

RECHARGE

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Floating wind forging 'structural shift' with sights on 15% of new offshore arrays by 2050: DNV



One of the Kincardine floating wind project's WindFloat units being towed to site off Scotland last year Photo: KOWL

Forecasts point to 264GW of 1,748GW to be installed by mid-century being deepwater developments as sector galvanises growth in next five years, says consultancy

By **Darius Snieckus**

Floating wind projects are forecast to make up over 15% of the total offshore wind deployment in the pipeline for switch-on by mid-century, with Europe continue to lead the charge, according to latest figures from DNV.

The consultancy predicts offshore plant to swell to about 40% of total wind production by 2050y, with floating contributing 264GW to the 1,748GW installed, as the rapidly emerging sector's "growing momentum... results in cost reduction, scaling of production, and broadened applicability", with "significant technological development" expected to galvanise growth in the next five years.

"Floating wind turbines give access to abundant wind resources over deep water – at least four times as much ocean surface space compared with bottom-fixed wind. This increases flexibility in site selection, including the possibility to target areas within the target areas with higher wind speed, and those with lower social and environmental impact," said DNV in a new sector report.

"The rise of this new technology is not merely circumstantial or solely linked to cost decline, as its particularly attractive features [of wider global installation envelope and speed of installation] are driving a structural shift."

DNV points to the market foundation that European floating wind has set for the sector via the UK's 50MW Kincardine project – the world's largest array, Scotland's 30MW Hywind Scotland and Portugal's 25MW WindFloat Atlantic, which together have "proved floating farms can perform as well as – or better than – bottom-fixed" arrays.

"Major investments are being made in site development as well as grid connection in order to generate economies of scale – providing a further push to renewable energy programs in an electricity market that has demonstrated a low resilience to international crises," the report authors added, noting that southern European countries are now "embracing" floating, with France having launched a 500MW auction round, Portugal a 3-5 GW tender, and Spain expected to unveil its first sector-specific leasing this year.

"DNV's latest research shows that 51% of the energy sector's senior executives in France, Portugal and Spain expect to increase focus and investment in floating wind in the year ahead, which shows how great the impetus is on the industry side in these countries," said Ditlev Engel, CEO of DNV's energy systems division.

"We welcome the emergence of great enterprises like Windfloat Atlantic, EolMed [off France] or the floating projects off the coasts of the Canary Islands and Cantabria, but countries like France, Portugal and Spain still need more ambitious and proactive policies if they are to maintain their advance in the field.

"They are still forerunners at this time, but it is worth noting that projects that were introduced later in South Korea, for instance, will be in operation sooner, thanks to fewer regulatory roadblocks and speedier procedures," said Engel.

Floating wind power's global build-out this decade has been forecast by the Global Wind Energy Council to **reach over 16GW**, though **some analysts remain concerned** outdated current government policy frameworks have the potential of limiting the sector to deploying as little as 5GW by 2030.