Building the world’s first floating offshore wind farm

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#HywindScotland
First new investment for New Energy Solutions

 Exploration

• Exploit prolific basins
• Test impact opportunities
• Access at scale

 Development & Production

• Safe and secure operations
• Drive cost and capital efficiency
• Capitalise on technology and operating experience

 Midstream & marketing

• Leverage European gas position
• Onshore access to premium markets
• Exploit global trading competence

 Portfolio management

• Realise value
• Sharpen our upstream profile
• Strengthen execution and financial resilience

 New Energy Solutions

• Build a distinct growth portfolio of profitable new, non-oil and gas options
• Identify and develop business models to drive demand for our core products
Realising the Hywind Scotland pilot park

- Investing around NOK 2 billion
- 60-70% cost reduction from the Hywind Demo project in Norway
- Powering ~20,000 UK homes
- Installed capacity: 30 MW
- Water depth: 95-120 m
- Avg. wind speed: 10.1 m/s
- Area: ~4 km²
- Average wave height: 1.8 m
- Export cable length: Ca. 30 km
- Operational base: Peterhead
- Start power production: 2017
Expanding the potential floating wind market

Illustrative only, based on water depths, wind conditions and potential large markets
Further developing the unique Hywind concept

- Unique concept
- Intellectual property owned by Statoil, patented technology

2001-
Hywind: A bright idea

2009-
Demo: Proven in the North Sea

- Concept verified, performance beyond expectations
- Excellent production, well-functioning technical systems

2017-
Pilot park: A world’s first

- Development of larger and lighter units and economies of scale
- Further improving cost competitiveness
Applying proven technology in new application

- Standard offshore wind turbine
- Spar-type substructure
- Simple structure - efficient fabrication
- Suitable for harsh conditions
- Simple 3-line mooring system
- Patented motion control reduces fatigue, increases production
Enabling utility-scale floating wind production
Bringing down the cost

Cost reduction of 40-50% by 2030 realistic, making floating offshore wind competitive without support regimes