

Proposals for a new contract for offshore wind power

- The current strategy for offshore wind power is not as future proof as expected due to deteriorating market conditions, which include high interest rates, the high costs of materials and a capricious electricity market.
- Eneco proposes to give high-grade projects a better chance of reaching full potential by holding competitive tests and introducing a Contract-for-Difference, a new type of contract for offshore wind power that absorbs fluctuating prices and guarantees developers a sound business case.
- Moreover, some cases related to specific, limited parts of the offshore wind sites require combined tendering processes for wind and hydrogen energy.

Introduction

The development of offshore wind power in the Dutch section of the North Sea is a success. Eneco and its various partners were among the first to take advantage of it. At present, Eneco has four operational farms: Prinses Amalia, Luchterduinen, Blauwwind and CrossWind, while Ecowende is under development. The government's role evolved as offshore wind power developments in the North Sea multiplied. In the early

years, the government paid out large subsidies for the production of electricity; the subsidies were gradually phased out and for the most recent tendering processes – including for the Hollandse Kust (west) development – the government has started to demand money. In addition, the list of requirements ensuring protection of the ecosystem and integrating the developments into our existing energy system is only getting longer.



Eneco and its partner Equinor have been forced to decide not to submit tenders for the latest development at IJmuiden Ver (alpha and beta). This *Changing Course* explains, without aiming to predict the outcome of the tendering process, why we are not participating. Other parties may have other reasons to compete or to ignore the call.

More importantly, it is not simply that Eneco and Equinor are facing problems, but that, in our opinion, there are structural flaws in the way the tendering procedure for offshore wind developments is set up. Accordingly, Eneco is calling for 'a new kind of contract for offshore wind power' so that the development of offshore wind farms will still be achievable in future projects.¹ Eneco firmly believes that a higher production of sustainable electricity, including offshore generation, is essential to the success of the energy transition.

What is the problem?

In the Netherlands, there are two main aspects that govern the tendering procedure for permits to build and operate offshore wind farms. Firstly, there is the one-stop-shop principle, i.e. prior to the government's call for tenders, studies of the wind and soil conditions, etc. are conducted and the results are made available to the parties submitting bids. The winner is immediately granted planning permission and it is also clear, right from the start, which conditions the winner must meet. As the tender, when submitted, must include a bank guarantee, the government also knows whether the tendering party can actually execute the development and construction. Another point to remember is that TenneT is responsible for building 'electrical connections at sea' and the transport of the electricity to the shore.

Secondly, the tendering process is a 'competitive test with quality-related criteria'. It means that the contract is not awarded to the highest bidder in an auction, but to the party with the best offer in terms of quality. The award is decided by the quality of the plans, particularly with respect to the ecosystem, system integration (using this electricity to make the current system of supply and demand greener, both onshore and offshore) and how the tender incorporates the requirements for international corporate social responsibility (ICSR), innovation, circularity and the optimisation of the supply chain.

This procedure has worked well for the Netherlands: in addition to the high-quality farms, it has stimulated innovation that has benefitted society too, allowing the seabed to recover and enabling other ecological improvements. Despite all that, the industry is still only just embarking on the innovation curve: we can expect much more innovation in the coming years.

Nonetheless, in the latest tendering processes – for IJmuiden Ver (alpha and beta) – the emphasis has shifted. The criteria for quality still apply, but in reality, those components are not as differentiating as they were in the past. The government has also offered the option of winning a contract by allowing considerably higher monetary bids: not a relatively small, fixed amount but a sum with an upper limit of \leqslant 420 million per year, for forty years. The higher a party's bid, the more points are awarded during the assessment of their bid (up to a maximum of 15% of the score). If the financial component becomes even larger, the tendering process will become more like an auction than has been the case so far. Eventually, those extra costs must be recouped from the energy bills.

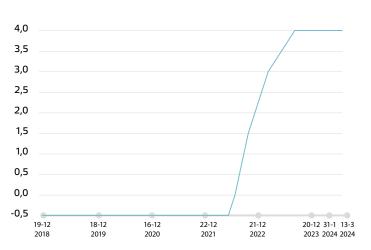
And that, in Eneco's view, is not something to be desired, because it means that societal targets are less prominent, and the costs of a wind farm will be higher.

At the same time, the market conditions for offshore wind power are deteriorating rapidly. Along the entire supply chain, the general costs are rising while the price of electricity and the potential sales volumes are uncertain. The price increases are caused by the high prices of steel and copper, supplier shortages and the higher costs of capital due to increased interest rates. Furthermore, we cannot be certain that we can sell the electricity in the necessary volumes and at the necessary price (see the box on page 4). The lack of capacity in the supply chain is actually a worldwide problem. Ambitions for wind farms at sea have grown, which is good news, but it also means a larger demand exactly at the time we all face a lack of production capacity, which, in turn, means higher prices.

1 Eneco has argued in support of this previously too, as evident from 'Koppel bouw wind park direct aan de industrie' [Link the construction of wind farms directly to industry], Financieele Dagblad, 18 July 2018; 'Aanleg windparken op zee kan nog niet zonder subsidie' [Construction of offshore wind farms is impossible without subsidies], Financieele Dagblad, 22 November 2017.



Development interest rate (%)



Source: ECB

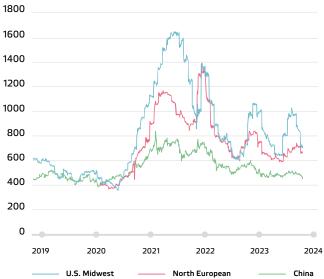
What does Eneco believe to be the solution?

It is important that we avoid further financial competition if we are to improve the balance between societal goals and development potential for businesses: we need a new kind of contract for offshore wind energy, which should feature the following aspects:

- Tendering processes should return to being centred around the competitive test again.
- A bilateral Contract for Difference (CfD) should replace financial bids.
- Calls for combined tenders for wind and hydrogen power should be issued (without CfD) for a number of sites.

A competitive test based on quality-related criteria should be at the core of the wind power tendering processes once more. Due to the limited ecological space in the North Sea and the challenges raised by the energy transition (grid congestion, imbalance between supply and demand, industrial greening), the quality criteria impacting the ecosystem and system integration should be the decisive factor in awarding the contract. These aspects are weighed insufficiently in tendering processes in which money is the decisive factor.

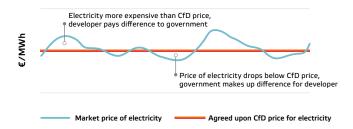
Price development steel (€/metric ton)



Source: Bloomberg

In addition, we need to use a Contract for Difference (CfD) instead of a monetary bid. A CfD is an instrument that allows the developer of a wind farm to bid on a specific electricity price (the lower the price, the more points awarded for this part of the competitive test). If the electricity price rises during the term of the contract, the government receives money from the developer. If the electricity price is lower, the government should make up the difference.² Moreover, it would be sensible to link the fixed electricity price to indices for material prices to prevent sudden price increases leading to cancelled projects. It would mean that the risks are divided evenly across the term of the operation.

How does a two-way Contract for Difference work?



In the short term, a CfD could take the shape of an amount for a 'revenue limit' in the SDE++ subsidy scheme. A revenue limit means that any revenue from a wind farm exceeding a certain amount should be deducted from the subsidy. This instrument has already been considered by the PBL Netherlands Environmental Assessment Agency and the Ministry of Economic Affairs and Climate Policy for the SDE++ scheme and could be applied to offshore wind power as early as 2025.



The CfD is intended to provide a form of security. One advantage is that a CfD can stop fluctuating prices making it impossible for offshore wind farms to become healthy business cases, which would cause their development to be halted. In addition, it means that the government does not need to pay out too much subsidy to wind farms that do not need it. In this sense, a CfD is a backup instrument with a twofold effect.

This proposal ties in with plans that have already been put forward. The European Commission's <u>Wind Power Package</u> and the <u>EU Wind Charter</u>, signed by 26 Member States last December, demand an improvement in tendering processes for wind power developments, including indexed prices and the use of quality-related criteria. Noé van Hulst's *Rapport Keuzewijzer Klimaat en Energie* [Report on the Options for Climate and Energy] for the Secretary-General of the Ministry of Economic Affairs and Climate Policy suggests using CfDs as backup instruments for offshore wind power.³

Furthermore, as a variation, Eneco proposes working towards a system in which some parts of the sites for offshore wind farms are auctioned by means of special tendering processes for wind and hydrogen energy. The permits for the sites of the offshore farms should be linked to a production subsidy for green hydrogen energy. The tendering party who applies for the lowest amount of subsidy should be awarded the contract. The advantage of these combined tendering processes is that the electrolysis developers have more certainty about their access to sufficient sustainable electricity and the wind farms have the guarantee that the energy will be sold. By combining wind and hydrogen energy, the options for financing both will improve, because the risks connected to the price of electricity generated by wind and hydrogen are diametrically opposed. If the price of electricity is high, the wind farm wins, but if the price is lower, the electrolysis developer wins. Accordingly, there is no need for CfDs for combined wind and hydrogen energy developments. It should also be noted that, under European regulations to be introduced on 1 January 2028, green hydrogen power may only be produced with unsubsidised, sustainable electricity,

Inadequate policy on green hydrogen power and electrification

The energy transition relies heavily on electrification. Power needed by households is just a small part of the demand. In the coming years, our industry will need to be electrified, and fossil fuels and raw materials in high-temperature processes will need replacing with ones from green sources. Green hydrogen is an example of a clean fuel and raw material. Offshore wind farms are extremely well suited to aid industrial electrification, as they produce large volumes of power for the electricity market. However, without contracts with the buyers of electricity in place, a wind farm cannot be built, particularly if the Offshore Wind Energy Roadmap 2030 increases the demand with tendering processes for two 2GW developments every year, forcing prices to drop.

Nonetheless, the cabinet has not issued any clear statements about the volume of green hydrogen energy that industry, refineries and the transport sector will need to make use of over the coming years. The government has debated the legal framework necessary for this for a long time, but so far no decisions have been made. Without any policy to boost it, demand for green hydrogen power will not actually take off. Both sides – supply and demand – point to each other: everyone has the best intentions, but, for commercial reasons, no one wants to make the first move. The lack of a policy on the demand for hydrogen power leads to uncertainty about order volumes and doubts as to whether electrolysis developers can arrange enough contracts to sell renewable hydrogen power. The immediate industrial electrification is slow to get started too, due to high grid charges and a lack of direction, which could be provided with overarching electrification targets.

3 See: Nieuwe Commissievoorstellen en initiatieven van de lidstaten van de Europese Unie [New Commission Proposals and Initiatives from the Member States of the European Union], Parliamentary Paper 22112, number 3843, 1 December 2023; Europees Actieplan voor Windenergie [European Action Plan for Wind Energy], Statement by the European Commission, COM(2023) 669, 24 October 2023; Keuzewijzer Klimaat en Energie [List of Options for Climate and Energy], report by the coalition taskforce for Climate and Energy, 4 December 2023.



which is why wind farms with a CfD will not be suitable, by law, for hydrogen production.

The advantage of this new strategy is that the development of offshore wind energy can continue despite the uncertainty of the market, and consequently no amendment is needed to the current Offshore Wind Energy Act. Nonetheless, we need new legislation for CfDs, but that amendment can be effected either as part of the Offshore Wind Energy Act or as part of another act.

What else is relevant to future tendering processes?

A new strategy for offshore wind energy tendering processes with a competitive test and a CfD will produce the quickest advance of offshore wind energy in the Dutch part of the North Sea. However, there is room for more improvement in this procedure, which is only mentioned briefly here.

The success of the tendering processes for Hollandse Kust (west) development has proved the use and importance of adding innovation-related criteria. The ecosystem will benefit even more from innovation projects and investment projects in the next tendering processes. After all, just one competitive test will not solve all the challenges we face regarding our ecosystem. The same applies to requirements for circularity and system integration: in other words, the different tendering processes should dovetail, including with respect to requirements.

It is also better to reduce the size of the lots being put out to tender, i.e. four 1 GW developments instead of two 2GW developments (as in the case of IJmuiden Ver (alpha and beta). The risks, including the financial risks, involved in these projects will accordingly be more manageable, both for developers and the supply chain. The 2GW option for each call for tenders produces

'negative synergy' effects, leading to contractors calculating considerable risk premiums for financial aspects. Matters would improve too if the permit holder were permitted more flexibility in the construction of the wind farm so that developers have adequate time to prepare.

Another important point is the timing of TenneT's construction of the connections to the offshore high-voltage grid. More flexibility would be preferrable. A spanner in the works can have serious consequences. For example, if two lots need to be developed simultaneously instead of one after the other due to a delay in the construction of the first grid connection or another disaster of that kind, it means that more installation ships are needed, with a much larger workforce while other suppliers face similar problems. The labour market is too tight to respond to such situations without problem, increasing the development risks.

The best way to guarantee the construction of offshore wind farms is to introduce a structured, clear policy on electrification and green hydrogen. The clearer the demand for green hydrogen energy, the more the market normalises and dictates the pace of industrial electrification, the better the wind-farm developers can respond to the electricity market. Meanwhile, the government must not lose sight of the uncertainties and labour market conditions so that the costs are not forced up unnecessarily.

Questions or remarks?

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