

# Britain's London Array is world's biggest offshore wind farm

July 9 2013, by Nancy Owano

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(Phys.org) —"A great win for Kent, a great win for renewable energy, a great win for Britain," said Prime minister David Cameron in seeing the London Array this month officially become the world's largest offshore wind farm. Located in the Outer Thames Estuary (around 20km off the coasts of Kent and Essex on a 100km site) the wind farm's size outdoes others. With its 450 kilometers of offshore cabling and 175 Siemens 3.6MW turbines rising out of the Thames estuary, this project is said to be a major milestone. The wind farm carries a 630 MW capacity,

enough to power 470,000—nearly half a million—homes with electricity per year. The Array has been operational since April, but was officially opened this month in a ceremony at Margate, Kent.

Applauded as a great day for Britain, the project is an especially great day for the group that owns it, a consortium of three renewable [energy](#) companies. Owners are Denmark's DONG Energy, Germany's E.ON and Masdar, of Abu Dhabi. Of the three consortium partners, DONG Energy owns 50 percent, E.ON, 30 percent, and Masdar, 20 percent.

*IEEE Spectrum* noted that there are about 20 distinct offshore wind farms around the UK and they generate enough power for 2.3 million homes. In all countries, those who favor the wind farm approach see it as a clean domestic resource. In the case of the London Array, the project has the potential to save 925,000 tons of CO<sub>2</sub> a year from entering the atmosphere. Supporters, however, represent one side of the discussion.

Wind-farm opponents think this is not the wisest path toward [alternative energy](#). Those who oppose wind farms raise numerous objections. Some of those who are anti-wind farm stress that the wind farm is an unreliable energy source. Some opponents, including land and property owners, are especially bothered by wind farms as ruining nature's landscapes. Some oppose the noise, and then there are objections concerned about bird deaths. An estimate published in the *Wildlife Society Bulletin* said over 573,000 birds are killed by [wind farms](#) each year in the United States, including 83,000 hunting birds such as hawks, falcons and eagles.

"I estimated 888,000 bat and 573,000 bird fatalities/year (including 83,000 raptor fatalities) at 51,630 megawatt (MW) of installed wind-energy capacity in the United States in 2012. As wind energy continues to expand, there is urgent need to improve fatality monitoring methods, especially in the implementation of detection trials, which should be

more realistically incorporated into routine monitoring," said the author, K. Shawn Smallwood.

**More information:** [www.londonarray.com/wp-content...fshore-wind-farm.pdf](http://www.londonarray.com/wp-content...fshore-wind-farm.pdf)  
[www.londonarray.com/](http://www.londonarray.com/)  
[onlinelibrary.wiley.com/doi/10...002/wsb.260/abstract](http://onlinelibrary.wiley.com/doi/10...002/wsb.260/abstract)

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