NON-PRICE CRITERIA IN OFFSHORE WIND AUCTIONS: HOW TO STRIKE THE BALANCE

June 2025

2025

frontier economics

WWW.FRONTIER-ECONOMICS.COM

BERLIN | BRUSSELS | COLOGNE | DUBLIN | LONDON | MADRID | PARIS

NON-PRICE CRITERIA IN OFFSHORE WIND AUCTIONS: HOW TO STRIKE THE BALANCE

Matthias Janssen
Associate Director
matthias.janssen@frontier-economics.com

Michael Zäehringer
Associate Director
michael.zaehringer@frontier-economics.com

Lyuba Ilieva
Consultant
lyuba.ilieva@frontier-economics.com

EXECUTIVE SUMMARY

From December 2025, EU countries must include **non-price criteria** in at least 30% of renewable energy auctions, a shift that will significantly impact **offshore wind**. This bulletin explores how governments can balance price and non-price objectives—like sustainability and resilience—without undermining competition or driving up costs. Drawing on recent auction data, we highlight key trade-offs and outline four design principles to guide effective implementation.

NON-PRICE CRITERIA IN OFFSHORE WIND AUCTIONS: HOW TO STRIKE THE BALANCE

Today, most renewable energy auctions in Europe are centred on price, see Figure 1 at the end. This is due to change. On 23 May 2025, the European Commission adopted an Implementing Act for the Net-Zero Industry Act (NZIA), that requires EU Member States to include non-price criteria – such as responsible business conduct, cybersecurity, and sustainability – in renewable energy auctions**. From 30 December 2025, these non-price criteria must apply to at least 30% of auction volumes** (or 6 GW annually per country). Governments and regulators will therefore need to re-think auction design.

Given the EC's ambition to triple offshore wind capacity by 2030, auctions for offshore wind could be particularly affected by upcoming changes. With billions at stake, governments and regulators are likely to carefully re-assess their auction design. In this bulletin, we look at the trade-offs and design considerations governments and regulators face around incorporating non-price criteria, and their implications for Europe's upcoming offshore wind auctions.

Price vs non-price criteria: the trade-offs

Non-price criteria allow auctioneers to pursue multiple goals, such as environmental sustainability, resilience, cybersecurity, innovation or responsible business conduct. And they can increase probability that tendered projects are actually realised. The European Commission's prime motivation is to make the EU less dependent on third countries, especially China, and thus increase resilience to global crises and trade wars.

However, including non-price criteria comes at a cost to society. It can increase costs for renewable energy developers, for example, if they are required to source components from more expensive markets or to comply with specific environmental, social, or security standards. Furthermore, non-price criteria may discourage participation in tenders and thus reduce competition. This may lead to lower government revenues in auctions where developers pay for the right to build an Offshore Wind Farm (OWF) in certain areas (that typically come with electricity grid connection). Or to the requirement of higher government support payments, like Contract for Difference (CfD) strike prices, in auctions where OWF developers are being paid to produce electricity, if their business case would otherwise not be viable (see Figure 1 in the Annex for an overview table of different auction types in the EU). Which we may increasingly see going forward, given higher cost, supply chain challenges and lowered electricity price expectations.

Take Germany's offshore wind tender results in 2023 and 2024 as an example: Since 2023, Germany conducts two types of offshore wind auctions per year: 1) a price-only auction where developers are invited to bid for the right to build an OWF in areas that have not been centrally pre-investigated, and 2) an auction that included non-price criteria on environmental sustainability, skilled labour security and offtake contracts for the right to build an OWF in centrally pre-investigated areas. A comparison of 2023 & 2024 results indicates that bidders in the price-only auctions paid significantly higher amounts than in the auction with non-price criteria. Equally, prices in last year's Dutch auction suggest that bids have been lowered substantially by the inclusion of non-price criteria. See box below.

Lower bids in German & Dutch auctions due to non-price criteria

In **2023**, successful bidders in **Germany's** price-only offshore wind auction paid an average of EUR 1.8 million per MW (totalling EUR 12.6 billion for 7 GW). By contrast, in auctions that included a non-price criterium, the average payment was only EUR 0.4 million per MW (EUR 0.8 billion for 1.8 GW), just **22% of the level seen in the price-only auction**.

In **2024**, the **German** price-only auction resulted in payments of EUR 1.2 million per MW (EUR 3.1 billion for 2.5 GW), while payments in the auction with non-price criterium dropped further to just EUR 0.06 million per MW (EUR 0.25 billion for 4 GW), only **5% of the price achieved in the price-only auction**.

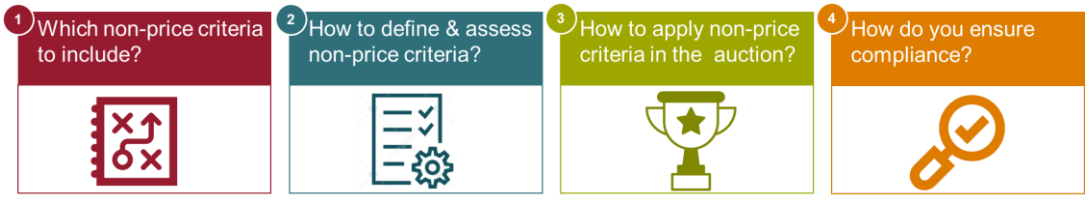
In the **Netherlands** in **2024**, permits for the construction & operation of two new OWFs with 2 GW each were allocated on the basis of a ‚comparative assessment' with 85% weight on qualitative criteria, such as contribution to biodiversity or system integration, and 15% on price. Winning bidders pay EUR 1 million per year for IJmuiden Ver Alpha (equivalent to EUR 0.002 billion per GW) and EUR 20 million per year for Beta (equivalent to EUR 0.4 billion per GW)

Other factors may have contributed to the difference, such as different wake effects (shadowing) between neighbouring offshore parks and the 'right of first refusal' granted in German auctions for centrally pre-investigated sites. However, reduced competition on the price component is likely to have played a significant role, leading to substantial foregone revenue for the public budget.

It is therefore important to consider how much governments (and taxpayers) are willing to pay for improved performance on non-price criteria, and how to strike the right balance between potentially competing objectives.

Four key auction design considerations

We have identified **four key questions** to help auction designers strike the right balance when integrating non-price criteria into offshore auctions:



1. Which non-price criteria should be included?

To ensure that non-price criteria add value without unnecessarily complicating the auction process, auctioneers must select criteria based on clear, high-priority goals that cannot be adequately addressed through other measures. This might include preventing undesirable outcomes (like insufficient investment in seabed protection), or pursuing specific policy goals (like cybersecurity, system resilience, sustainability or innovation).

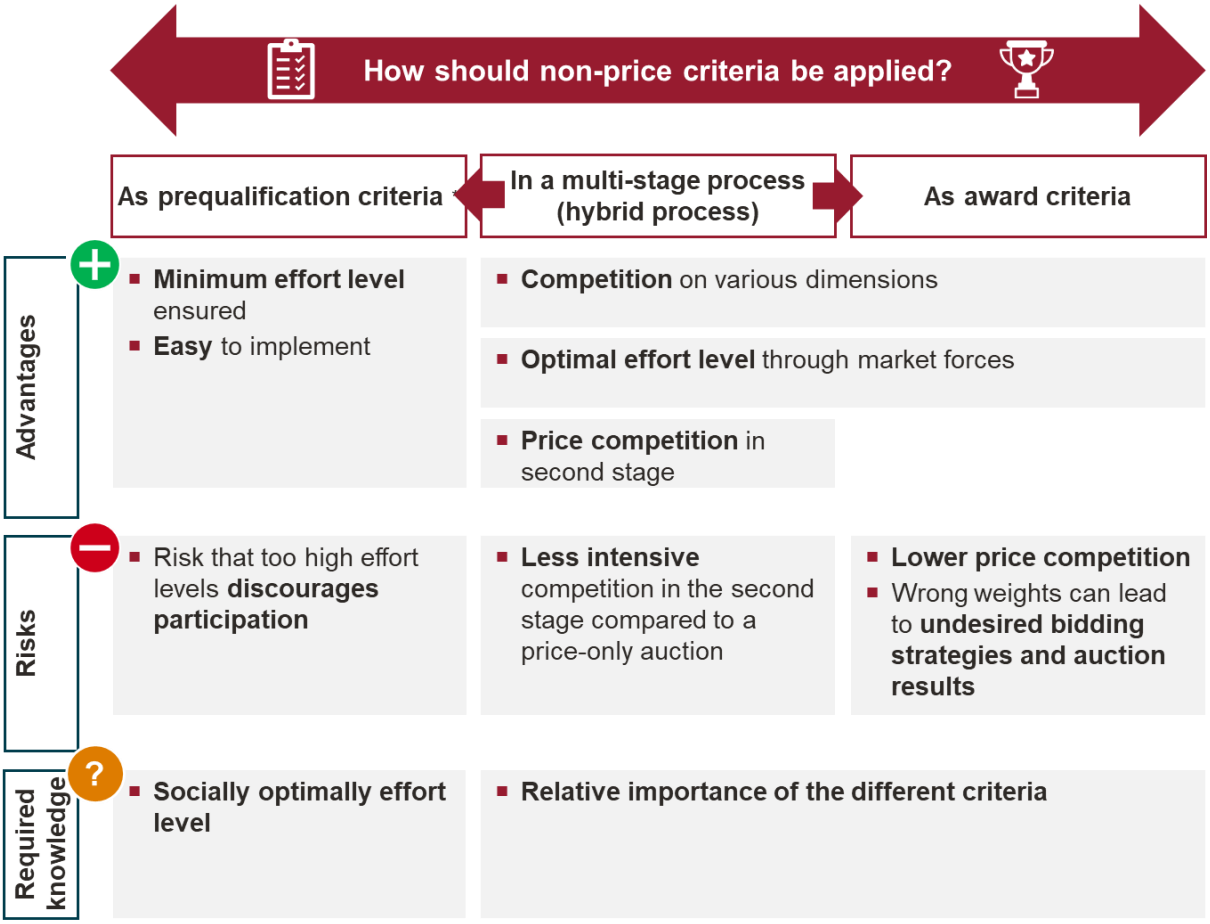
If these goals can be addressed through other measures, like penalties for timely project completion, it is best to avoid the additional complexity of related non-price criteria.

2. How should non-price criteria be defined and assessed?

Non-price criteria should be defined in a way that minimises ambiguity regarding their meaning, measurement methods, and compliance monitoring. Criteria that are difficult to evidence may place too much burden on bidders when preparing their bids. Similarly, if criteria are hard to assess, auctioneers may have to spend too much time evaluating bids, and it can lead to undesired outcomes. For example, in a 2022 Dutch offshore auction, which had complex qualitative criteria related to innovations and solutions to environment and system integration, it took a special technical committee at the regulator over six months to assess the qualitative bids.

3. How should non-price criteria be applied in the auction?

There are several ways to incorporate non-price criteria. Each has its advantages, disadvantages, and differing requirements for the auctioneer:



- **Non-price criteria as pre-qualification criteria, i.e. applied as a minimum requirement for participation in the auction.** This is easy to implement and ensures a minimum standard but does not incentivise the application of higher standards. At the same time, overly strict requirements might

discourage participation, increasing the risk of reduced government revenues, higher support payments to developers, and/or undersubscribed auctions. The more the auctioneer knows about the socially optimal effort level – the level which sufficiently fulfils the auctioneer's objectives without unnecessarily reducing competition – the better minimum requirements work.

- **Non-price criteria as award criteria, i.e. applied as part of the award-scoring rule with weighted criteria.** This allows for competition across dimensions without requiring the auctioneer to determine the optimal effort level in advance. However, using multiple award criteria makes auctions more complex, which could reduce price competition and government revenues, as seen in recent German auctions above. And there is also a risk that the auctioneer might set weights that do not reflect the relative importance of competing objectives, or lead to unconventional bidding strategies. Non-price criteria should be part of the scoring rule only when they create additional value which cannot be captured by minimum criteria.

Recyclability of blades as minimum & scoring criterion in France

In one of the auctions for seabed in Normandy, the recyclability or reusability of the blades was used both as a minimum requirement and as an award criterion. The recyclability or reusability had to be at least 80% for bidders to participate in the auction and they could get additional points if the blades were entirely recyclable or reusable. There was thus a trade-off between allowing bidders to compete on higher recyclability and reusability and higher complexity of the scoring rule. All bids offered to provide 100% recyclability, which suggests that in future auctions this could be the minimum requirement rather than a part of the scoring rule.

- **A hybrid model with a multi-stage process,** i.e. in a first stage, allowing for competition across multiple dimensions, in a second stage, price-based competition between the winners of the first stage. This approach allows non-price criteria to be used as award criteria, enabling the auctioneer to achieve balanced outcomes across multiple objectives without having to define the optimal level of each objective in advance. Price competition in the second stage is likely to be more intense than in a combined price/non-price auction. However, there is a risk that, after the first stage, competition may diminish due to there being fewer bidders.

Two-stage competitive process in UK

The UK government has introduced the Clean Industry Bonus (CIB), which provides additional revenue support to offshore wind projects that invest in more sustainable supply chains. Before the auction for contract-for-differences (CfD), a separate competitive process is held to determine the level of the CIB. Developers are ranked based on their total scores against predefined sustainability criteria, and bonuses are awarded until the allocated budget is exhausted. Meeting the CIB's minimum standards is a prerequisite for participating in the CfD tender.

This two-stage mechanism – where the CIB is awarded outside the CfD auction – potentially allows for the competitive allocation of non-price support without undermining price competition in the main CfD bidding process.

4. How do you ensure compliance?

To ensure that bidders meet non-price criteria, auctioneers must monitor compliance and enforce penalties where necessary. Without these measures, bidders may inflate non-price criteria simply to win an auction, without the intention of ever fulfilling their commitments. This could distort auction results and undermine the effectiveness of the criteria.

Two recent examples illustrate how the lack of effective monitoring might unnecessarily increase the complexity of the auctions while the benefits are questionable.

Ineffective monitoring of recyclability of blades (France) and share of apprenticeships (Germany)

- In the auctions in Normandy, bidders may have offered to use 100% recyclable blades because the threat of penalty for non-compliance is low. Compliance is verified only after 35 years. From today's perspective, the expected real value of any penalty is low.
- In the past two German auctions for pre-investigated seabed, the scoring rule incentivised a higher apprenticeship quota in project delivery to promote growing the qualified workforce. But bidders indicated difficulty in predicting and guaranteeing a ratio of apprentices to qualified staff, as projects will be implemented up to five years in the future. The German regulator has not specified whether or how it will monitor and penalise deviations from the ratios that bidders gave. Given the absence of any monitoring intentions, it is unclear how the additional criterion creates value – it is possible that the industry would provide the economically optimal level without this incentive in the scoring rule and without having to submit a bid in a more complex auction.

What does this mean for Europe's upcoming offshore auctions?

If offshore wind is to become the cornerstone of Europe's renewable electricity mix, it makes sense to include criteria that increase the likelihood of successful project delivery and reliable operations. Including these as pre-qualification criteria will reduce auction complexity. The challenge will be to set up these criteria in a way that does not undermine competition. In this bulletin, we have only scratched the surface of how carefully non-price criteria must be chosen, defined, and integrated to strike the right balance.

Expert advice will be crucial

The inclusion of non-price criteria in offshore wind auctions has the potential to improve the realisation rate and quality of awarded projects and support the EU in achieving its ambitious renewable energy targets. It will be important to consider the trade-offs and tricky design questions these criteria generate. By striking the right balance between price and non-price factors, governments can ensure that auctions are both efficient and effective.

History shows that auction structure and rules can significantly influence outcomes. Expert advice and thorough preparation will therefore be essential in navigating the complexities of auctions with non-price criteria, especially when the stakes are so high.

Conclusion

Non-price criteria can help deliver better offshore wind projects, but only if used wisely. Poorly designed rules risk lower competition, lost revenue, and unclear benefits. To get it right, governments must define clear objectives, keep processes manageable, and ensure bidders are held to account. With Europe's energy goals at stake, thoughtful auction design is more important than ever

AUTHORS

Matthias Janssen
Associate Director

Michael Zaehringer
Associate Director

Lyuba Ilieva
Consultant

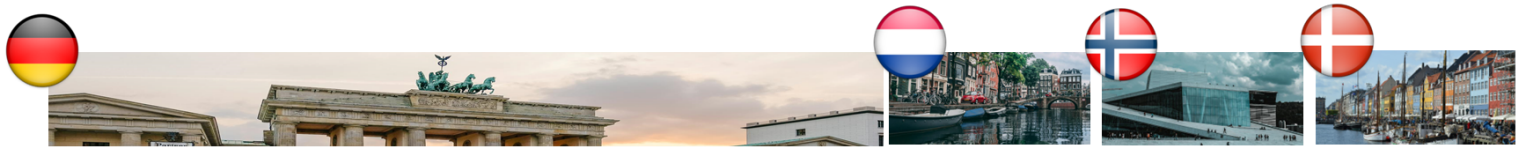
WANT TO KNOW MORE?

WWW.FRONTIER-ECONOMICS.COM

HELLO@FRONTIER-ECONOMICS.COM

+44 (0) 207 031 7000

Figure 1 Overview of recent wind offshore results in Europe



Auction date	1 August 2023	1 June 2023	1 August 2024	1 June 2024	28 March 2024	20 March 2024	5 December 2024
Auctioned capacity	**5.5** GW (3 spots: N-9.1 – N-9.3)	**7** GW (2 spots: N-11.2, N-12.3)	**5.5** GW (3 spots: N-9.1 – N-9.3)	**2.5** GW (2 spots: N-11.2, N-12.3)	**4** GW (2 spots: IJmuiden Ver)	**1.5** GW (Sørlige Nordsjø II)	**3** GW (+ 1 GW option) (3 spots: NS I A1-A3)
Tendered product	**Right** to use seabed of **pre-investigated** areas	**Right** to use seabed of **not pre-investigated** areas	**Right** to use seabed of **pre-investigated** areas	**Right** to use seabed of **not pre-investigated** areas	**Right** to use seabed of **pre-investigated** areas	**Government support** & right to use seabed of pre-investigated areas	**Right** to use seabed of **pre-investigated** areas
Grid connection	Included	Included	Included	Included	Included	**Not** included (winner's burden)	**Not** included (winner's burden)
Support	**No support**	1st stage: Premium If 2nd stage: Dynamic auction (**no support**)	**No support**	1st stage: Premium If 2nd stage: Dynamic auction (**no support**)	**No support**	15-year two-sided energy-based **CfD**	**No support**
Bid cap	**No cap**	**No cap** (once 2nd stage reached)	**No cap**	**No cap** (once 2nd stage reached)	**420M€** (paid yearly over 40y)	Max. support NOK 23 bn (~**€1.9 bn**)	**No cap**
Award criteria	Price (60%) & **qualitative (40%)** criteria	**Price criterium (100%)** Highest bid wins (if 2nd round)	Price (60%) & **qualitative (40%)** criteria	**Price criterium (100%)** Highest bid wins (if 2nd round)	Price (15%) & **qualitative (85%)** criteria	**Price criterium (100%)** Lowest bid wins	**Price criterium (100%)** Highest bid wins
Auction outcomes	RWE pays €250mn for 4 GW (= **€63/kW**) Payment of Waterekke Energy for 1.5 GW not public	TotalEnergies & bp pay €12.6 bn for 7GW (= **€1,800 /kW**)	RWE pays €250mn for 4 GW (= **€63/kW**) Payment of Waterekke Energy for 1.5 GW not public	TotalEnergies & EnBW pay €3.1bn for 2.5GW (= **€1,240/kW**)	Nordzeeker pays €20mn for 2 GW (= **€20/kW**) Zeevonk II pays €400mn for 2 GW (= **400€/kW**)	Ventyr receives CfD with strike price of 115 ore/kWh (~**35 €ct/kWh**)	**No bids**

Source: Frontier Economics based on public sources