

# The value of cooperation



Integrating the Baltic Sea energy systems and markets

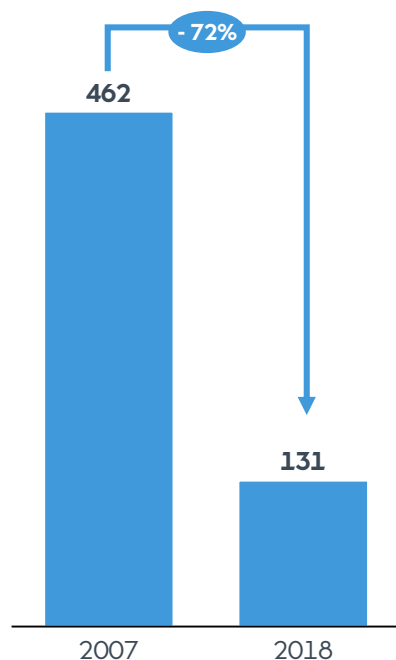
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# Significant transformation of Ørsted over the past decade<sup>1</sup>

Green energy today accounts for 80% of our heat and power generation

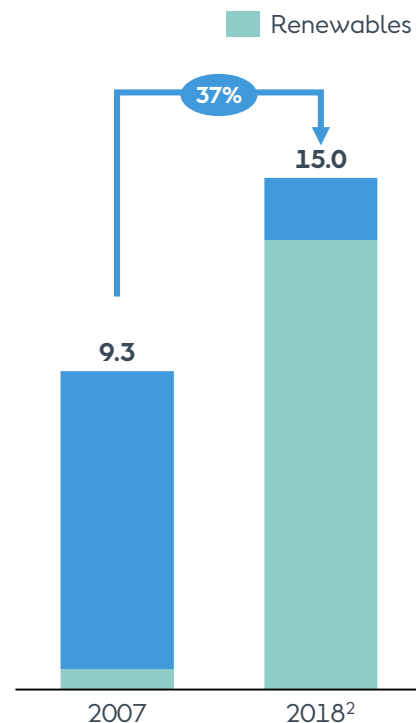
## CO<sub>2</sub> emissions reduced by almost three quarters

g/kWh



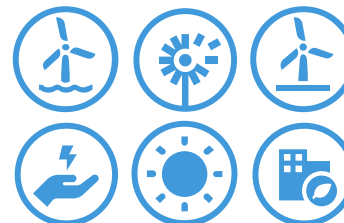
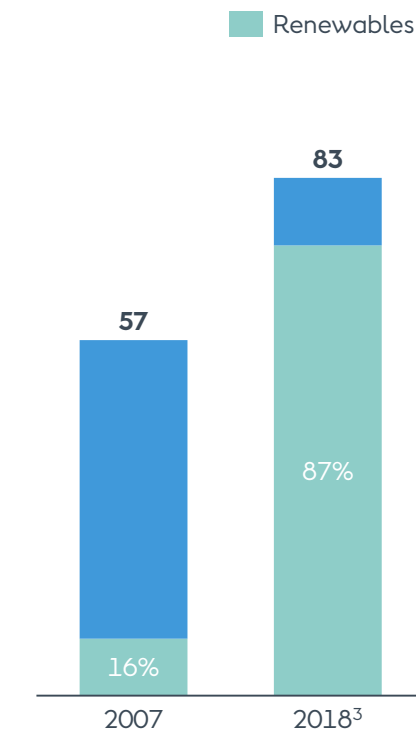
## Operating profit (EBITDA)

DKK bn



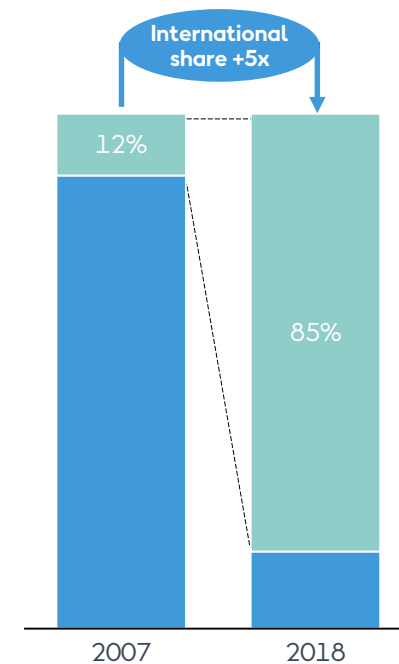
## Capital employed

DKK bn



## International expansion

Share of operating profit (EBITDA) %



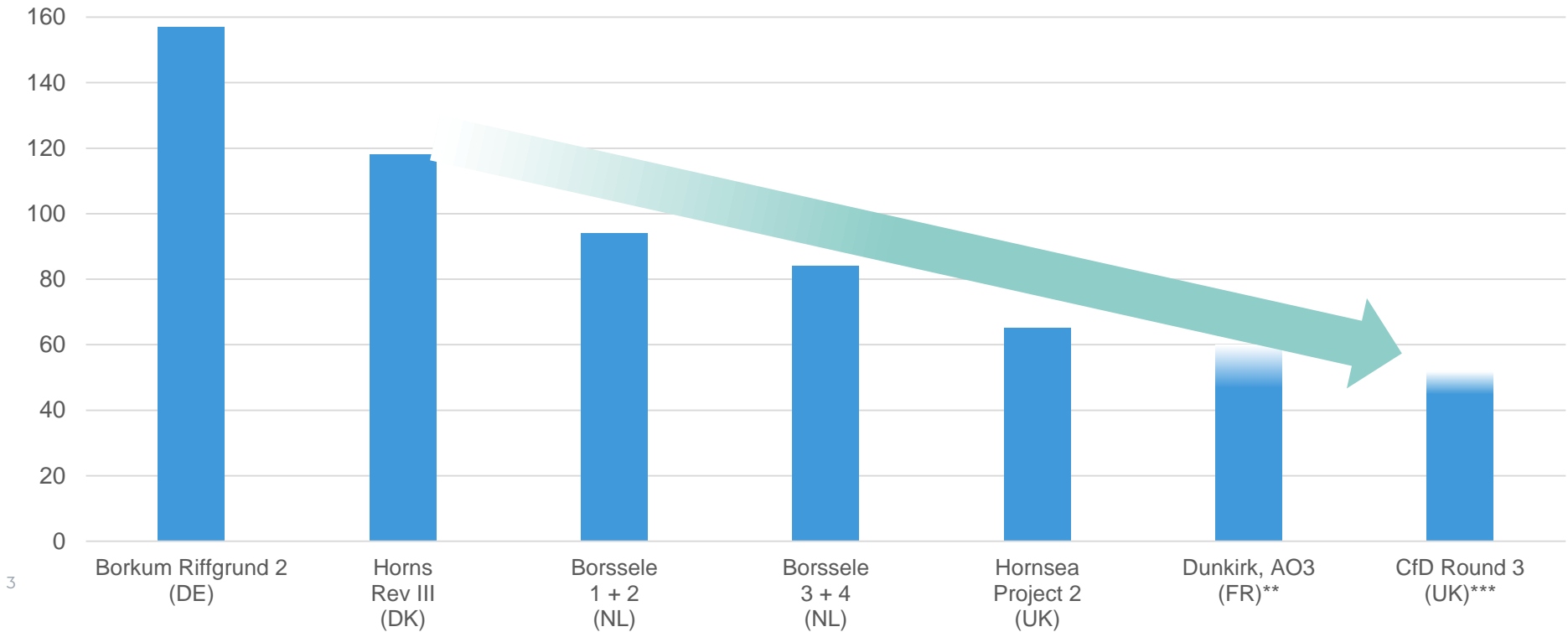
Note 1: Figures taken from Ørsted's Annual Report 2018 and Capital Markets Day 2018

Note 2: Excludes EBITDA contribution from new partnerships (EBITDA increased from USD 1.4 bn in 2007, to USD 2.3 bn in 2018)

Note 3: Capital employed increased from USD 8.6 bn in 2007, to USD 12.5 bn in 2018

# Offshore Wind has seen rapid cost reductions

Decrease in Levelized Cost of Electricity (LCoE, in EUR/MWh)\*: 2015 – 2019



\* Own calculations including costs for transmission to shore

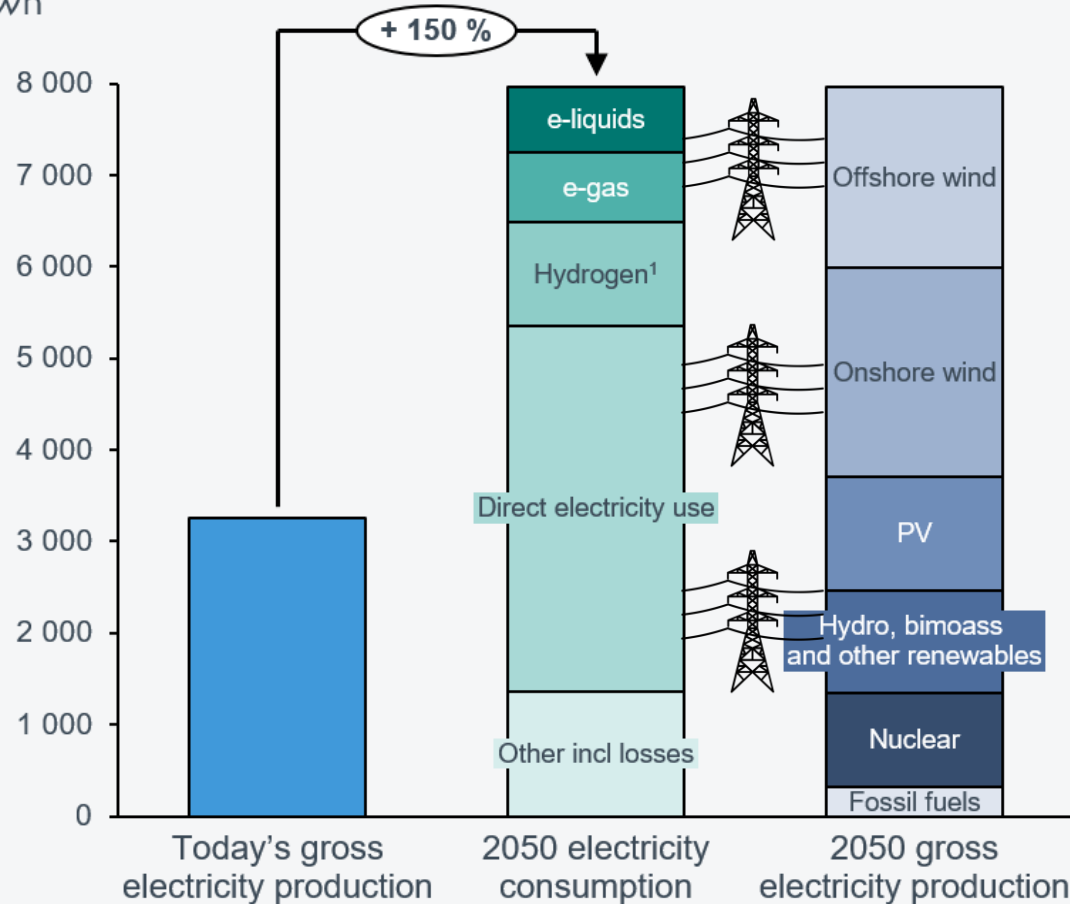
\*\* Estimated offshore transmission costs displayed on top of strike price for Dunkirk project (44 EUR/MWh)

\*\*\* Bids for UK CfD expressed in 2012 prices; offshore transmission included; uncertainty margin due to inflation until delivery year and fx-rates (EUR/GBP)

# Low costs of wind and solar energy enables clean electrification

## EU Roadmap 1,5 tech scenario

TWh



- ✓ Annual capacity to increase 6-fold
- ✓ Turbine sizes to treble
- ! Transmission to keep up with build-out
- ! Maritime spatial planning to reflect net-zero requirement

# 450 GW of offshore wind requires offshore grids – where to start?

National and EU frameworks are not ready for complex assets...



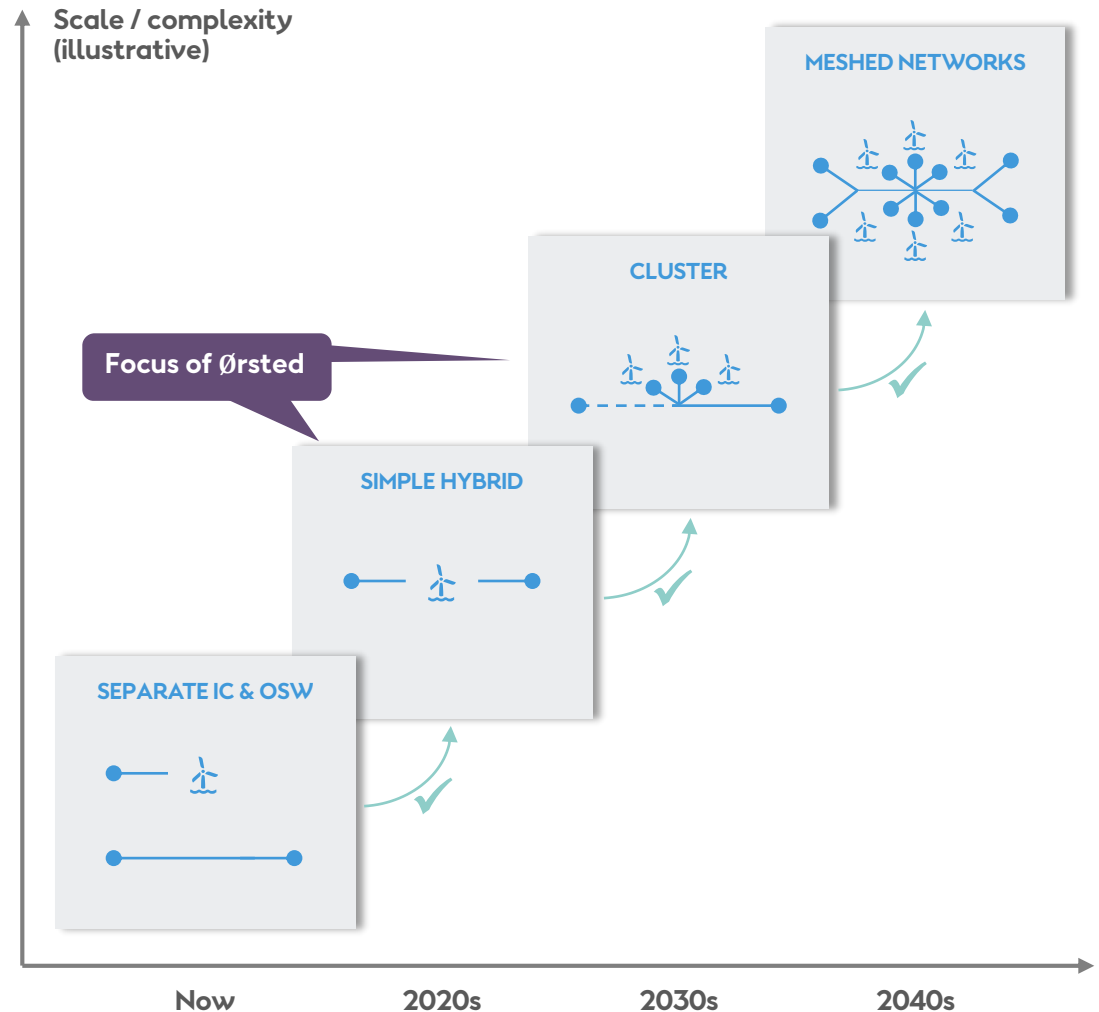
No **regulatory models** in place for hybrid solutions; and even simple hybrids require new models



Cross-border **political coordination** required in the context of strong national interests; potentially requiring EU's steer

We have identified cross-border hybrid projects that deliver value for involved Member States. These should be developed and built.

... why individual demonstration projects are needed to pave the way



# Suggestion for European green deal – 3 actions by Commission and Member States

- **3 actions** - Commission and member states to:
  1. define >50 GW extra sea zone for offshore wind
  2. point out 10 robust onshore grid connection points and
  3. organise auctions for complete wind and interconnector projects

## Using already created tools:

- CEF and innovation funding for cross-border projects
- Commission acts as facilitator for access to other existing tools like EFSI etc.
- Later stage: “Union renewable energy financing mechanism” (Governance)

