



# Global Offshore Wind Energy Markets and Strategies, 2008–2020

March 2008

## Study Highlights:

### Offshore Market Drivers and Inhibitors

- Global Policy Trends
- Incentives (RES policies, national renewables targets)
- Pilot Projects
- Permitting Process

### Country Market Analysis

- Europe: *Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Spain, Sweden, United Kingdom*
- North America: *Canada and United States*
- Asia Pacific: *China, Japan, South Korea, Taiwan*

### Global Offshore Market Attractiveness Rankings

- Wind Resource
- Regulatory Support
- Site Permitting
- Grid Connection
- Competition

### Offshore Market Forecasts Through 2020

- Base-Case
- High and Low Growth Scenarios

### Supply Chain Analysis

- Value Chain Strategies
- Product and Sales Strategies

### Competitive Analysis

- Market Share
- Vertical Integration
- Developer/IPP Evolution
- Supply Chain Analysis

### Strategy Profiles

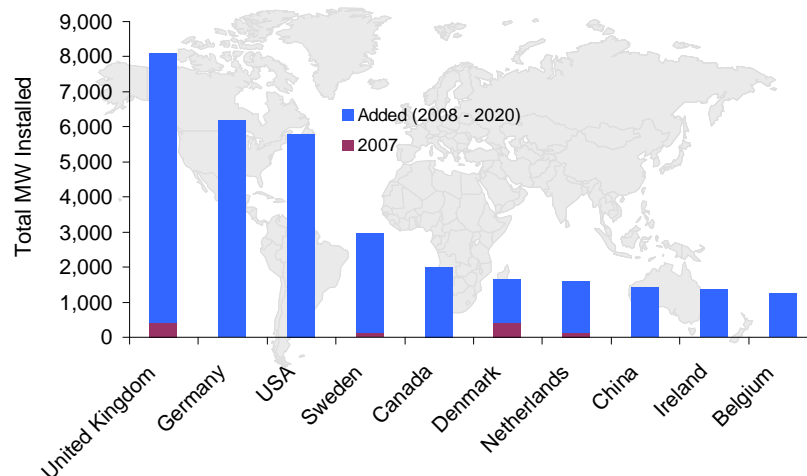
- Utilities and IPPs
- Turbine Suppliers
- Developers
- EPC Contractors

With just over two dozen operational projects globally, offshore wind is nearing a critical phase requiring major investments to secure its future in the generation mix. With 1 GW of offshore wind now in service, the global market is expected to grow 40-fold by 2020, according to EER's base-case forecasts. But offshore's success will hinge on turbine and foundation technological advances, development of know-how across the project value chain, and increasing logistics capacity.

EER's new market study, *Global Offshore Wind Energy Markets and Strategies, 2008-2020*, provides a comprehensive analysis of offshore wind markets, the strategies of developers, IPPs, utilities, and turbine suppliers, and growth barriers facing the industry.

- **Project size increasing:** Offshore wind is entering a critical phase in which projects are to move from 100 MW to 400 MW and larger – requiring a major scaling up and technology specialization across the industry.
- **Europe offshore serving as model for North America and Asia projects:** Europe is set for paced offshore expansion through 2020, with the UK, Germany, and Sweden driving future growth. North America will begin to take off after 2011, following the first phase of Cape Wind. Asia will be driven by pilot projects in China, South Korea, and Taiwan that are set for construction in 2010.
- **IPPs moving into project development space:** Many IPPs are looking to partner with utilities to realize their offshore projects. As financing becomes more readily available and project costs decrease in the longer term, the opportunities for IPPs to become offshore wind plant owners and operators will increase together with their share of the market.
- **Utilities leveraging onshore experience offshore:** Experience acquired by power producers developing and managing onshore wind plant can be leveraged into offshore expansion as these players look to further diversify their energy mix.
- **New market offers supply chain challenges:** To realize the large scale the market promises, developers must first secure a steady flow of permitted, well-financed projects that will justify major supply chain investments by players that currently focus more on oil and gas offshore, such as EPC contractors and installation vessel operators.

**Exhibit 3-5: Leading Global Offshore Wind Energy Markets**



Source: Emerging Energy Research

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Darwind  
Blue H Technologies  
Clipper Windpower

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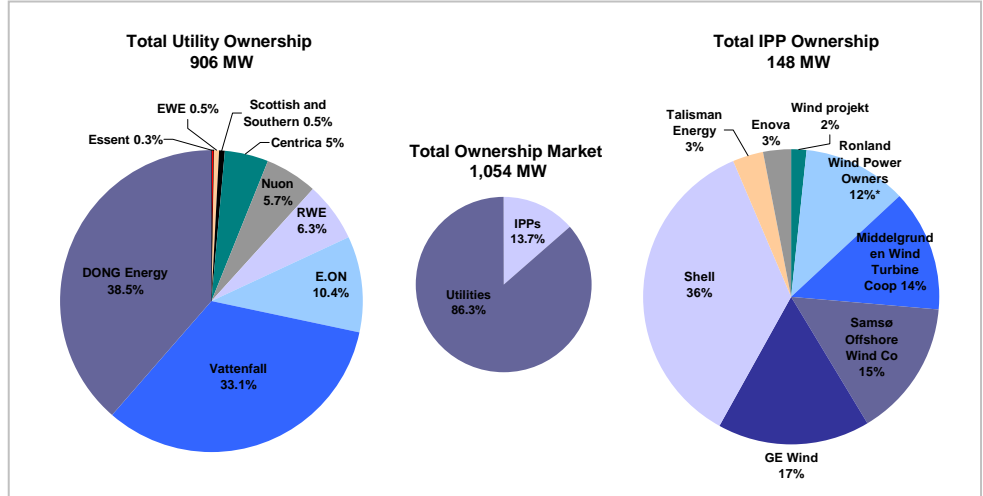
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EER’s market studies are relied on by a broad base of key stakeholders in the industry including technology manufacturers, component suppliers, financial companies, investment companies, utilities, IPPs, and developers. EER’s new market study covering global offshore wind energy markets is comprised of the following sections:

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- Section 2: Global Offshore Wind Market Environment
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