The offshore substation

The OSS (offshore substation) is the core of the offshore wind farm 'Wikinger' and is the prime interface between electricity generation at sea and transferral to land. What’s unique is that the platform consists of two sections (topsides), and the asset is used by both the wind farm operator Iberdrola, as well as the transmission system operator 50Hertz.

### Elevations above sea level

<table>
<thead>
<tr>
<th>Component</th>
<th>Elevation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable deck</td>
<td>+13.5 m</td>
</tr>
<tr>
<td>Main deck</td>
<td>+20.5 m</td>
</tr>
<tr>
<td>Utility deck</td>
<td>+25 m</td>
</tr>
<tr>
<td>Roof deck</td>
<td>+29.5 m</td>
</tr>
</tbody>
</table>

### The Jacket

- **Upper block**
  - long: 50 m
  - wide: 21 m

- **Lower block**
  - long: 50 m
  - wide: 27 m

- **PILES**
  - jacket stands on six piles anchored to the seabed
  - Weight: 230 tons/pile
  - Diameter: 3.6 m/pile
  - Length: 50.6 m/pile

### Other Facts

- 90,000 hours engineering
- First OSS built in two topsides
- First ever design using a 6-legged jacket pre-piled
- The OSS operates fully automatically and is controlled remotely
- The steel structure is more than 2.5 times as heavy as a standard combine cycle plant (5,100 tons to 2,000 tons)
- The amount of installed cables are around five times as long as a standard onshore substation (150km to 32km)

### Contact Information

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