



PLANNING OFFSHORE WIND WITH NATURE PROTECTION

The policy & regulatory landscape

DENMARK

THE CHALLENGE

Reaching our climate targets requires deploying wind turbines in European seas. Denmark has the longest experience: the world's first offshore wind farm was built there in 1991.



Today, Denmark has **2.7 GW** of offshore wind energy (approx. 715 turbines). The ambitions: **14 GW by 2030** and **52 GW by 2050**. Due to the shallow depth of the North and Baltic Seas, turbines are bottom-fixed, a commercially used technology with better known impacts.



To reach our nature targets and conserve the **ecosystem services** we depend upon, it is imperative to protect marine nature. Strong regulations for both offshore wind and nature are necessary to support these goals.

SUSTAINABLE PLANNING

To minimise environmental impacts and support effective planning:



30% of the sea is reserved for renewable energy and sensitivity mapping is carried out for the entire Exclusive Economic Zone.



The impact from offshore wind projects on achieving good environmental status at sea is part of environmental assessments.



'One stop shop': the Danish Energy Agency supplies major permits and facilitates dialogue between developers and other authorities.

ENGAGING WITH SOCIETY



Danish maritime authorities organised two rounds of public consultations involving a wide range of stakeholders to feed into the Maritime Spatial Planning process. However, progress is needed to reach an ecosystem-based approach to MSP.



Job creation:



33,000 jobs **today** in the offshore wind industry (2% of the private sector employment)



Growing by 1000 new jobs **per year** until 2050



27 000 new jobs up to **2050**

In the Danish North and Baltic Seas:



Current status:
Good Environmental Status
(clean, healthy & productive
sea) **not achieved**



42 Endangered or
vulnerable species
113 Non-indigenous
species



Ambition:
10% of the sea strictly
protected by **2030** to give
space for nature to recover

Denmark reduces the impacts of infrastructure by:



Avoiding placing offshore wind farms
in valuable nature areas by using
**sensitivity mapping and standardised
bird surveys.**



Burying cables to **enable natural
sediment transport**, also reducing
the amount of electro-magnetic field
transmitted to the environment.



Having mandatory **threshold values of
noise emissions**, taking into account
cumulative values.



Having strict vessel restrictions
regulating the speed and routes of
construction vessels.

To support marine nature in Denmark:



The newly created Ocean Nature Fund aims to
restore nature at sea and to gather knowledge
about **how human activities affect marine
nature**, for offshore wind to contribute to a
healthy marine environment.



Ørsted and WWF Denmark use 3D-printed
reefs to **boost biodiversity** at the Anholt
offshore wind farm. These reefs provide
habitats for cod, a key predator with critically
low fish stocks but vital for **ecosystem health**.

Ecological and social
criteria in auctions

The use of specific **non-price criteria** in offshore
wind auctions can improve the ecological and
social standards of projects.

In 2024, Denmark used non-price **prequalifica-
tion requirements** for tendering 6 GW of offshore
wind capacity. These requirements focused on
sustainability (Life Cycle Assessment, Environ-
mental Monitoring and Nature Inclusive Design)
and **social responsibility**. The only competitive
parameter was the annual concession payment
to the state (i.e., uncapped negative bidding).
However, no bids were received in this round, and
the auction model will be **revised in 2025**.