

# AMBITIONS FOR AFFORDABLE ENERGY

and the role of offshore wind

*Jeppé Danø, Vice President,  
Business and Markets  
System Operator  
Energinet*



# THE ENERGINET GROUP

## Executive Board

HR, Strategy and  
Communications

Group Legal Affairs  
and GRC

Cyber and  
Information Security

Group Preparedness

Group Health and  
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Tech and Innovation

Group Finance and  
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Group Internal  
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System Operator

Electricity Transmission

Gas Transmission

Gas Storage Denmark

DataHub



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VISION

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# GREEN ENERGY FOR A BETTER WORLD



# A BALANCING ACT

We work to make sure that the green transition is carried out in an economically responsible way without compromising on security of supply.



# WE OPERATE AND OWN THE DANISH ENERGY BACKBONE



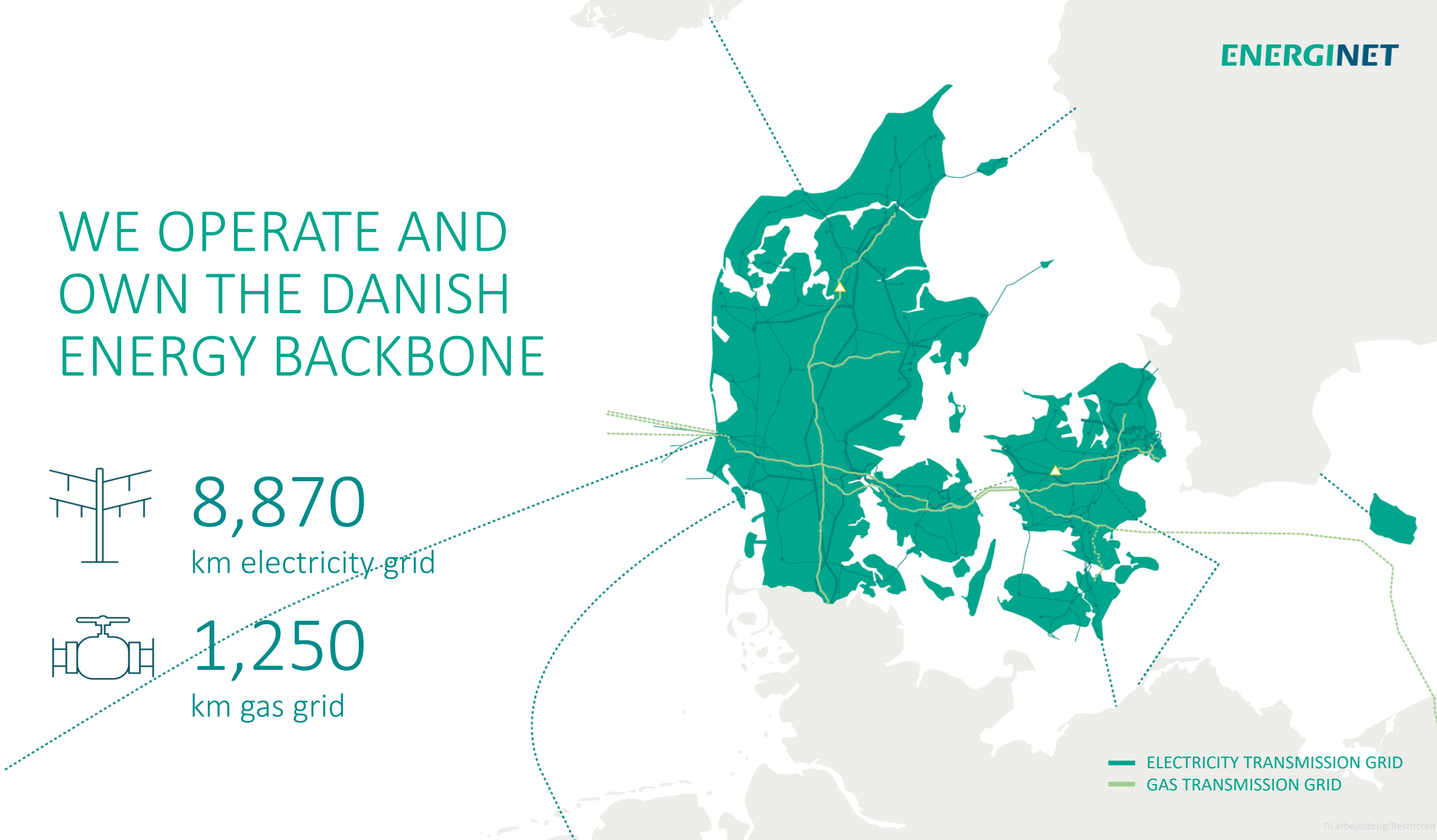
8,870

km electricity grid



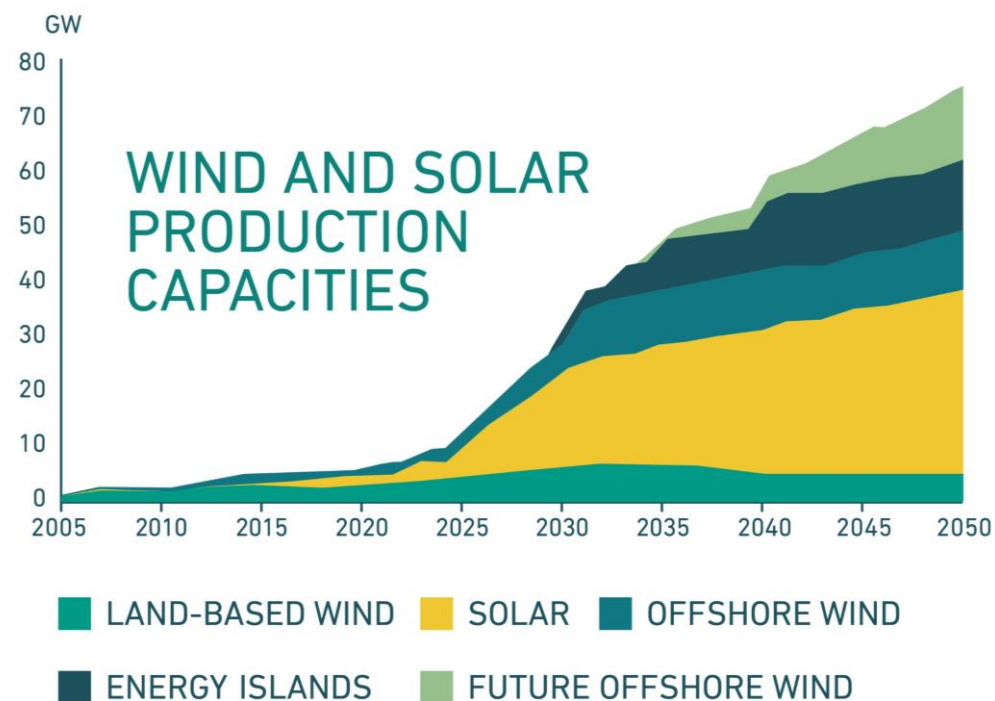
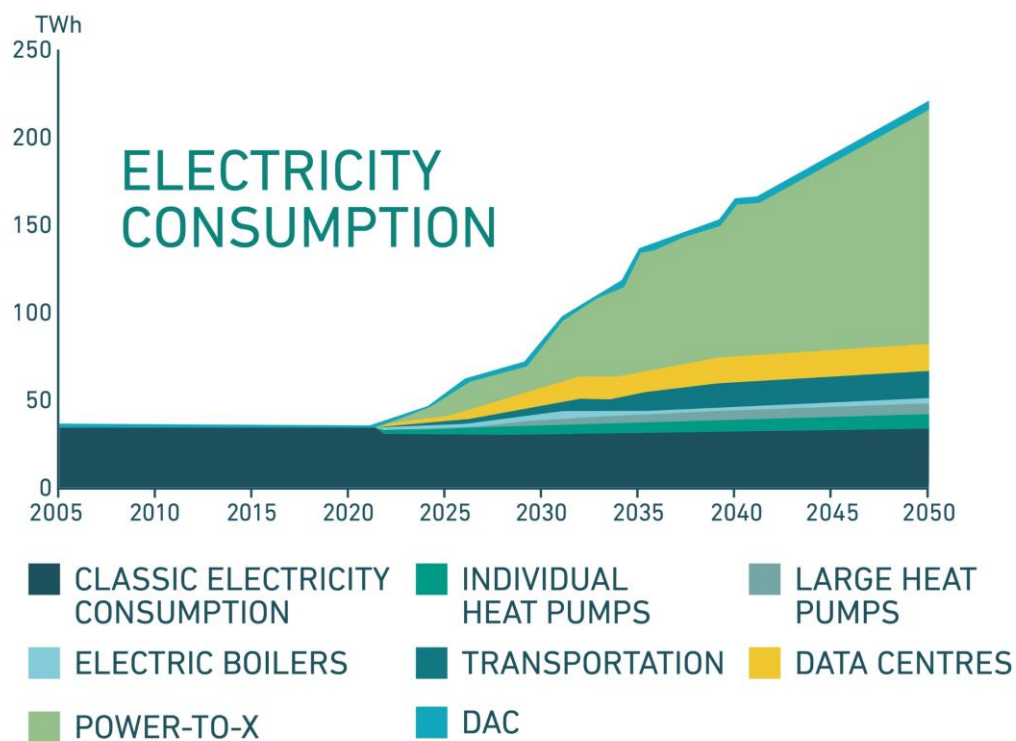
1,250

km gas grid



— ELECTRICITY TRANSMISSION GRID  
— GAS TRANSMISSION GRID

# ELECTRICITY CONSUMPTION AND PRODUCTION CAPACITY



# ENERGY ISLANDS IN DENMARK

**The North Sea:**  
3 GW offshore wind by 2033, later 10 GW.

**The Baltic Sea:**  
3 GW offshore wind by 2030.



ENERGY ISLAND



ONSHORE CONNECTIONS,  
ALTERNATIVES



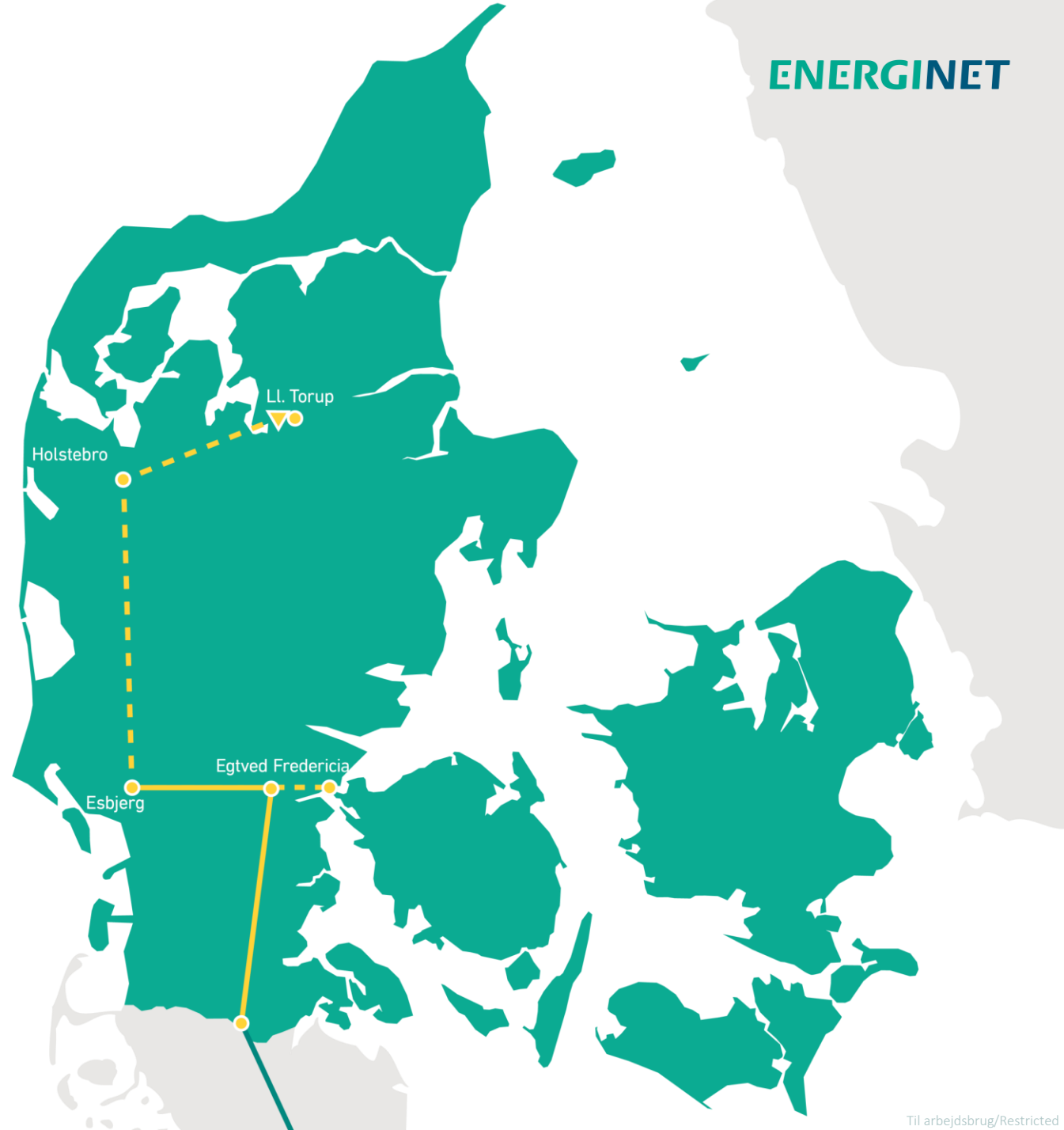
NY NEW OFFSHORE  
WIND FARMS



# MATURATION OF DANISH BACKBONE WEST

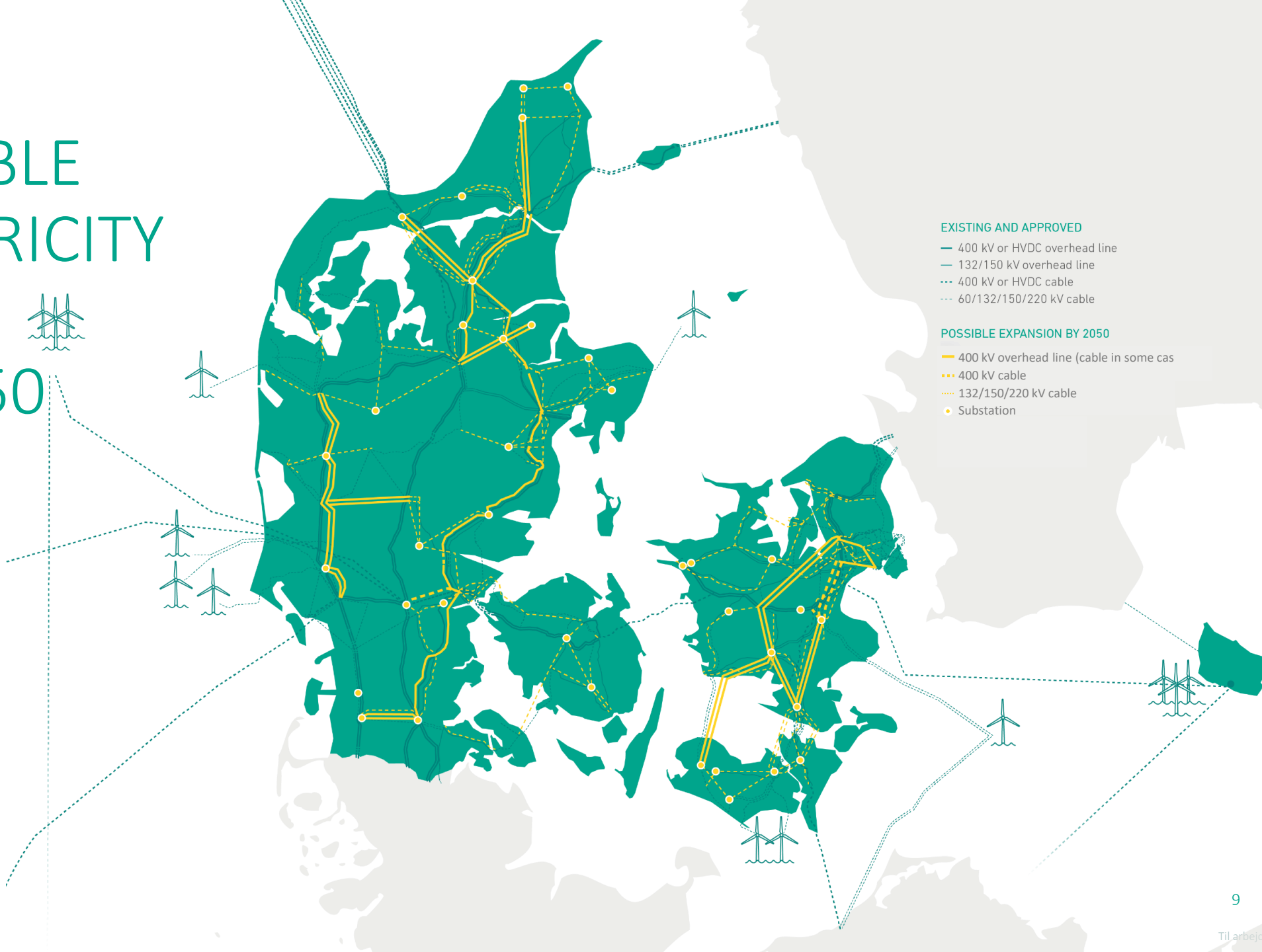
A possible hydrogen infrastructure in Jutland connecting producers, consumers, exports and storage

- HYDROGEN INFRASTRUCTURE
- ▼ HYDROGEN CAVERNE STORAGE
- EXPORT
- CENTRAL CONNECTION POINTS IN THE ELECTRICITY TRANSMISSION GRID





# POSSIBLE ELECTRICITY GRID BY 2050



## EXISTING AND APPROVED

- 400 kV or HVDC overhead line
- 132/150 kV overhead line
- - - 400 kV or HVDC cable
- - - 60/132/150/220 kV cable

## POSSIBLE EXPANSION BY 2050

- . - 400 kV overhead line (cable in some cas)
- . . 400 kV cable
- . . . 132/150/220 kV cable
- Substation

# MARKET INITIATIVES FOR AFFORDABLE TRANSITION



DYNAMIC  
DIMENSIONING



NORDIC BALANCING  
MODEL



TARIFF REFORM



FLOW BASED