



Offshore Wind Developments

Paldiski, Estonia

25 August 2023

Offshore Wind Developments Introduction



Van Oord
Marine ingenuity

- Introduction
- Breaking News
- Factor 63 in valuation
- What happened
- Estonia, Quo Vadis ?



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BREAKING: Lithuania Selects Provisional Winner of Country's First Offshore Wind Tender

10 July 2023

BREAKING: Germany Rakes In EUR 12.6 Billion Through 'Dynamic Bidding' Offshore Wind Auction

12 July 2023

BREAKING: Vattenfall Stops Developing Major Wind Farm Offshore UK, Will Review Entire 4.2 GW Zone

20 July 2023

Polenergia Drops Lithuanian Offshore Wind Project After Economic Viability Analysis

1 August 2023

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Factor 63 in valuation



Germany	Lithuania	World
<ul style="list-style-type: none">12,6 Billion Euro – 7.000 MW, 1,26 Billion Euro – 700 MW8 bidders for the 3 North Sea sites and 9 bidders for the 1 Baltic Sea sites. 55 to 72 bidding rounds.Oil & Gas companies BP and TotalEnergies win	<ul style="list-style-type: none">20 million Euro – 700 MW2 BiddersLocal utility Ignitis wins	<ul style="list-style-type: none">Factor 63 in value assessmentLarge number of international bidders vs minimum no. of local bidders

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What happened ?



Germany	Lithuania	World
<ul style="list-style-type: none">▪ Large off-take market▪ Grid connection guaranteed▪ Proven permitting process▪ No site information available but known area▪ Established OW market	<ul style="list-style-type: none">▪ Limited off-take market▪ Grid connection by developer▪ New permitting process▪ No site information available, Baltic Sea site▪ First mover in OW	<ul style="list-style-type: none">▪ Huge goals <p>Nevertheless</p> <ul style="list-style-type: none">▪ Projects stop / delay, LCoE increases, losses supply chain <p>due to</p> <ul style="list-style-type: none">▪ Geopolitical situation, inflation, rising interest, supply shortage, strained supply chains and complexity of projects / countries <p>thus</p> <ul style="list-style-type: none">▪ Developers look for security ?

Subject

Estonia

Establishing new production capacities for renewable energy, boosting security of supply, become a country which exports renewable energy and quick to adopt green technologies

- Off-take market
 - Limited, Germany, Power2X
 - CfD, invest in Power2X, interconnectors !!
- Grid connection
 - Too lengthy process
 - Simplify and invest in synergies (auction, Saaremaa, Elwind, 50 HZ, SWE)
- Permitting process
 - Reinventing the wheel
 - Learn, jurisdiction / reliability, resources
- Site information
 - No site information available
 - Consider site investigation
- Established market
 - No, companies leave !!

**COMPETITION WITH THE
ESTABLISHED MARKETS**



Thank you for attention – Questions ?

Edwin van de Brug, Van Oord Offshore Energy