

HAUGALAND  
VEKST



# Agendakonferansen **2018**



**Agendakonferansen  
2018**



**ARNE EIK**

*Ledende forretningsutvikler  
Equinor*

**Equinor som motor for grønn vekst**



equinor

# Equinor som motor for grønn vekst

Arne Eik

Ledende forretningsutvikler i Nye Energiløsninger, Equinor

Agendakonferansen, Haugesund, 29.11.2018

OUR VISION

## Shaping the future of energy

- Competitive at all times
- Transforming the oil and gas industry
- Providing energy for a low carbon future



# New Energy Solutions – Strategic Objectives

15-20 % of investments in 2030



## Fornybar energi – en næring i vekst

Opp til **70 prosent** kostnadsreduksjoner for offshore vind siden 2010

> 70 prosent av ny installert global kraftkapasitet i 2017 var fornybar



Fornybar energi dekker mer enn **30 prosent** av all elektrisitetsforbruk i EU

Fornybar energi trolig  
> 60 prosent av energimiksen i 2050

# Our renewable portfolio

## Electricity to more than 1 million households

Offshore wind – bottom fixed



Offshore wind – floating



Solar



- Sheringham shoal (UK): **316MW**
- Dudgeon (UK): **402MW**
- Arkona (Germany)\*: **385MW**

- Hywind Demo (Norway): **2,3MW**
- Hywind Scotland: **30MW**
- Hywind Tampen (Norway)\*: **88MW**

- Apodi (Brazil): **162MW**
- Guanizul (Argentina)\*: **117MW**
- 10 % ownership in Scatec solar

\* Under development

# Flytende vind - Et hav av muligheter

Hywind Demo



Hywind Scotland



Hywind Tampen



Globale muligheter



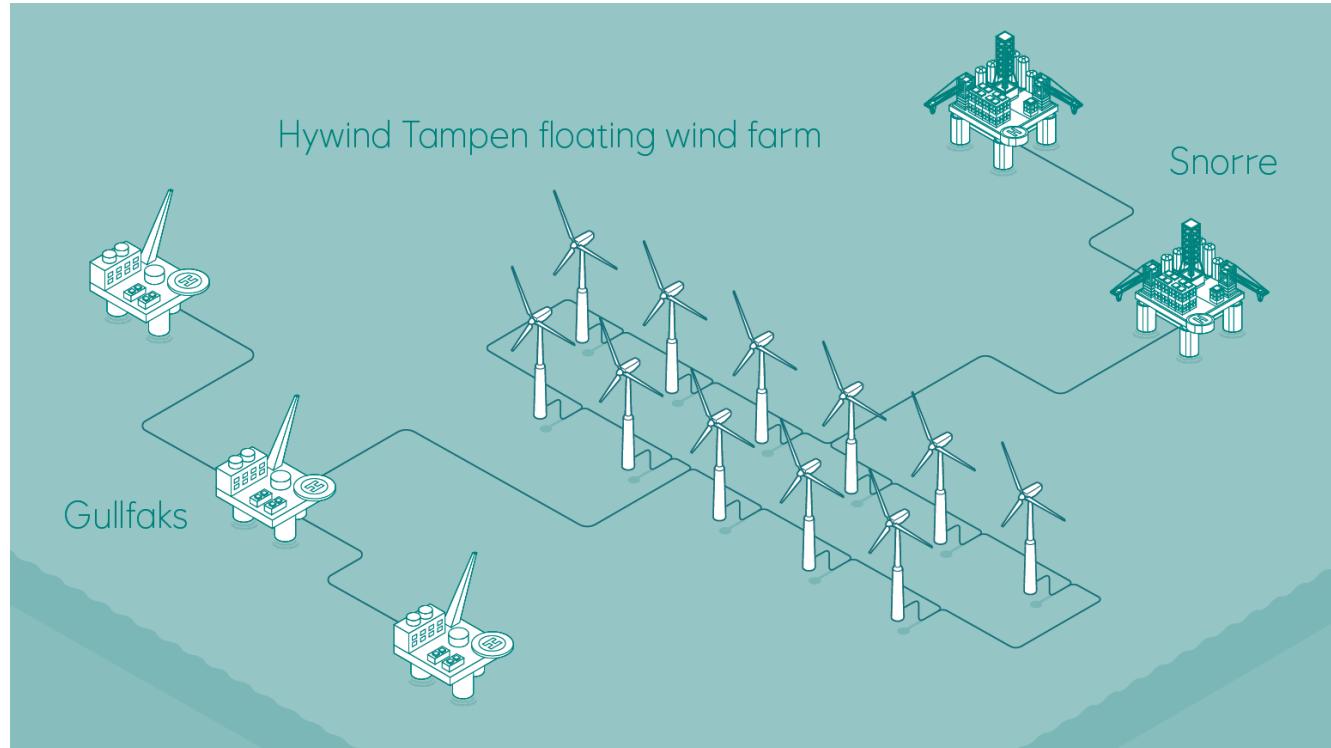
- Teknologiutvikling siden 2001
- I demo-drift siden 2009
- Produsert mer enn 40GWh siden oppstart

- Verdens første flytende vindpark
- I drift siden 2017
- Leverer strøm til 22 000 skotske husstander

- Potensielt første havvindprosjekt på norsk sokkel
- Vil redusere CO2-utslipp tilsvarende 100 000 biler

- Interessante markeder i bl.a. Japan, UK, Frankrike, USA og Norge
- Potensielt 12GW innen 2030
- Forventet LCOE på 40-60 €/MWh innen 2030

## Hywind Tampen – offshore wind farm in the North Sea



11 wind turbines between  
Snorre and Gullfaks

Combined capacity of  
88MW

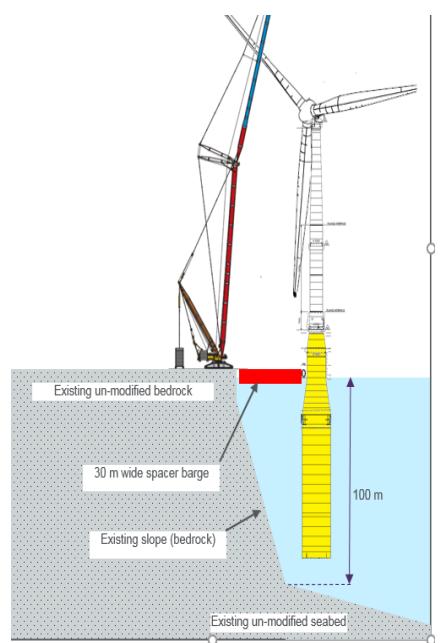
Concrete substructures  
and shared anchors

Considerable CO<sub>2</sub>  
emission reductions

# Technology development to reduce costs and for the benefit of future projects



Larger turbines



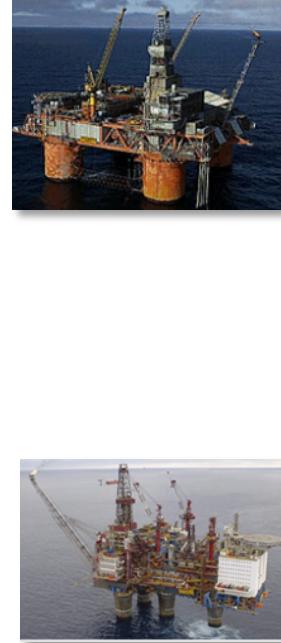
Installation method



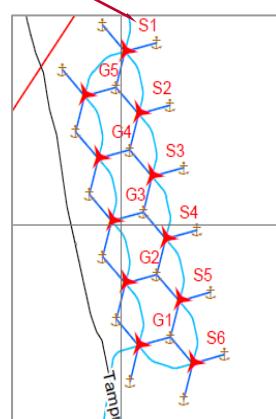
Simplified mooring



Concrete substructure



Gas and wind power generation system integration



# More offshore wind in Norway – what does it take?



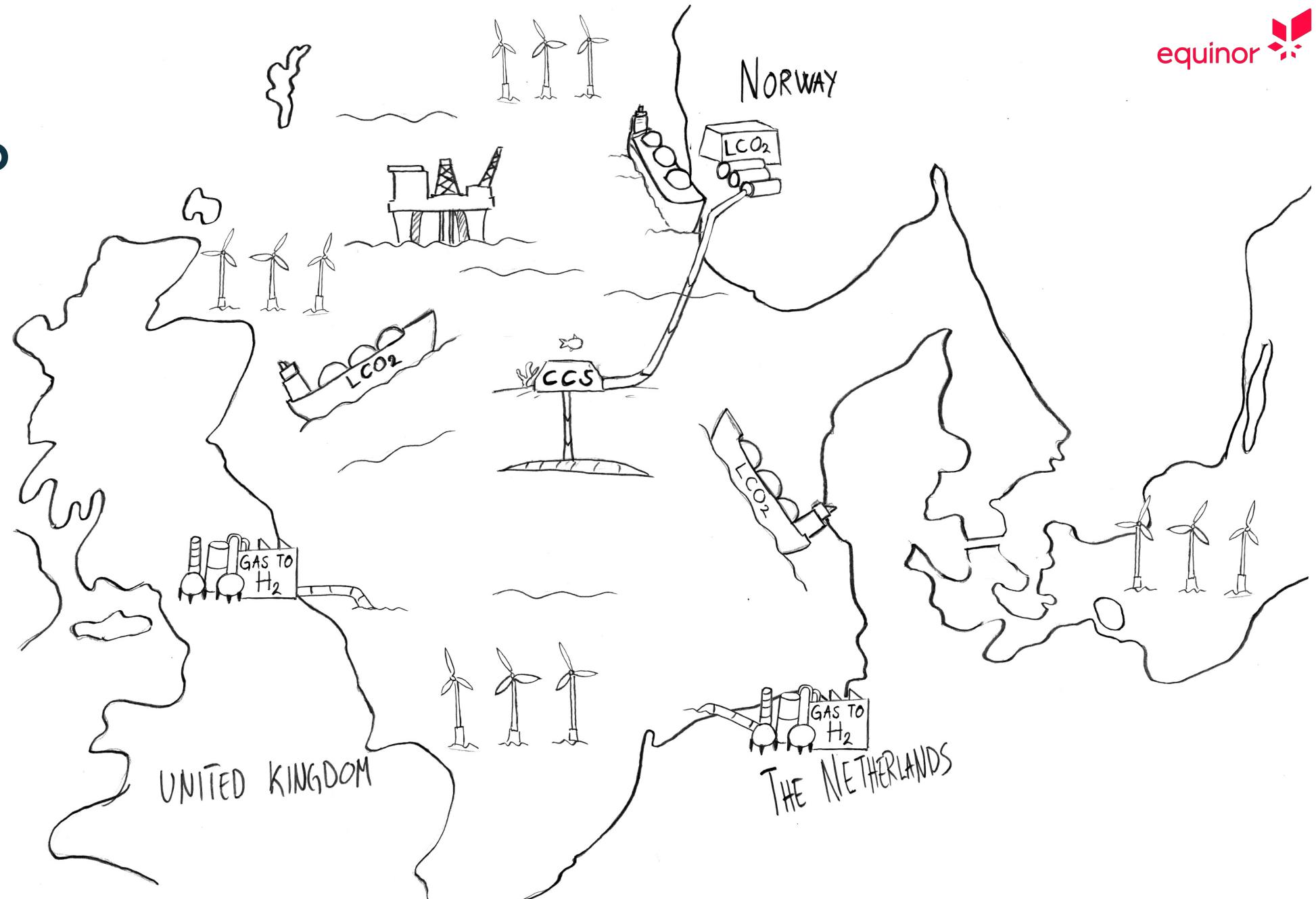
Close collaboration between authorities, developers, suppliers and R&D

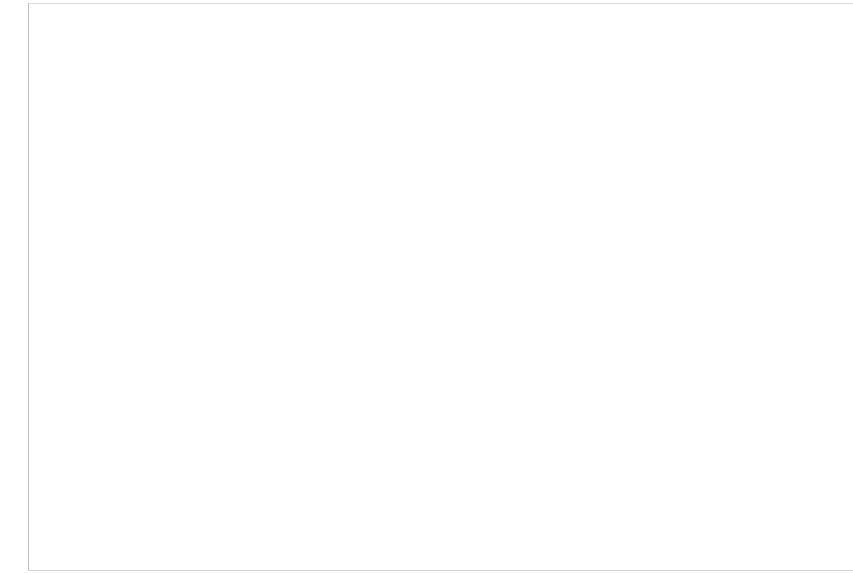
Cost reductions through scale

Competitive supplier industry

Appropriate framework conditions

2030?





**Arne Eik**

Leading business developer New Energy Solutions

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