



Statoil

# Statoil launches Batwind: Battery storage for offshore wind

21 March, 2016

# Shaping the future of energy

Competitive  
at all times

Transforming the  
oil and gas industry

Providing energy for  
a low carbon future



# Piloting Batwind @ Hywind Scotland



## 1 Capture wind overshoots

Ability to store excess electricity for sale when capacity is free

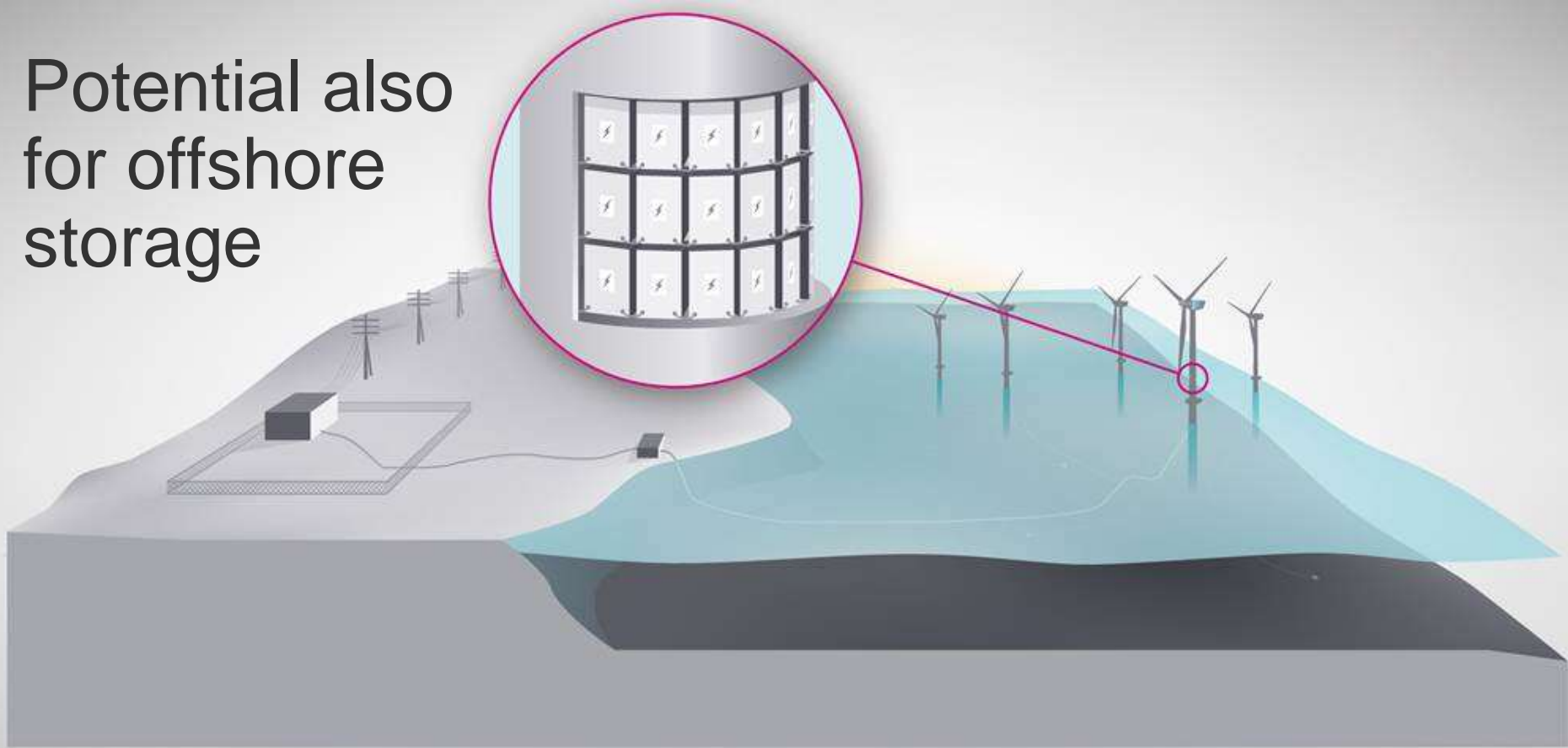
## 2 Reduce balancing cost

Can introduce own regulation of power supply

## 3 Increase power market value

Opportunity to capture price peaks through arbitrage

Potential also  
for offshore  
storage



# Global market potential for offshore wind

*Illustrative only, based on water depths, wind conditions and potential large markets*

# Hywind Scotland: World's first floating wind farm




- **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 km<sup>2</sup>
- **Average wave height:** 1.8 m
- **Export cable length:** Ca. 30 km
- **Operational base:** Peterhead
- **Start power production:** 2017

# Statoil in offshore wind: Solid industrial platform

**Playing to our strengths**

- Complex projects
- Marine operations
- O&M & HSE ability
- Leading floating tech.

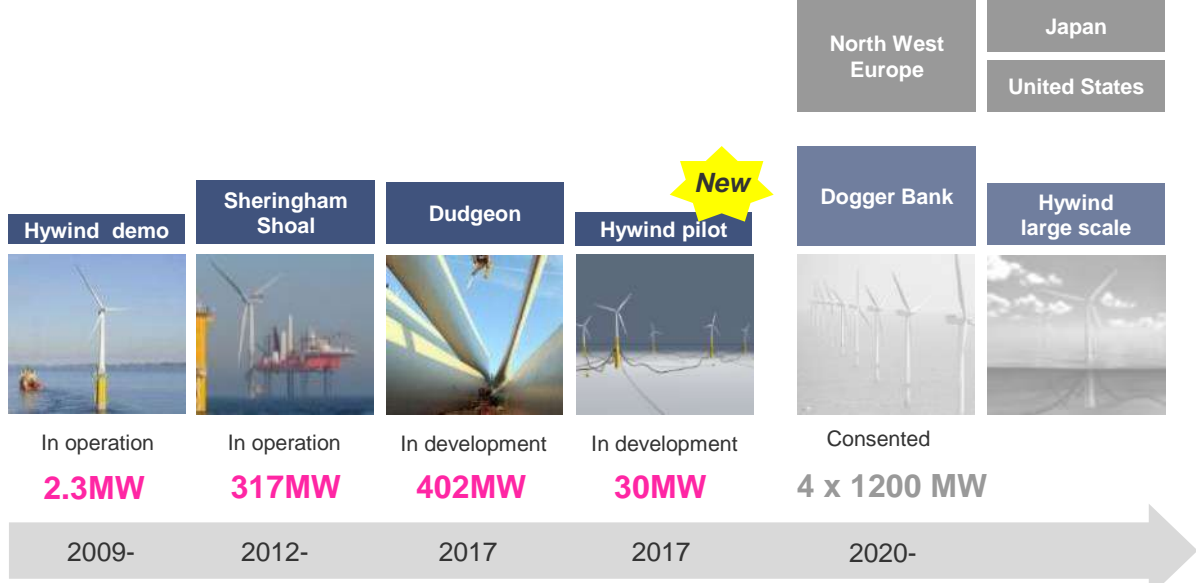


**Attractive market**

- Attractive risk/return
- Predictable revenue
- OECD countries
- High entry barriers



**750 MW in projects: Powering up to ~750.000 homes\***  
*Additional 4800 MW consented / ~5 mill. homes*



Thank you

[www.statoil.com](http://www.statoil.com)

