

Floating Windfarm: Market overview and Technology trend

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The UK is one of the world's largest offshore wind markets, with 12.5GW of projects in operation and an ambition to see 50GW of offshore wind by 2030 – including 5GW of floating offshore wind.

Attention has turned to huge opportunity floating offshore wind represents, and the steps that will be necessary to deliver on its promise. The need to progress at pace were made clear following the recent Scotwind leasing round, which in January awarded seabed to 25GW of projects, including more than 15GW of floating projects - most of which will be built in the early 2030s.

While the technology to deploy floating offshore wind exists, there is a need for ongoing innovation and industrialization of the processes as we move towards commercial scale projects. Substructure design and scale-manufacturing, mooring and anchoring systems, dynamic cable systems, transport and installation and O&M are all evolving. Innovating in all these areas will be a key driver of cost reduction, and cost reduction will be critical to the sustainability of floating offshore wind.

The UK is well positioned to play a leading role in helping industry move smoothly towards commercial scale projects, with capabilities across the value chain that can be applied to these tasks. There is now a pipeline of projects, ranging from small test and demonstration projects, intermediate scale projects that will allow testing of serial manufacturing and supply chain readiness, through to the GW projects that will ultimately achieve scale economies. These are supported by a framework that is designed to foster industrial collaboration and innovation, infrastructure development and financial certainty to underpin investments.

While there remains challenges to implement full commercial scale floating wind projects, the building blocks are in place that will enable the rapid development of the industry over the next decade.