Auction models in the European offshore wind market and their consequences for contractors

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Activities

- Trailing suction hopper dredger
- Cutter suction dredger
- Flexible fallpipe vessel
- Offshore wind equipment
- Backhoe dredgers
- Side stone dumping vessel
- Water injection dredger
- Split hopper barge
- Shallow water pipe lay barge
- Other equipment

Track record

- Van Oord Activities
- Track record

Equipment

- Equipment

Balance of Plant approach

- Balance of Plant approach
Auction Models

Affected markets and projects

Principles and specifications

Effect on contractors

Proceeding alternatives
1. Affected markets and projects

**Overview**

<table>
<thead>
<tr>
<th>Country</th>
<th>Projects</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>Horns Rev 3, DK Nearshore, Kriegers Flak</td>
<td>1.350 MW</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>Borssele 1 – 5, Noord-Holland, Zuid Holland</td>
<td>3.500 MW</td>
</tr>
<tr>
<td>Germany</td>
<td>Projects with commissioning date after 2025</td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>CfD - Contracts for Difference</td>
<td></td>
</tr>
<tr>
<td>France</td>
<td>Appel d’offres éolien en mer</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>Projects with commissioning date between 2020 and 2026</td>
<td></td>
</tr>
</tbody>
</table>

**Centralized auction model**

**Decentralized auction model**
2. Principles and specifications

Central auction model:

• Contracting entity: DEA
  Danish Energy Agency

• Bidding procedure as sealed bid,
  2 rounds (non-binding/binding)

• "Pay as bid" pricing

• DEA = "one-Stop-Shop"
  DEA provides all necessary
  certifications and approvals

• 2 different types
  - Large-scale tenders
  - Nearshore tenders

• Cap: Kriegers Flak: 12 Cent/kWh
  Nearshore tender: 9,4 Cent/kWh
2. Principles and specifications

Central auction model:

- Contracting entity: ROV Netherlands Enterprise Agency (Rijksdienst voor Ondernemend Nederland)
- Bidding procedure as sealed bid, 1 round
- “Pay as bid” pricing
- Beside the price the contracting entity considers the bidders experience in the offshore market
- The necessary approval is provided to the winning bidder

<table>
<thead>
<tr>
<th>Year</th>
<th>Wind Farm Zone</th>
<th>Project Capacity (MW)</th>
<th>Price cap (Eurocent/kWh)*</th>
<th>Winning price (Eurocent/kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>Borssele (WFS I and II)</td>
<td>700</td>
<td>12.400</td>
<td>7.27</td>
</tr>
<tr>
<td>2016</td>
<td>Borssele (WFS III and IV)</td>
<td>700</td>
<td>11.975</td>
<td>5.45</td>
</tr>
<tr>
<td>2017</td>
<td>Hollandse Kust Zuid</td>
<td>700</td>
<td>10.750</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>Hollandse Kust Zuid</td>
<td>700</td>
<td>10.325</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>Hollandse Kust Noord</td>
<td>700</td>
<td>10.000</td>
<td></td>
</tr>
</tbody>
</table>

*Depending on the type of turbine, an operator is allowed to install 342-380MW per site, but this presentation assumes a fixed capacity of 350MW for the sake of simplicity.
2. Principles and specifications

Decentralised system:

- Contracting entity: The Crown Estate
- Bidding process as sealed bid, 1 round
- "Uniform Pricing" pricing for year of commissioning
- Minimum requirements for bidders:
  - Connection agreement,
  - Supply Chain Plan
  - Planning consent
- Lease agreement with Crown Estate as permission
2. Principles and specifications

Decentralised system:

- Contracting entity: Ministère de l'écologie, du développement durable et de l'énergie
- Bidding process as sealed bid, 1 round
- Evaluation criteria:
  - Development strategy (40%)
  - Price (40%)
  - Environmental impact analysis (20%)
- Concession winner has to execute environmental and ecological impact analysis
### 2. Principles and specifications

**Decentralised system:**

- Contracting entity: Bundesnetzagentur
- 2 auctions 01.04.2017 and 01.04.2018
- 1550 MW per auction
- ‘Existing Projects’ can participate - Projects which already have a consent or successfully executed a “Planfeststellungsverfahren”
- BSH identified 31 ‘Existing Projects’
- Cap: 12 Cent/kWh

<table>
<thead>
<tr>
<th>Year</th>
<th>Additional planned capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>500 MW, only Baltic Sea</td>
</tr>
<tr>
<td>2022</td>
<td>500 MW</td>
</tr>
<tr>
<td>2023</td>
<td>700 MW</td>
</tr>
<tr>
<td>2024</td>
<td>700 MW</td>
</tr>
<tr>
<td>2025</td>
<td>700 MW</td>
</tr>
</tbody>
</table>
2. Principles and specifications

**Central auction model:**

- Contracting entity: Bundesnetzagentur
- In the auction bidders can place bids for areas for which the contracting entity already executed a preliminary examination
- Planning approval process (‘Planfeststellungsverfahren’) has to be executed from the auction winner
- Annually 700 – 900 MW
- First auction 2021 cap: lowest winning price at 2018 auction
3. Effect on contractors

Timeline

„Twice the Tender phase“

Receipt of ITT

1. Tender phase
   - Non-binding bid
   - Binding bid

2. Tender phase
   - Re-bid 1
   - Re-bid 2
   - Re-bid 3
   - BAFO

Concession
   - Customer submits a binding price
   - Penalty for later withdrawal

Award of main contracts to contractors by customer 3

Customer 1
Customer 2
Customer 3
Customer 4
Customer 5

Customer 3
3. Effect on contractors

Tender development

1. Tender phase
   - Non-binding bid
   - Binding bid

2. Tender phase
   - Re-bid 1
   - Re-bid 2
   - Re-bid 3
   - BAFO

→ increased tender quality
→ less reservations = increased binding character
4. Proceeding alternatives

Serve all customers

Focus on 1-2 customers

Standardised solution for all customers

Exclusivity

Serve all customers

Focus on 1-2 customers

Standardised solution for all customers

Exclusivity
4. Proceeding alternatives

Serve all customers

ITT A  ITT B  ITT C  ITT D  ITT E
4. Proceeding alternatives

Standardised solution for all customers

ITT A
ITT B
ITT C
ITT D
ITT E

Park layout / FOU design / INS concept by contractor

Contractor
Contractor
Contractor
Contractor
Contractor
4. Proceeding alternatives

Focus on 1-2 customers

ITT A

ITT B

ITT C

ITT D

ITT E
4. Proceeding alternatives

Exclusivity

ITT A
ITT B
ITT C
ITT D
ITT E

Park layout / FOU design / INS concept by C + Contractor

C
Contractor
4. Proceeding alternatives

Serve all customers

Standardised solution for all customers

Focus on 1-2 customers

Exclusivity
Questions?

Thank you for your attention!