The Netherlands: wind's next test



Windpark Krammer viewed from Goeree-Overflakkee in the Netherlands



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The Netherlands has built its offshore wind sector quickly. Now rising costs, uncertain electricity demand and grid constraints are making the next phase harder. The Dutch experience could offer lessons for other offshore wind markets.

A wind tender with no applicants sends a clearer message than another ambitious capacity target. When the Dutch Nederwiek I-A tender closed in October 2025 without a single application, it exposed the distance between government plans and the projects that developers could justify building. The site offered room for approximately 1 GW of offshore wind. The commercial proposition attracted nobody.[1]

For a country associated with subsidy-free offshore wind, that was an uncomfortable result. It also makes the Netherlands particularly relevant to the wider industry. Its experience raises questions that other European markets face: how much risk can developers absorb, who pays for the supporting infrastructure and what happens when electricity demand develops more slowly than expected?

The Dutch wind sector remains substantial. Provisional Statistics Netherlands figures put installed capacity at approximately 7 GW onshore and 4.7 GW offshore at the end of 2025. These are different markets with different constraints, but both now need more than ambitious deployment plans to keep moving.[2]

The limits of subsidy-free wind

The Netherlands' earlier offshore tenders helped establish the idea that wind farms could proceed without direct generation subsidies. However, 'subsidy-free' never meant that developers independently financed every part of the system. Under the Dutch model, TenneT was responsible for offshore grid connections, while government organised site preparation and licensing.[3]

A generation subsidy is only one part of the overall cost of offshore wind. Offshore connections, grid upgrades on land and the infrastructure needed to get electricity to consumers still have to be financed, even where they sit outside the developer's budget.

The empty Nederwiek tender suggests the project no longer worked on the terms offered. That doesn't mean offshore wind has no future, but it does show that previous tender results cannot simply be repeated as costs and market conditions change.

A technically attractive site must also offer developers a credible return. Celebrating a low subsidy requirement achieves little if the result is an unbuilt wind farm.

Who carries the financial risk?

The next important test is IJmuiden Ver Gamma. Applications for its two sites, Gamma-A and Gamma-B, are scheduled to open on 26th November and close on 10th December 2026. Each can accommodate approximately 1 GW, with operation expected in 2032.[4,5]

In June, the government raised the maximum tender amounts to €117/MWh for Gamma-A and €116/MWh for Gamma-B. It announced a cash reservation of approximately €6.2 billion, explaining that actual expenditure would depend on winning bids and electricity prices during the support period. That reservation is neither money already spent nor a guaranteed payment to developers.[6]

There is a further complication. The government allowed additional financial headroom for a possible grid feed-in tariff for electricity producers. A policy intended to distribute network costs could therefore increase the support needed to make offshore projects viable.[6]

Does shifting costs between generators, network users and taxpayers actually reduce the cost, or just move it elsewhere?

Public support has a role to play in energy security and decarbonisation, but there still needs to be scrutiny of competition, delivery and value for money. At the same time, developers will factor regulatory uncertainty into their bids if they are expected to carry more of the risk.

Demand cannot remain an assumption

The difficulty extends beyond financing turbines. Wind farms need customers able and willing to use their output.

Dutch electricity production reached a record level in 2025, while domestic electricity consumption barely increased, according to Statistics Netherlands. Exports also reached a record. Rising national generation therefore does not, by itself, demonstrate that industrial electrification is progressing at the pace assumed in earlier wind plans.[2]

This has a direct effect on project revenues. A wind farm earns revenue when it generates, rather than at an annual average electricity price. If many wind farms produce simultaneously, prices can weaken during those hours. A government-commissioned study published in 2026 identifies stronger and more flexible electricity demand as one route to improving the prices offshore wind farms receive, while acknowledging uncertainty over when that improvement will arrive.[7]

Demand forecasts therefore deserve the same attention as wind resource assessments. Planned electrification, signed electricity purchases and operating industrial facilities represent different levels of certainty.

Building generation ahead of demand may help prepare the transition. Continuing to build against demand that remains hypothetical creates a financial risk somebody must carry.

A connection is only part of the answer

The Netherlands is investing in larger offshore connections. TenneT's 2 GW standard uses 525 kV direct current transmission, with conversion to the onshore alternating current network. According to the operator, the larger connections reduce the number required compared with its previous 700 MW approach.[8]

That is a practical engineering response to growing offshore capacity. It doesn't automatically provide a factory with the additional network access needed to replace gas with electricity.

TenneT is also offering transport rights that guarantee access for at least 85% of the year, with restrictions possible during the remaining hours. This illustrates how flexible access can make use of available network capacity before full reinforcement is complete.[9]

How useful that access is depends on the customer. An electrolyser or another flexible process may accommodate interruptions more readily than a production line requiring continuous operation.

The whole route from generator to user needs to work. Connection dates, permitted restrictions and industrial operating requirements must fit together. An offshore project and an industrial conversion can each appear viable separately while failing to work as a combined investment.

Hydrogen needs customers too

Hydrogen remains part of the Dutch wind story, but it shouldn't be treated as an automatic outlet for every additional gigawatt.

The Netherlands Enterprise Agency acknowledges that hydrogen production and demand are developing more slowly than previously expected. Its North Sea infrastructure planning now uses a range of 30 to 40 GW of offshore wind by 2040, replacing the earlier 50 GW ambition. Slower industrial electrification and higher wind farm construction costs also inform that revision.[10]


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Egmond aan Zee offshore wind farm, with Princess Amalia Wind Farm in the background


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Windpark Den Tol in Netterden, Gelderland, the Netherlands

There are nevertheless concrete industrial projects. The Port of Rotterdam describes Air Liquide's 200 MW ELYgator electrolyser as under construction with completion scheduled for the end of 2027 and electricity planned from the OranjeWind and Hollandse Kust Zuid wind farms.[11]

Projects like this give the industry something tangible to assess, linking generation to identifiable industrial applications. Their schedules and commercial performance will matter more than broad statements about a future hydrogen economy.

Wind developers need to understand the buyer's creditworthiness, commissioning timetable and ability to pay. Industrial users need confidence in hydrogen costs, infrastructure and competitiveness. Neither side benefits from assuming that the other will resolve every uncertainty.

The North Sea has other users

Offshore wind expansion is also a decision about access to space. Fishing, shipping, defence, nature protection, sand extraction and energy infrastructure compete within the Dutch North Sea.

In March 2026, the government announced additional wind areas and a €1.7 billion package covering measures including shipping safety, site investigations, fisheries and marine nature. It also said some areas would remain free of turbines to protect fishing interests, or that fisheries and nature would influence wind farm layouts.[12]

These decisions have practical consequences for projects. They affect where turbines can stand, how vessels operate and what mitigation costs enter the business case.

Environmental requirements also affect operations. Current Dutch site amendments provide for temporary turbine shutdowns during mass bird migration, using forecasts and a maximum shutdown period of 60 hours annually.[4]

The difficult question is whether all interests receive meaningful consideration before development decisions become hard to reverse. Climate benefits do not remove local ecological impacts or the consequences for fishing businesses. Equally, acknowledging those impacts does not settle the argument against wind. It makes transparent evidence and workable mitigation essential.

Onshore wind still matters

The offshore debate should not obscure a slowdown on land. The Netherlands Enterprise Agency's 2025 monitor records approximately 7,054 MW of installed onshore capacity, with net additions of only 96 MW during the year. It identifies a pipeline of 1,723 MW, alongside uncertainty over environmental standards, project economics and grid congestion.[13]

Repowering, maintenance and decisions about ageing equipment remain important areas of work for turbine suppliers and asset owners. However, replacing existing turbines is not simply an engineering exercise. Planning conditions and community concerns still influence what can be delivered.

Noise, safety and the distribution of local benefits deserve proper treatment. Describing every objection as resistance to progress is unlikely to improve a project's prospects. Nor should national energy ambitions become an excuse to leave communities uncertain about what development will mean for them.

What comes next?

A permit award remains only one step towards a firm order for suppliers. Manufacturing commitments, vessel reservations and recruitment depend on credible construction schedules. Announced capacity provides a market signal, but it cannot substitute for financed projects.

The government's proposed move towards two-way contracts for difference is therefore significant. Under the principle described in its June announcement, public support covers a shortfall below an agreed price, while generators return the difference when market prices exceed it. The government intends to introduce the approach from 2027.[14]

Better revenue certainty could help. Contract design will still need to preserve incentives to respond to electricity demand and avoid paying for output without regard to its value.

The next Dutch chapter will be judged by whether tenders attract credible bids, infrastructure arrives on time and customers can use the electricity competitively. The country's experience offers a practical lesson for the wider wind industry: generation policy, industrial policy and network investment have to deliver together. When they do not, even an established market can run out of investable projects.

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