Norway energy hub

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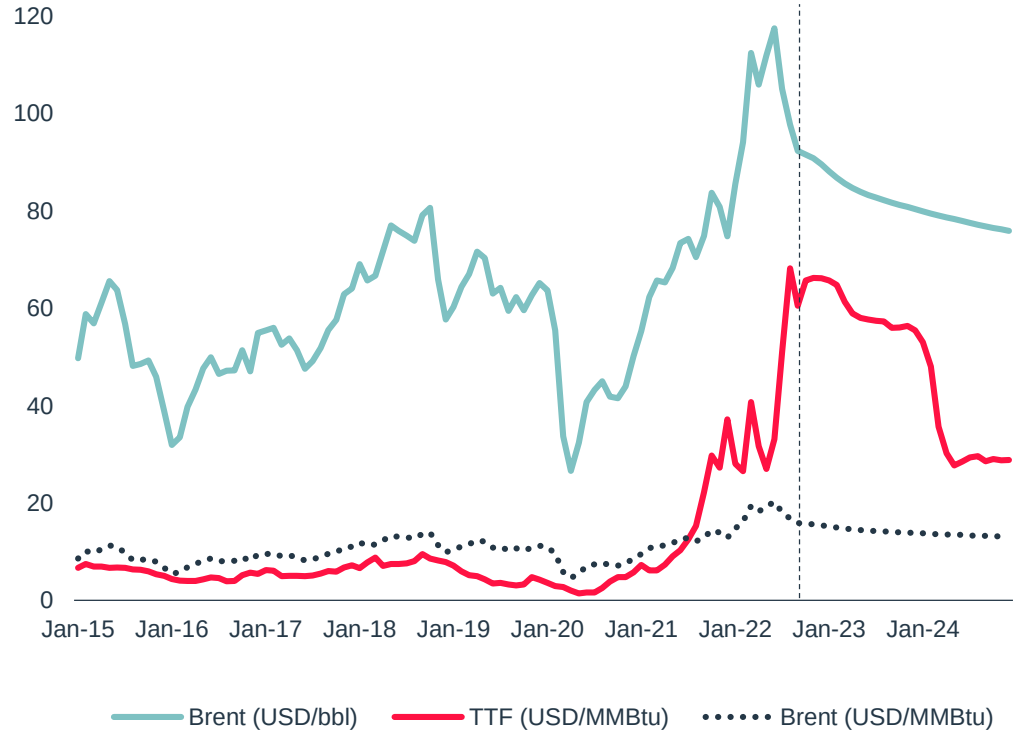
We are in a world of extremes

Conflicts and unrest, lack of trust, market imbalances, disastrous weather events

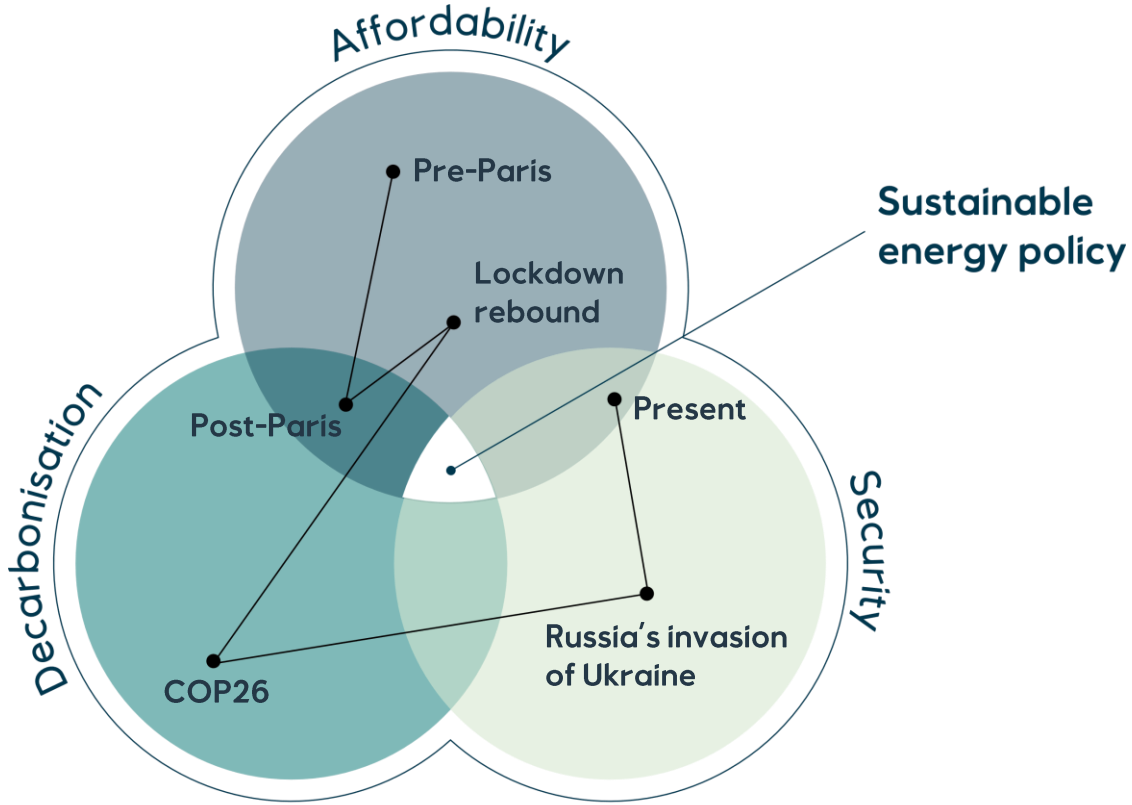
Oil and gas price



Source: Platts, Heren (history), ICE (projection)

We see a vivid illustration of the energy trilemma

Sustainability requires a balanced approach



Source: Equinor

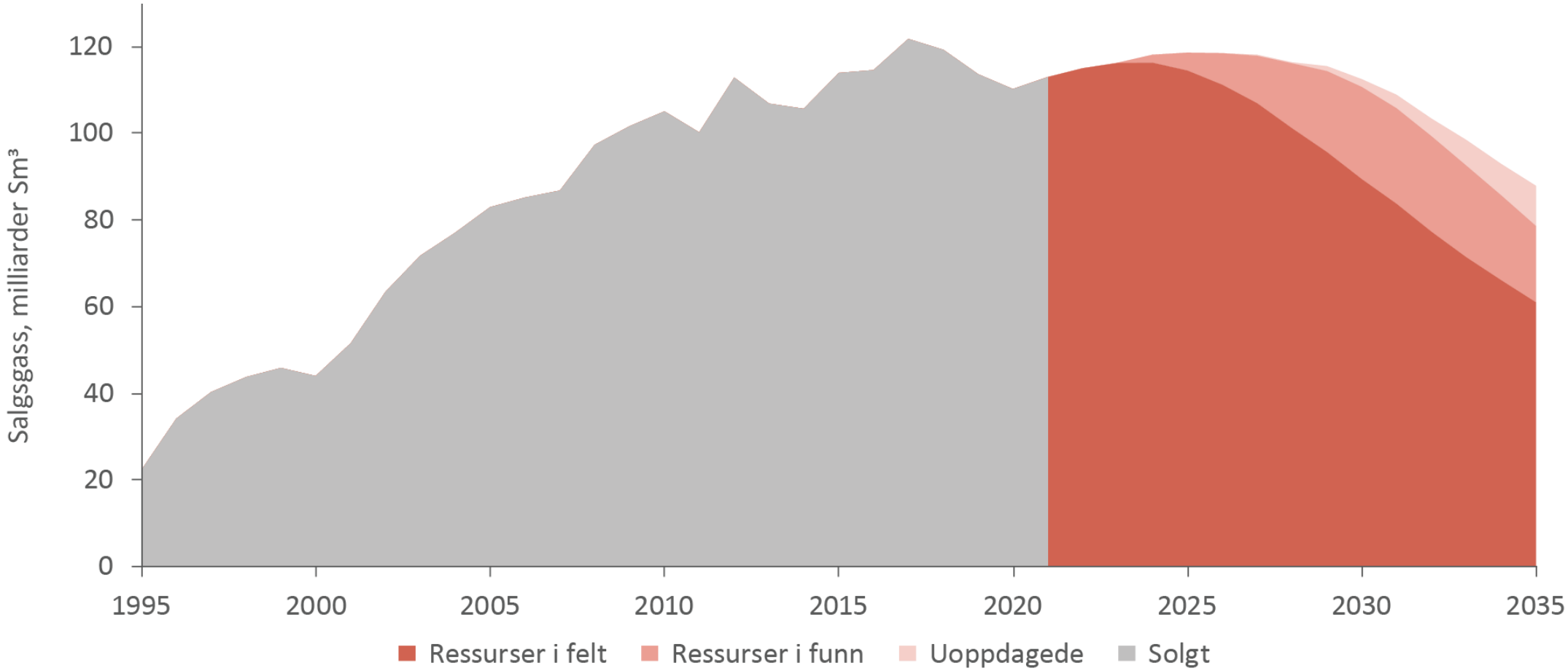
Source: United Nations

Norway as an energy provider to Europe

3.9
Million boe/d
Oil and gas production

50-100
kboe/d
Export of LNG

Expected volume of sales gas from Norway to Europe, 1995-2035



Source: Norsk Petroleum

Further developing the North Sea

An industrial plan for a European energy centre

- Contributing to combating climate change
- Ensuring value creation through the energy transition
- Building further on a solid foundation
- The opportunity is now!

3.9
Million boe/d
Oil and gas production

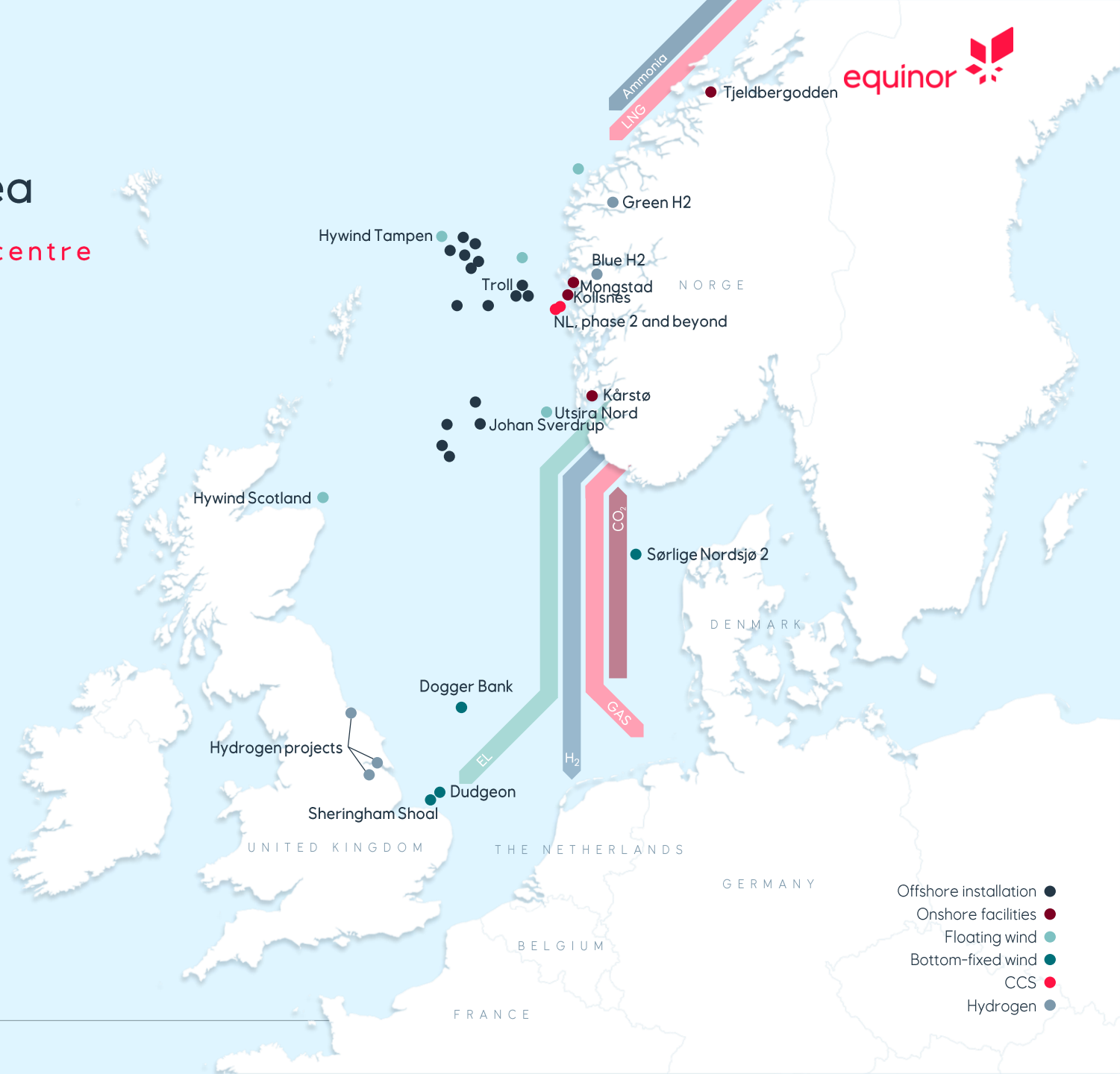
50-100
kboe/d
Export of LNG

6.5
GW
Bottom-fixed wind

3.5
GW
Floating wind

40
Million tonnes/year
CCS storage capacity

2
GW
Hydrogen



Norway Energy Hub - towards 2035

An industrial plan for Norway

equinor

3.9
millioner boe/d
Oil- and gasproduction

10
GW
Offshore vind

40
millioner tonn/år
CO_2 storage capacity

2
GW
Hydrogen

Maintain value creation from Oil & Gas

Industrialize offshore wind

Commercialize transport and storage of CO_2

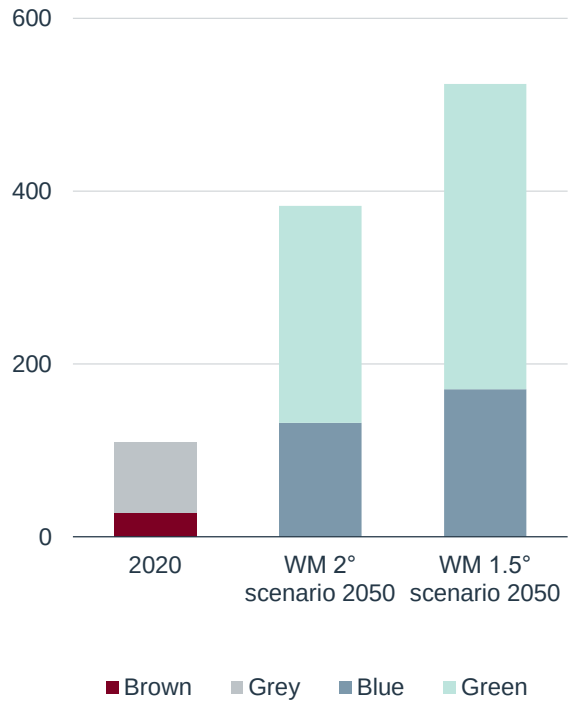
Upscaling of hydrogenproduction

Net zero
by 2050

Net zero driving demand for clean hydrogen

Global clean hydrogen production

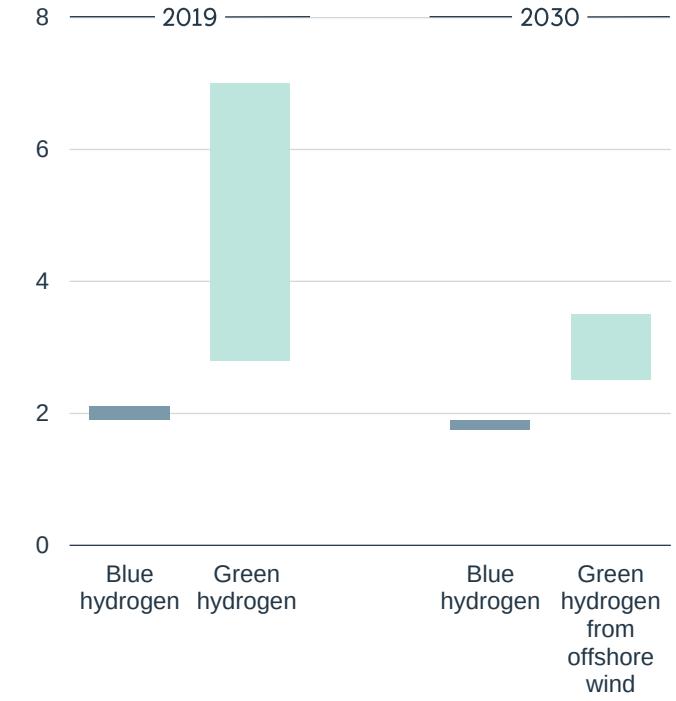
Million tonnes per year



Source: Wood Mackenzie

Hydrogen production costs in northwest Europe

EUR per kg



Source: IEA NWE hydrogen report April 2021

Northern Lights

World's first third-party CO_2 storage

1.5 MTPA

CO_2 volumes phase 1

100% share

5 MTPA

CO_2 volumes including phase 2

100% share

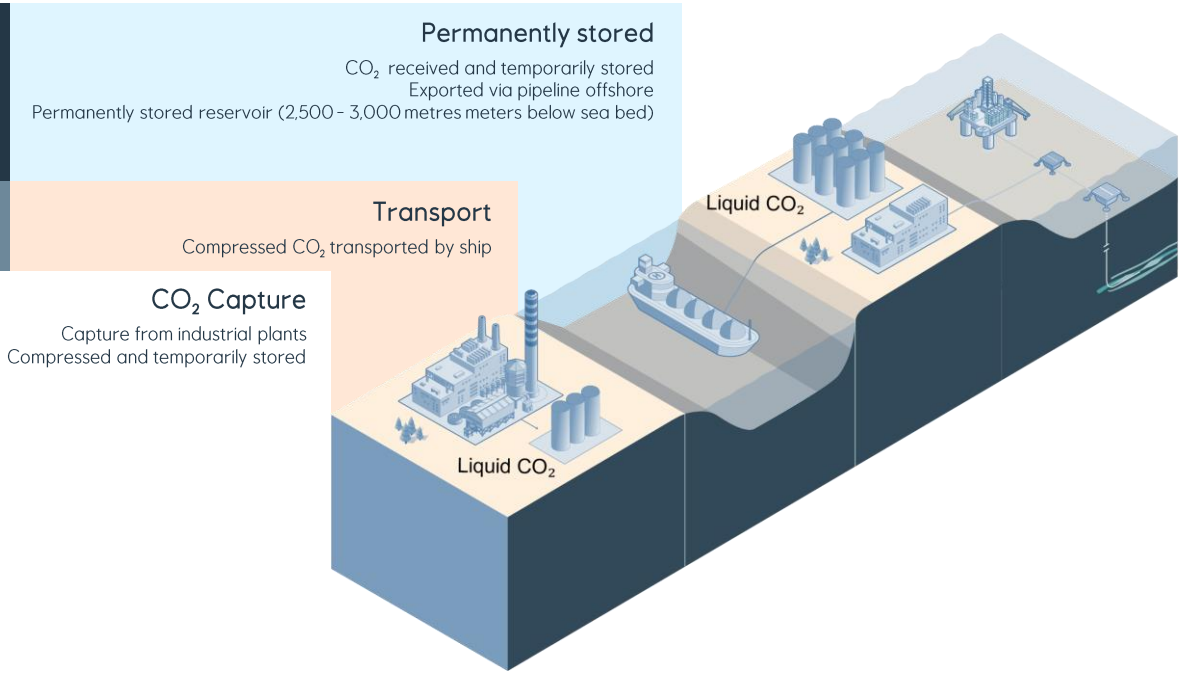
2024

Start-up, phase 1

2025-27

Start-up, phase 2

- Large scale CO_2 transportation and storage on NCS
- Interest from > 50 potential customers
- Joint venture with Total and Shell
- Funding from Norwegian government
- Capture sites eligible for EU innovation funding



A thought experiment

Area needed to double electricity production
Power from offshore wind equal hydropower

Hydro power 136 TWh / year in Norway

Calculation – back of the envelope

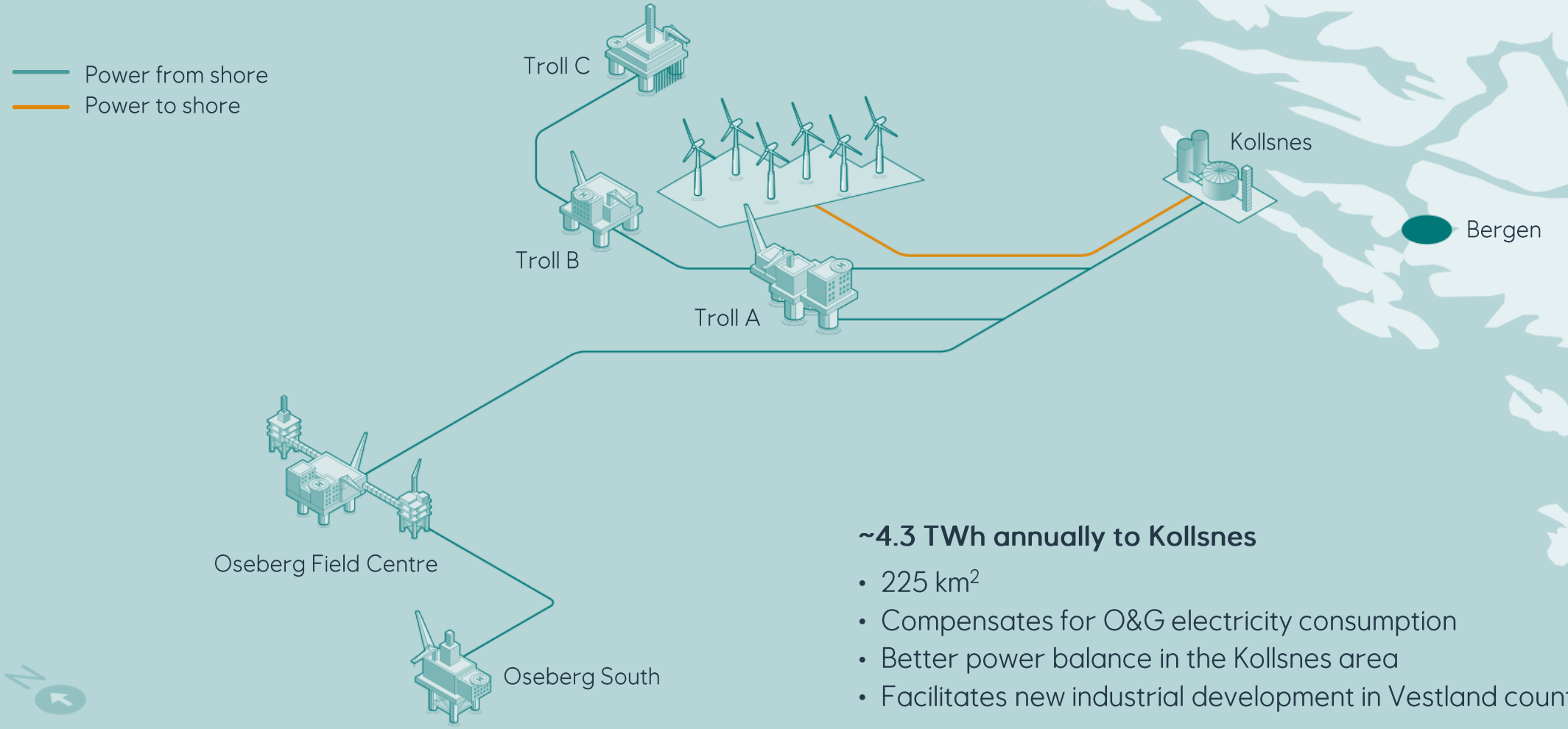
- 30 GW with 50% capacity factor
- Turbine effect 15 MW
  - Rotor diameter 220 m @ 2 km distance
- Number of turbines installed 2000
- Square layout : 90 km sides (8 100 km2)

Perspective on area

- ~34 000 km2 Vestland fylke
- ~324 000 km2 Mainland area
- ~870 000 km2 Sea area along mainland (3x)

Need ~1 % of Norway's area at sea along mainland

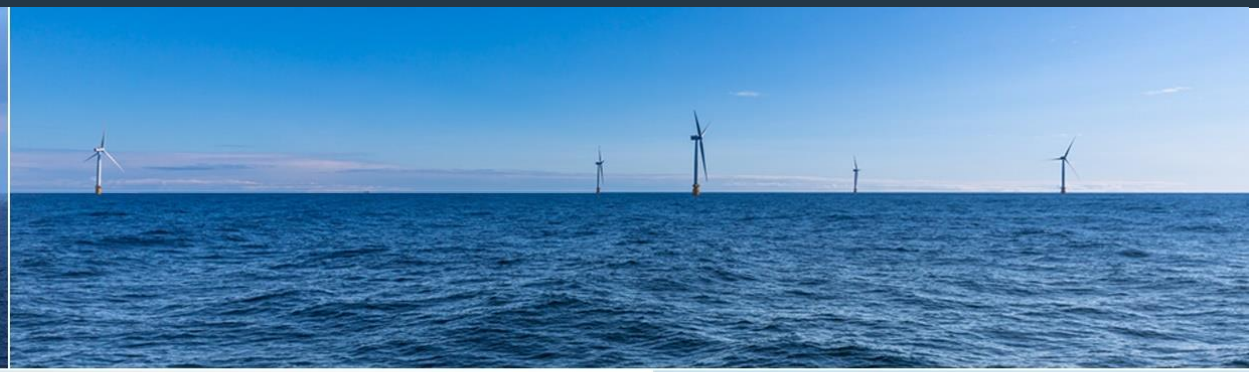
TROLLVIND: ~1 GW floating offshore wind

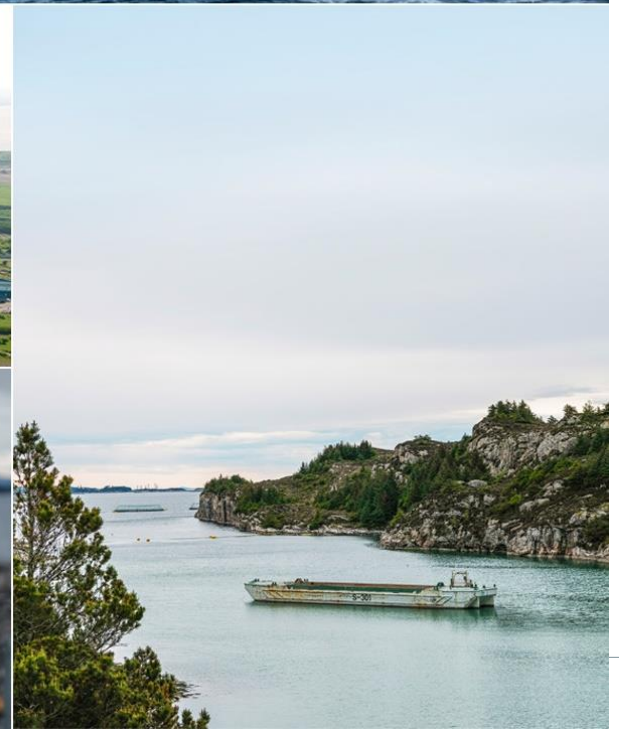


~4.3 TWh annually to Kollsnes

- 225 km^2
- Compensates for O&G electricity consumption
- Better power balance in the Kollsnes area
- Facilitates new industrial development in Vestland county

How to succeed?





- Political ambitions
- Predictable framework
- Experience and competence
- Technology development
- Cooperation

"We build too many walls and not enough bridges."

- Attributed to Sir Isaac Newton