An ocean of opportunities

Offshore Wind in Norwegian Waters

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Three key points:

What have we learned so far?

What is Equinor doing?

What do we need to do together?
Huge & complex projects built to last for more than 3 decades

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<th>Planning is critical</th>
<th>Complex execution</th>
<th>Advanced logistics &amp; operations</th>
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| • 3-5 years of preparations  
  • Critical to collect quality data  
  • Requires close cooperation  
  • Capital intensive | • Huge contracts and multiple interfaces  
  • Complex marine operations  
  • Technology risk is still key | • HSE is fundamental for success  
  • Will need to operate for 30 years  
  • High availability is needed  
  • A 24-hour operation |
Offshore wind is an industrial opportunity

- Increased demand for power from offshore wind in both Norway and Europe
- Norwegian industry is well positioned, further development required and possible
- Target of 30 GW by 2040 in Norway
- Offshore wind in Norway has highest priority for Equinor
Further developing the North Sea

An industrial plan for a European energy center

• Contribute to combat climate change
• Ensure value creation through the energy transition
• Build 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 ton/year
CCS storage capacity

2
GW
Hydrogen
Our short term ambitions

**Hywind Tampen – floating**
- Electrify the region
- Bridge Tampen and Utsira Nord
- Start industrialization

**Trollvind – floating**
- Electrify the region
- Bridge Tampen and Utsira Nord
- Start industrialization

**Utsira Nord – floating**
- Continue to develop Norwegian leadership in floating
- Increased scale and further cost reductions
- Strengthen power situation at the West Coast

**Sørlege Nordsjø II – bottom fixed**
- Key contributor to the North Sea as an energy hub
- For developers with experience from large offshore wind HVDC projects
- 50-70 m water depth – technological and industrial development needed
Hywind Tampen
a good example

• 11 wind turbines
  (combined capacity of 88 MW)

• Concrete substructures
  and shared anchors

• 200,000 tons/year
  CO2 emission reduction

• 30%-40% cost
  reduction from Hywind
  Scotland

• 60% Norwegian content
TROLLVIND: ~1 GW floating offshore wind

- Power from shore
- Power to shore

- Troll C
- Troll B
- Troll A
- Oseberg Field Centre
- Oseberg South
- Kollsnes
- Bergen

~4.3 TWh annually to Kollsnes

- 225 km²
- Compensates for increased demand from electrification
- Better power balance in the Kollsnes area
- Facilitates new industrial development in Vestland county
What need to do next?

✓ An efficient high quality consenting process
✓ Allow for flexibility in detail planning
✓ Speed and predictability
✓ Pre-qualification to players than can deliver
✓ Develop industrial solutions – together
✓ Start building projects – projects build experience
✓ A long-term solution on what to do with the power
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