

Offshore wind farms and marine protection in the North Sea

The climate emergency and biodiversity loss are today's greatest threats to people and nature. A transformational change in how we use ocean and planetary resources is required now if the world is to achieve the goals and aspirations, set by the Paris Agreement¹ and the United Nations Agenda 2030², for a better future for all. We must urgently steer towards a truly sustainable, decarbonised and circular Blue Economy and a general shift in the consumption of energy towards energy saving consumer patterns.

https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement

² https://www.un.org/sustainabledevelopment/sustainable-development-goals

Across Europe as elsewhere, a shift towards a 100% renewable energy system is needed as we move away from fossil fuels and towards a climate neutral energy future. The installation of renewable energy capacity thus needs to speed up dramatically. This will require a fully integrated renewable energy planning across land and sea, identifying areas best fit for renewable energy development, where such development causes the least ecological damage, and areas of highest ecological value.

In the ocean, a network of well-managed marine protected areas (MPAs) is key to restore and safeguard marine biodiversity providing the backbone to healthy functioning and resilient ecosystems and improved ecosystem services³. This is essential to cope with the cumulative impacts of human activities and the climate emergency. The rapid expansion of renewable energy generation, most notably wind energy, will affect and change many marine and coastal landscapes, habitats and species, including the direct environment of 200 million people living in the EU coastal regions. Environmental issues have to be identified at the earliest possible stage and tackled proactively during planning to ensure renewable energy development is not unnecessarily impeded.

WWF supports the development of renewable energy in the North Sea, in order to stay below 1.5 degrees Celsius human induced global warming, and when carried out in line with sustainable (i.e. saving) energy demands, and also supports North Sea biodiversity protection and restoration targets. To help achieve this, WWF requires that, as a first principle, future renewable energy developments should not be placed within MPAs and other ecologically valuable areas for sensitive species and habitats and/or providing climate refugia. Additionally, renewable energy development at sea must always use marine space carefully, support ocean resilience, work in a nature-based way, and apply the precautionary principle at all times.

³ https://www.pnas.org/content/114/24/6167.short

WWF Asks:

These are the key elements of offshore wind farm development in the North Sea, including their grid connection and other infrastructure components:

- 1. Implementation of an effectively managed network of MPAs in the North Sea needs to be fast-tracked, as this provides resilience for sustainable use of the marine environment, including for renewable energy. Until this network is established, the cumulative impacts from renewable energy, in combination with different kinds of exploitation, pollution, shipping and offshore installations cannot be successfully buffered by nature.
- 2. Given that sea space is limited and marine species are mobile, coordination and cooperation across borders is paramount. The deployment and interconnection as well as the identification of the most suitable areas for renewable energy, require a shared long term vision at a sea-basin scale.
- 3. Systematic, strategic and smart site selection (i.e. by ecosystem-based marine spatial planning) needs to be mandatory for all activities at sea, including renewable energy, allocating space for wind farm development only in areas which are considered suitable from an ecological point of view. The site-selection process must align with on international standards, clear environmental criteria, current knowledge of cumulative impacts and life-cycle assessments. The latter assess the environmental impacts associated with the different stages of design, construction (from raw material extraction through materials processing, manufacture and distribution), operation (use, repair and maintenance) and decommissioning (repowering, disposal or recycling) of offshore wind farms. Where negative marine biodiversity impacts still occur, a full compensation of these impacts must be mandatory, including the needed suitable space for those measures.
- 4. Robust and appropriate independent monitoring of impacts at the different stages of design, construction, operation and decommissioning must be carried out within broad-scale research programs, with the information made transparent and publicly available, so that knowledge is built, lessons are learned and corresponding measures are succesfully implemented.
- 5. Best-proven technology, according to independent review, with the least impact on North Sea ecosystems must be prioritised during the different stages of design, construction, operation and decommissioning. Further independent broad-scale research into new technologies to understand and reduce the adverse impacts on the marine ecosystems, together with encompassing the benefits of healthy marine biodiversity is urgently needed. This combined approach will tackle, for instance, the barrier and collision effects on migratory birds crossing our seas, and the impact of underwater noise created during construction and operation on marine mammals, fish and other species.

In those countries where renewable energy projects already lie within MPAs or are at the stage of having an environmental impact and appropriate assessment carried out, the environmental impacts of these projects should be robustly assessed on a case-by-case basis according to the relevant nature conservation legislation and with a focus on the precautionary principle, to ensure that site conservation objectives are fully met. WWF's 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, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

WWF's principles for a Sustainable Blue Economy4:

- provides social and economic benefits for current and future generations
- restores, protects and maintains the diversity, productivity, resilience, core functions, and intrinsic value of marine ecosystems, and
- is based on clean technologies, renewable energy, and circular material flows.

To ensure that the economic development of the ocean contributes to true prosperity and resilience, today and long into the future, WWF will continue to work with partners across government, industry and civil society to implement the principles for a sustainable blue economy and our vision for a healthy and resilient ocean.

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⁴ <u>http://awsassets.panda.org/downloads/wwf_marine_briefing_principles_blue_economy.pdf</u>

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