Point of view and interest from an EU OWF developer

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Energising the future. For 125 years.

Now, RWE is shaping the new energy era.

1898
The future starts today – 125 years ago.

1905
Commissioning of RWE's first hydropower plant.

1928
RWE builds the first cross-regional high-voltage transmission line.

1914
Lignite is the key to affordable electricity.

1970s
Security of supply thanks to nuclear power.

1950s
Powering the economic miracle.

1976
RWE researches, develops and tests renewables.

2004
RWE commissions North Hoyle in the UK – one of the world's first commercial offshore wind farms.

2016
Stock market launch for retail and grid business and foundation as generation-only company.

2019
Transaction with E.ON.

RWE becomes one of the world's leading generators of renewable electricity.

2023
RWE Renewables Americas and Con Edison CEB combine to become RWE Clean Energy.

125 years RWE

Business model aligned with our strategic energy transition

Growing Green.

Our business

Offshore Wind

- Global offshore activities

Onshore Wind/Solar

- Onshore, solar and storage activities in
  - Europe & Australia
  - Americas

Flexible Generation

- Hydro, biomass and gas-fired power plants in Germany, UK, NL
- Hydrogen projects

Supply & Trading

- Trading/origination
- Gas & LNG
- Commodity solutions
- Gas storage

Phaseout technologies

Coal & Nuclear

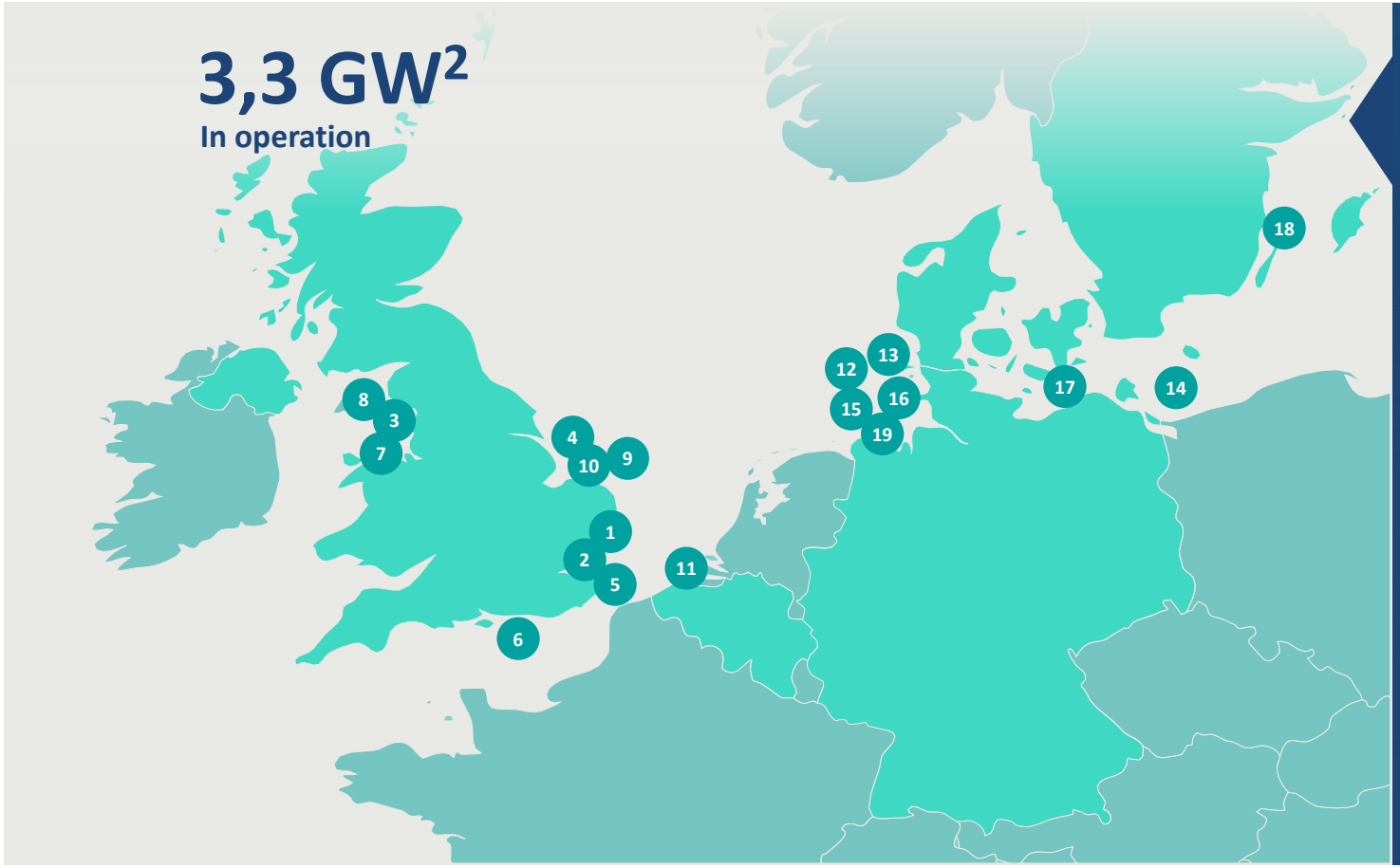
- German lignite operations (planned exit by 2030)
- German nuclear power plants (exit 04/2023, now dismantling)

GW Installed green capacity[1]

[1] Installed green capacity in pro-rata view | Note: figures as of December 2023.

Our offshore assets

In operation



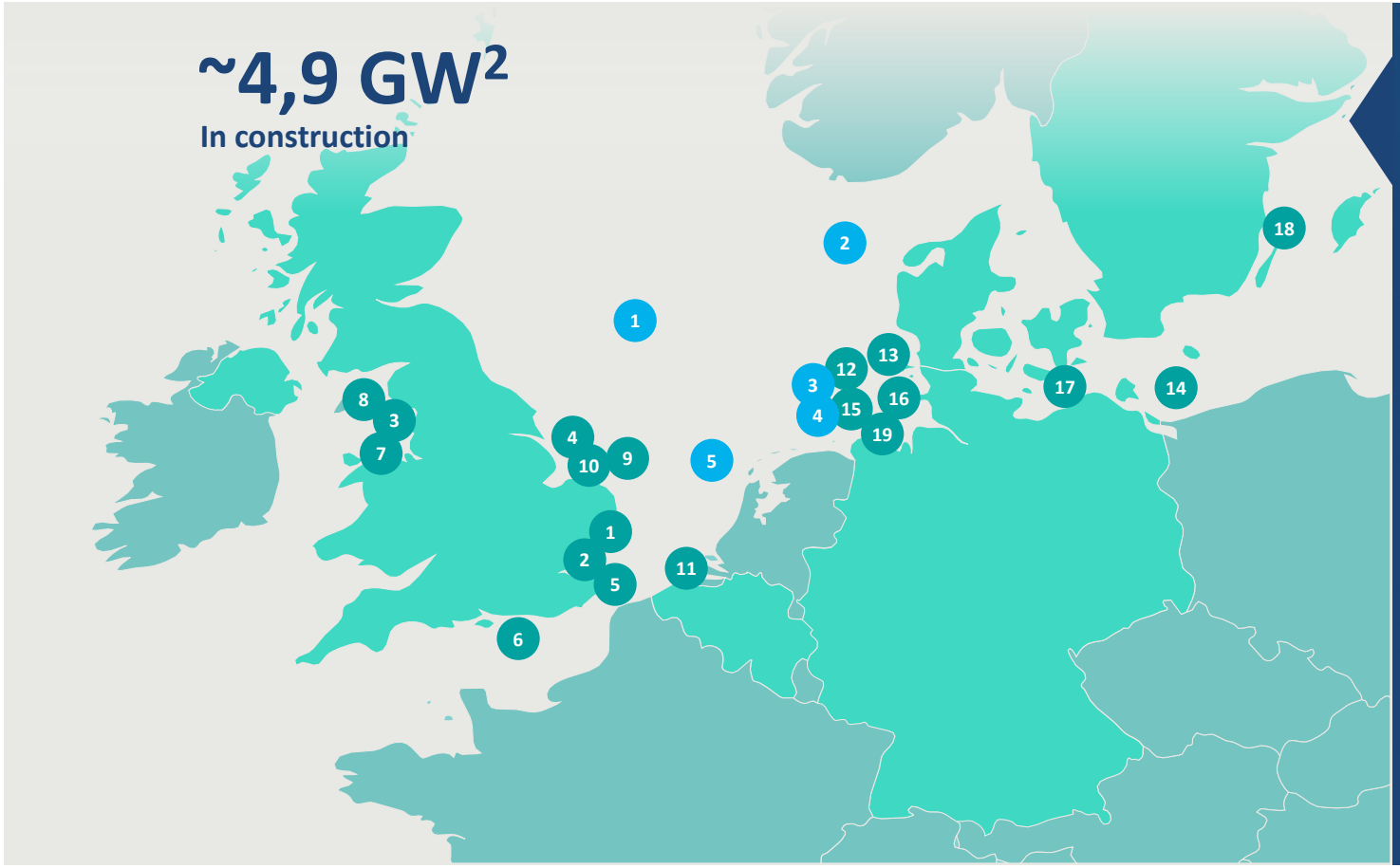
In operation

1. **Galloper**
   UK, 353 MW[1] (88 MW[2])
2. **Greater Gabbard**
   UK, 504 MW[1] (252 MW[2])
3. **Gwynt y Môr**
   UK, 576 MW[1] (288 MW[2])
4. **Humber**
   UK, 219 MW[1] (112 MW[2])
5. **London Array**
   UK, 630 MW[1] (189 MW[2])
6. **Rampion**
   UK, 400 MW[1] (200 MW[2])
7. **Rhyl Flats**
   UK, 90 MW[1] (45 MW[2])
8. **Robin Rigg**
   UK, 174 MW[1] (174 MW[2])
9. **Scroby Sands**
   UK, 60 MW[1] (60 MW[2])
10. **Triton Knoll**
    UK, 857 MW[1] (506 MW[2])
11. **Thornton Bank**
    BE, 325 MW[1] (87 MW[2])
12. **Alpha Ventus**
    DE, 60 MW[1] (16 MW[2])
13. **Amrumbank West**
    DE, 302 MW[1] (302 MW[2])
14. **Arkona**
    DE, 385 MW[1] (193 MW[2])
15. **Nordsee One**
    DE, 332 MW[1] (50 MW[2])
16. **Nordsee Ost**
    DE, 295 MW[1] (295 MW[2])
17. **Rødsand 2**
    DK, 207 MW[1] (41 MW[2])
18. **Kårehamn**
    SE, 48 MW (48 MW[2])
19. **Kaskasi**
    DE, 342 MW[1] (342 MW[2])

[1] Total installed capacity | [2] Owned renewables capacity as of April 2024. Pro rata capacity.

Our offshore assets

In operation



Under construction

1. **Sofia**
   UK, 1,400 MW[1]
2. **Thor**
   DK, 1,080 MW[1]
3. **Nordseecluster A**
   DE, 660 MW[1]
4. **Nordseecluster B**
   DE, 900 MW[1]
5. **OranjeWind**
   NL, ~795 MW[1] (398 MW[2])

[1] Total installed capacity | [2] Owned renewables capacity as of April 2024. Pro rata capacity.

RWE is one of the world's leading renewable energy companies.

No 2	No 2	No 4	No 3	No 4
Global Offshore	US Solar	US Solar & Wind	UK Wind & Solar	Europe Wind & Solar

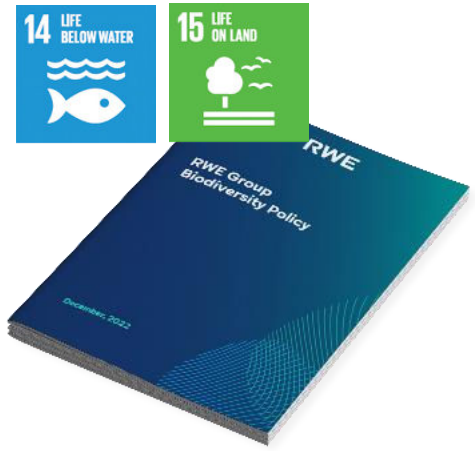
track record 20+ years in renewables

Note: Offshore market excluding China.

RWE

At RWE we are shaping Offshore wind through commitments to nature, people and net-zero targets

Biodiversity Policy[1]
December 2022



Protecting and enhancing biodiversity, incl. a **net-positive impact** for new **assets by 2030**

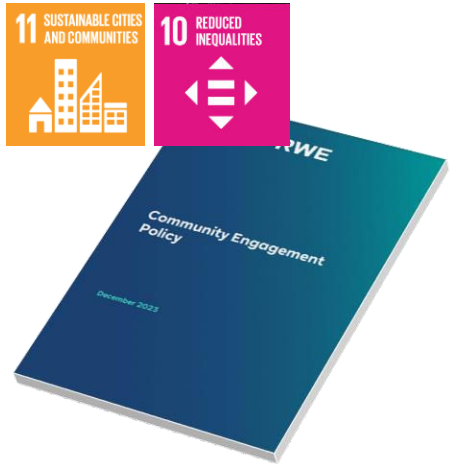
Circular Economy Policy[2]
March 2023

Implementing a circular economy, incl. **recovery rate > 90% by 2025** and being **fully circular by 2050**

Updated Climate Targets
January 2025

RWE's **2040 net-zero target** has been **validated by the SBTi** in line with the **1.5°C path** established in the **Paris Agreement**

Community Engagement Policy[3]
December 2023



Actively listen to communities, integrate local knowledge, and cultivate meaningful partnerships that **create shared value**

[1]Biodiversity Policy / [2]Circular Economy Policy / [3]Community Engagement Policy

Our integrated business along the entire Offshore project
value chain allows us to capture maximum value

The realization time of an offshore wind farm, from the first idea to the start of the project, requires continuous work and complex project management skills.

RWE's sustainability objectives are embedded across the entire offshore wind value chain, guiding our actions from early development through to long-term operations and beyond.

Why is the FISHOWF project relevant for offshore wind developers?

RWE’s perspective

Requirement for data adapted to our constraints

Environmental regulatory constraints for offshore wind development

- **Comprehensive Environmental Impact Assessment (EIA)** required prior to project approval
- **Cumulative impact assessment** at regional scale (e.g. multiple OWFs, other maritime activities)
- **Strict mitigation hierarchy**: avoid, reduce, compensate impacts on marine ecosystems
- **Monitoring obligations** before, during and after construction
- **Compliance with national & EU directives** (e.g. Birds and Habitats Directives, MSFD)
- **Stakeholder engagement** and public consultation mandatory
- **Growing expectations on biodiversity gain and ecosystem-based planning**

Reliable and fit-for-purpose data

- **Methodology, protocols, and sensors must be able to detect the effects of offshore wind farms on fish communities**
- Tools must be **adapted to offshore constraints**, as the environment presents significant challenges for data acquisition: depth, currents, turbidity, limited accessibility, etc.
- Data is required across multiple **spatial and temporal scales** to properly capture ecosystem dynamics

→ **WP5 of the FISHOWF project**

Need for data at multiple scales

Local scale

- **Develop replicable monitoring protocols** before and after wind farm construction, despite challenges posed by offshore wind farm infrastructure (e.g. turbine, cable)

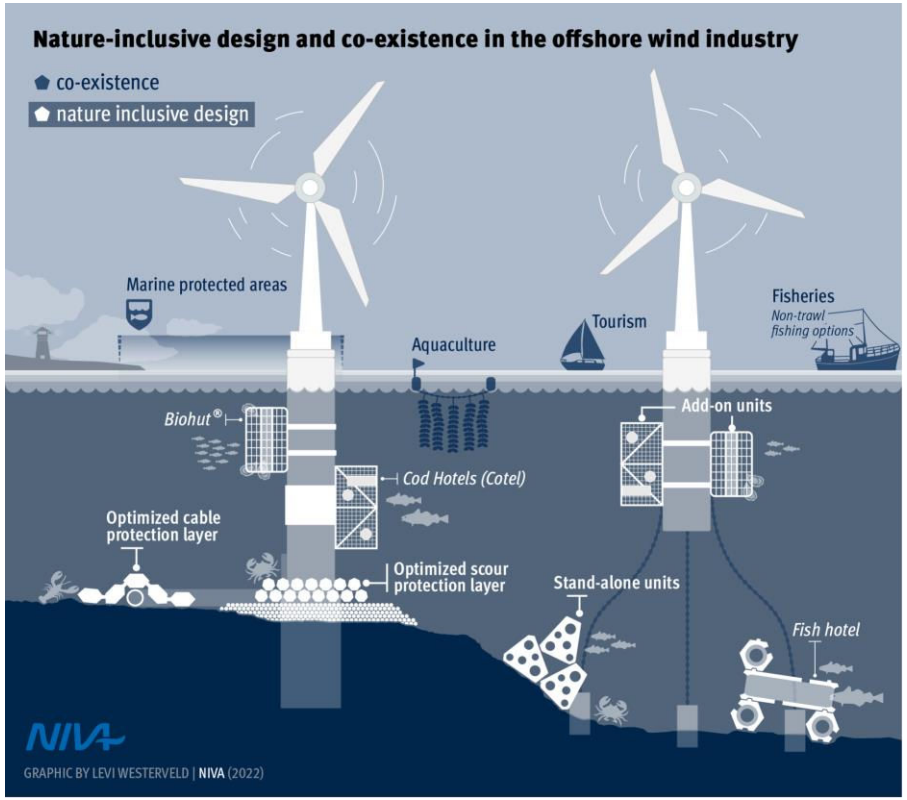
- **Tailor methods to species of concern**, including electrosensitive species such as elasmobranchs and critically endangered amphihaline species (e.g. European sturgeon, eel)

- **Understand the interactions between OWF and fish communities at a local scale**
  - What effects do OWFs have on fish communuties (e.g. reef effect, reserve effect, avoidance)? What is the current state of scientific knowledge?

- **Evaluate OWFs as protected area/potential refuges** for conservation - or commercially - important species:
  - Net biodiversity gain ? Link to co-use management strategies and ecosystem services

- **Assess the ecological role of OWF structures**:
  - Could they contribute to a net biodiversity gain? Conversely, could it act as an ecological trap ?

- **Identify preferential habitats within OWF**:
  - Inform nature-inclusive design decisions and habitat enhancement strategies



Source: Pardo et al. (2023). A synthesis review of nature positive approaches and coexistence in the offshore wind industry. ICES Journal of Marine Science

→ WP2 & 3 of the FISHOWF project

Need for data at multiple scales

Regional scale

- Support informed **decision-making in maritime spatial planning**

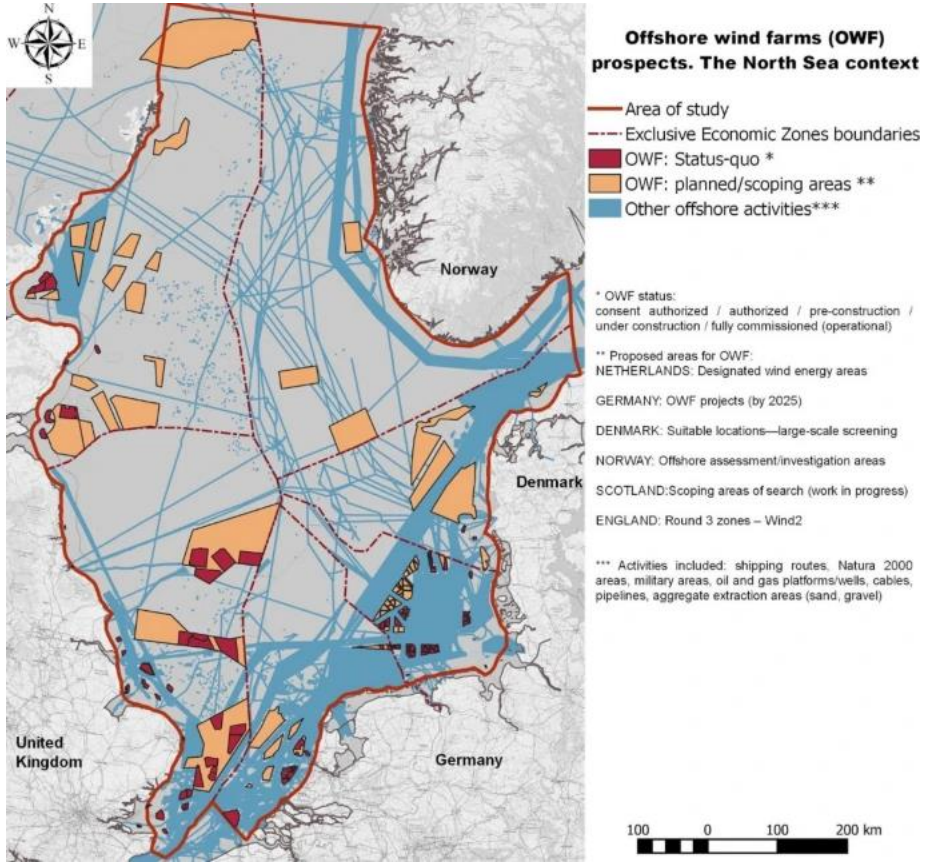
- **Coexistence and co-uses with research and fisheries activities:** the expansion of OWFs may interfere with marine data collection (e.g. bottom trawl surveys such as IBTS, fisheries-dependent data), potentially disrupting **key time series used for science-based fisheries and ecosystem management**
  - *72% of US and European marine surveys already report overlaps with operational, planned, or future OWFs**

- **Understand environmental impacts at ecologically relevant scales**
  - Identify the key functional areas used by fish populations (e.g. migration corridors, spawning grounds, nursery areas, feeding zones, resting sites) accross their life cycles

- **Account for cumulative impacts on marine species**
  - Considered the cumulative impacts of multiple OWFs as well as other anthropogenic pressures (e.g. fishing mortality, pollution, habitat loss, climate change) on fish populations (abundance, connectivity...) and ecosystem functioning and services

- **Cost-sharing and monitoring synergies**
  - OWF can serve as platforms contributing to broader marine observation networks, enabling data sharing and long-term monitoring at sea

→ WP4 of the FISHOWF project



Source: Gușatu et al. (2021) Spatial and temporal analysis of cumulative environmental effects of offshore wind farms in the North Sea basin

*Lipsky et al., 2024. Fisheries independent surveys in a new era of offshore wind energy development. ICES Journal of Marine Science

Thank you for your attention

Feel free to contact us if you have any questions:

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