An Taisce
The National Trust for Ireland



An Taisce **Offshore Wind** Policy Position

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An Taisce is very supportive of offshore wind development that is done sustainably; that is fully compliant with our national, European and international legal obligations; and that recognises the intertwined nature of the climate and biodiversity crises by avoiding particularly ecologically sensitive areas and fully assessing and mitigating potential ecological impacts.



The urgent need for developing renewable energy while protecting biodiversity

The urgency of the climate emergency is undeniable, and the need for action is clear. Yet climate change and biodiversity are inextricably linked. Terrestrial and marine ecosystems currently absorb roughly half of man-made carbon emissions. Biodiversity and healthy ecosystems are essential to mitigate against climate change, yet climate change is irrevocably damaging those same systems and species.

The protection of our biodiversity is a cost effective and logical way to mitigate against the impacts of climate change. Failure to protect our biodiversity and the further descent into the sixth mass extinction[1] will inevitably lead to an ecological tipping point, whereby our natural systems will no longer function as a mitigant for climate change, and we will have lost a primary means of combating our rising carbon levels.

In our drive to decarbonise our society at the speed and scale necessary, it is essential to balance the urgent decarbonisation requirements of society with the needs of biodiversity. Shipping, overfishing, fossil fuel exploration, pollution and climate change have already caused degradation of the marine ecosystem. It is critical that offshore wind not be developed in such a way that it acts as another major pressure. This can be achieved with the right marine spatial protection and planning regime, rigorous and extensive data collection and robust environmental impact assessments. In this way, the three pillars of sustainability can be secured (society, environment, economy). In particular, proper marine spatial planning is an essential tool for ecosystem-based approaches to offshore wind development and is vital for equitably allocating space in the marine area for different uses while ensuring the protection and enhancement of marine biodiversity.

The worsening climate crisis requires great urgency in the rapid rollout of renewables, as required by the EU target of 42.5% renewable-generated energy, and the national target of 80% renewable energy generation by 2030.

The rapid rollout of renewables is also a key part of ensuring compliance with our legally binding carbon budgets. It is our position that careful spatial planning is critical to balance renewables rollout with marine biodiversity preservation and enhancement.

The ecosystem services offered by the marine environment, particularly carbon sequestration, as well as rich cultural and provisioning services need to be secured and enhanced to tackle the dual crises of climate and biodiversity breakdown.

We must ensure that by developing offshore wind in the interest of emissions mitigation that we do not also worsen the climate crisis by damaging crucial marine ecosystems. With proper ecosystem-led spatial planning, we would be able to designate the space required in the marine area to facilitate both offshore wind development and ecosystem enhancement and restoration.



Renewable-generated energy targets by 2030

Ongoing public policy incoherence

The current legislative and public policy framework for marine planning remains incoherent and is not yet plan-led or ecosystems-based. It also remains inconsistent with crucial EU Marine Directives, including the Marine Strategy Framework Directive (MSFD) and the Maritime Spatial Planning Directive (MSPD). Both Directives recognise the fundamental importance of marine biodiversity and therefore require that an ecosystems-based approach[2] be taken towards marine planning and activities. Such an approach would make ecological considerations fundamental in decision making and recognise that any benefits gained from human activities in the marine area are entirely dependent on having and actively supporting a thriving marine ecosystem. We have not yet implemented this.

The Marine Spatial Planning Directive requires Member States to make Maritime Spatial Plans to delineate what activities will take place, where in the marine area they will occur and at what intensity. Ireland's National Marine Planning Framework (NMPF), which is supposed to be a Maritime Spatial Plan under the Marine Spatial Planning Directive, does not constitute what can be meaningfully described as a plan for the purposes of the Directive – it does not actually provide a spatial plan for where marine activities will take place, what those activities will be, and what the level of intensity of those activities will be across their distribution. The Marine Spatial Planning Directive also requires an ecosystems-based approach to be taken in Maritime Spatial Plans, but the National Marine Planning Framework also does not provide any spatial assessment of ecological sensitivities and potential sensitivities in relation to human activities.

Irish law has provided for the creation of Designated Maritime Area Plans (DMAPs) to cover specific regions of Ireland's marine area. DMAPs must be consistent and aligned with the National Marine Planning Framework and need to be developed in the same way and to the same standard as a Maritime Spatial Plan under the requirements of the Marine Spatial Planning Directive. However, even if DMAPs were done in full compliance with the Marine Spatial Planning Directive, they cannot fix the issues with the National Marine Planning Framework's non-compliance - the problems with the National Marine Planning Framework cannot be incrementally fixed with individual DMAPs. This leaves the EU-required ecosystems-based approach still compromised.

On top of these issues, there is an ongoing failure to provide for Marine Protected Areas (MPAs) as required by the Marine Strategy Framework Directive. Designating MPAs at the start of marine spatial planning processes is key to a truly ecosystems-based approach. Very regrettably, the long-awaited MPA legislation has still not been published as of the end of 2024. Despite the target of 30% of the marine area to be protected by 2030, less than 10% our waters have been designated as protected areas while multiple offshore development proposals move forward.

Leaving MPA designation until after multiple projects go through planning, after the development of DMAPs, etc., as we are now doing, poses the risk that planning applications may be granted in some of the most diverse and ecologically important areas in Ireland's marine waters, which would likely be designated as MPAs in the future, or presently, had the provisions for MPA designation been finalised sooner. It could also lead to the designation of MPAs occurring in the remnant areas after all of the other marine sectors have been allocated their geographical area. This runs completely counter to the ecosystems-based approach required by the Marine Spatial Planning Directive and Marine Strategy Framework Directive.

Ultimately, we currently have a backwards approach to marine planning. To ensure that we can rapidly roll out offshore wind in ecologically appropriate places, we need to ensure that our marine planning system is truly plan-led, uses an ecosystems-based approach, and is fully compliant with EU law.



Recommendations

- **The government should urgently review the current marine planning legislative and policy framework in Ireland, including key plans such as the National Marine Planning Framework for compliance with the EU Marine Directives. They should then be updated or amended where necessary.**
- **Introduce the long awaited Marine Protected Area legislation as a matter of priority and designate MPAs rapidly after the legislation is commenced.**
- **Implement an ecosystems-based approach, in keeping with the legislative requirements.**

Adherence to key EU Directives

When considering any offshore wind proposal, legal compliance is a fundamental concern.
It is critical that planning authorities ensure adherence to the provisions of key EU Directives.
This includes but is not limited to:

- **Environmental Impact Assessment Directive** (2014/52/EU); to ensure a thorough assessment of the likelihood of offshore wind projects having a significant effect on the environment, with development consent only possible after this process.
- **Habitats Directive** (92/43/EEC) and **Birds Directive** (2009/147/EC);to ensure that the ecological integrity of protected habitats and species are safeguarded in the project design, site selection and assessment of offshore wind farms.
- **Water Framework Directive** (2000/60/EC) - particularly in light of Article 4 and whether a proposal may cause a deterioration of the status of a water body or if it may jeopardise the attainment of good water quality status, good ecological potential or good water chemical status;
- **Marine Strategy Framework Directive** (2008/56/EC) - in particular whether a proposal would jeopardise attainment of Good Environmental Status and any of its 11 indicators.

Biodiversity impacts

There will inevitably be adverse impacts to biodiversity arising from the installation of offshore wind infrastructure. However, climate change ultimately represents the biggest threat to marine biodiversity. As such, this is a very difficult circle to square, and trade-offs are unfortunately unavoidable at this stage. It is therefore essential that we plan and manage offshore wind installations to avoid and mitigate biodiversity impacts to the best of our ability. The degradation of marine ecosystems also diminishes the ability of the oceans to sequester carbon, further exacerbating the climate crisis.

Wind turbine introduction can have impacts on the benthic community (seafloor dwelling creatures), marine mammals, fish, birds, bats, etc. Their presence and construction inevitably alters certain marine ecosystem dynamics, requiring delicate management practices and appropriate ecosystem-led spatial planning.

Proper spatial planning and sensitive siting of offshore wind can help ensure that climate mitigation and biodiversity retention can occur in tandem. This requires up-to-date scientific information on the risks which offshore wind development poses to different ecosystem elements. However, we would emphasise that studies on the full range of offshore wind's ecological impacts are in their infancy, particularly with regard to the magnitude of impacts, which highlights the importance of a sensitive and rigorous approach to planning and management. Studies have indicated that there can be negative impacts on marine ecosystems arising from offshore wind development, especially at the construction stage.[3] Yet significant knowledge gaps remain - from the macro level regarding impacts to ecosystem functioning and hydrodynamics, to specific impacts on particular species. These potential impacts should be kept in mind when assessing offshore wind development on a case-by-case basis.

Further rigorous data collection needs to be prioritised regarding species distribution, abundance and migratory behaviours in order to fill the existing data gaps in an Irish context (e.g potential bird and bat impacts). In cases where the paucity of data leads to uncertainty of impact, it is all the more important for siting, construction, operation and decommissioning to be done sensitively and with very rigorous mitigation employed.

In the first instance, turbine locations and cable routes should be very carefully sited to avoid the most sensitive marine habitats. We would emphasise the need for thorough environmental assessments in this regard to secure positive biodiversity and climate outcomes. The physical construction of the infrastructure should be as localised as possible, and a full suite of mitigation measures should be applied rigorously. Gravel beds are frequently used for fish spawning, so these areas should be identified in pre-planning and avoided wherever possible.



For example, the laying of cable infrastructure can create adverse impacts for organisms living on the ocean floor within sandbank habitats, which provide crucial services for the healthy functioning of the marine ecosystem. At the same time, the introduction of hard substrate turbine foundations can create artificial reef conditions which could help with diversity and recovery of certain species. However, the biodiversity benefits provided by this type of artificial reef structure, while often cited, remain uncertain.[4] This demonstrates the importance of proper mitigation and management on a case-by-case basis, due to the uncertainty surrounding the ecological impacts of offshore wind turbines, as well as the need to avoid the marine areas which are deemed to be most ecologically sensitive to offshore wind development.

While there remains a great deal of uncertainty regarding the impacts on certain species, and what the best mitigation is, in certain cases mitigation measures are proven and play a critical role in the development of certain aspects of offshore wind in a sustainable way. For example, mitigation for impacts on marine mammals is already a well developed field.

Noise abatement and other mitigation measures should be rigorously implemented to minimise the potential impacts to marine mammals. Proven measures include utilising bubble curtains, marine mammal observation techniques, passive acoustic monitoring, soft-start piling procedures, and acoustic deterrent devices.

Overall, where best practice mitigation measures already exist, they should be used rigorously. In cases where uncertainty remains, further research should be prioritised.

As floating turbine technology develops and becomes more widely available, it should be considered where it would lead to more positive biodiversity outcomes.

Furthermore, cumulative impacts with other offshore wind developments and other activities occupying the marine space, such as fisheries, should be outlined in detail within impact assessments which includes cooperation with the UK jurisdiction.

Ultimately, it is critical that each application is assessed by An Bord Pleanála on a case-by-case basis, with external expert input sought where necessary.

Recommendations

- **Impacts to biodiversity should be assessed and mitigated on a case-by-case basis using the most up to date survey methods and employing proven mitigation measures. Where uncertainties exist, mitigation should be used widely. For example, implement proven noise abatement measures appropriate to the development and location to protect marine mammals.**
- **Fully assess and mitigate cumulative impacts, including transboundary impacts.**
- **Prioritise further research regarding species distribution, abundance and migratory behaviours in order to fill the existing data gaps in an Irish context.**

Prioritising the use of offshore wind-generated power

It is critical, in order to increase public acceptance of offshore wind development, that any development of our collective marine commons should ultimately be for the public good. If offshore wind farms are perceived as a way to power additional large energy users (LEUs) such as data centres, rather than to deal with our existing power demand, it may hinder the public acceptance of these developments, and further delay their roll out.

Offshore wind developments should first and foremost be used to address our existing mitigation needs and to decarbonise our existing electricity uses. It should not be prioritised for allowing new large energy users to be developed, unless it can be demonstrated that such uses would be in the public interest when weighed against critical societal needs such as power for heating, transportation, etc.

There is undoubtedly a need to provide renewable electricity to industrial and large energy users as part of our decarbonisation efforts, and offshore wind certainly has a role to play in this.

A proper plan-led approach to offshore wind development needs to plan for and balance the end uses of the energy produced, this should not be entirely left to the project consenting stages.

Issues of a just transition and energy justice also require consideration in the context of offshore wind end uses.

Overall electricity demand reduction is also crucial, and offshore wind should not be used to permit further unabated expansion of demand in the large energy users sector.



Recommendation

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Design flexibility

Planning law allows for a degree of flexibility in design options presented at planning stage to account for rapidly developing technology and changing conditions at sea. Any assessment of design options set out in planning applications, the setting of planning conditions in relation to approved options, and the selection process for the final option all must comply fully with the requirements of EU law, including but not limited to the Environmental Impact Assessment Directive and the Habitats Directive.

Landscape and built heritage impacts

The visual impact of offshore wind turbines are a concern for some members of the public. However, any concern regarding the visual impact must be tempered by the reality of the situation in which we find ourselves. Climate change poses a significant risk to coastal communities via sea level rise, storm surge and erosion.

Climate change also poses a significant threat to marine habitats and biodiversity. As such, any delay in decarbonising our energy system exacerbates climate change, further undermining the security of our coastal communities and the health of our oceans. To help address visual impact concerns, clear, detailed, and ongoing communications are needed between wind developers and coastal communities throughout the process from the earliest stages of pre-planning. Consideration should also be given to locating windfarms further offshore away from sensitive habitats and to reduce visual impacts.

It is imperative that the planning and development of offshore wind turbines is done in alignment with our commitments under The European Landscape Convention, and the National Landscape Strategy for Ireland, which aims to inform and assist in the resolution of challenges arising from competing priorities in the landscape. In any visual assessment, the cumulative visual impact of a number of windfarms being developed adjacent to each other must also be considered.

Offshore wind installations, like any development, have the potential to impact built heritage and archeological sites - both terrestrially where landfall points and cable routes are planned as well as at sea. In the first instance, heritage sites should be avoided where possible.

Heritage impact assessments and archaeological impact assessments should be conducted in line with best practice guidance, and all recommended mitigation measures must be implemented where avoidance is not possible.



The visual impact of offshore wind turbines are a concern for some members of the public. However, any concern regarding the visual impact must be tempered by the reality of the situation in which we find ourselves.

Climate change poses a significant risk to coastal communities via sea level rise, storm surge and erosion.



References

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[3] Watson et al. 2024. The global impact of offshore wind farms on ecosystem services. https://www.sciencedirect.com/science/article/pii/S0964569124000085

[4] Offshore Wind Farm Artificial Reefs Affect Ecosystem Structure and Functioning: A Synthesis | Oceanography (tos.org)

Photos: Canva.com



An Taisce was founded in 1948. It is an independent charity and one of Ireland's oldest and largest environmental organisations.

Our core mission is to protect, preserve and celebrate Ireland's natural and built environment for present and future generations, and to ensure Ireland leads the way in defending a liveable planet.

Our vision is of an Ireland where our environment, natural and built, is actively prioritised and a lasting legacy of sustainability and resilience is ensured.

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