

IS THE GRID FIT FOR THE GREEN TRANSITION?

Danish Energy Day 2024

Maria Broe, Senior Engineer, Energinet

1.4 GW Viking Link to launch at 57% capacity

(Montel) The new 1.4 GW Viking Link between Denmark and the UK will launch later this month with a reduced capacity of 800 MW, Danish T-energinet said on Friday.

Kø til nettet får ikke European Energy til at droppe projekter

Den danske udvikler har ikke i sinde at opgive nogen af sine store VE-projekter trods stadig mere langvarig udsigt for nettet.

Electricity grids: The backbone and bottleneck for the green transition

Running the ... of the Danish grid, ...

European Power

Gridlock: Why Europe's electricity infrastructure is holding back the green transition

Europe urgently needs to expand and modernise its outdated electricity infrastructure if the European Union is to achieve its renewable energy goals

Udbygningen med solceller er bremset. Forklaringen er der uenighed om

Blot én solcellepark er blevet tilkoblet elnettet siden 1. januar. Det skyldes øgede omkostninger, siger ét energiselskab. Nej, forklaringen er manglende tilladelser og begrænset kapacitet i elnettet, siger andre.



CLIMATE GOALS AND THE POWER GRID



GRID DEVELOPMENT NEEDS



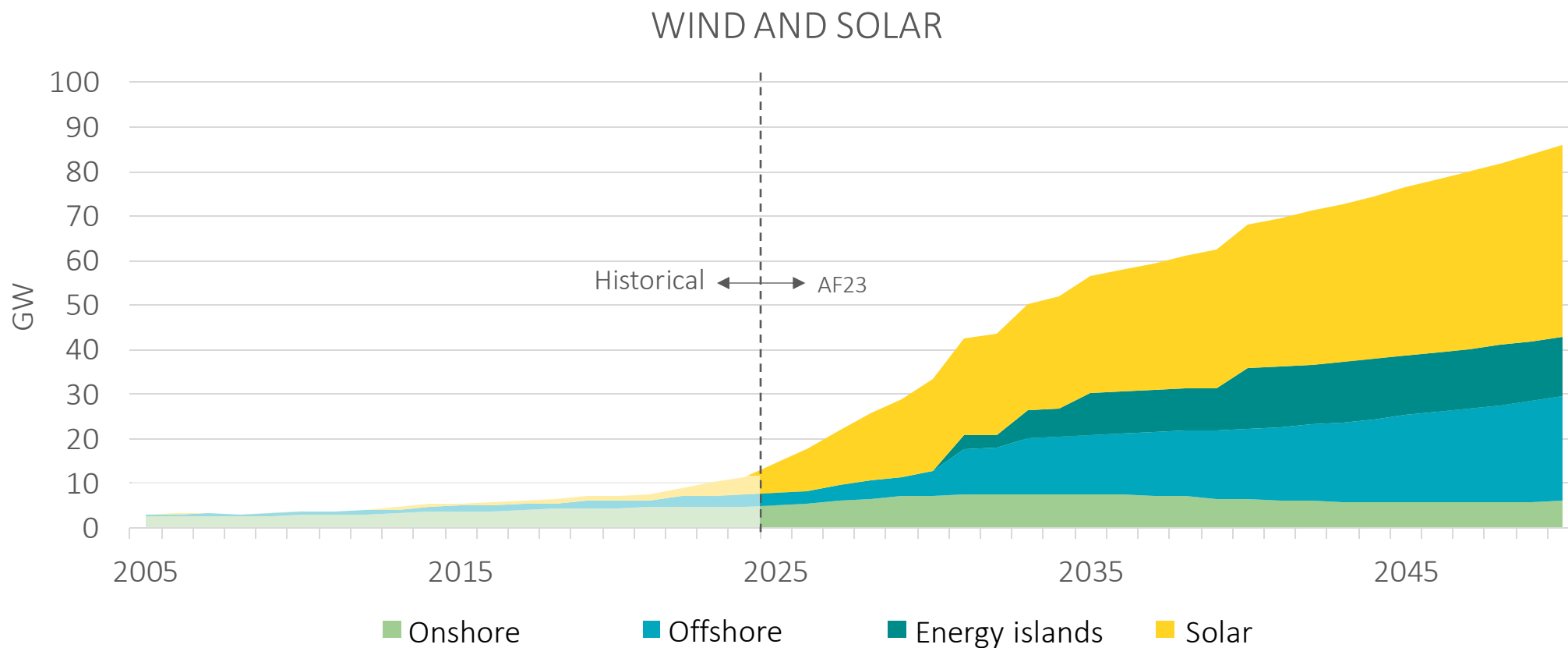
CHALLENGING GRID PLANNING



ENSURING ADEQUATE GRID

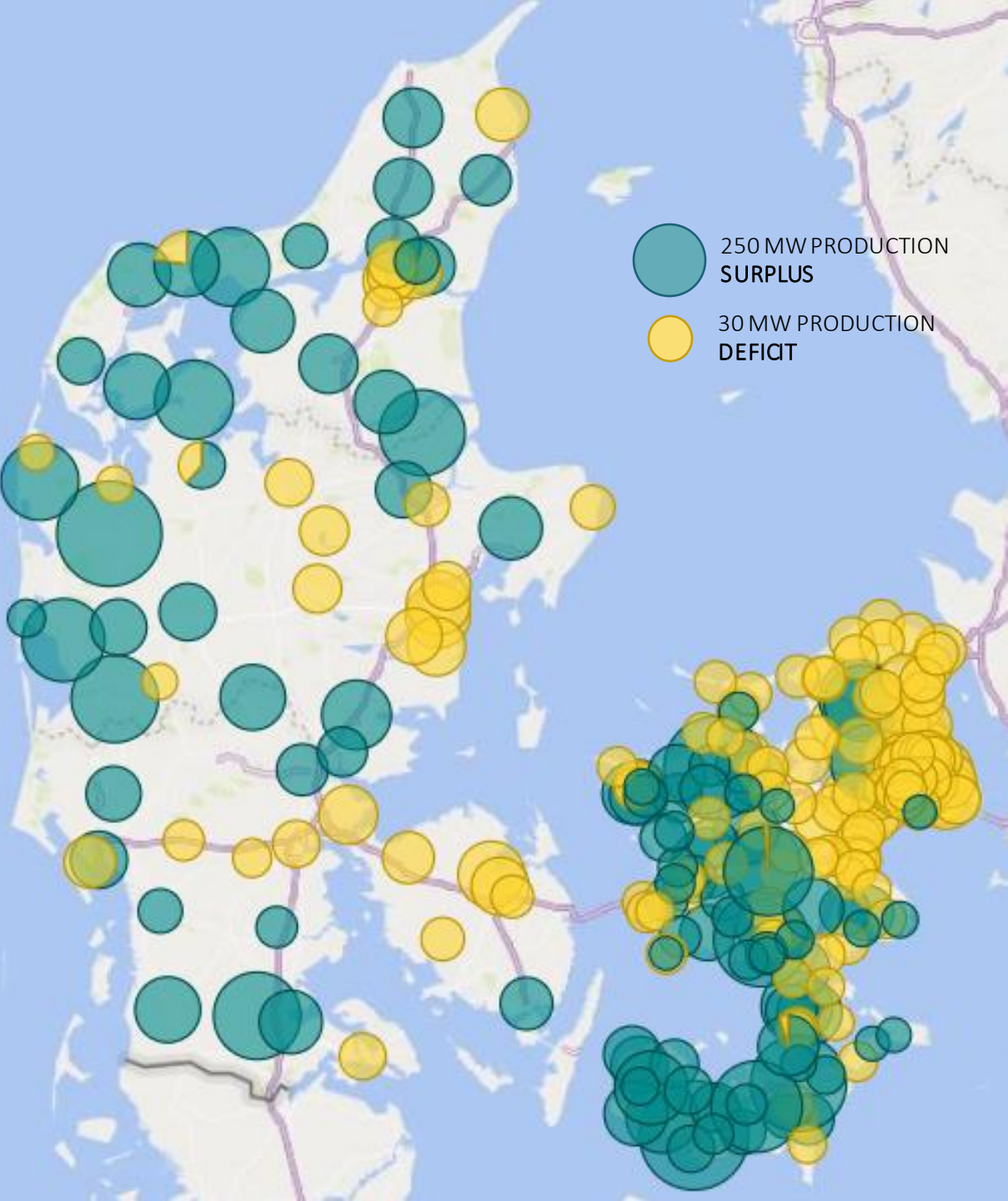


NEW GOALS – HIGHER PACE



MAIN DRIVERS FOR GRID REINFORCEMENTS

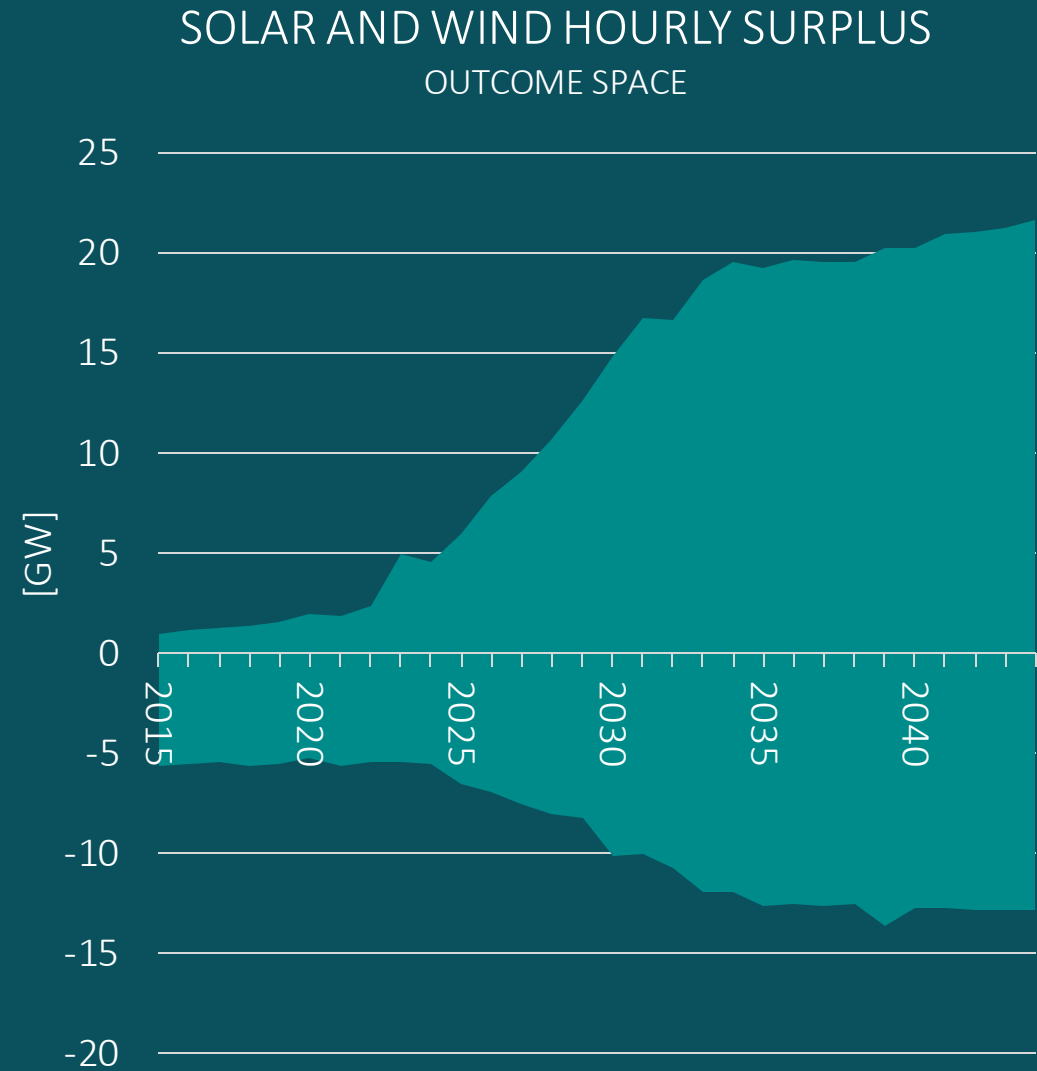
➤ Geography



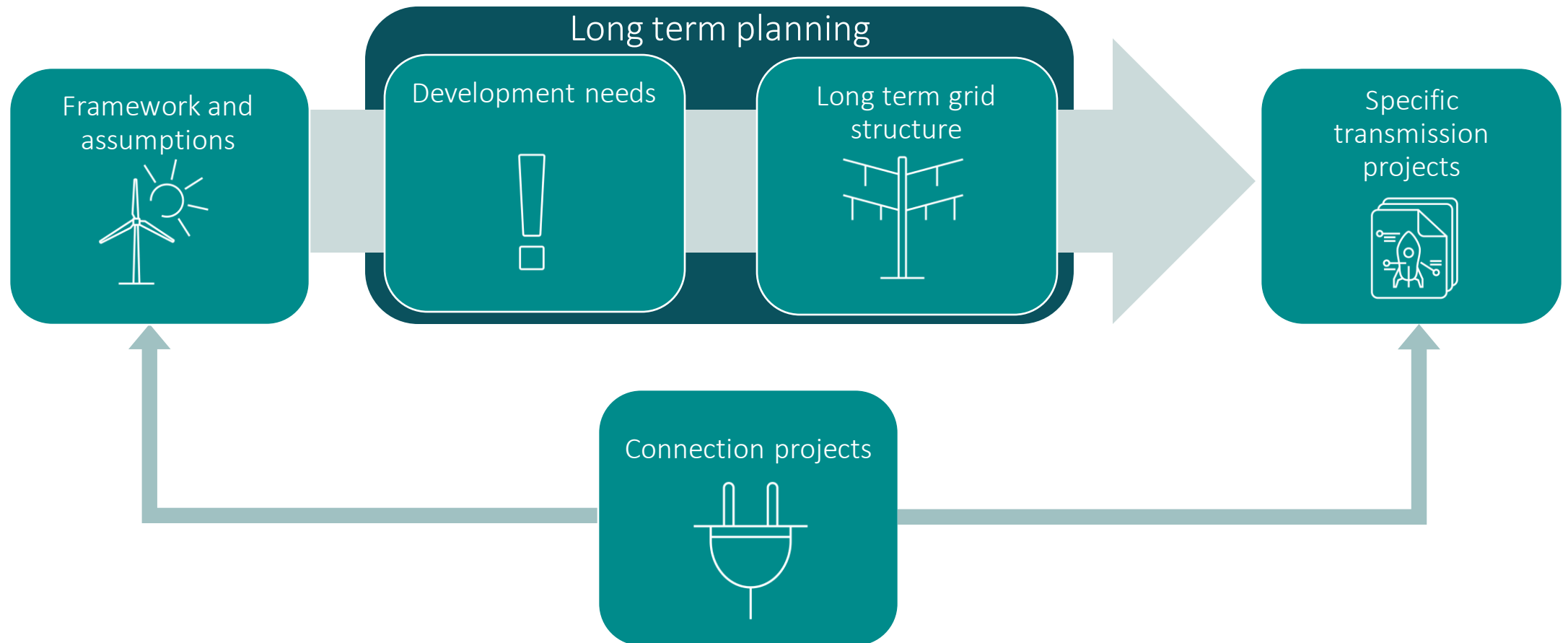
MAIN DRIVERS FOR GRID REINFORCEMENTS

➤ Geography

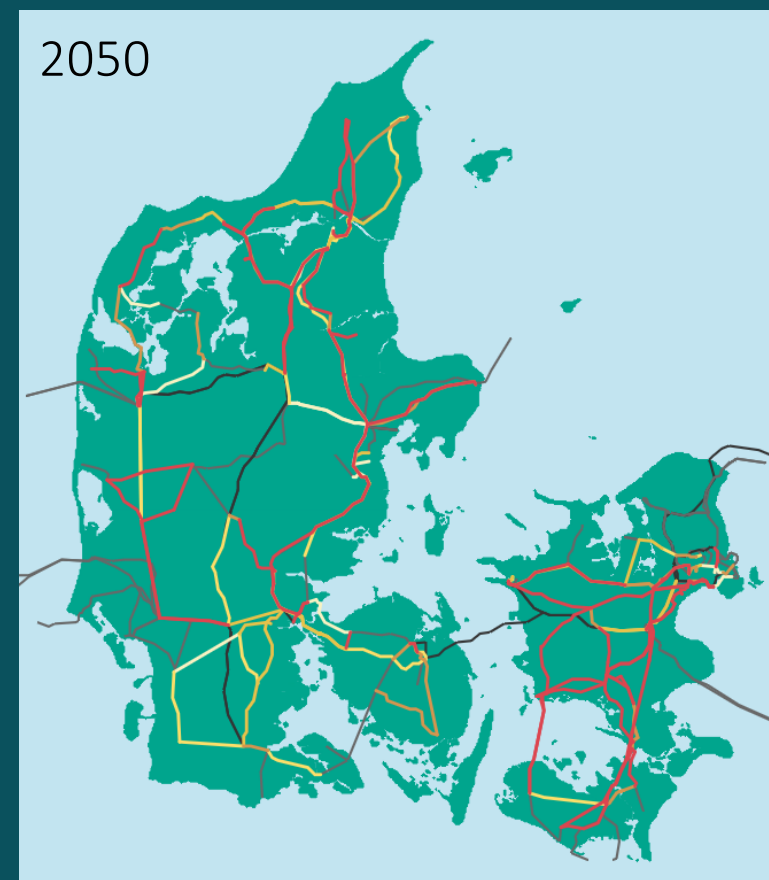
➤ Simultaneity



PLANNING OF THE TRANSMISSION GRID



GRID DEVELOPMENT NEEDS



Legend [MWh]

● <500

● 500-5.000

● 5.000-20.000

● 20.000-100.000

● >100.000

A map of Denmark with a semi-transparent green rectangular overlay on the right side. The map shows major cities and regions. A network of green lines and dots is overlaid on the map, representing project locations. The dots are concentrated in the central and southern parts of the country, particularly around Copenhagen and the southern coast. The green overlay contains the text 'ONGOING PROJECTS' in large white letters, and 'Both reinvestments and new components' in smaller white letters below it. The map labels include: Göteborg, Borås, Jönköping, Västerås, Frederikshavn, Ålborg, Skive, Randers, Viborg, Høje-Taastrup, København, Malmø, Helsingborg, Karlskrona, Vejle, Esbjerg, and Flensborg. The green network consists of numerous dots of varying sizes connected by lines, forming a complex web of connections across the country.

ONGOING PROJECTS

Both reinvestments and new components

LONG TERM GRID EXPANSIONS

- Currently low excess grid capacity
- Wind and solar drives most reinforcements
- Visible infrastructure

Netændringer



THE AMBITIOUS MARKET DRIVEN DEVELOPMENT CHALLENGES LONG TERM PLANNING

RAPID DEVELOPMENT

AMBITIOUS CLIMATE GOALS



UNCERTAIN DEVELOPMENT

MARKET DRIVEN



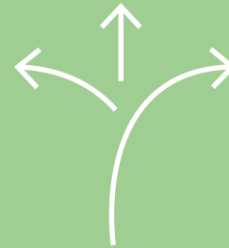
HOW DO WE ENSURE THAT THE GRID IS FIT FOR THE GREEN TRANSITION?



OPTIMISED
UTILISATION OF
EXISTING GRID



INCENTIVES FOR CO-
LOCATION OF
PRODUCTION AND
CONSUMPTION



PROACTIVE GRID
PLANNING



PUBLIC DIALOGUE AND
COOPERATION



IS THE GRID FIT FOR THE
GREEN TRANSITION?

QUESTIONS

