

Europe leads growing market in offshore wind power

Offshore capacity on the rise despite high costs of installation.

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Simon Dawson/Bloomberg/Getty

The UK is already a global leader in offshore wind power.

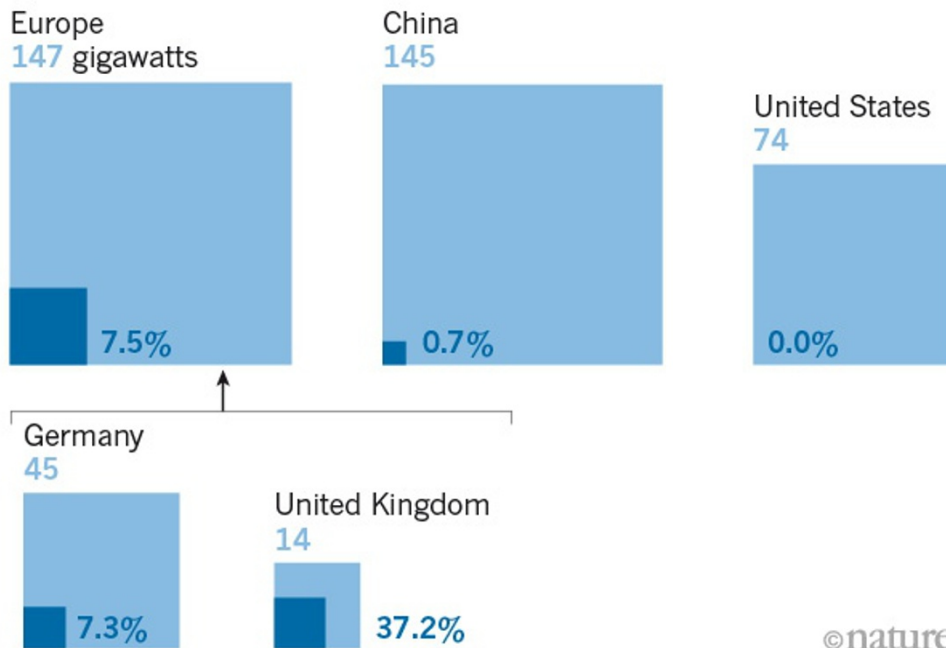
The United Kingdom has [approved plans](#) for the world's largest offshore wind farm: up to 300 turbines with a capacity of up to 1.8 gigawatts in the North Sea.

The country already leads the way in offshore wind power, accounting for 40% of the world's 12 gigawatts of installed capacity. Germany follows with 27%. Offshore wind power still represents just 3% of the world's installed wind capacity, according to the Global Wind Energy Council. But the market is expanding.

EUROPE'S PUSH FOR OFFSHORE WIND

Europe, and particularly the United Kingdom and Germany, lead the world in installed offshore wind power.

■ Total installed wind capacity ■ Offshore wind capacity



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Source: GWEC

In 2015, offshore wind accounted for 24% of wind-power installations in the European Union, up from 13% the year before. And since 2011, overall capacity installed off the coasts of 11 European countries has tripled.

The main challenges for offshore development are the high capital and maintenance costs, according to *Windpower Monthly*. Offshore wind power costs around twice as much to generate as onshore (which itself can now often be cheaper than conventional power).

But thanks to advanced turbine technology and decreasing installation costs, offshore generation costs have started to drop from their 2014 peak and are projected to fall from US\$200 per megawatt hour in 2015, to \$139 per megawatt hour in 2030, according to estimates by the US National Renewable Energy Laboratory.

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