

Powering the future, preserving the ocean

A vision for nature-inclusive
offshore renewables



Seas At Risk

- 33 environmental NGOs.
- Mission: promote ambitious policies for marine protection at European and international level.
- Scope: fisheries, marine protected areas, offshore renewable energy, marine litter, shipping, deep-sea mining and marine geo-engineering.



International members

The international members section features logos for EEB (European Environmental Bureau), ifaw (International Fund for Animal Welfare), ocean care, SHARKPROJECT, SURFRIDER (Oceanic Surfrider), and WDC (Whale and Dolphin Conservation).

Background

Main policy developments

EU Offshore Renewable Energy Strategy

2020
November

Communication on delivering on the EU offshore renewable energy ambition

2023
October

Updated non-binding agreements on offshore renewable energy

2024
December

2023
January

Non-binding agreements on offshore renewable energy

2023
November

Renewable Energy Directive

Renewable Energy Directive

Areas to achieve the national contribution to the EU 2030 renewables target

- No mandatory requirement to take environmental sensitivity into account, but recommended.
- Deadline: **21 May 2025**
- **No exclusion** of Natura 2000 sites and other protected areas
- Projects within these areas **must undergo EIA and AA** when relevant.

Renewables Acceleration Areas

- Areas where RE is **not expected to have a significant environmental impact**
- Deadline: **21 February 2026**
- Natura 2000 sites and protected areas **excluded**
- Procedure: **RAA plan + mitigation rulebook** submitted for a **SEA**
- If approved **exemption from relevant environmental impact assessments** under the EIA and Habitats Directive

Offshore renewable energy targets

Offshore Renewable Energy Strategy targets (2020)

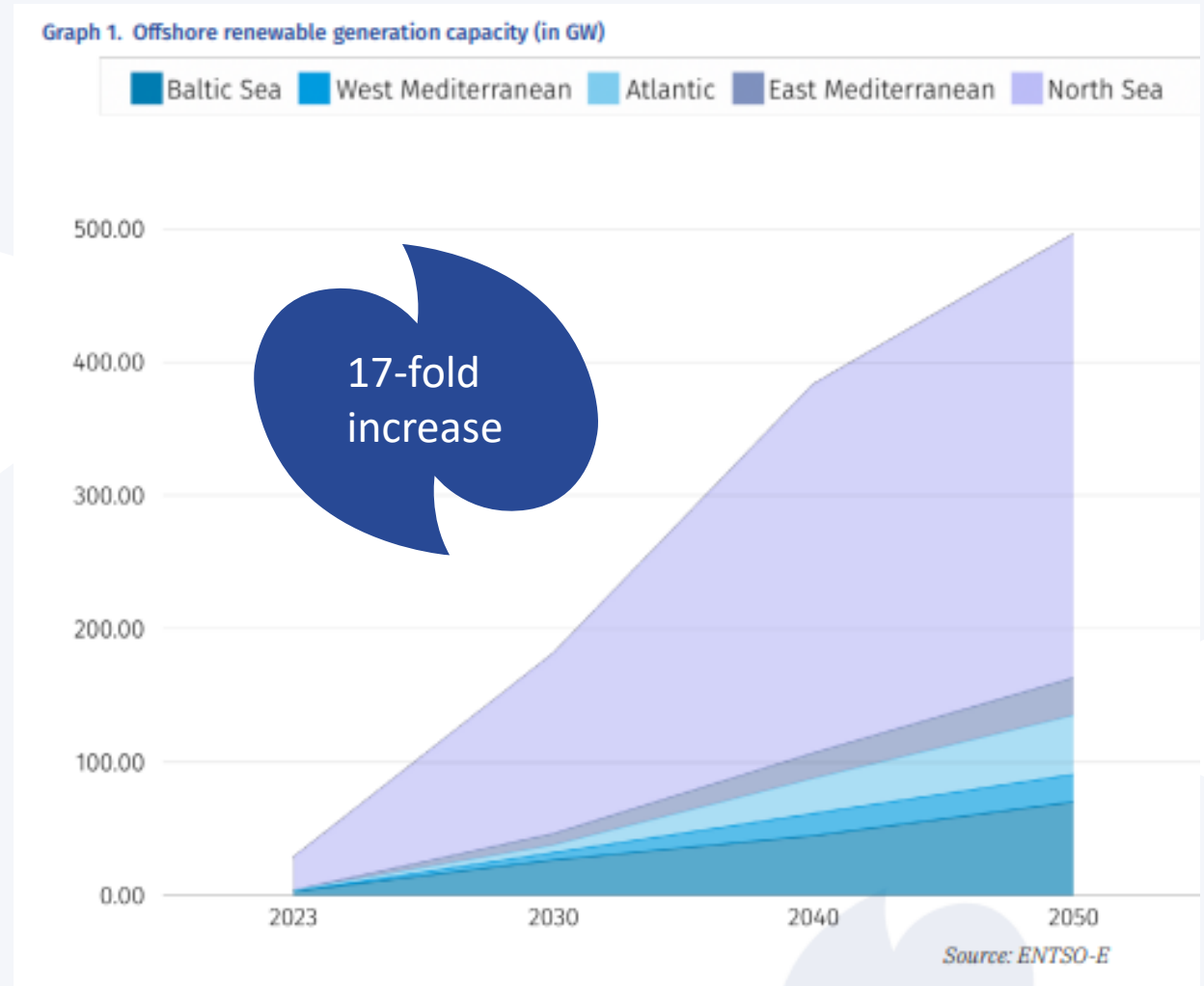
60GW by 2030

300 GW by 2050

Non-binding agreements (2024)

88 GW by 2030

360 GW by 2050



Challenges for the sustainable expansion of offshore renewable energy



European Court of Auditors' Special report 22/2023

- ❑ “Deploying offshore renewable energy faces **practical, social and environmental challenges** that have not yet been sufficiently addressed”.
- ❑ The impact of offshore installations on the marine environment has **not been adequately identified, analysed or addressed**.
- ❑ The social implications of offshore renewable energy development have **not yet been comprehensively taken into account**.
- ❑ “One of the biggest challenges is the assessment of the **cumulative effects on the marine environment**, stemming from both ORE development and its interaction with other human activities at sea.”

The environmental impacts of offshore wind

This infographic depicts a non-exhaustive list of the environmental impacts of offshore wind energy during different stages of its lifecycle, such as construction, operation and maintenance.

Wind turbines are major collision risks for birds, bats and marine mammals. Wind farms may also disrupt migratory routes and affect animal behaviour, leading to the loss of foraging and resting habitats.

The impulsive noise generated by pile driving in the construction phase has received the most attention regarding its potential negative effects on marine life.

Underwater structures can alter currents and the stratification and mixing of the water column, affect nutrient concentration and seabed habitats. These changes can impact primary production, the process through which marine microorganisms create organic matter from non-organic matter, and which is at the basis of the oceanic food web.

Service vessels generate a largely unknown amount of continuous noise to the surrounding ecosystem. This noise level should be assessed and monitored at every wind farm.

The construction, operation and maintenance of wind farms generates underwater noise. This noise can be both continuous and impulsive, and may cause physical injuries or impact behaviour in many species including birds, marine mammals, fish and fish larvae as well as invertebrates.

Turbine foundations can act as artificial reefs, potentially attracting marine life and boosting biodiversity. However, the introduction of these structures can also displace and convert habitats, attracting invasive species, and impacting ecosystems and the food web. When installing offshore wind turbines, it is crucial to consider the characteristics of native habitats to restore their original features and avoid habitat conversion, the introduction of alien species, and the resulting impacts on the food web. Longer term benefits of artificial reefs depend on wind farms are decommissioned.

Offshore wind farms can help re-establish or recover key spawning and nursing areas and may boost the recovery of benthic communities previously affected by industrial fishing and bottom-contacting gear.

The cables connecting wind turbines to land create electromagnetic fields that can affect the behaviour of species with electroreceptors such as sharks, rays, sturgeons and lampreys, and of species with a significant migratory phase.

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Policy coherence

Environmental and energy policies

EU biodiversity objectives

Biodiversity Strategy – **30% effectively protected and 10% strictly protected** areas by **2030**

Nature Restoration Law – **20% of degraded marine habitats to be restored** by **2030**

No overlap: **no offshore renewables in MPA and N2000**

Coherence within the EU energy policy

Fossil fuels phase out

Energy demand reduction





Implementation of the Renewable Energy Directive

- **Maritime Spatial Planning** as a framework to implement the Renewable Energy Directive
- **No Renewables Acceleration Areas for offshore wind** (require EIA and appropriate assessments for all projects)

Strengthen cross-border cooperation in Maritime Spatial Planning

- **Stronger cross-border cooperation** to improve coherence between national biodiversity and sectoral measures.
- Development of a **maritime spatial plan for each sea basin**.
- Strengthen and harmonise work on the assessment of **cumulative impacts**.





Nature-inclusive design and restoration

- **Mandatory nature-inclusive design**
- **Mandatory restoration** (taking into account local habitats) but **cannot count towards restoration targets**
- **Compensation measures** must be complementary to avoidance and mitigation, and cannot simply offset environmental impacts
- Use **non-price criteria** as a tool to select project with the lowest environmental impact

Examples of Nature-inclusive design



Multi-use



- A tool to support the **achievement of the EU marine protection and restoration targets** and the **livelihood of local communities**
- Strengthen data collection on the **environmental and social impact of multi-use**
- Integration in **Maritime Spatial Plans**
- The EU Commission must present further **guidance on multi-use**

Strengthen public participation

- Equip **national authorities with the skills** and **resources**
- Facilitating the **ownership by energy communities** and **involve local communities**
- **Non-price criteria** can facilitate participation in offshore renewable energy project



Conclusions

The potential of offshore renewable energy to contribute to the EU climate neutrality objective can only be fully realised if

- Its planned expansion is **coherent with EU biodiversity objectives and EU environmental legislation**, including through effective nature-inclusive design
- Its development is planned as part **of ecosystem – based maritime spatial planning** that moves **beyond national planning**
- Its deployment is done in **full respect of public participation requirements**, through **early and effective stakeholder dialogue** and **engaging local and energy communities**.



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Click [here](#) to read Seas At Risk's position paper on offshore renewable energy.

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Thank you

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