RWE is paving the way towards competitive commercial-scale floating wind

RWE's experience in deploying offshore wind, combined with its in-house engineering expertise and global approach means it is particularly well placed to become a market leader in floating wind.

What is floating wind?

Floating wind is a method of generating clean renewable energy from the wind out at sea. It uses similar technology to conventional offshore wind turbines that are installed today. However, unlike those which are fixed to the seabed, these offshore turbines are secured on top of a floating foundation. The structures are secured to the seabed using underwater mooring lines and anchors. The clean energy that turbines generate is transported safely back to shore using dynamic array cables and subsea cables.

What are the benefits of floating wind?

Unlike seabed-fixed turbines that can only be installed at certain water depths, floating wind can be installed in much deeper water. This means that floating wind can generate renewable energy in new regions around the world, helping us to achieve global net zero. In addition, floating wind will provide socio-economic benefits to regions by developing supply chain and creating jobs.

RWE is targeting global leadership

RWE is one of the largest offshore wind owners in the world, and has more than 20-years' experience in seabed-fixed deployment. RWE has strong global growth ambitions and floating wind has been identified as an important additional market that sits well within our existing portfolio. Floating wind is going to be a global market with activity in Europe, Asia and North America over the next 10 years. RWE aims to repeat the success we have had in seabed-fixed for the floating market.

Our ambition

RWE's ambition is to safely develop, build and operate cost-competitive, commercial-scale projects around the world.

Our floating wind portfolio

Photo: TetraSpar

Photo: DemoSATH

Our international floating wind portfolio

RWE is actively participating in high-profile floating demonstration projects, each based on different foundation concepts, to gain early floating wind experience and broad engineering knowledge.

The demonstration projects are already giving us unique insights into the particular challenges and opportunities of different structure types, materials, mooring systems and installation methodologies. Crucially, the learnings that we get from these projects will help drive down cost and risk of our commercial-scale projects in the future.

In addition, RWE already has project teams working on floating projects in all the main markets and has secured a commercial-scale floating wind lease off the California coast called Canopy. The site is situated 33 km offshore in the Humboldt region and has a potential installed capacity of 1.6GW.

RWE is also preparing for floating wind auctions across the international portfolio.

RWE has implemented a world-class capability programme

RWE has taken a global approach to learning which involves active involvement in high-profile demonstration projects, extensive supply chain engagement and participation in leading joint industry projects. RWE has implemented a world-class cross-company programme to strengthen our internal capability and encourage knowledge sharing across the international portfolio to accelerate our business readiness to deploy commercial-scale floating wind projects. The capability programme comprises strengthening our in-house engineering excellence, resolving knowledge gaps, capturing lessons learnt and creating multi-disciplinary global networks.

Accelerating floating wind industrialisation

Whereas seabed-fixed projects will typically use either generic monopile or jacket designs, there are currently more than 200 different floating concepts on the market, each with their own advantages and challenges. Floating projects are also much smaller at the moment, but are expected to quickly grow to gigawatt-scale.

RWE's Floating Wind Industrialisation Strategy identifies the step changes required to achieve cost reduction during the design, fabrication and logistic phases, especially the serial production of floating structures. RWE is continually strengthening our in-house engineering capability, monitoring technological advancements and proactively engaging with key stakeholders in the supply chain to ensure the development and availability of necessary infrastructure.

Prioritising education

Please visit our virtual classroom at **rwe.com/floating-wind** to learn more about floating wind.

Let's talk about floating wind

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