australia is part of the WWF International Network, the world's largest independent conservation organisation. WWF's global mission is to 'stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature'. WWF-Australia has approximately two million supporters.

We understand that the scope of this inquiry will inquire and report on the consultation undertaken on behalf of the Australian Government on:

(a) the efficacy of community engagement and benefit in planning, developing and operating the offshore wind industry;
(b) community engagement within the existing Australian Government offshore wind industry regulatory and legislative frameworks;
(c) the adherence to the principles of Free, Prior and Informed Consent from Traditional Owners of the affected Sea Country by the Australian Government and offshore wind industry;
(d) the impact of the offshore wind industry on marine life and marine environments in Australian waters, including strategies for impact minimisation and management; and
(e) any other related matters.

Recommendations

In summary WWF-Australia offers the following recommendations for the future development of the Offshore Wind Industry:

- The Federal Government should continue to support the development of an offshore wind industry in Australia as a key climate solution
- A precautionary approach to offshore wind development with careful planning and mitigation measures in place is critical. Prevent deploying offshore renewables in current or planned marine protected and conserved areas, Indigenous sacred sites, and other areas of particular importance for biodiversity, ecosystems and services. These include ecological corridors, migration routes of marine species and birds, fish spawning and rearing areas, as well as areas with high natural carbon uptake and storage such as seagrasses, saltmarshes, mangroves, reefs and other areas critical for coastal protection and resilience. Any damage to or degradation of these areas will have greater impacts on ocean ecosystems and thus on stakeholders outside of the energy sector; this could also bring reputational risks and erode public support for renewables.
- Thorough and robust marine spatial planning must be undertaken prior to the future declarations of offshore wind zones. Once a zone is declared, there is less opportunity to avoid environmental impacts.
- Renewable energy developers and government bodies undertake significant environmental surveys ahead of gaining a feasibility license. It is critical that government

facilitates the sharing of this data to ensure it contributes to broader marine knowledge and understanding of cumulative impacts of developments. Freely share non-sensitive developer data to improve baseline information and monitoring of renewable energy project impacts. This will improve understanding of the sector's interactions with marine ecosystems and species, informing future MSP processes, scientific research and policy development

- Include and heavily weight non-price auction criteria (i.e., environmental and social criteria) in procurement and tendering processes to foster innovative solutions and advance best practices with the aim of avoiding impacts on marine ecosystems.
- Federal and State Governments should work to ensure regional planning is undertaken to maximise shared infrastructure (eg. transmission lines) to reduce the overall footprint of development
- Australia needs strong, consistent and timely environmental assessment processes. Offshore wind is and should continue to be assessed under the Environmental Protection and Biodiversity Conservation Act 1999.
- Greater efforts should be undertaken to communicate the benefits of offshore wind to the broader community, but also the timeframes for development and opportunities for consultation.
- The Federal Government should adhere to, and facilitate industry, to leading practice principles identified by the FNCEN and to FPIC. Effective stakeholder consultation can help facilitate local value creation, including in the form of job creation, potential co-ownership and other co-benefits.

1. The need for offshore wind in Australia

Climate change and biodiversity collapse are the two greatest threats facing both humans and nature today. These crises are intertwined, compound global inequalities, and must be addressed together. WWF-Australia supports a shift from fossil fuels to renewable energy that credibly protects nature in all phases of planning, design, development, and decision-making. This will be far less harmful than continuing down our current path of powering our world primarily with fossil fuels.

The Paris Agreement 1.5°C temperature limit is a critical threshold for the safety and wellbeing of all Australians and for our natural wonders, such as the Great Barrier Reef. Australia's obligations under the Paris Agreement require that in setting our climate targets we take account of the best available science and ensure our climate targets represent Australia's highest possible ambition[1]. The best available climate science shows that for Australia's new 2035 NDC to be aligned with pursing efforts to limit temperatures to 1.5°C it must be at least 90% below 2005 levels by 2035 and net zero by 2038[2].

When done well, offshore wind is a key part of the solution to climate change and will be far less harmful than continuing down our current path of powering our world primarily with fossil fuels. Offshore wind can contribute a major component of Australia's renewable energy transition and for helping to reach our net-zero targets. In fact, Australia has some of the best offshore wind resources in the world, with estimates of up to 2000 GW of capacity[3]. It is a critical opportunity to replace ageing fossil fuel plants and to drastically reduce greenhouse gas emissions. One of the key advantages of offshore wind is its ability to generate more energy than onshore wind without

[1] See the Paris Agreement, Article 4(1) and Article 4(3).
[2] Meinshausen, M. and Nicholls, Z. (2023). Updated assessment of Australia's emission reduction targets and 1.5°C pathways. Independent expert report commissioned by WWF-Australia, https://www.climate-resource.com/reports/wwf/20230612_WWF-Aus-Targets.pdf
[3] https://www.nortonrosefulbright.com/en/knowledge/publications/ec2a685f/global-offshore-wind-australia

the need for as many turbine installations. Wind is also more consistent and stronger offshore than on land, generating energy for more hours of the day. A single offshore wind project can generate enough energy to power almost 2 million homes per year and can also be situated close to load centres such as industrial precincts [4] [5].

Without a rapid transition to renewable energy, the worsening climate crisis threatens the survival of whales and other marine life, the health of our ocean, human well-being, and the health of our world. While there are challenges to this transition, it can and must be implemented in ways that are good for people, for nature, and for our planet.

2. Community engagement

The following seeks to address the following aspects of the inquiry; *the efficacy of community engagement and benefit in planning, developing and operating the offshore wind industry; and community engagement within the existing Australian Government offshore wind industry regulatory and legislative frameworks.*

The Federal Government, along with NGOs and key industry players have been engaging with the broader community on offshore wind in a difficult media and political context. The World Economic Forum's Global Risk Report 2024 has identified 'misinformation and disinformation' as the number one global risk in the next 2 years[6]. Offshore wind has been a key target for disinformation campaigns that have amplified community opposition and led to polarisation. For example, a paper published by Jeremy Walker from the University of Technology Sydney found that a large proportion of submissions opposing the Illawarra offshore Renewable Energy Zone were either directly or indirectly traceable to fossil fuel interests, in particular the global Atlas network. This occurred either as "fossil fuel industry derived 'disinformation'- intentionally deceptive and false claims – or 'misinformation', the voluntary propagation of disinformation by likely well-intentioned if perhaps ill-informed citizens, and is more than likely traceable to fossil fuel interests"[7]. Overall, this has led to an unfortunate setting in which to convey evidence-based information and listen to and respond to genuine community concerns.

Despite this, we consider that the consultation undertaken by the Federal Government is likely to be appropriate for this stage of the industry's development. It is our understanding that the Federal Government has conducted consultation processes for the six areas ahead of formally declaring them as offshore wind zones, with four now being declared. We were made aware of these consultations through multiple channels including DCCEEW's consultation hub and website. We are also aware of multiple local consultations being undertaken throughout the affected regions.

Although offshore wind is not a new industry globally, it is a new industry for Australia and as such heightened community concerns are understandable. Despite the disinformation, many community concerns have been legitimate and relate to the management of environmental and social impacts, amenity, and other planning issues. We note that many of the final declared

[4] https://www.dcceew.gov.au/energy/renewable/offshore-wind/building-offshore-wind-industry#:~:text=Depending%20on%20the%20size%20of,million%20homes%20in%20a%20year). .
[5] https://theconversation.com/australia-needs-large-scale-energy-production-here-are-3-reasons-why-offshore-wind-is-a-good-fit-232899
[6] https://www.weforum.org/publications/global-risks-report-2024/
[7] https://www.researchgate.net/publication/375521036_Big_Oil_Whales_and_Offshore_Wind_Fossil-funded_Atlas_Network_'think-tank'_disinformation_is_driving_misinformed_community_opposition_to_the_vitally_important_Illawarra_Renewable_Energy_Zone

zones were reduced in size and shifted to deal in part with these environmental and social concerns.

A key area for improvement in relation to community engagement is to give greater clarity on the offshore wind industry development process. It is important that the broader community understands that a) the industries development is a multi-stage process that won't see offshore wind farms operating until beyond 2030 b) that there will be multiple opportunities for input and c) the process will still require planning and environmental assessments before being approved, across multiple areas of the industry supply chain.

3. Safeguarding marine biodiversity and mitigating environmental impacts

The following seeks to address the following aspect of the inquiry; *the impact of the offshore wind industry on marine life and marine environments in Australian waters, including strategies for impact minimisation and management.*

Our oceans are under pressure from a myriad of threats. Climate change, destructive fishing like gillnetting, unsustainable demand for seafood, plastic pollution, growing ship traffic and industrial development are impacting the marine ecosystem. Though a lesser threat, offshore wind is still a form of development and must follow and adhere to the mitigation hierarchy to avoid, minimise, offset impacts and contribute to nature positive outcomes.

Like other forms of renewable energy development, offshore wind can impact different species and habitats in different ways at different stages of a projects life cycle. Despite significant public attention, there is no evidence linking offshore wind to whale deaths[8]. However, whales, dolphins, sea turtles and some fish species can still be vulnerable, particularly when exposed to high noise levels during construction of offshore wind developments[9]. Mammals and sea turtles also face an increased risk of collision with construction and maintenance vessels. Habitat alteration can affect species living on the seafloor. Birds, particularly migratory species, are at risk of collisions with turbines[10].

With good planning, offshore wind farms can and must be developed in ways that are good for people, for nature, and for our planet. Although offshore wind is a new industry for Australia it has a longer history in Europe and the USA. Effective approaches to mitigating the impacts from offshore wind on whales and other ocean life already exist. New mitigation strategies continue to be tested and applied. WWF works globally with industry to facilitate better environmental practices. Our counterpart WWF-Denmark has a partnership with offshore wind developer Orsted to develop leading environmental practices associated with offshore wind development[11]. An example of this collaboration includes the BioReef project, a marine restoration project that aims to develop methods to establish viable biogenic reefs in the Danish part of the North Sea[12].

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[8] https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/frequent-questions-offshore-wind-and-whales

[9] https://www.nature.com/articles/s44183-022-00003-5#Sec7 I. Galparsoro, I. Menchaca, J.M. Garmendia, Á. Borja, A.D. Maldonado, G. Iglesias, J. Bald, Reviewing the ecological impacts of offshore wind farms, npj Ocean Sustain, 1 (2022), pp. 1-8

[10] https://www.sciencedirect.com/science/article/pii/S0964569124000085 Watson, S. Somerfield, P. Lemasson, A. Knights, A. Edwards-Jones, A. Nunes, J. Pascoe, C. McNeill, C. Schratzberger, M. Thompson, M. Couce, E. Szostek, C. Baxter, H. Beaumont, N. The global impact of offshore wind farms on ecosystem services, Ocean Coast. Manag, 249, (2024), Article 107023

[11] https://wwf.panda.org/act/partner_with_wwf/corporate_partnerships/who_we_work_with/orsted/

[12] https://wwf.panda.org/act/partner_with_wwf/corporate_partnerships/who_we_work_with/orsted/bioreef/#:~:text=The%20BioReef%20restoration%20project%20is,addressing%20the%20global%20biodiversity%20crisis

Each renewable energy project is different and must be reviewed individually to understand the potential impacts on species and design strategies to mitigate these. Fortunately, effective approaches for addressing many types of species impact already exist, and new mitigation strategies continue to be tested and applied.

WWF's global offshore wind position paper presents detailed recommendations for the faster, greener and fairer deployment of offshore renewable energy as part of a just energy transformation and a nature-positive future[13]. The design, deployment, operation and decommissioning of offshore renewables and related infrastructure must avoid, reduce and mitigate negative effects as much as possible and, where possible, create positive effects for biodiversity, habitats and ecosystem services. This needs to be done with a holistic view of the natural ecosystems where offshore renewables are placed. Clear ambition should be accompanied by concrete actions supported by the necessary budgets. In addition, interventions that can protect, enhance, enrich and/or restore marine habitats and species should be prioritized.

Some key approaches to protect marine ecosystems include:

- Informed and strategic siting through proper Marine Spatial Planning that can help to identify areas that are critical to avoid due to key marine mammal and bird migrations or other sensitive habitats[14]. Ensuring no offshore renewables are placed within marine protected areas, as these sites are sensitive ecological areas.

- Significant investments are made by private proponents and governments at different stages of offshore wind development. Data sharing and transparency can significantly enhance decision making on siting and micrositing[15].

- Timing site assessment and construction to avoid whale seasons, allowing whales to feed and migrate undisturbed[16].

- Visual and acoustic monitoring to make sure certain species such as whales aren't nearby before activities with potentially harmful noise levels start[17].

- Underwater noise poses one of the largest environmental impacts to marine mammals such as whales[18]. Reducing site assessment and construction noise, for example, by gradually increasing pile driving energy, limiting the amount and duration of piling and using noise barriers, such as bubble curtains is critical.

- Slowing vessel speeds and limiting vessel activity in the area.

- Further work to advance engineering solutions that reduce the noise levels generated by operating turbines.

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[13] https://wwfint.awsassets.panda.org/downloads/wwf-offshore-renewable-energy-position_2023.pdf
[14] https://wwfint.awsassets.panda.org/downloads/wwf-offshore-renewable-energy-position_2023.pdf
[15] https://wabsi.org.au/wp-content/uploads/2023/12/SEAF-Supporting-nature-positive-outcomes_Nov2023-1.pdf
[16] https://www.fisheries.noaa.gov/new-england-mid-atlantic/marine-life-distress/frequent-questions-offshore-wind-and-whales
[17] https://www.mmc.gov/priority-topics/offshore-energy-development-and-marine-mammals/renewable-energy-development-and-marine-mammals/
[18] https://www.mmc.gov/priority-topics/offshore-energy-development-and-marine-mammals/renewable-energy-development-and-marine-mammals/

Adopting an ecosystem-based approach to Marine Spatial Planning (MSP) plays an essential role in secure a nature-positive blue future. MSP can help balance social, economic and environmental considerations for at-sea activities, giving practical considerations to how activities evolve over time to meet long-term goals. Stakeholder consultations carried out as part of MSP processes, environmental impact assessments (EIAs) and strategic environmental assessments (SEAs) all help to uncover potential cumulative environmental impacts of a given offshore renewable energy proposal and should be objectively assessed when selecting projects for development[19].

Each renewable energy project should include proactive, positive steps for nature, where possible. Interventions to protect, enhance, enrich and/or restore marine habitats and species should be prioritised. Some recent examples of nature-friendly designs for offshore wind farms in the Netherlands – as referenced in WWF's report "Building a nature-positive energy transformation" – include:

- Incorporating openings in turbine foundations to allow fish movement and adding rocks that serve as habitat and promote marine biodiversity.

- Experimenting with painting wind turbine blades black to reduce bird collisions and building wind turbines in clusters with corridors to allow birds to pass between them[20].

4. Engagement with First Nations

The following seeks to address the aspect of the inquiry that relates to *the adherence to the principles of Free, Prior and Informed Consent (FPIC) from Traditional Owners of the affected Sea Country by the Australian Government and offshore wind industry.*

FPIC is a fundamental right of all Indigenous peoples underpinned by the United Nations Declaration on the Rights of Indigenous People (UNDRIP). WWF-Australia respects this right in all our dealings with Indigenous peoples, communities, partners and collaborators. It is important to note that FPIC extends beyond any state-based policy or legislation, like the Native Title Act in Australia, and is an inalienable right of Indigenous peoples globally. WWF-Australia recognises that colonisation has not extinguished the rights of First Nations peoples or groups to self-determination or the right to make decisions regarding projects that occur within their identified territories. WWF-Australia recognises that any project that occurs within Australian land or waters will occur on the territories of First Nations groups, and they should be afforded their due FPIC rights under the UNDRIP.

It is critical that the offshore wind industry maximise the potential to address FPIC but also best practice principles in relation to the development, design, implementation and benefit sharing of these projects. The First Nations Clean Energy Network has identified a set of best practice principles for clean energy projects that both governments and industry can look to[21]. These principles have now been integrated by the Clean Energy Council in their industry best practice guide to Leading Practice Principles for First Nations and Renewable Energy projects[22]. The

[19] https://wwfint.awsassets.panda.org/downloads/wwf-offshore-renewable-energy-position_2023.pdf

[20] https://wwfint.awsassets.panda.org/downloads/wwf-bcg-building-a-nature-positive-energy-transformation.pdf

[21] https://assets.nationbuilder.com/fncen/pages/183/attachments/original/1680570396/FNCEN_-_Best_Practice_Principles_for_Clean_Energy_Projects.pdf?1680570396

[22] https://assets.cleanenergycouncil.org.au/documents/resources/reports/Leading-Practice-Principles-First-Nations-and-Renewable-Energy-Projects.pdf

principles can be considered by governments when assessing feasibility licenses but also across land, environmental and cultural heritage approvals, procurement and employment policies, and grant program funding requirements. The 10 principles are as follows:

1. Engage respectfully

2. Prioritise clear, accessible and accurate information

3. Ensure cultural heritage is preserved and protected

4. Protect country and environment

5. Be a good neighbour

6. Ensure economic benefits are shared

7. Provide social benefits for community

8. Embed land stewardship

9. Ensure cultural competency

10. Implement, monitor and report back

Adherence to these principles also creates opportunities for enhancing ecological and cultural values of our oceans. WWF has a long history of supporting sea and country ranger programs across Australia and has identified it as one of the 5 big ideas to tackle climate change[23]. Although something that should be determined through meaningful engagement, there may be significant opportunities for the offshore wind industry to support Sea and Country Ranger programs as part of the industries contribution to both.

Thank you for the opportunity to provide a submission to this inquiry. For further information contact Rob Law, Senior Manager Energy Transitions at rlaw@wwf.org.au.

[23] https://wwf.org.au/what-we-do/caring-on-country/

For more information

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