

Power-to-X in the green transition

Invest in Denmark Conference and Webinar

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Ørsted develops energy systems that are green, independent and economically viable

Offshore



- Global market leader in offshore wind
- Develops, constructs, owns and operates offshore wind farms
- Renewable storage and hydrogen projects in electrolysis and Power2X technologies

Onshore



- Develops, constructs, owns and operate onshore wind, solar and energy storage projects
- 1.6 GW onshore operational capacity
- 0.8 GW under construction and pipeline to reach 5GW by 2025

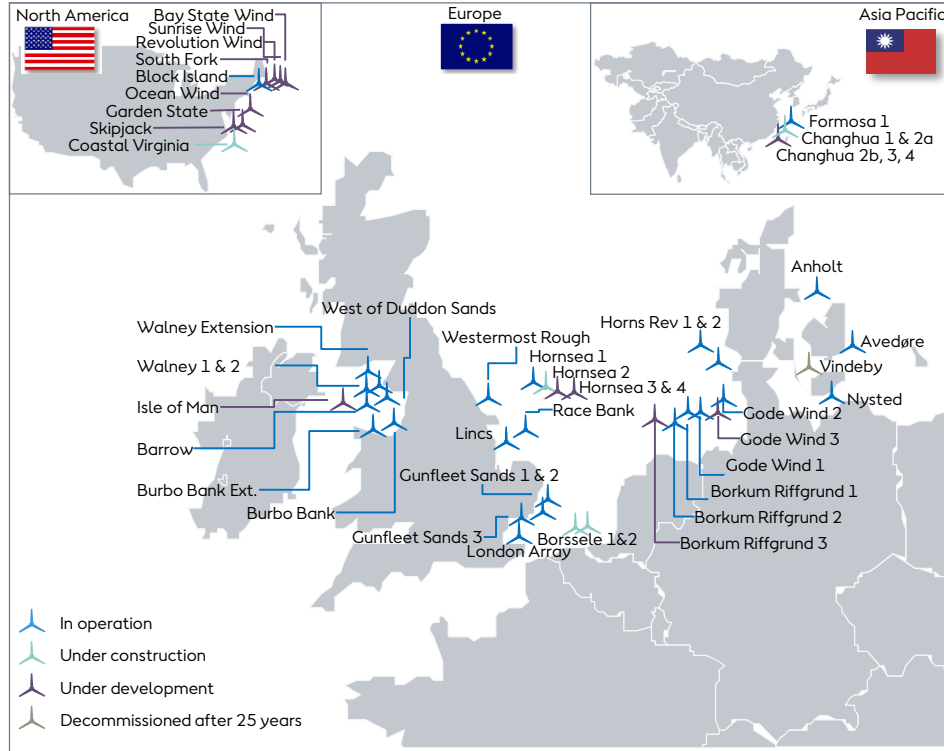
Markets & Bioenergy



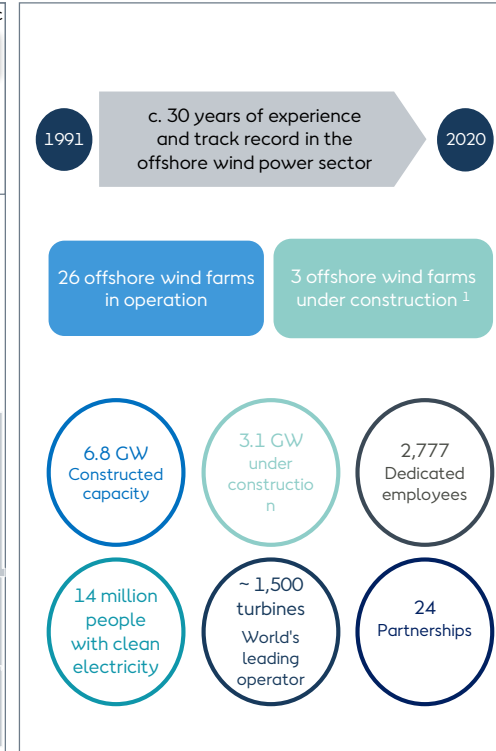
- Heat and power plants converted from coal and gas to biomass and waste-to-energy
- #1 in Danish heat and power generation with 25% of market
- Energy supply solutions for B2B customers

Global market leader in offshore wind

Ørsted offshore wind global footprint



Unparalleled experience and track record

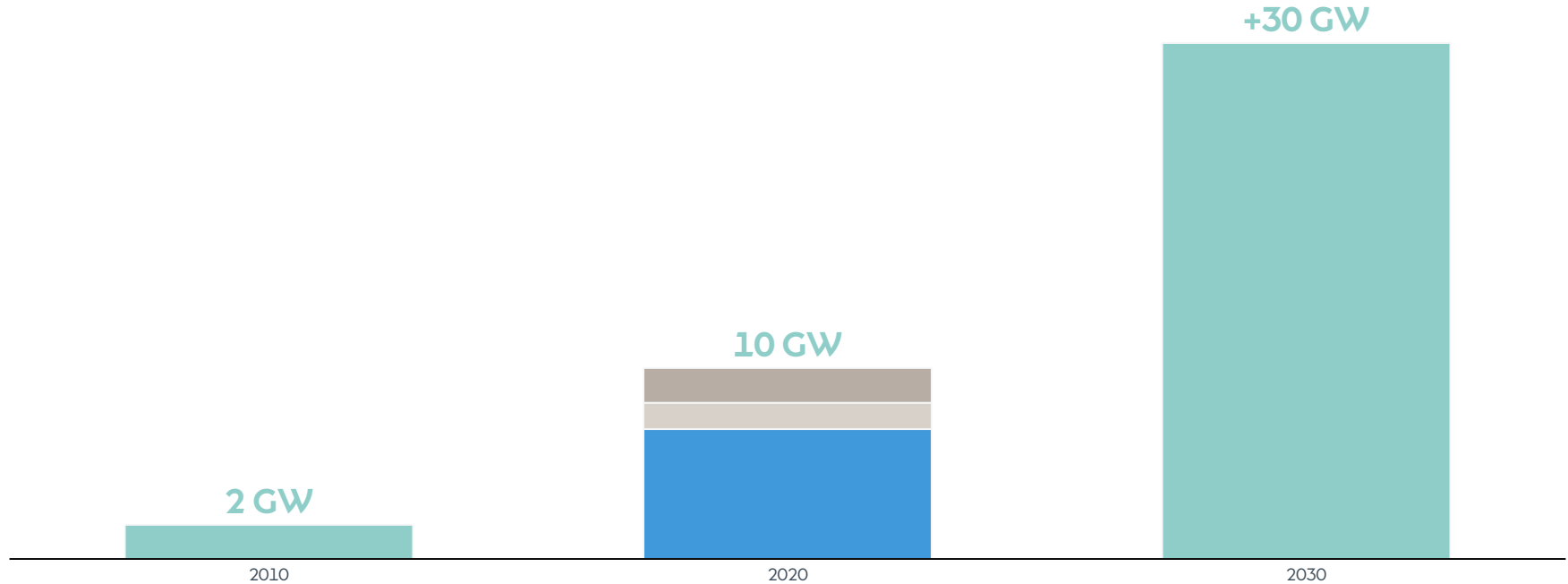


Note 1: In addition to these wind farms, Ørsted is constructing the 12MW Coastal Virginia demonstration project in the US on behalf of Dominion Energy

Ørsted green growth ambition for 2030

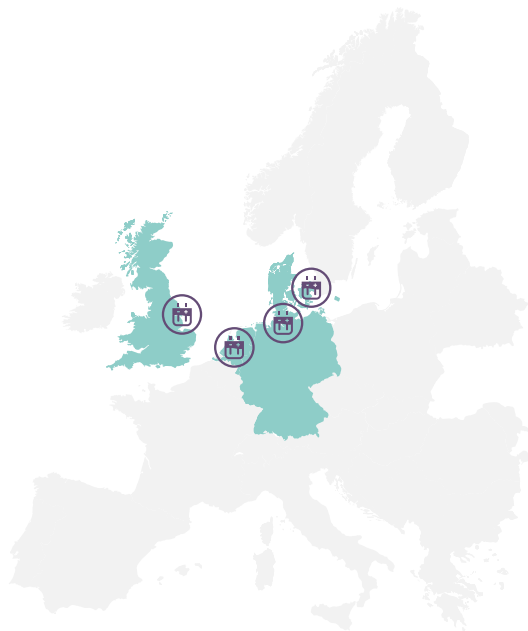
Installed renewables capacity
GW

Offshore wind Onshore wind Bioenergy Renewables¹



2020 includes Borssele 1&2 capacity, COD expected in end Q4 2020
Note 1. Includes onshore wind, offshore wind, solar PV, storage and biomass

Ørsted is working on a number of hydrogen projects



- **H2RES:** 2 MW / EUDP: DKK 34.6m / RES-H₂ for buses / Ørsted, Everfuel, Nel, GreenHydrogen, DSV Panalpina, Hydrogen Denmark, Energinet
- **Green Fuels for Denmark:** 1.3 GW / tbd / RES e-fuels for heavy road transport, shipping, and aviation / Copenhagen Airports, Mærsk, DSV, DFDS, Ørsted, SAS, Københavns Kommune (+ BCG, COWI)
- **Other PtX+CCUS projects** under development across Ørsted's Danish biomass assets



- **Reallabor Westküste 100:** 30 MW / Reallabor: € 30m / RES-H₂ for Heide Refinery / Heide Refinery, EDF Deutschland, Holcim Deutschland, Open Grid Europe, Stadtwerke Heide, thyssenkrupp Industrial Solutions, Ørsted

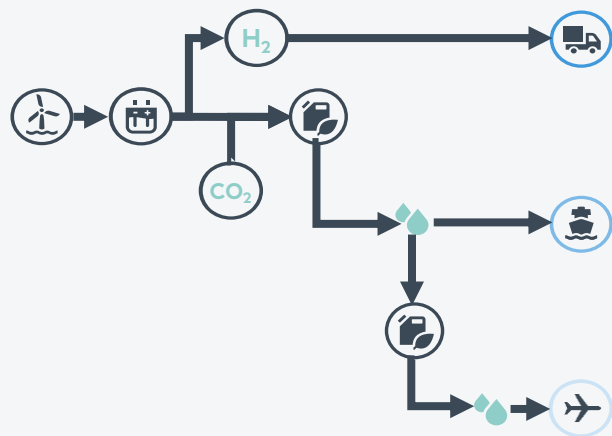


- **Sluiskil project:** 100 MW / tbd / RES-H₂ for ammonia plant / Yara, Ørsted
- **ISPT:** Cross-industry Institute for Sustainable Process Technology (ISPT) gigawatt study



- **Gigastack:** - / BEIS: Phase 2 £ 7.5m / Feasibility study / ITM, Element Energy, Ørsted

Green Fuels for Denmark: a Partnership for a groundbreaking PtX project



Phase 1: Develop hydrogen production

2023

~10 MW

Phase 2: Introduce carbon to produce fuels for shipping and aviation

2027

~240 MW

Phase 3: Scale through aviation

2030

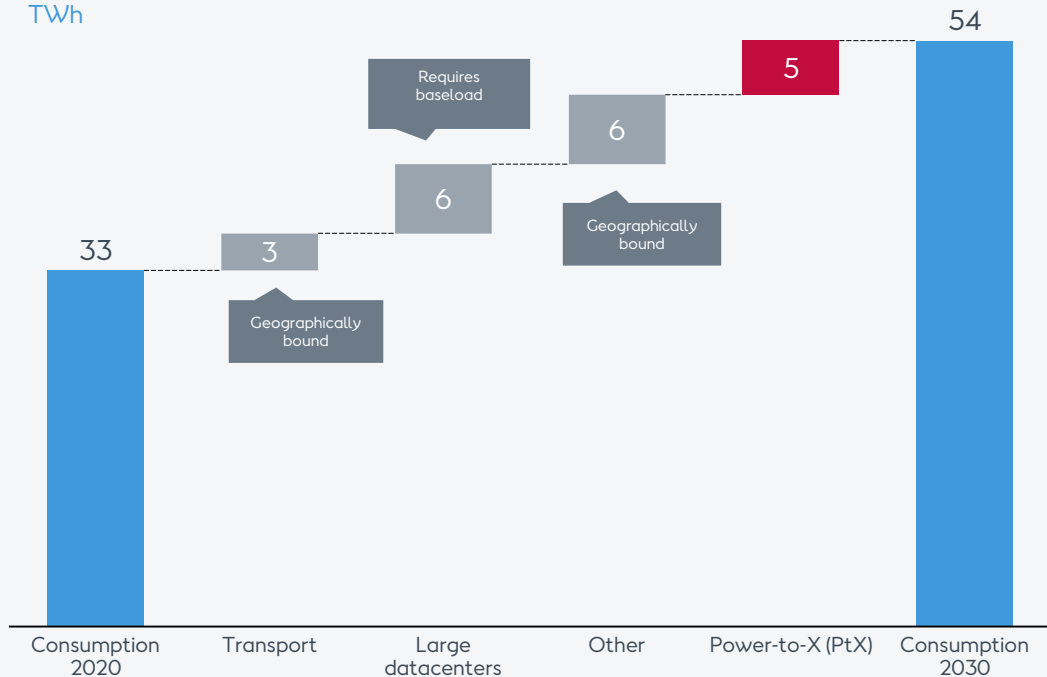
~1.3 GW

Politically agreed offshore wind will provide the opportunity to supply renewable electricity to power-to-X



The build-out of electrolyzers can go hand-in-hand with offshore wind build out and ease the integration challenge

Added power consumption from 2020 to 2030
TWh



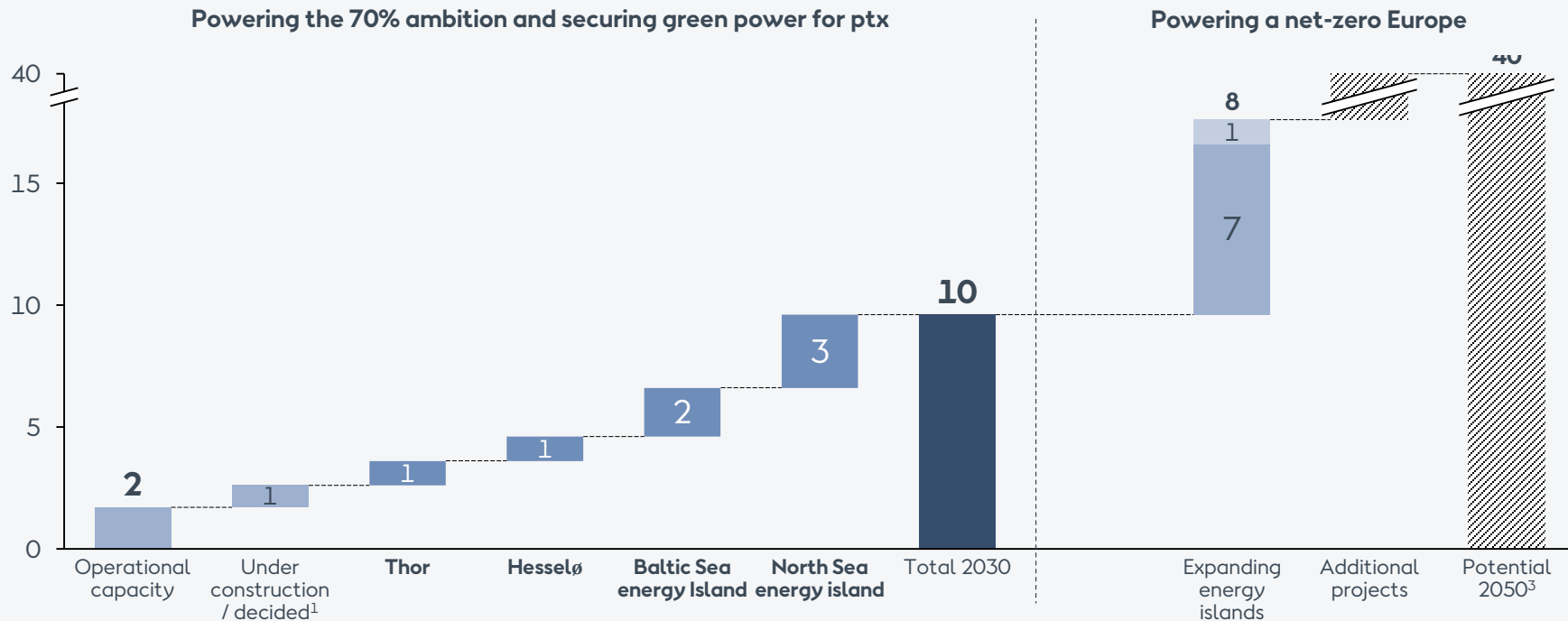
Electrolyzers go hand-in-hand with offshore wind

- New consumption that needs to be placed somewhere
- Responsive to electricity prices
- No seasonal variation
- Storability

If we get it right, it is possible for offshore wind to serve the Danish and European demand

Potential offshore wind build-out path in Danish waters

GW



1: Includes Kriegers Flak and near-shore projects

2: 1GW additional Baltic Sea, 7GW North Sea

3: Energinet "Systemperspektiver ved 70%-målet og storskala havvind", March 2020

INTERNAL

Thank you