Curonian Nord offshore wind project assessment

Prepared by Wood Mackenzie for
AB "Ignitis grupė"

12/09/2025

Wood Mackenzie assessment credentials

- **Independent mandate:** Wood Mackenzie was selected by the Ignitis Group Supervisory Board in June 2025 to deliver an independent assessment of the Curonian Nord development. The assessment duration was three months and was finalised in September 2025.

- **Comprehensive data provision:** Ignitis Group provided all requested information required for in-depth assessment, including detailed data on bid assumptions, investments made, risks, timelines and operational parameters.

- **Rigorous benchmarking methodology:** Wood Mackenzie used its proprietary offshore wind database*, and benchmarked against 21 comparable European offshore wind projects to ensure comparability and assess Curonian Nord's development expenditures during the analysed period (2023 – 2025).

- **Proven offshore wind expertise:** Wood Mackenzie is a leading research and consultancy business for the global renewables industry. Our offshore wind team provides independent analysis and commercial and transaction advisory across 40+ markets, tracking over 500 GW of global offshore wind capacity. We advise governments, developers and investors on project economics, market dynamics and strategic decision-making in the rapidly evolving offshore wind sector.

Wood Mackenzie

Note: * Our offshore wind power proprietary database tracks over 3,000 offshore wind projects across the AMER, EMEA and APAC regions, including key development milestones. Source: Wood Mackenzie.

Curonian Nord offshore wind project overall assessment

- This report provides a fact-based, transparent, and comprehensive review of the Curonian Nord offshore wind project. We analyse its timeline, investment assumptions and risk management practices against global and European offshore wind industry benchmarks.

- The offshore wind market currently faces headwinds. Governments push for ambitious growth, but the offshore wind industry struggles to keep pace. Supply chain bottlenecks, materially increased components prices, execution risks and macro-economic pressures have led to project cancellations, failed tenders and declining developer risk appetite worldwide.

- Despite these challenges, some projects are moving forward successfully. These typically secure stable long-term revenue. Our analysis shows the Curonian Nord project is well-managed and on sound footing. However, a few key areas require close attention as the offshore wind market continues to evolve.

- The Curonian Nord project's progress to date aligns with industry best practices. This particularly applies to development spending and risk management. However, the project advances in an offshore wind market that has fundamentally shifted since the original bid. The primary challenge involves significant cost increases for major components and installation (expected during the construction phase, after Final Investment Decision (FID) is taken). The project must also ensure offtake agreements and financing. This necessitates proactive re-evaluation of financial assumptions to ensure long-term viability.

Source: Wood Mackenzie

Curonian Nord offshore wind project overall assessment

Category	WM assessment	Status	Summary
Investment	Ignitis has made reasonable development investments to date throughout the analysed period (2023 – YTD 2025: January - May), maintaining expenditures below benchmark levels.		Curonian Nord's development expenditure (Devex) of 46.1 k€/MW through May 2025 is below those of the benchmarked projects. The analysed projects averaged 82.2 k€/MW, with Curonian Nord accounting for 55.7% of typical pre-construction permit costs.
Risk management	Ignitis maintains a strong risk governance framework. The company demonstrates good understanding of local, regional, and geopolitical threats.		The project maintains a comprehensive risk register that aligns with market practices. It demonstrates superior understanding of the unique challenges in developing Lithuania's first offshore wind farm.
Timeline	The project's current schedule is realistic and well-managed, but key assumptions require monitoring, as market conditions have changed since the bid.		The original bid schedule set by the government in tender conditions was somewhat aggressive, considering the 7 to 8-year project delivery timeline from bid to construction completion. The project team has since adopted a more robust, industry-standard approach working with multiple scenarios. The timing of key activities, including survey campaigns, LIDAR surveys, and design work follows industry best practices. However, the current plan shows the FID occurring before final geotechnical reports are completed. While geotechnical work completion could influence FID timing, broader market conditions present the primary delay risk. Current market struggles affecting offtake agreements, supply chain constraints, and financing availability pose greater threats to the FID schedule than technical workstreams.

Source: Wood Mackenzie

High Concern Medium Concern Low Concern

1. Offshore wind outlook overview

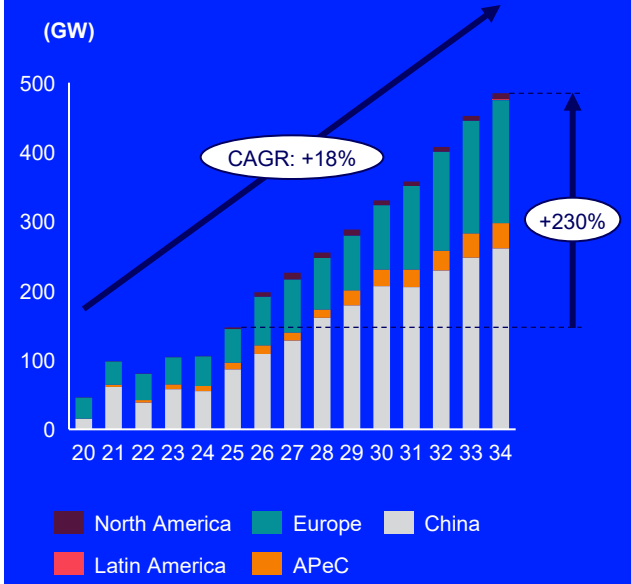
Offshore wind global cumulative capacity will more than double between 2025 and 2034, but the industry faces five key headwinds

- **Outlook changes and uncertainties:** Governments have increased their offshore wind ambitions, but deteriorating market conditions have led to offtake cancellations and failed tenders.
- **Supply chain bottlenecks:** The supply chain capacity is now less than the demand for offshore wind, which has driven up costs and extended lead times. This is particularly true for projects built after 2027. Uncertainty surrounding supply, demand, the buildout, trade barriers, and the role of Chinese suppliers has increased volatility and uncertainty in future project Capex.
- **Execution and technical issues:** The average installation time for projects has increased, reversing a decade-long trend of declining installation durations. This raises execution risk, equipment costs, and developer hurdle rates. Project delays are widespread globally and are caused by various factors, such as vessel delays, component manufacturing defects, grid infrastructure bottlenecks, and complex ground conditions.
- **Macroeconomic uncertainties:** The industry has been hit by unforeseen macroeconomic changes since 2023, including surging inflation and rising interest rates. These shifts have challenged the financing of capital-intensive offshore wind projects. Many projects had already secured revenue contracts, so higher capex and opex costs damaged project returns and financing viability.
- **Changing revenues:** The response from governments to these industry headwinds has been "slow and inconsistent“, leading to uncertainty about future revenues. This is further compounded by slow electricity demand growth and a surge in renewables deployment, which puts downward pressure on capture prices.
  - **Why are some projects still performing (2023-2025)?:** Projects with signed offtake agreements such as CPPA/CfDs** were able to progress to FID*** and construction, demonstrating the critical role of revenue certainty and efficient project execution. However, Ørsted's cancellation of a major offshore wind project in 2025 despite securing a CfD shows that even established support mechanisms cannot fully protect developers from deteriorating market economics.

Wood Mackenzie

Note: *IRR = Internal Rate of Return; **CPPA = Corporate Power Purchase Agreement, **CfD: Contracts for Difference; ***FID = Final Investment Decision. Source: Wood Mackenzie.

Offshore wind market cumulative installed capacity by regions (2020-2034)



2. Curonian Nord investment assessment (1/2)

Competitive bidding in 2023 led to optimistic projections despite emerging market uncertainties and limited operational precedent. Now, the offshore wind market is facing different challenges.

Assumptions at the time of bidding (2023):

- **Reasonable initial assumptions:** Ignitis' Capex assumptions in 2023 were reasonable and consistent with the market context at the time, reflecting a decade of offshore wind price deflation.
- **Turbine technology:** The assumption of a 21 MW turbine model (see further explanation about implications in the appendix) for projects coming online from 2030 onwards was reasonable, as other leading developers were making similar assumptions. The market expectation was for new turbine platforms, but this has since been altered by OEMs slowing down development timelines.
- **Emerging risks:** While prices had seen a minor recovery from COVID and Ukraine war commodity shocks, the impending supply chain tightening and OEM pricing power were emerging risks in 2023, but their full scale and impact on Capex were uncertain.

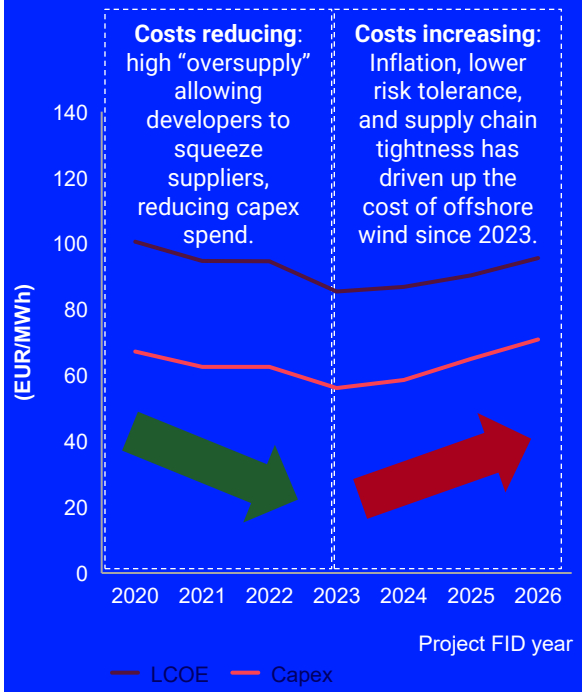
Investment performance and market changes (2023-2025):

- **Market-wide cost increases:** The offshore wind market has drastically shifted to a "seller's market" since 2023. This shift is driven by supply chain constraints, inflation, and lower risk tolerance from developers. Supply and demand for offshore wind components tightens by 2030, increasing prices. As a result, Wood Mackenzie's assumed project Capex has risen 23% above Ignitis' 2023 base case.

Wood Mackenzie

Source: Wood Mackenzie

Offshore wind LCOE and capex spend



2. Curonian Nord investment assessment (2/2)

Development expenditures to date are below those of the benchmarked projects

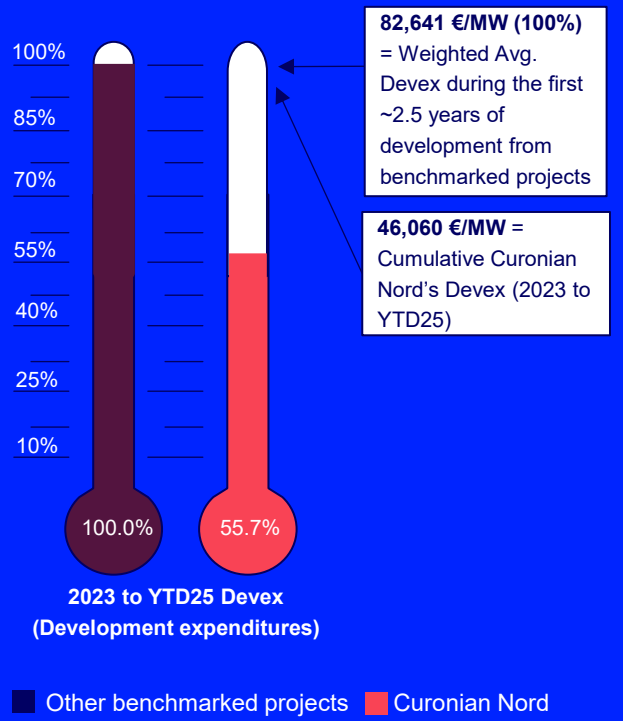
- **Major cost drivers:** The two largest Capex components, turbines/foundations supplies and installation, have seen significant price increases. Turbine prices have increased by 27% from 2023 to 2030, reflecting the pricing power of the duopoly of Vestas and SGRE in a supply-constrained market. Installation vessel shortages have driven a 62% increase in vessel-related expenses through 2030, a market-wide challenge. Curonian Nord is the first offshore wind project in a new market, so higher prices can also be expected.

- **Turbine transition impact:** The assumed 21 MW turbine in 2023 has faced commercial delays. This will likely force a potential pivot to a smaller 15 MW model, which would increase foundation and installation costs while reducing energy yield, fundamentally altering the project's financial assumptions.

- **Benchmarking Development expenditure (Devex):** Curonian Nord's Devex of 46.1 k€/MW through May 2025, excluding the 20M€ acquisition tender fee to ensure comparability with other benchmarked projects, is below the range of comparable benchmarked projects analysed (82.6 k€/MW).

- **Investment and JV practices:** Benchmarked projects show that on average 94% of project expenditures are incurred after FID. It is common practice for joint venture partners to distribute investments differently from ownership stakes, with structures evolving as local partners or lead developers negotiate funding arrangements.

Benchmarked projects vs Curonian Nord's YoY Devex through 2023-YTD2025



Source: Wood Mackenzie

3. Curonian Nord risk management assessment

Comprehensive risk assessment reveals strong risk governance framework that addresses contemporary threats

- **Comprehensive risk coverage:** The Curonian Nord project maintains a risk register of 198 identified risks. Curonian Nord's risk register aligns with market practice, with 89% of risks potentially occurring pre-operations. The project is currently in the pre-construction phase, which represents the project's highest risk period, with 82% of identified risks concentrated in this stage. Securing the construction permit award represents the next key major milestone ahead of construction, with a target completion by Q1 2027.

- **Ignitis demonstrates strong contextual adaptation:** The Curonian Nord's risk register addresses first-mover challenges specific to Lithuania's nascent offshore wind sector, emphasising pioneering market entry over established operational concerns. Unlike mature Northern European markets, Ignitis faces unique challenges as Lithuania's first offshore wind farm, including foreign contractor qualification requirements, language barriers, and limited local workforce expertise.

- **Enhanced geopolitical risk awareness:** The Curonian Nord's register captures contemporary Baltic Sea security threats. These include military conflicts, cybersecurity vulnerabilities, and Russian vessel interference.

- **Robust governance framework in place:** Ignitis employs multi-tier reporting and quarterly assessments. Traffic-light criteria and Jira software enable comprehensive risk monitoring and adaptive risk management.

- **Risk management gaps identified for strategic improvement:** Active monitoring of peer projects remains limited. Market signal tracking needs enhancement. These capabilities help anticipate emerging risks before they become industry challenges. We recommend strengthening horizon scanning processes that enable earlier identification of supply chain constraints and shifts.

Generic OFSW project (Northern Europe) vs Curonian Nord

Project risk features	WM	Ignitis
Total risk count	● ● ●	● ● ○
Risk detail level	● ● ○	● ● ○
Project lifecycle coverage	● ● ●	● ● ○
Risk categories (packages)	● ● ○	● ● ●
Market context	● ● ○	● ● ●
Regulatory adaptation	● ● ○	● ● ●
Local workforce	● ○ ○	● ● ○
Language/Cultural	○ ○ ○	● ● ○
Geopolitical risks	○ ○ ○	● ○ ○
Military conflicts	○ ○ ○	● ● ○
Cybersecurity	● ○ ○	● ○ ○
Maritime security	● ○ ○	● ● ○
Navigation threats	○ ○ ○	● ● ○

Source: Wood Mackenzie

4. Curonian Nord timeline assessment

Activities during the last 2 years have followed market practices

Assessment of timing assumptions from 2023 (while bidding)

- The project was planned to be completed in ~7 years (from bid to COD). This timeline is slightly ambitious given the project's status as a pioneer in a new market like Lithuania.
- The initial bid schedule set by the government was somewhat aggressive and contained a few gaps that have since been addressed.
- Most activity durations and timings were reasonable compared with similar projects. However, the project financing workstream appears missing from the schedule. This omission could lead to further delays to construction start and notice to proceed for Tier 1 contracts, which typically depend on completing the financing process.

Assessment of project timeline and actions taken from 2023-25

- Without actions taken in 2023-2025 (surveys, designs, etc.), it is impossible to develop offshore wind projects. The actions taken, including design, procurement, and site investigations, are reasonable and align with industry standards. Current schedule scenarios provide a better picture of possible outcomes than the original bid schedule.
- The current schedule shows a potential timing issue. Geotechnical reporting finishes after FID. We recommend increasing the gap between reporting and FID to complete detailed design that depends on the geotechnical report.
- Project timeline may also be driven by other project risks, including component prices increases, availability of offtake agreements (e.g., CPPAs) or project financing.
- Current market struggles affecting offtake agreements, supply chain constraints, and financing availability pose greater threats to the FID schedule than technical workstreams. We recommend integrating the project financing workstream into the schedule to ensure it is not on the critical path.
- Monthly updated schedules and the project team's use of Primavera software represent a robust approach that follows industry standards.

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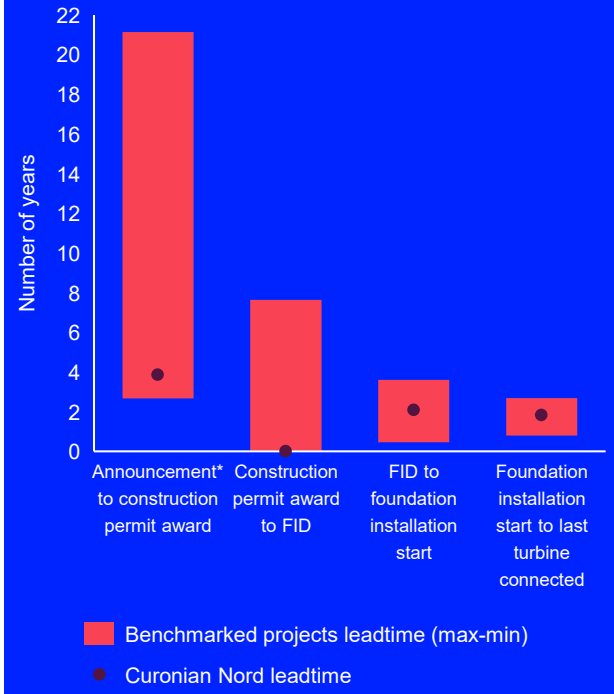
Source: Wood Mackenzie

Benchmarked projects vs Curonian Nord project lead-times by project stages



Note: * Interest expressed in building a project.

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The annexes of the assessment are confidential and not publicly available due to the inside and commercially sensitive information related to Ignitis Group and market intelligence from Wood Mackenzie.

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