

# London Array Offshore Wind Farm



Orsted

# Welcome to London Array

London Array is the second largest operational wind farm in the world. The project comprises 175 turbines with a combined total capacity of 630 MW.

Ørsted is the largest offshore wind developer in both the world and the UK. Since 2004 we have been developing, constructing and operating offshore wind farms in the UK – our biggest market. Our 11 operational offshore wind farms are powering over 3.2 million homes and with another two in construction this number will rise to 5.5 million homes by 2022.

In addition to our offshore wind farms, we construct battery-storage projects, innovative waste and recycling technology and provide smart energy products to our commercial and industrial customers. We currently employ 1,000 people in the UK and have already invested over £9.5 billion. We will invest at least a further £3.5 billion by 2021.

We are committed for the long-term, both to leading the change to green energy, and to investing in the communities where we operate.



Wind power under construction



Wind power in operation

## Where is London Array?

London Array is situated 20 km (12.4 miles) off the east coast of Britain in the outer Thames Estuary.



 London Array Offshore Wind Farm

 Cable Corridor / Route

 Onshore Substation

 Operations and Maintenance Base

## How much clean electricity does it produce?



The project has a capacity of  
**630** MW



It provides enough power for around  
**560,000** homes<sup>1</sup>

## What has been the impact on the local economy?

In the construction phase of London Array more than 120 Kent companies and organisations worked on the project which at the time was the world's largest offshore wind farm. Contract values equated to more than £20m. The commitment to local business continues.

At the peak of construction there were more than 1,000 people and 60 vessels working on the project and now there are more than 100 people involved in operating the wind farm day to day.

## Community benefit fund

An £850,000 community benefit fund was established when the onshore substation was built which paid for the following projects: £200,000 for nature conservation, donated to and handled by Kent Wildlife Trust, £300,000 for community benefits, donated to and handled by the specially established Graveney and Goodnestone Trust, a new car park and road crossing for Graveney Primary School and a 10-year university bursary scheme to help fund one local student a year through university.

<sup>1</sup> We have based this on the BEIS 5-year average load factor of 38.6% and a household consumption of 3,828 kWh per year. Source: BEIS DUKES (2018), BEIS ECUK (2018).

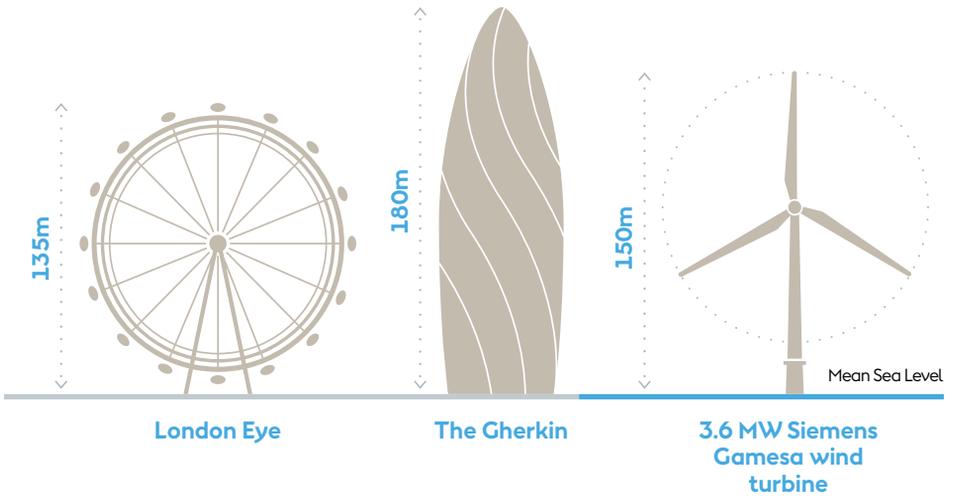
## Ownership

London Array is owned by four shareholders; a consortium involving E.ON (30%), Ørsted (25%), La Caisse de dépôt et placement du Québec (25%) and Masdar (20%).

## How big is it?

The area covered is **100 km<sup>2</sup>**.

This is equal to **14,000** Southwood Stadium pitches, home of Ramsgate FC.



## Project Timeline



December  
**2003**

The Crown Estate awarded a lease to develop a wind farm at London Array under round two of leasing



August  
**2007**

Consent given for an onshore substation



May  
**2009**

London Array given the financial green light by its shareholders



Spring  
**2009**

Onshore construction begins



March  
**2011**

Offshore construction begins and first turbine foundation installed



January  
**2012**

First turbine erected



December  
**2012**

Major construction complete



April  
**2013**

Fully operational



July  
**2013**

London Array is formally opened by Prime Minister David Cameron

## What makes this project special?

At 630 MW, London Array is the second largest operational offshore wind farm in the world. Its capacity is similar to a medium sized gas power station.

// London Array is an impressive project and was the largest operational offshore wind farm by capacity for five-years until it was overtaken by Walney Extension in 2018. The size and location of the wind farm creates challenges and opportunities. The 175 turbines are located across two sand banks, which means some turbines are dry at low tide, whereas others are in water depths of up to 25m. These varying conditions created logistical challenges during construction, but the size results in benefits in operation – multiple crew transfer vessels can operate the wind farm very efficiently.

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