Wind energy sector at the crossroads

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Despite favourable winds prompted by the EU's rising climate ambition, the European wind energy industry is facing a combination of challenges caused by inflation, supply chain issues, and growing competition from cheaper Chinese manufacturers.

In this special report, EURACTIV looks at the state of the European wind energy sector and what lies ahead in the coming years.
Beleaguered wind industry turns to European governments for help

Wind industry calls for caution as EU overhauls power market

It’s time to get serious about speeding up the expansion of wind energy in Europe

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While European governments boost their wind power ambitions, the industry is struggling with rising production costs and growing competition from China.

2023 was meant to be a triumphant year for European wind power developers. Buoyed by high fossil fuel prices, the industry was boosted this week when nine EU countries surrounding the North Sea signed an agreement to aim for at least 120 gigawatts (GW) of offshore wind by 2030 – up from around 16 GW today.

By 2050, the nine countries agreed to hit 300 GW of installed offshore wind capacity in the North Sea.

But at the annual meet-up of industry lobby group WindEurope in Copenhagen this week, the mood was more downbeat.

Industry representatives there bemoaned being hit with a triple-whammy of commodity price increases, global instability caused by Russia’s invasion of Ukraine, and rising interest rates.

“In combination, that is quite a potent mix in terms of a challenging business environment,” said Anders Hangeland, vice president of Equinor, the Norwegian energy company.
“Returns and earnings are under pressure across the supply chain both for developers and suppliers,” he added during a panel discussion in Copenhagen on Tuesday (25 April).

The rapid changes threaten future projects but they also affect the industry’s bottom line on existing projects with a final investment decision.

“Projects for which the prices were fixed well before the current crisis have become financially fragile,” Mads Nipper, the CEO of Danish energy giant Ørsted, said in an appeal to governments on Tuesday.

Recent discussions on the future shape of the EU’s electricity market design have “added regulatory uncertainty to the mix,” he added.

Europe’s wind turbine manufacturers, including Spanish-German company Siemens Gamesa and Denmark’s Vestas, are currently operating at a loss. And they are facing growing competition from Chinese companies, which have access to cheaper raw materials and won a tender in the UK’s Celtic Sea for the first time in 2022.

There are also persisting worries about over-reliance on China for raw materials such as rare earths, needed to manufacture the powerful magnets mounted in wind turbines.

According to Equinor’s Hangeland, it is not “beneficial that we are overly dependent on one region or one country in this”.

With problems piling up, the wind industry is now turning to European governments for help.

“How can we incentivise further build out and strengthening of the supply chain closer to the markets where the energy is produced?” Hangeland asked.

The industry has come a long way in the past decade. While past projects relied heavily on state support, wind power has now become cost competitive.

However, that has resulted in what European companies call a "race to the bottom on price". As bids went negative, developers started paying for the privilege of developing offshore wind power on state land, adding to the sector’s financial burden.

This has reinvigorated the debate on setting qualitative criteria for public wind power tenders, where developers offer a broader category of services like biodiversity protection instead of mere "quantitative" price competition, where Chinese bidders have the upper hand.

Such criteria could include respect for human rights, cybersecurity, or security of supply, which should be rewarded in the tendering process, suggested Javier Rodriguez Diez, executive vice-president at Vestas.

Qualitative criteria are already being considered by the European Commission as part of its Net-Zero Industry Act to boost the European clean tech industry. Instead of being merely voluntary, some could be made mandatory going forward.

But some want to go further than that.

For Ørsted, qualitative criteria should be applied “either for pre-qualification bidders” – a move that would ban some companies from applying altogether – or as a way to “supplement or entirely replace the price-component”.

French Energy Minister Agnès Pannier-Runacher appeared to back this stance, saying Europe “must have some local content criteria” in wind tenders in order to favour European bidders.

Fatih Birol, the head of the International Energy Agency (IEA), also backed the wind industry’s plea, saying: “We have to compete with China and other countries around the world.”

“Wind energy was born and raised in Europe,” he remarked, warning against a repeat of past mistakes made with the solar PV sector, which is now manufactured mainly in China.
Wind industry calls for caution as EU overhauls power market

By Nikolaus J. Kurmayer | EURACTIV.com

Languages: Deutsch

As the European Union prepares to reform its electricity market, the wind industry has urged policymakers to avoid rocking the boat and keep as close as possible to the European Commission’s original proposal.

Brussels tabled an overhaul of the bloc’s power market rules on 14 March, aiming to tame volatile electricity prices that went through the roof last year after Russia invaded Ukraine.

To stabilise prices, the Commission sought to promote long-term contracts such as power purchase agreements (PPAs) passed between energy companies and electricity buyers, and contracts for difference (CFD), where the state intervenes to guarantee a minimum price to power generators.

However, the Commission did not change the fundamentals of the EU market, which will remain based on the current marginal pricing system where cheap renewables and nuclear power are called in first to meet consumer demand.

The Commission proposal also did not retain the price caps for gas used in electricity generation implemented in countries like Spain and Portugal, which kept prices artificially low for consumers and harmed the finances of energy firms.

Other emergency measures adopted during the crisis, like the tax on windfall profits made by renewable energy producers who benefitted from high gas prices, will not be prolonged.
Those moves, supported by Northern EU countries, were welcomed by trade group WindEurope, which urged EU member states to stay as close as possible to the Commission's original proposal.

“Europe now has to restore its reputation as an attractive and secure investment environment for renewables,” said Sven Utermöhlen, the chairman of WindEurope, who spoke on Tuesday (25 April) at the industry's annual gathering in Copenhagen.

Evolution rather than revolution

According to WindEurope, radical propositions like expropriating wind turbine developers – an idea floated by the Greek government – or market interventions aimed at syphoning excessive profits have spooked investors.

“Evolution” rather than “revolution” would be preferable, Utermöhlen said.

Other players in the wind industry share the same view. “We need to be pragmatic” and “fast”, said Danielle Jarski, chief officer for offshore wind at German energy utility RWE.

This was echoed by Spanish developer Acciona Energy, whose CEO Rafael Mateo warned against “changing the horse during the race”.

Jarski herself cautioned the industry not to lose sight of its larger goal – profitability. Over-reliance on long-term contracts like CFDs, which limit profits, or PPAs, which sell for a predetermined price, could result in “flawed designs of auctions” where successful bidders “end up with a winner’s curse,” she warned.

For Markus Becker, head of government affairs at GE, the entire green transition would be at risk if the current market structure was to change too radically.

Addressing the audience in Copenhagen, he called on policymakers to “help preserve, wherever we can, market elements” in the reform, saying they are key to “make investments possible.”

“We cannot scare away investors,” Becker stressed.

Spain in the driving seat

Among wind industry insiders in Copenhagen, many expressed worries about the prominent role Madrid will play in the upcoming negotiations to reform the EU power market.

Spain will assume the rotating presidency of the Council of the EU in the second half of 2023, saying it will aim to strike a political agreement on the reform before the end of its six-month tenure, which ends on 1 January.

Madrid has infuriated the electricity industry ever since it implemented a windfall tax in 2021 to ensure energy companies do not unduly profit from the gas crisis.

Investors were similarly spooked by the price cap on gas used for electricity production in Spain and Portugal – a so-called “iberian exception” recently extended by Brussels, due to the peninsula's isolation from the rest of the EU electricity network.

While the Council presidency will oblige Madrid to act as an honest broker during the negotiations, Spaniards are poised to play a key role in the electricity market reform.

Nicolás González Casares, a Spanish lawmaker, will be the chief negotiator for the European Parliament on behalf of the left-wing Socialists and Democrats (S&D) group.

While Casares has vowed to act in the “European interest” during the negotiations, he has similarly signalled openness to contributions from Southern European countries, such as Italy.

For the centre-right European People’s Party (EPP), it will be a Portuguese lawmaker taking part in the negotiations. Maria Graça Carvalho enhances the Southern European influence on the power market reform but has signalled support for industry positions in the past.

Michael Bloss, a young Green lawmaker from Germany, and Morten Petersen, a seasoned Danish liberal, are the other two key Parliament negotiators who are seen as open to the renewable industry’s views.

Meanwhile, the nationalist European Conservatives and Reformists (ECR) will be represented by Polish heavyweight Zdzisław Krasnodębski, whom experts expect will represent coal and nuclear interests in the negotiations. The Left will be represented by Marina Mesure, a French lawmaker.
It’s time to get serious about speeding up the expansion of wind energy in Europe

By Giles Dickson | WindEurope

The European Union wants more renewables. European policymakers have always been clear about the vital role of wind energy in delivering Europe’s climate and security objectives. What’s new is that REPowerEU, the EU’s energy policy answer to the Russian invasion of Ukraine, has now made the accelerated expansion of wind energy a top priority for Europe’s security, geopolitical interests and strategic autonomy.

Giles Dickson is CEO at WindEurope

Europe’s overreliance on imported oil and gas had left us vulnerable to Putin’s political manoeuvring. With REPowerEU politicians have woken up to the realisation that only homegrown energy will give Europe control over its energy security and guarantee affordable electricity prices for its citizens and businesses. The changed geopolitical situation after the Russian invasion of Ukraine and last year’s energy crisis has only increased the urgency for wind energy to become the backbone of Europe’s new energy system.

Wind is already 17% of all electricity consumed in Europe today. It will be Europe’s number-one source of electricity before the end of this decade. Today the EU has just over 200 GW of wind energy. The European Commission wants this to grow to 1,300 GW by 2050.

But at this watershed moment, the European wind industry is facing its own crisis. A combination of high input costs, a struggling supply...
chain, and uncoordinated market interventions across Europe have all taken their toll. Europe's turbine manufacturers have struggled to make a profit in 2022. Turbine orders have dipped significantly and investments in new wind farms are down by almost 60% year on year. And the EU is still only installing half the new wind capacity it needs to reach its renewables targets.

European policymakers are determined to get things going again and REPowerEU has already brought significant improvements. But now is the time to get serious about the expansion of wind energy in Europe.

**It’s time to accelerate permitting.** Permitting has historically been the biggest bottleneck to the buildout of wind. 80 GW of wind energy capacity are currently stuck in permitting procedures across Europe. Bureaucratic rules, understaffed permitting authorities, and time-consuming legal appeals are holding new projects back.

REPowerEU has started to tackle this issue. For the first time, the EU recognised renewables as a matter of overriding public interest in its revised Renewable Energy Directive. The EU has also called for a population-based approach to species protection and set out strict deadlines for permitting authorities. It’s now on the Member States to fill these new rules with life – to fix overly complex national permitting processes and to get more wind projects approved.

**It’s time to ramp up the supply chain.** This includes all aspects of the supply chain – from manufacturing and installation to logistics, maintenance and repair. Today 300,000 people work in more than 250 factories along the wind energy supply chain in Europe. But bad auction design, surging costs for commodities and international shipping and inflation have taken their toll on the supply chain. It’s struggling to make a profit at the worst of all times – just when huge investments are needed to ramp up Europe’s wind energy manufacturing capacities in line with the new REPowerEU targets.

The European Union has understood that the situation is serious. The recently presented EU Green Industrial Plan aims to strengthen Europe's clean energy manufacturing base and boost its capacity to source critical raw materials. But this Plan falls short of what is needed. Crucially it doesn't provide adequate funding for investments in optimized and new factories in Europe, new grid connections, offshore wind ports and vessels and a sufficiently skilled workforce. The EU must urgently outline how it plans to finance these critical investments.

**It’s time for more green electrons.** The European power sector is making steady progress towards zero carbon emissions. As it stands electricity is only around 25% of all the energy that we use in Europe. The rest is the fossil fuels we use to heat the boilers in our houses and to fuel our cars. Direct electrification is the most efficient way for industries and households to decarbonise. The EU wants us to be 75% electric by 2050. The technology is here and can be scaled up quickly.

The EU has picked up on this challenge in its revision of the EU electricity market design – which has eliminated unhelpful revenue caps and encouraged the greater use of corporate Power Purchase Agreements. Without clear and consistent investment signals, investors will not commit the necessary resources, and turn to markets with better investments conditions for renewables, such as the US and Australia.

**It’s time to build a grid fit for the future.** Year after year we are capturing more wind than ever before. But that energy has nowhere to go if we don’t have the grid infrastructure to deliver it. Europe needs to double the current rate of annual grid investments. And it needs to boost interconnector capacity – both onshore and offshore.

Alongside grids, Europe needs to invest €8.5bn by 2030 to upgrade its port infrastructure and make it ready for the upcoming expansion of offshore wind. The European Union has to ensure that the TEN-T regulation acknowledges the strategic value of offshore wind ports in Europe's wider transport network planning.

**There are many reasons to be optimistic about the future of wind energy in Europe.** Today wind energy is among the cheapest forms of electricity generation in Europe. Countries are now collaborating on cross-border offshore wind projects of unprecedented scale. The sector already employs hundreds of thousands of people across the continent, and this number is likely to grow as the industry expands. But the time to act is now if Europe wants to deliver on its REPowerEU targets and ensure that European manufacturers remain global technology leaders.
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