



Security meets transition in offshore energy

When the Dutch annual event Offshore Energy Exhibition & Conference (OEEC) opens its doors at Amsterdam RAI in November, security, resilience and geopolitics will sit alongside energy transition and ecosystem protection as central themes.



The OEEC conference agenda offers a window on how offshore energy is redefining itself in a time of turbulence. It must balance sustainability goals with affordability and security. At the same time, it is watching developments across the Atlantic. The US offshore wind industry is facing existential challenges. Meanwhile, Brazil and Colombia are ramping up work to bring their first offshore wind farms to fruition.

In Europe, work on connecting more renewable energy to the electricity grids continues, although much more cautiously and with a greater focus on securing immediate supply.

Oil and gas, and other forms of fossil energy, are (re)gaining strength as energy demand keeps increasing amid an unstable international environment.

Wind, oil and (geo)politics

While most European countries are trying to keep their promise on doubling down on renewables and energy resilience, the US offers a stark contrast. Recent months have brought a series of policy shocks that could reshape the US offshore wind sector and reverberate across global supply chains.

In July 2025, the US Department of the Interior rescinded all designated Wind Energy Areas on the Outer Continental Shelf,

effectively wiping the slate clean for new leasing. Just weeks later, the DOI issued a stop-work order for Revolution Wind, an offshore wind farm that is already 80% complete. This came only a few months after the Empire Wind 1 project was halted as construction started offshore.

Analysts warned in April, following the Empire Wind 1 pause, that the US could miss out on as much as \$75 billion in investment if such reversals continue. The US Interior Secretary said in September that the government was 'taking a deep look' into five projects under construction. The DOI has also moved to revoke its own approvals given to offshore wind projects under the previous

administration, saying the permitting was rushed through and was given under a different interpretation of the Outer Continental Shelf Lands Act.

At the same time, the US government has cut permitting time needed to approve oil and gas projects and has also implemented policy moves and regulatory reforms to boost coal and its position in the US energy strategy.

In Europe, offshore wind is also facing challenges as the costs of building offshore wind farms increased by around 40% following the pandemic, the war in Ukraine and supply chain bottlenecks.

However, governments are trying to fight the effects of the macroeconomic conditions on the offshore wind industry, while ensuring the immediate supply through fossil energy that is available and renewable energy capacities that are up and running.

In the Netherlands, the government recently approved €1 billion for subsidising offshore wind farms to be tendered in 2026, after years of zero-subsidy projects winning the tenders. This will be only a temporary measure until a Contract for Difference (CfD) scheme is established. According to the Dutch government, it is backing offshore wind as the only resource that can provide greater generation capacity and be built in a short time to meet the upcoming demand for electricity.

In the UK, whose CfD scheme is a model for the Dutch government's future price guarantee for offshore wind projects, an action plan was presented at the beginning of 2025, providing a roadmap to an almost fully clean power system by 2030. The roadmap is set to lead to clean sources, with offshore wind in particular, making up 95% of Great Britain's electricity generation, with gas being used for no more than 5% of total generation.

OEEC day one: transition under pressure

Day one of the conference, 25th November, opens with a sharp question: How to Make the Most of North Sea Gas?

The session explores how big a role gas still has in securing supply while Europe accelerates its renewable deployment, with the debate less about prolonging fossil fuels and more about finding a way to balance immediate needs with climate targets.

Later in the morning, the focus turns from hydrocarbons to habitats, with the conference session Invest in Nature Regeneration When Building Offshore set to highlight projects designed not only to avoid harming marine environments but to actively restore them. The shift from mitigation to regeneration mirrors how offshore energy is being asked to prove its environmental credentials, not just its emissions reductions.

The afternoon brings the Netherlands' offshore wind ambitions to the fore. In The Road Ahead for Offshore Wind in the Netherlands, companies like Van Oord and RWE will discuss how to sustain growth in an industry grappling with rising costs, supply chain strain, and permitting bottlenecks. Policy frameworks, public-private partnerships, and investor confidence are expected to dominate the conversation, especially as the Dutch government recently announced a one-billion-euro boost to offshore wind projects in 2026, a temporary measure until the CfD framework is established.

The day closes with Financing the Renewable Transition, where financiers and developers face the central challenge: how to channel capital into renewables and carbon capture while ensuring projects are profitable. For investors wary of volatility, stable frameworks matter as much as innovation.

Security above and below sea surface

A defining feature of OEEC 2025 is the debut of two new pavilions: one dedicated to AI and cybersecurity, and the other to seabed security. Their inclusion in this year's event in Amsterdam is no accident. The offshore energy industry and governments have been working tirelessly on increasing the security of offshore energy infrastructure and its onshore parts after events such as the 2022 sabotage of the Nord Stream pipelines.





Since then, intelligence agencies have warned of covert mapping of offshore assets, and European governments have launched coordinated responses like the NorthSeal platform, which began operations in January 2025 to monitor suspicious maritime activity and improve joint responses.

Security concerns now stretch beyond the seabed and are also reaching the servers that manage offshore operations. The EU's Wind Power Package requires Member States to use pre-qualification criteria, including cybersecurity aspects, in future renewable energy auctions. Over the last year or so, debates over Chinese wind turbine manufacturer Mingyang's proposed factory in Scotland also highlighted how supply chain decisions intersect with national security concerns.

OEEC's program in November will reflect this new reality: digital and subsea threats are no longer background issues in the offshore energy sector, but central to strategic planning.

OEEC day two: guarding the future

The second day leans heavily into security and resilience. The panel session Securing the North Sea brings together representatives from the Dutch Ministry of Defence, Van Oord, and Venterra Group to discuss how

Europe can protect offshore energy infrastructure from sabotage, surveillance, or attack. The tone reflects a hard truth: offshore energy is no longer just an industrial sector; it is part of national defence strategies.

At midday, All Set for CCS assesses how ready the North Sea really is to become a hub for carbon capture and storage (CCS). Beyond pipelines and reservoirs, the discussion touches on regulation, liability, and whether industry and governments can agree on who pays for long-term monitoring and risk management.

The conference closes with Harnessing Digital Innovation to Protect and Power Offshore Renewable Energy hosted by the Dutch Marine Energy Centre (DMEC). Earth Observation, AI, and advanced analytics are emerging as the nervous system of the offshore sector, enabling efficiency while monitoring assets for cyber and physical threats. In an industry where downtime or disruption can cost millions, digital resilience is no longer optional.

A defining year

What makes OEEC 2025 distinct is its refusal to treat the above topics as separate. Transition, biodiversity, finance, and security are woven together. The program reflects a sector under pressure, tasked with

accelerating renewable buildout while ensuring resilience against new forms of risk.

Against this backdrop, OEEC 2025's expanded program feels prescient. By placing cybersecurity, seabed protection, and digital resilience on equal footing with wind and carbon capture, the conference acknowledges that the industry's future will be shaped as much by geopolitics and security as by megawatts and investment.

For Europe, the challenge is not simply to accelerate renewable deployment but to do so in a way that is resilient to sabotage, cyber threats, and fluctuating market conditions. For the US, the question is whether offshore wind, and renewable energy in general, can survive in a policy environment that favours oil, gas and coal.

For everyone gathering in Amsterdam, OEEC 2025 will be not only about technology showcases but also about charting how to keep the offshore energy sector on course in uncertain waters.

Offshore Energy Exhibition & Conference is coming up on 25th and 26th November 2025 at Amsterdam RAI. Book your tickets or see if any exhibitor stands are available at:

✉ registration@oeec.biz

🌐 oeec.biz/