



PLANNING OFFSHORE WIND WITH NATURE PROTECTION

The policy & regulatory landscape

📍 NETHERLANDS

THE CHALLENGE

Reaching our decarbonisation targets requires deployment of wind energy in European seas. If we look at the Netherlands, what is the current state of offshore wind development and how do their plans include nature?



The Netherlands currently has **4.7 GW** of offshore wind energy installed (approx. 670 turbines). Their ambitions: **21 GW by 2030** and **70 GW by 2050**. Due to the shallow depth of the North Sea, turbines are bottom-fixed, a commercially used technology with better known impacts.



These plans must protect marine nature to conserve the **ecosystem services** we depend upon. Strong policy and regulations for both offshore wind expansion and nature are necessary to support this goal.

SUSTAINABLE PLANNING

To minimise space used & environmental impacts:



Offshore wind farms can only be built in dedicated areas, where human activities & impacts on nature are the lowest



Electricity generated is brought to shore with subsea cables which must be installed while mitigating environmental impacts



Multi-use is allowed: other renewable energy sources, nature restoration, aquaculture & passive fishing can take place inside offshore wind farms

ENGAGING WITH SOCIETY



The unique **Dutch North Sea Agreement** brings together all marine stakeholders with binding rules to plan space at sea more sustainably.



Public consultations for offshore wind farms are **compulsory**, all citizens can comment during six-week consultation periods at various planning stages.



Job creation:



6400 jobs **today** in the offshore wind & grid industries



Growing to 430 new jobs **per year to 2030**



1000 new jobs **after 2030**

In the Dutch North Sea:



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



49 Endangered or
vulnerable species
76 Non-indigenous
species



Goal:
15% of the sea strictly
protected by **2030** to give
space for nature to recover

The Netherlands are reducing the impacts of infrastructure by:



Avoiding placing offshore wind farms in valuable nature areas by using sensitivity mapping during planning



Using **noise minimisation** tools such as soft start and bubble curtains during construction



Timing construction activities to not overlap with migration, spawning and breeding times



Testing **speed reduction** of turbine blades during large-scale bird migrations



Routing subsea cables to avoid reefs and burying cables to reduce electro-magnetic field intensity



Implementing a **centralised long-term research** programme (Wozep) to monitor the ecological effects of offshore wind

The Rich North Sea programme
shows how offshore wind & grid
infrastructure can support nature:

**On-site**

With nature inclusive design such as fish hotels

**On-site & Off-site**

With nature restoration measures such as recreating oyster beds

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

The Netherlands used this tool in two auctions:

In 2022, the Hollandse Kust West Site VI auction (700 MW) was based 90% on non-price criteria with a focus on ecology



In 2024, the auctions for the IJmuiden Ver Wind Farm Sites Alpha and Beta (2,3 GW each) use non-price criteria with components on circularity and ecology among others