# ACCELERATING OFFSHORE WIND & NATURE PROTECTION

Country profile
## 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**

KEY NATURE FACTS

## 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

MINIMISING IMPACTS

## Denmark reduces the impacts of infrastructure by:

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

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

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

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 **prequalification requirements** for tendering 6 GW of offshore wind capacity. These requirements focused on **sustainability** (Life Cycle Assessment, Environmental 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**.

Renewables Grid Initiative

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This factsheet is produced in cooperation with Members of the Offshore Coalition for Energy and Nature (OCEaN). RGI is the moderator and convener of OCEaN.

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