A global perspective on the floating offshore wind industry

Carlos Martin, CEO, BlueFloat Energy
Who we are

**Mission:** Develop new offshore wind energy projects **globally** by combining outstanding global industry knowledge with local development expertise

**Team:** one of the most experienced teams in floating wind development globally, from various backgrounds and covering all the floating supply chain

**Business approach:** Agile, rigorous, passionate, lean, ethical

**Partners:** high reputation, complementary skills, same approach

**Focused growth strategy around 2 axes:**
- Adding value through floating wind expertise in mature markets
- Early mover in high-potential markets

- Long-term, proven track record of creating value for investors and management teams
- Decades of experience in developing, financing and operating global energy projects
- Long-term perspective to investments
Our global presence

BlueFloat Energy
HQ Madrid, Spain

S47 Energy / Quantum Energy Partners

Existing presence

Target geographies
Our vision

Floating offshore wind is fundamentally different than fixed-bottom

- **Platform**: Proprietary platforms concepts, not yet consolidated, very different from many angles: fabrication, stability, scalability, industrialization, material, etc.

- **Turbine**: same turbines, but big changes: coupled analysis, reinforcements, controller, procurement process

- **Engineering, procurement and construction**: more interfaces, technology selection, lack of rigorous view on addressing risks and interfaces

- **Transport and installation**: pre-laying, wet vs. dry storage, quayside WTG installation, port towing for large correctives, installation sequence

- **Electrical**: dynamic cables, floating or underwater substations, connectors

- **Ports**: draft, bearing capacity, swell, wind, surface, investments required

- **Site assessment**: Geotech, currents

> >50 NDAs with technology developers, updates on any innovation, engagement with WTG OEMS

> 2-year experience in multiple technology WTG coupled analysis and integration

> Capacity to run a multi-contract strategy thanks to real experience in delivering floating projects

> 8-year experience in installing floating prototypes and projects

> Joint efforts with cable and substation developers

> Global expert in ports for O&G EPC contractor

> Site assessment director from leading floating developer

Floating Wind Solutions
Our value proposition

- Select ideal floating structure for each site
- Design industrial plan and supply chain
- Optimize interface between platform and wind turbine
- Select ports minimizing investments
- Lead technical proposal to maximize tender competitiveness
- Educate stakeholders on floating wind during development phase
- Optimize data gathering and detailed site characterization
- Guarantee bankability from day one
Scotwind: a success story

15 Scotwind zones in the leasing round and a total of 74 bids were submitted

BlueFloat’s results

#1 In number of awarded projects (ex aequo with Iberdrola)

#2 In awarded capacity (floating) per consortium to BFE/Falck (just after Iberdrola/Shell)

BFE awarded projects

<table>
<thead>
<tr>
<th>Zone</th>
<th>Name</th>
<th>Area</th>
<th>MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE6</td>
<td>Orion</td>
<td>134 km²</td>
<td>500</td>
</tr>
<tr>
<td>E1</td>
<td>Gemini</td>
<td>280 km²</td>
<td>1200</td>
</tr>
<tr>
<td>NE3</td>
<td>Cygnus</td>
<td>256 km²</td>
<td>1000</td>
</tr>
</tbody>
</table>

Floating Wind Solutions
Scotwind: a success story

**Outstanding technical proposal**
- Leveraging on return from experience on real projects
- Highlighting key features/requirements which are unique to floating wind
- Ambitious and realistic installation schedules

**Site selection**
- Good enough sites, consentable and with viable grid connection
- Avoiding very best sites that were targeted by the big players

**Local engagement**
- Consortium with Falck Renewables
- Partnership with Energy4all, world reference in community engagement and benefits
- Launched debate on definition of local communities with SCDI

**Supply chain involvement**
- Preference for concrete solutions that can maximize local content
- Partnership with local solutions providers (e.g., TTI)

**Execution capabilities**
- Consortium with Orsted
- Securing collaboration with first-class supplementary experience providers

Floating Wind Solutions
Floating wind potential in the USA

U.S. Offshore Wind Technical Resource Area

Illustrative map by wind speed

Illustrative map by bathymetry depth

- Wind Speed (m/s):
  - >10.00
  - 9.75 - 10.00
  - 9.50 - 9.75
  - 9.25 - 9.50
  - 9.00 - 9.25
  - 8.75 - 9.00
  - 8.50 - 8.75
  - 8.25 - 8.50
  - 8.00 - 8.25
  - 7.75 - 8.00
  - 7.50 - 7.75
  - 7.25 - 7.50
  - 7.00 - 7.25
  - <7.00

- Bathymetry Depth (m):
  - >1000
  - 700 - 1000
  - 60 - 700
  - 30 - 60
  - 0 - 30

- Distance to Shore (nm):
  - 200 nm EEZ*
  - 50 nm

*Exclusive economic zone
Key success factors in floating wind in USA

Example: technical challenges in floating wind in California

1. **Interconnection issues**
   - Limited number of connection points near shore. No visibility on the restrictions and reinforcements.

2. **Offshore Transmission Assets**
   - Ultra deep waters require a floating substation or alternatively a subsea substation

3. **Inter-array cables**
   - Super-deep waters associated challenges

4. **Metocean conditions**
   - Very challenging average Significant Wave Heights, that will affect accessibility to the site

5. **Deep water mooring**
   - Super-deep waters – ~1,000 meters. Floating wind has never been executed at such depths.

6. **Fabrication yards**
   - Local supply chain is highly constrained and underdeveloped

7. **Assembly ports**
   - Ports with sufficient space, draft and bearing capacity are very limited