Offshore Wind

Astrid Skarheim Onsum,
Head of Offshore Wind, Aker Solutions
175 Years of Change

Hydropower turbines that gave Norway electricity

Maritime

Subsea

Ground-breaking offshore constructions
Aker Solutions will lead the industrialization of floating wind.

The floating wind system includes:
- Floaters
- Dynamic array cables
- Floating and Subsea Substation
- Export cable and landfall

Aker Solutions will lead the industrialization of floating wind.
Falling Cost of Offshore Wind Projects

Cost falls with industrial scale

Strike price (fixed bottom farms) in UK, Netherlands, Denmark, Germany
Economy of Scale is Increasing the Turbine Size

Sources: Various; Bloomberg New Energy Finance
Drivers for Deepwater Wind Power

- 80% of offshore wind resources found in water depths of >60 meters
- Deepwater Technology now available
- Not In My Back Yard (NIMBY)
- More Wind Energy Further From Shore

Capacity factor by wind concept:

| Onshore Wind | ~30% | Offshore Bottom-Fixed | ~40% | Offshore Floating | ~50% |

Sources: EIC Global Offshore Wind report 2019; Norwep, Equinor, internal analysis
Ambitious Neighbours

**UK**
Announced 30 GW of offshore wind by 2030

**Denmark**
Announced 12.4 GW of offshore wind by 2030

**Norway?**
Offshore Wind - A New Top Export Industry?

Exports by industry 2017 (excluding oil and gas), with export share of total turnover
Source: Eksportkreditt and Aker Solutions