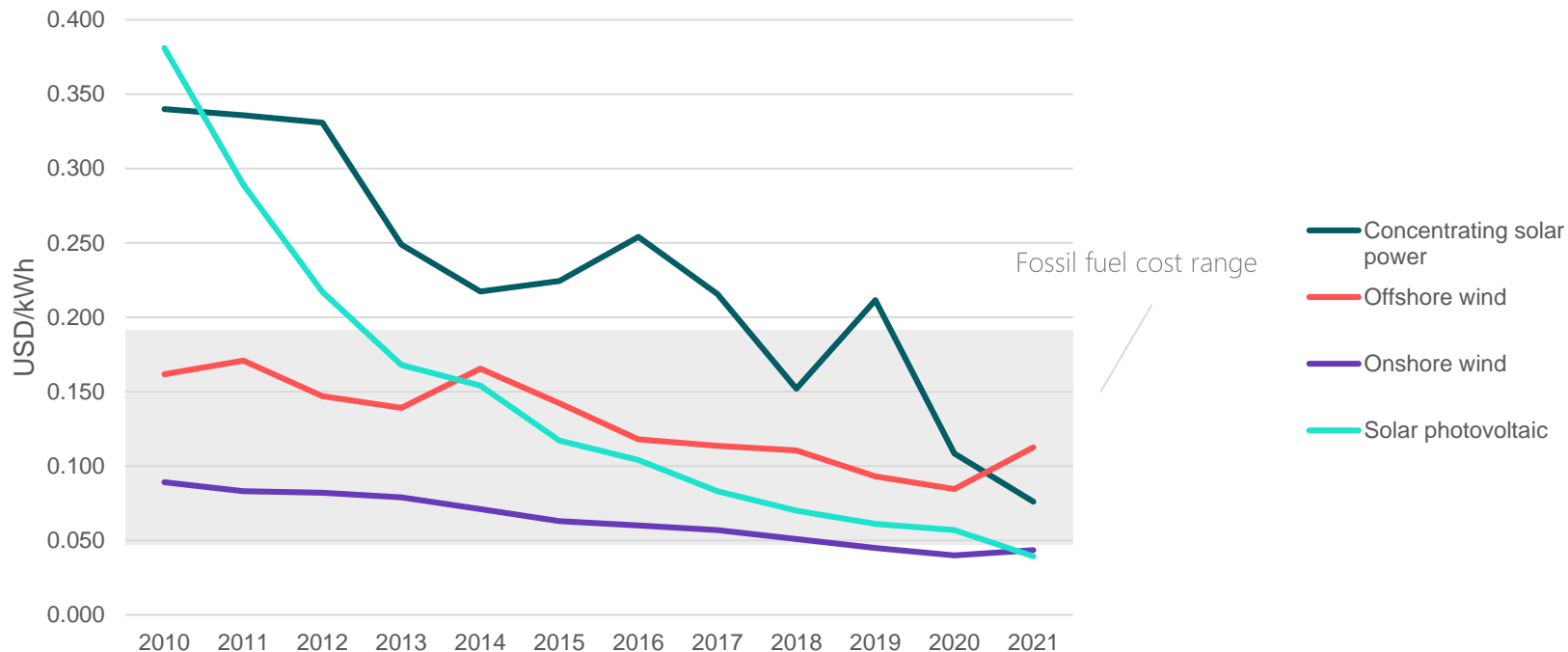




DANISH ENERGY PARTNERSHIPS



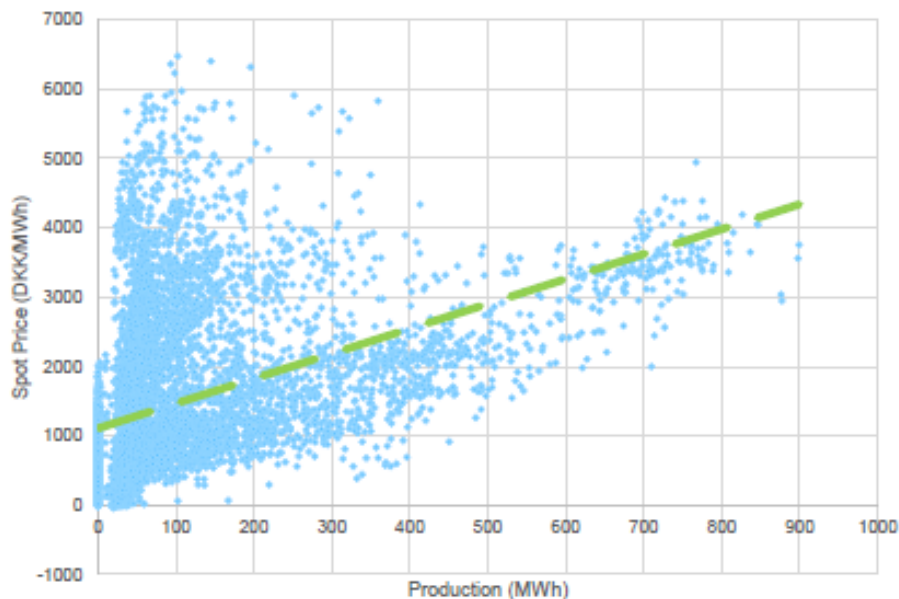
TODAY, RENEWABLES ARE THE **LOWEST-COST SOURCE** OF NEW POWER GENERATION IN MOST PARTS OF THE WORLD



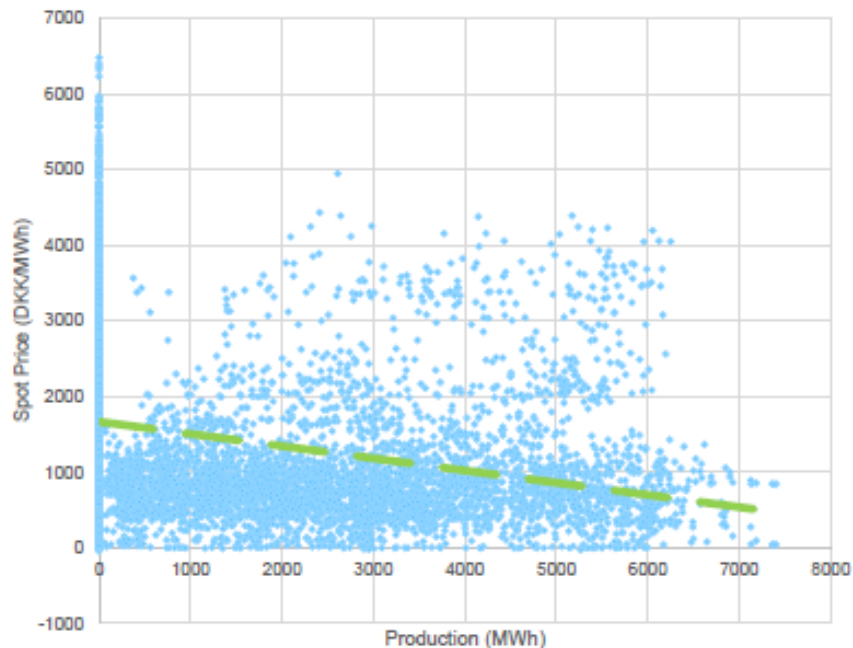


IN FACT, MORE WIND LOWERS ELECTRICITY PRICES

LNG based electricity generation versus spot price, Denmark, May 2022-May2023

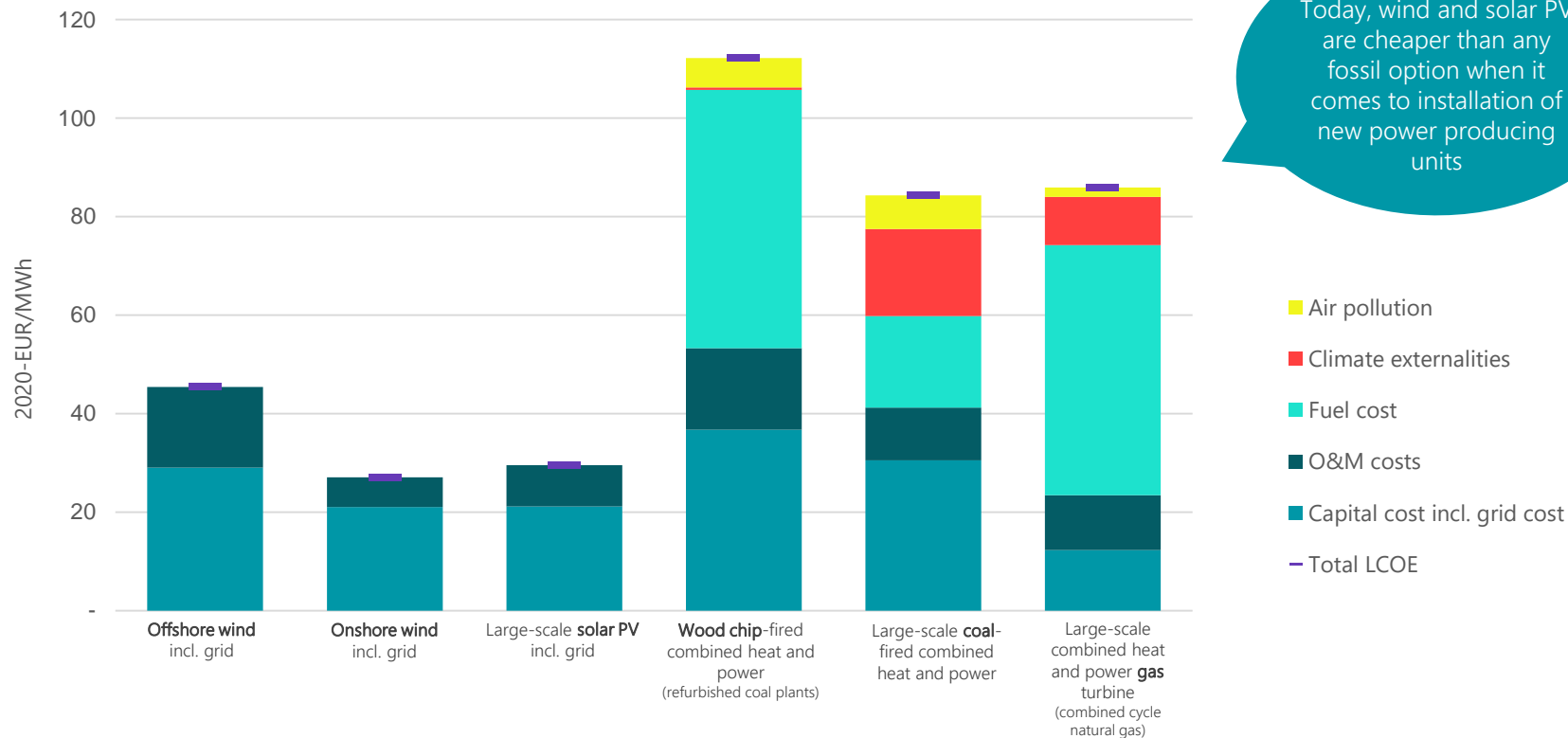


Wind and Solar based electricity generation versus Spot Price, Denmark, May 2022-May2023





LEVELISED COST OF ELECTRICITY (LCOE)



Today, wind and solar PV are cheaper than any fossil option when it comes to installation of new power producing units



THE DANISH EXPERIENCE





DENMARK AND OUR ENERGY MIX

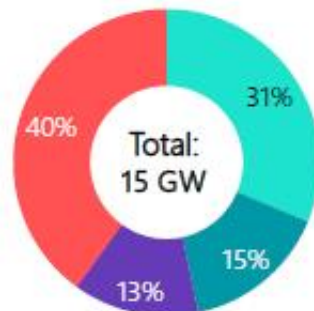
Denmark: Modest size, big ambitions



Population*
Denmark: 5,9m
Korea: 51,63m

Denmark's Energy Mix

Per cent of total installed capacity, 2023



Onshore wind Offshore wind PV solar Thermal

99,996% security of supply in power system (with 67% renewables, first half 2023). 7 GW interconnectors. Peak demand of 7 GW

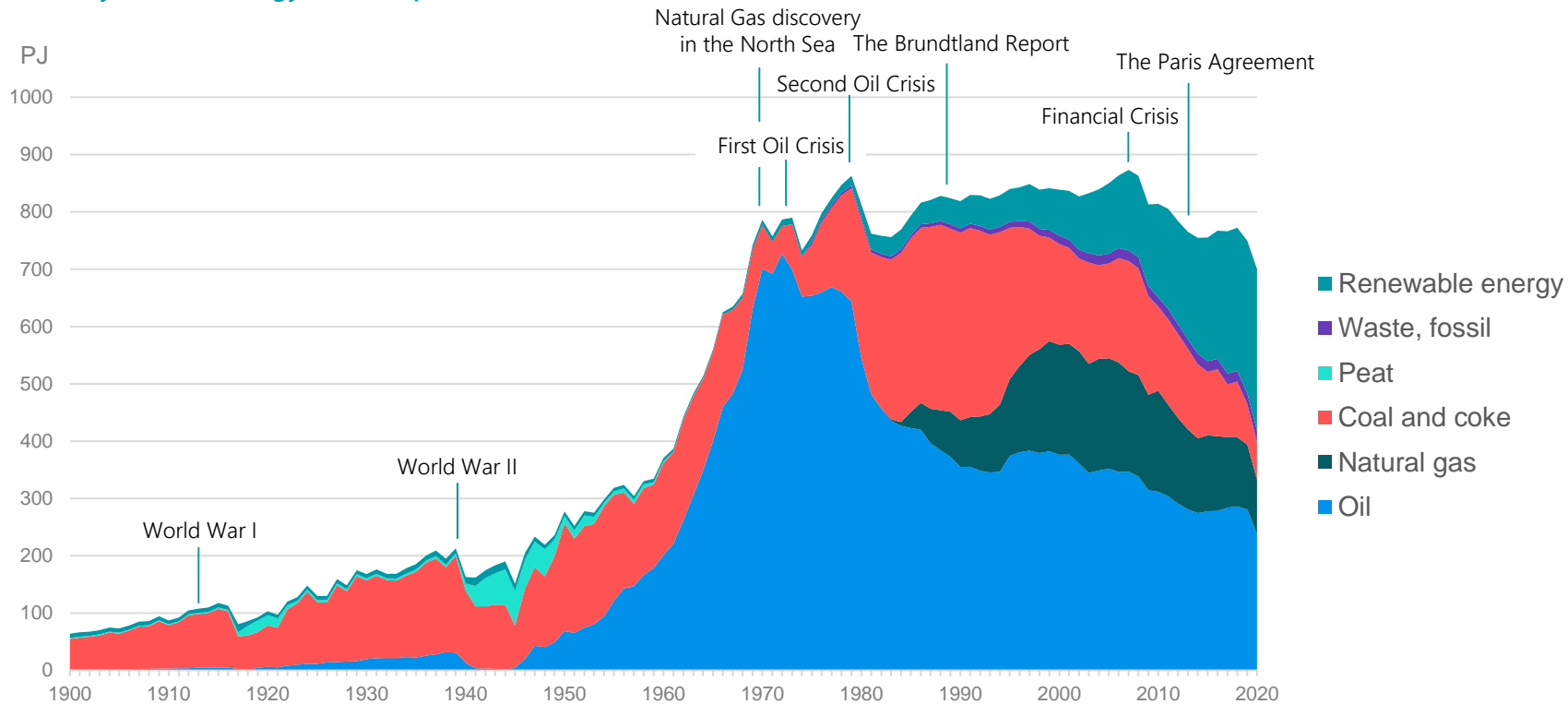


In the 1970s, the **oil crisis** forced us to change our energy path...



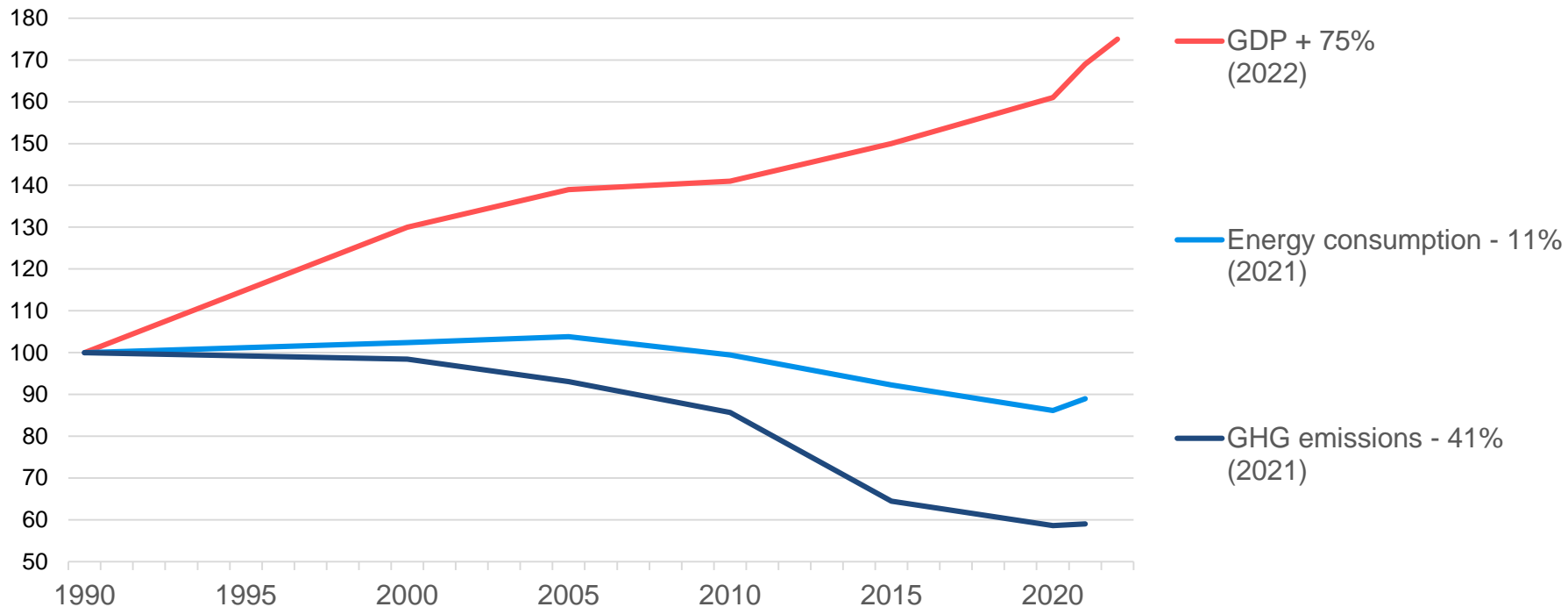
GROSS ENERGY DEMAND OF DENMARK

100 years of energy consumption





SINCE 1990, THE DANISH ECONOMY HAS GROWN BY 75 PER CENT



DANISH CORE COMPETENCIES



Forecasting
and scenarios



Renewable energy



Flexibility and
power plants



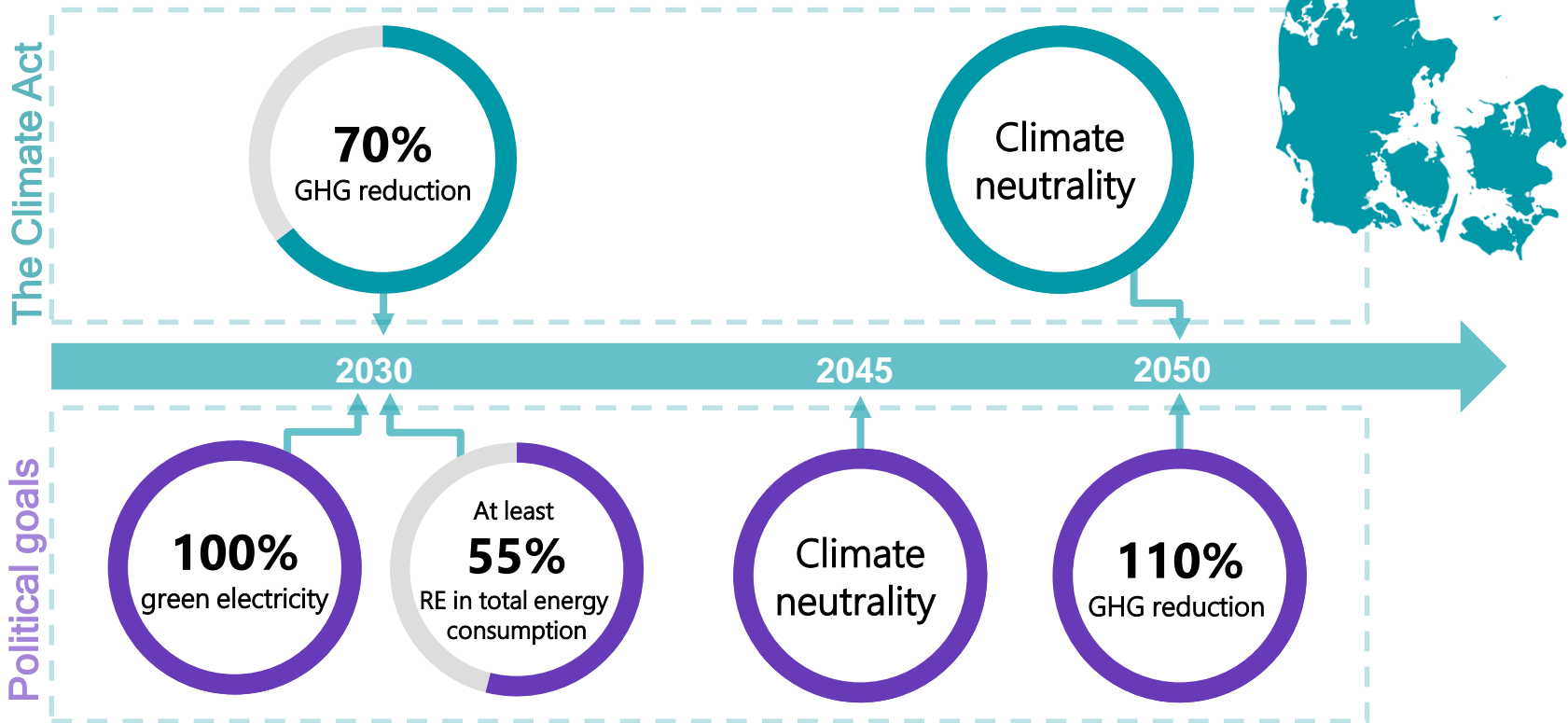
Energy efficiency and
district heating

Choice awareness

A least cost energy transition with high
security of supply, a high share of **renewable
energy** and an **efficient** energy consumption

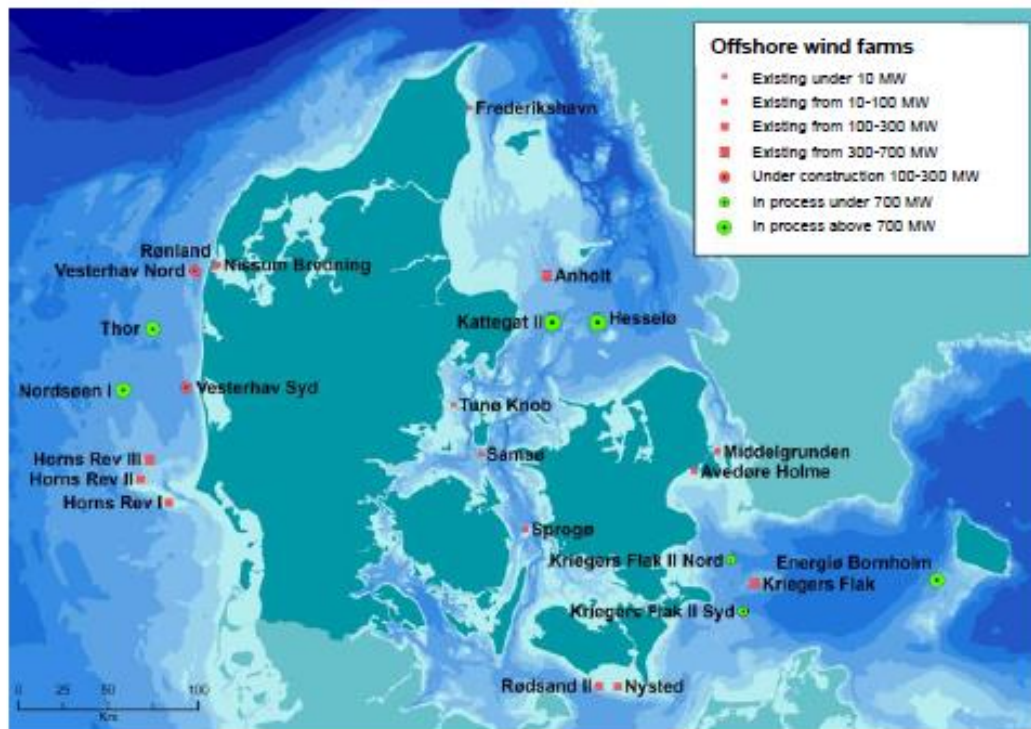


VISION OF A CLIMATE NEUTRAL SOCIETY



DANISH OFFSHORE WIND HAS PROVEN ITS WORTH

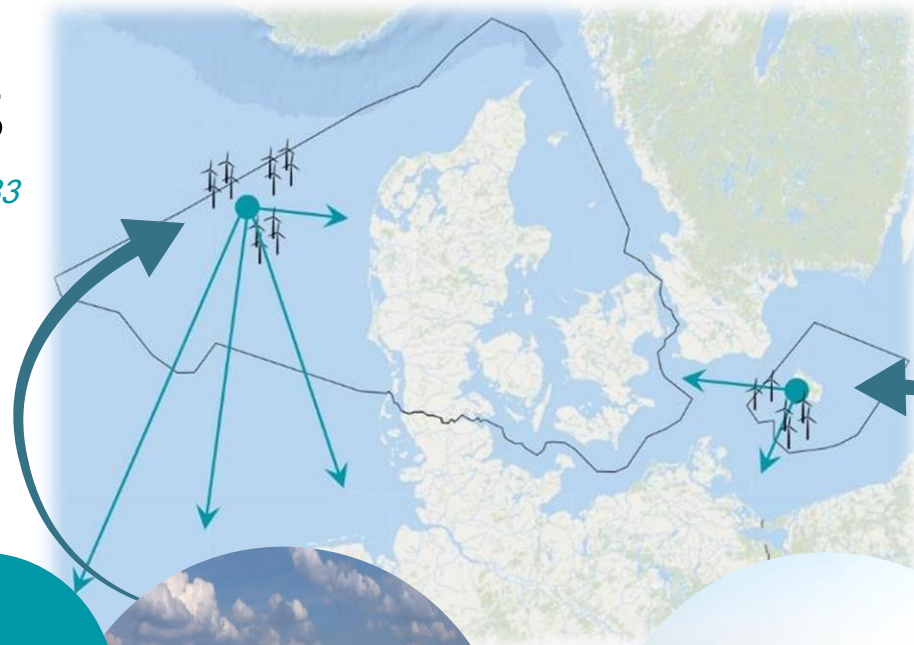
- World's first offshore wind farm (1991)
- Ideal seabed conditions and water depth for bottom-fixed foundations
- Best sites boast >10 m/s wind speed
- 7-9 years from political agreement to fully commissioned
- 15 offshore wind farms
- 2.3 GW offshore capacity in operation (2023)
- Latest tender resulted in net revenue to the Danish State (DKK 2,8b, approx. USD 400m)



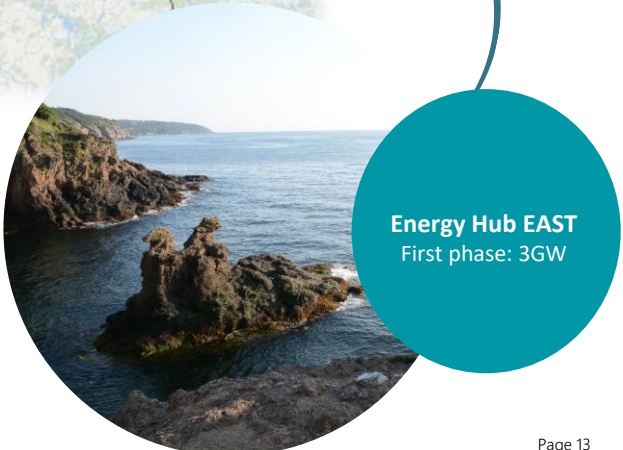


ENERGY ISLANDS

Green power plants at sea before 2033



Energy Hub WEST
First phase: 3GW
Long run: 10GW



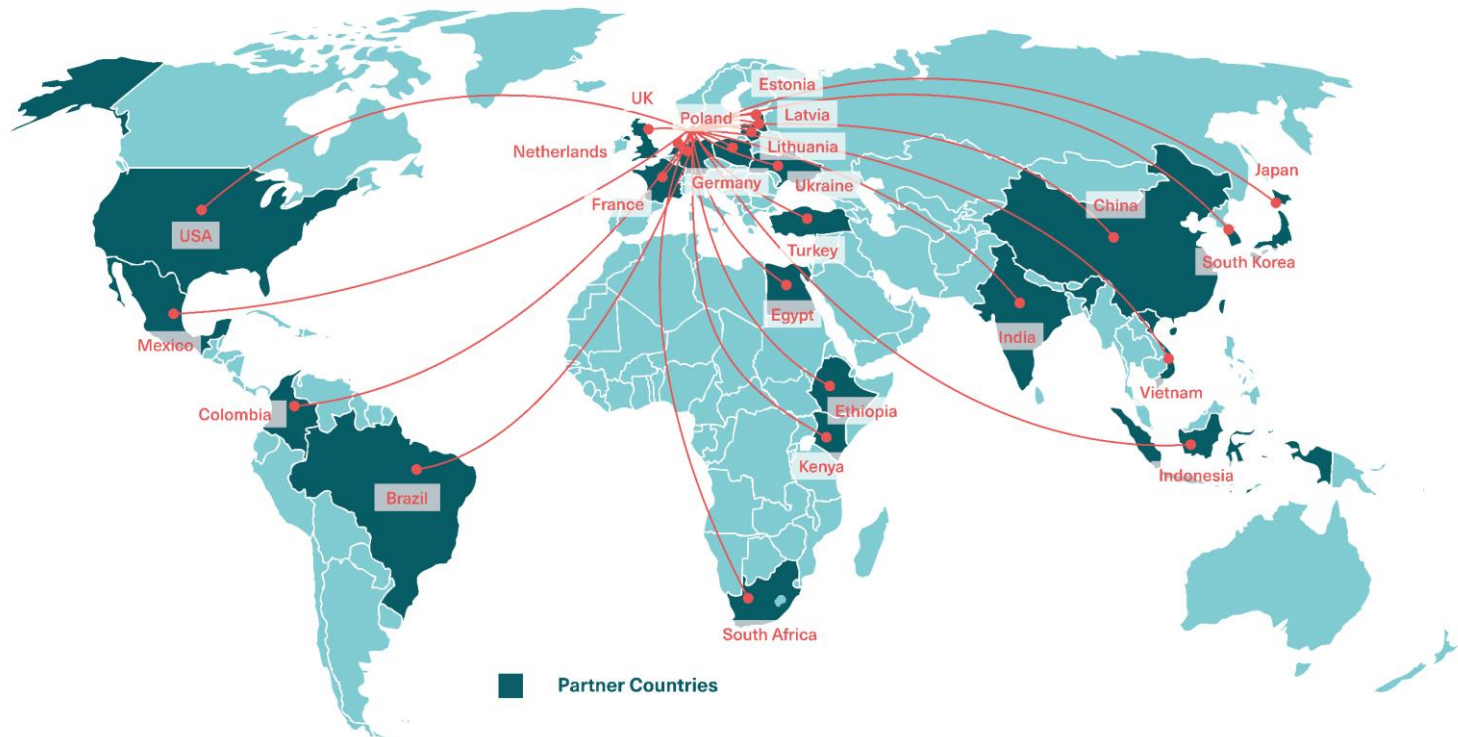
Energy Hub EAST
First phase: 3GW



ABOUT GREEN PARTNERSHIPS



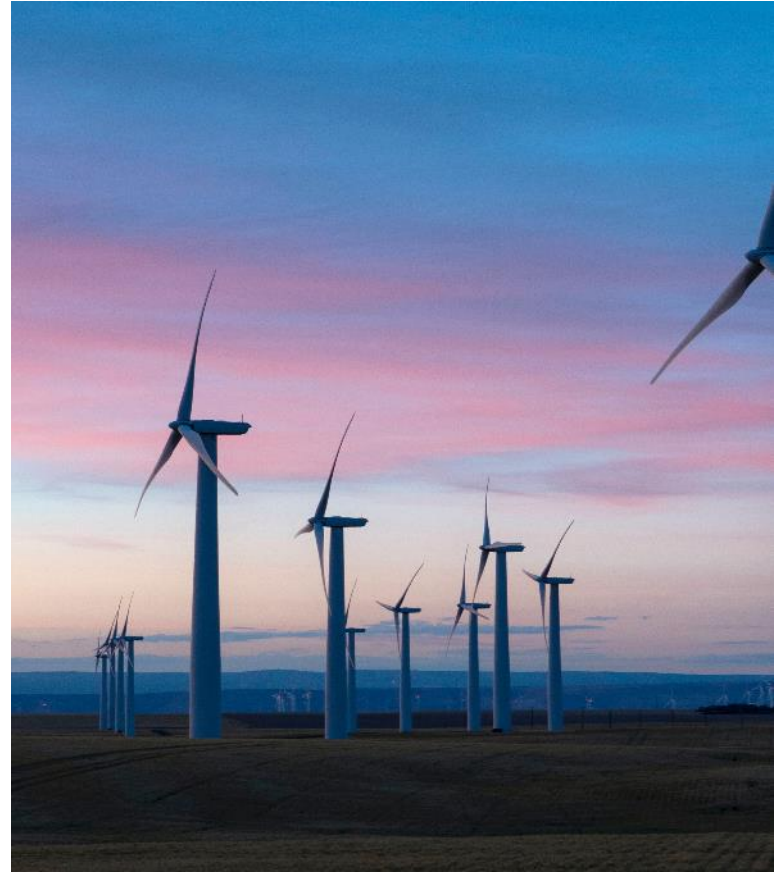
WE COOPERATE WITH 24 PARTNER COUNTRIES



THE DANISH ENERGY PARTNERSHIPS

Through government-to-government cooperation and long-term partnerships, Denmark contributes to:

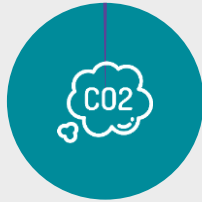
- Reducing greenhouse gas emissions globally
- Opening and maturing markets for green technology
- Strengthening cooperation with countries of strategic significance



IN DENMARK...



... we represent **0,07 %**
of the world's population

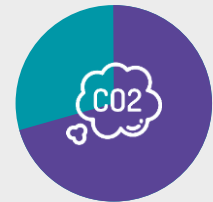


... we emit **0,1 %** of the
global CO₂ emissions

OUR PARTNERS...



... represent ~**61 %** of
the world's population



... emit **70 %** of the
global CO₂ emissions



PART OF THE DANISH ENERGY AGENCY (DEA)

A government agency under the Ministry of Climate, Energy and Utilities



Danish Energy Agency

GLOBAL
COOPERATION

GREEN POWER
PRODUCTION

GREEN UTILITIES

RISK
PREPAREDNESS

GREEN
TRANSITION

RESSOURCES
AND LEGAL

SYSTEMS
ANALYSIS
AND
INNOVATION

SUBSOIL
RESSOURCES

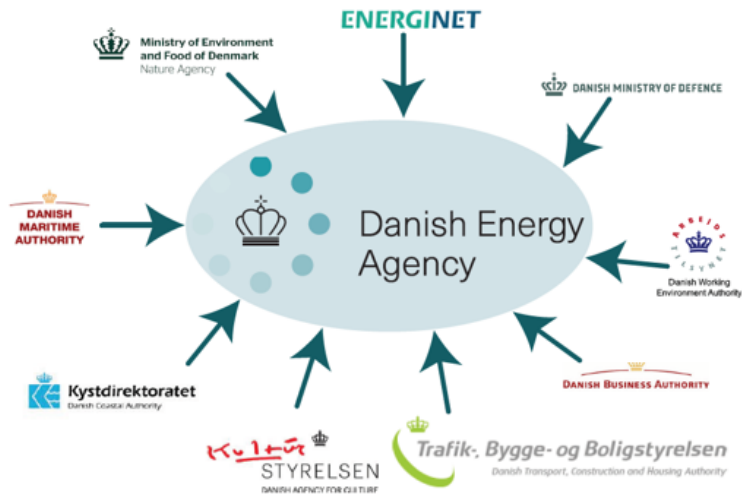
ELECTRIFICATION

ENERGY
ADMINISTRATION

ORGANISATION
AND STRATEGY

What is the Danish One-Stop-Shop?

The One Stop Shop is an administrative procedure in which the Danish Energy Agency is the authority responsible for the development of offshore wind projects: the DEA coordinates with all relevant authorities to grant the necessary permits.



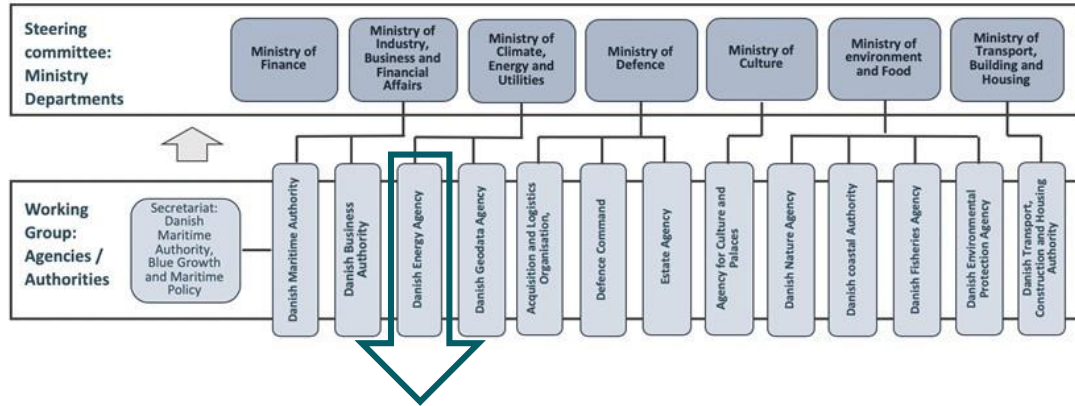
And why a One-Stop-Shop?

Clear, transparent and smooth consenting process

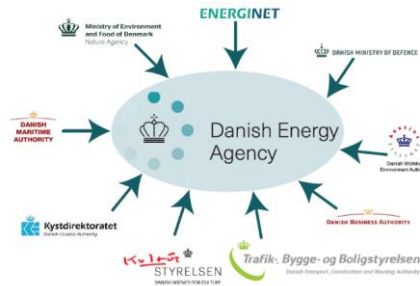
- ➔ **Developers:** Creating confidence by reducing risks and uncertainties
- ➔ **Other authorities:** Better coordination and understanding of the projects

Governance and decision-making

Maritime spatial planning and selection of sites for tender



- In relation to planning and tendering for the development of offshore wind farms the Danish Energy Agency (DEA) is the authority in charge.
- The DEA coordinates with the relevant authorities, which provide input to the DEA on their respective and relevant regulations.



Relevant political parties behind the energy agreement

Ministry of Climate, Energy and Utilities

DEA Director General

DEA Director

DEA Project Manger – Case officer

DEA Project team

- Most topics and challenges are managed on the operational level within the DEA project team.
- Sometimes the topics are escalated beyond the DEA.



PARTNERSHIP WITH SOUTH KOREA

- South Korea and Denmark are longtime allies sharing 65 years of relations that is ever widening in scope.
- Since 2012, South Korea and Denmark have strengthened partnership through a comprehensive strategic partnership and annual high-level exchanges called Green Growth Alliance.
- With every first step Korea has taken in green leadership, Denmark was strongly present: Global Green Growth Institute (2012), Partnership for Green Growth (2017).





RECENT VISIT BY THE MINISTRY OF CLIMATE, ENERGY AND UTILITIES

- Held a GGA meeting last month when HE Lars Aagaard – the Minister for Climate, Energy and Utilities – visited Korea.
- Close to 20 companies were here. One of the main events held during his visit at the Federation of Korean Industries on March 6 was the Korea-Denmark Offshore Wind Business Conference. CIP-LS Cable and Blue Water Shipping-Zodiac Solutions signed commercial MOUs.
- KEPCO and Energinet also formalized their commitment to cooperation.
- Denmark and Korea proudly mark 65 years of diplomatic relations this year – a testament to the enduring friendship and mutual respect between our nations.





Thank you

Questions



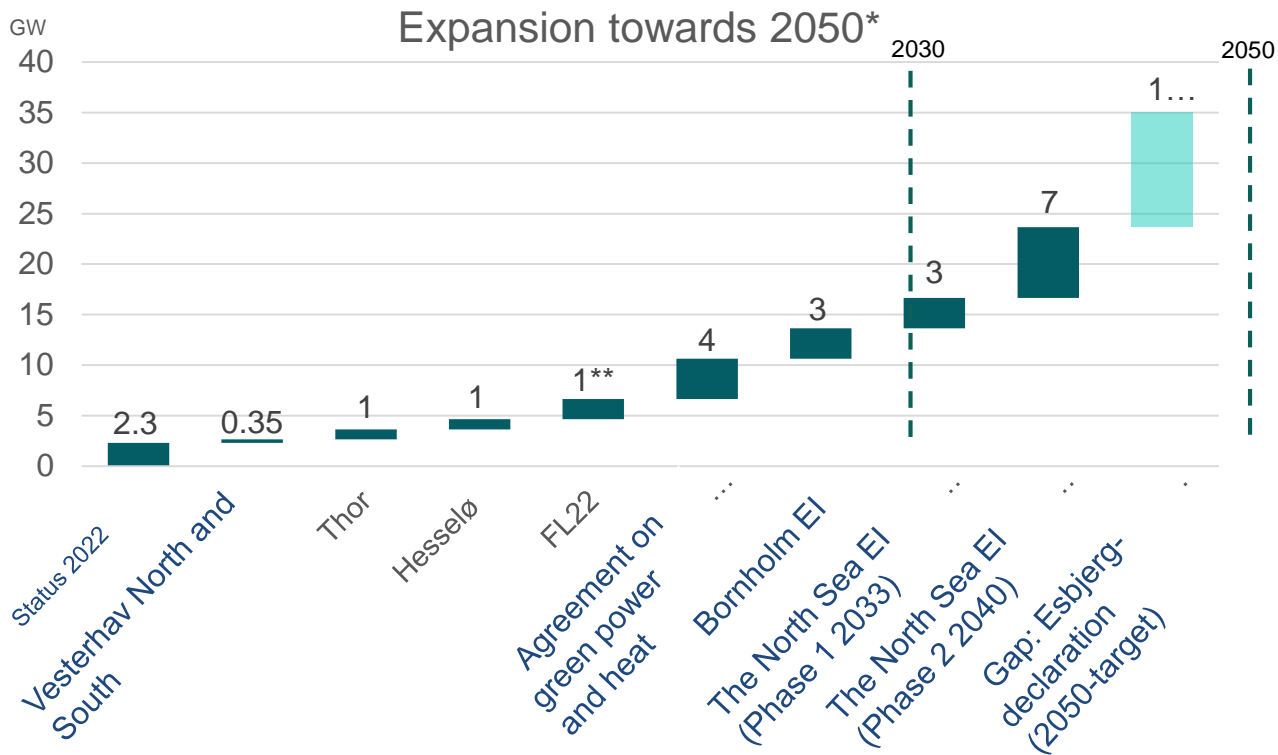


APPENDIX



Ambitions towards 2030 and 2050

The road to at least 35 gw offshore wind towards 2050



Ambitions for offshore wind capacities

→ 2030

Denmark: appr. **12,9 GW***

Esbjerg-declaration: **65 GW**

→ 2050

Denmark: at least **35 GW**

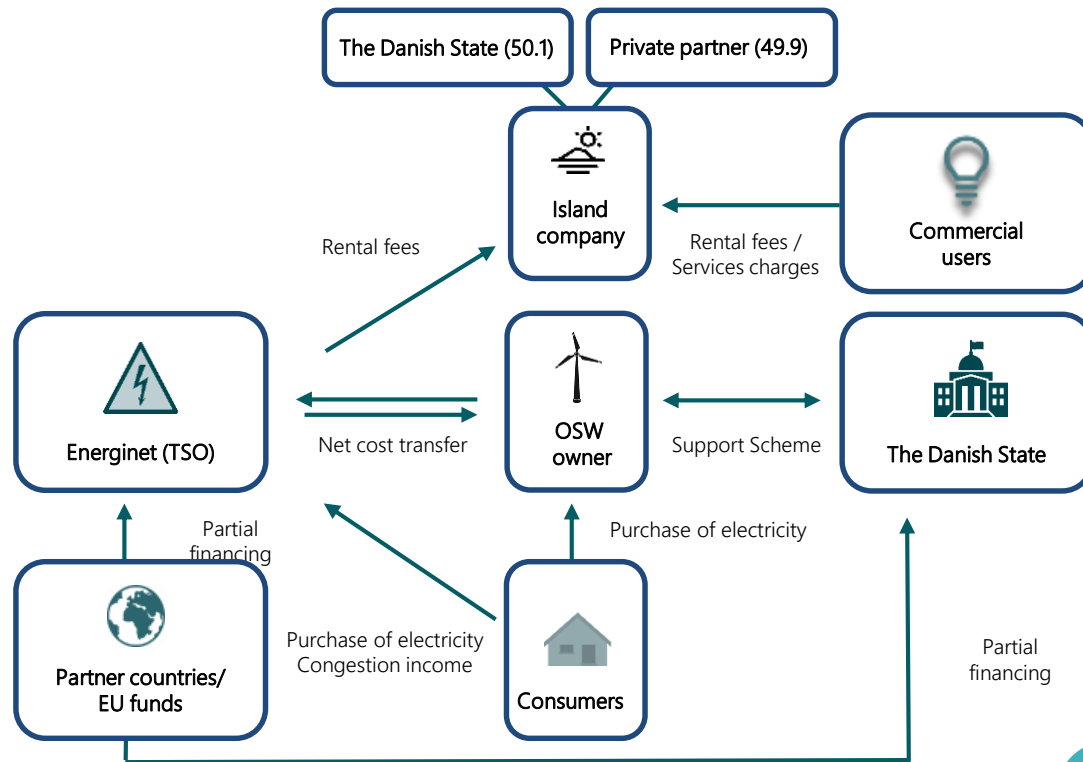
Esbjerg-declaration: **150 GW**

* This does not include "open door" projects or potential overplanting capacity.

** 1 GW has been moved to The Bornholm Energy Island with political agreement of 29th of October 2022.

BUSINESS MODEL FOR THE ENERGY ISLAND CORP.

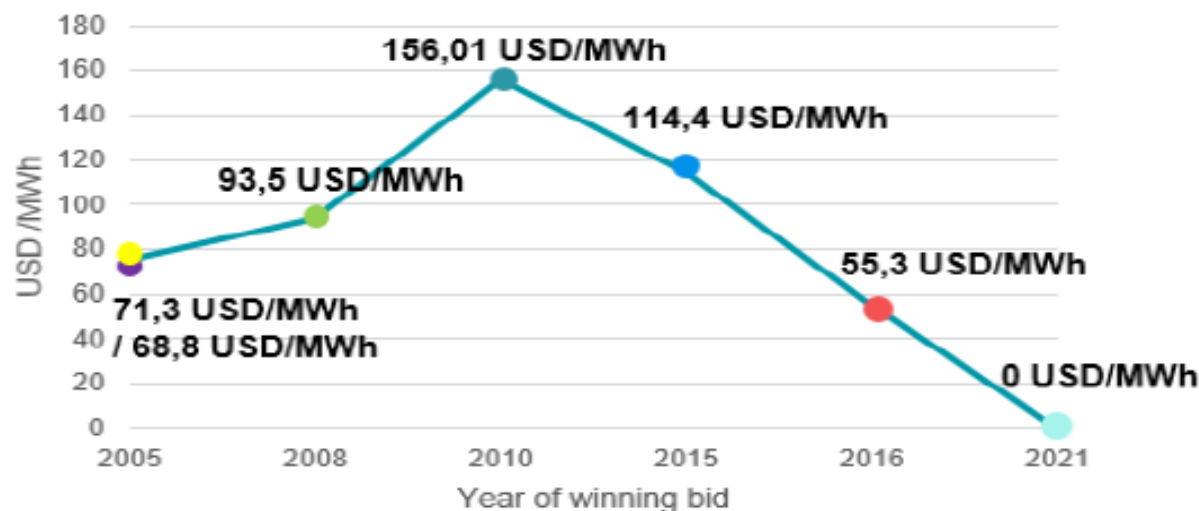
- Private partner will plan and build the energy island. Public-private partnership will be established when the island is finalized.
- The private partner carries most of the construction risks
- Primary income via leasing of land to state-owned Danish TSO Energinet
- Energinet's cost is expected to be passed on to offshore wind farms connected to the island





HISTORIC DANISH TENDER RESULTS

(Prices not indexed from year to year)



- Horns Reef II, 210 MW (2005)
- Rødsand II, 207 MW (2005)
- Rødsand II (2nd), 207 MW (2008)
- Anholt, 400 MW (2010)
- Horns Reef 3, 400 MW (2015)
- Kriegers Flak, 600 MW (2016)
- Thor, 1000 MW (2021)

HIGHER AMBITIONS AND HIGHER PACE

A visible and firm path to the future

We already have...
A solid foundation

2023

2

14*

We have set...
Clear mid-term target

2030

16

19

TBD

We have defined...
Ambitious long-term goal

2050

35

Cumulative installed offshore capacity (GW)

Projects already identified and tenders are being prepared:



Project pipeline:

Min. 3 GW Energø Bornholm (max. 3.8 GW)

Min. 3 GW i Nordøen I

Min. 1 GW ved Kattegat II

Min. 1 GW ved Kriegers Flak II

0,8-1,2 GW ved Hesselø



INTERNATIONAL AGREEMENTS FOR THE BUILDOUT OF OSW IN CONNECTION WITH THE ENERGY ISLANDS

Esbjerg declaration

At the North Sea Summit in May 2022, Germany, Belgium, the Netherlands and Denmark signed a joint declaration aiming to deliver at least 65 GW of offshore wind by 2030 and increase capacity to at least 150 GW by 2050 of which Denmark will view towards 35 GW.

The four countries will supply half of the green power from offshore wind that the EU needs in 2050 to achieve its goal of climate neutrality.

Separate declarations were announced regarding interconnection and maximation of the output for the energy islands and the establishment of another energy island.



Baltic Sea agreement

Denmark, Sweden, Poland, Finland, Estonia, Latvia, Lithuania and Germany have 30th August 2022 agreed on a joint ambition of 19.6 GW in 2030.

The Baltic Sea Agreement will allow the countries to strengthen their national and EU independence from Russian fossil fuels through closer cooperation on energy and the development of renewable energy.

Based on the announcement Denmark ambitions is to have 6.3 GW of offshore wind in the region by 2030, and would become the largest offshore wind capacity in the region.

EU-WIDE TARGETS AND POLICY OBJECTIVES BY 2030

- 55 % cuts in GHG emissions from 1990 levels
- 40 % share of renewable energy
- 36 % improvement in energy efficiency



THE IMPORTANCE OF EU CLIMATE AND ENERGY POLICY

IMPORTANCE FOR DENMARK

Examples on why EU's climate and energy policy is important to Denmark

- Contributes to a cost-effective green transition
- Creates common rules and reduces trade barriers across the EU
 - E.g. a common electricity market, which ensures security of Danish electricity supply and the sale of Danish green electricity to the EU
- Reduces CO2 leakage – and thus relocation of growth and jobs
- Contributes to the realization of Denmark's national climate goal
- Creates a large green export potential for Danish companies
- Is leverage for increased global climate action

