

First US offshore wind farm will power an entire island

Ready and waiting

Michael Dwyer/AP Photo

By Emily Benson

The turbines at the first offshore wind farm in the US were installed last week, and their blades are set to start generating power by the end of the year.

The Block Island Wind Farm, developed by Deepwater Wind in Providence, Rhode Island, will be able to produce enough power for 17,000 homes – up to 30 megawatts.

That's much less than many of the offshore wind farms in the UK and Europe generate, some of which contain more than 100 turbines and together have the capacity for 11,000 megawatts of electricity.

The US already gets about 5 per cent of the electrical power it produces from inland wind energy – more than 70,000 megawatts in 2015.

Wind tends to be stronger and more stable over the ocean, says Deepwater Wind CEO Jeffrey Grybowski. The ocean breeze is also generally strongest during the late afternoon and early evening, when electricity demand peaks. This make offshore areas an attractive location for future development, he says.

“For large population centres here in the north-east, we need to find a way to generate clean energy locally,” says Grybowski. Wind could be the answer, he notes. “It is clearly the biggest clean energy resource in the north-east.”

First in the nation

The five-turbine Block Island Wind Farm sits about 5 kilometres off the coast of Rhode Island’s Block Island. The farm will supply electricity to the island’s 1000 or so permanent residents – who currently rely on diesel-generated power – as well as to the mainland grid.

The offshore wind farm is a first for the country, but its turbines won’t be lonely for long.

There are 21 offshore wind projects in development in the US, collectively expected to produce more than 15,000 megawatts of power once they are completed.

The Block Island project sets the stage for future offshore wind installations, says Christopher Kearns, the chief of programme development at the Rhode Island Office of Energy Resources.

“This is a win for Rhode Island,” says Kearns. “We are certainly excited to be the first in the nation.”

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A shorter version of this article was published in *New Scientist* magazine on 27 August 2016