SESSION A: OFFSHORE WIND ENERGY: PARTNERSHIPS, DEVELOPMENT AND US JONES ACT

MAY 6, 2019, 3:45 PM – 5:00 PM

Learn about legal issues surrounding transmission lines in federal, state, local waters; U.S. Jones Act application to offshore wind farms, and the role of the federal regulators; and Coast Guard and Customs and Border Protection responsible for ensuring compliance with these laws.

Moderator/Panelist: Antoine Peiffer, Senior Manager, Global Supply Chain and Development, Principle Power

Panelists:
Meagan Keiser, Legal Counsel, Equinor
Marjorie Krumholz, Partner, Thompson Coburn, LLP
Joshua M. Kaplowitz, U.S. Department of the Interior, Office of the Solicitor, Division of Mineral Resources, Branch of Offshore Resources
An Introduction to Equinor Wind US

Meagan Keiser
Lead Counsel
New Energy Solutions
Equinor US
OUR VISION

Shaping the future of energy

• Competitive at all times
• Transforming the oil and gas industry
• Providing energy for a low carbon future
Building a profitable offshore wind portfolio*

<table>
<thead>
<tr>
<th>Bottom fixed</th>
<th>Floating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheringham Shoal</td>
<td>Batwind</td>
</tr>
<tr>
<td>In production</td>
<td>Installed</td>
</tr>
<tr>
<td>317 MW</td>
<td>1 MW</td>
</tr>
<tr>
<td>Dudgeon</td>
<td>Hywind demo**</td>
</tr>
<tr>
<td>In production</td>
<td>In production</td>
</tr>
<tr>
<td>402 MW</td>
<td>30 MW</td>
</tr>
<tr>
<td>Arkona</td>
<td>Hywind Scotland</td>
</tr>
<tr>
<td>In production</td>
<td>In production</td>
</tr>
<tr>
<td>385 MW</td>
<td>2.3 MW</td>
</tr>
</tbody>
</table>

* Figures: Installed capacity, 100% basis.
** Sold to Unitech, January 2019
Expanding our offshore wind position*

**Bottom fixed**
- **Dogger Bank**
  - UK
  - 3.6 \(GW\)
- **US East Coast**
  - USA
  - \(\sim 4 \text{ GW}\)
- **Baltyk I**, II & III
  - Poland
  - \(\sim 2.5 \text{ GW}\)

**Floating**
- **Hywind Tampen**
  - Norway
  - 88 \(\text{MW}\)
- Expanding our global position
  - UK/Ireland, France, Japan, USA

* Figures: Installed capacity, 100% basis.
** Transaction subject to closing
Equinor in North America

- Operator of assets
- Joint venture
- Presence
Empire Wind and Boardwalk Wind

Site Key Data

Area: 80,000 acres
Water Depth: 65-130 ft (20-40m)
Distance to shore: 14 to 35 miles
Lease capacity: Up to 2GW
Est. Construction: 2022-2024
Est. First Power: 2024-2025

Phase 1
Phase 2
Phase 3
New lease offshore Massachusetts

- Equinor won lease OCS-A 0520 off the southern coast of Massachusetts in December 2018.

- Key data:
  - >500 km² – more than 50% larger than our NY/NJ lease.
  - 35-65m water depth.
  - Wind speeds in the 10 m/s range.
  - 64km to closest point on mainland – 31km to island of Nantucket.

- 33 year operational term following approval of Construction and Operations Plan.

- Early development work started.

- Examining offtake options
Building a portfolio – Opportunities both east and west
Offshore Wind – Challenges in US

**Port**
- Port options suitable for a large scale projects currently limited/unavailable
- Port upgrade is a task best suited for the industry and not a single project

**Grid connection**
- Grid connection neither provided nor identified by the authorities
- Timing

**Jones Act**
- No Jones Act compliant installation vessel currently available in the US

**Local content**
- Developing supply chain
- Maximizing local economic benefits

**Market**
- Understanding of local market important for identifying and assessing opportunities

*Creating local value*
- The payments we make to local and national governments
- The services and goods that we buy from local firms
- The staff that we hire and develop
- The local capacity that we help to develop in our host societies
- Community investments that we make in our host communities
- Energy Bar Association