As you can imagine, it was a very special moment when the last turbine was lifted into place at London Array on 13 December, nearly a year after the first turbine was installed in January 2012. The 175th and final turbine marks the end of major building works at the wind farm and now we’re getting ready to go fully operational in the spring.

We’ve been generating energy since October 2012 but with all the turbines installed, we’ll soon be producing enough power for over 470,000 homes a year, two thirds of the homes in Kent. We’re now commissioning and testing the turbines we’ve recently installed, before handing the wind farm over to our Operations & Maintenance team.

Every landmark moment on the London Array journey has been down to the hard work and enthusiasm of everyone involved in the project. In 2012, we installed 84 foundations, 178 array cables and 3 export cables, as well as 175 turbines.

Benj Sykes, Head of DONG Energy’s UK Wind business said: “Having the final turbine installed is another landmark in this flagship project. London Array will soon be the largest operational offshore wind farm in the world.”

Tony Cocker, E.ON’s Chief Executive Officer, paid tribute to all those involved in the construction to date, adding: “I look forward to seeing London Array’s contribution to the UK’s low carbon energy mix for many years to come.”

Whilst Dr Sultan Ahmed Al Jaber, Chief Executive Officer of Masdar said: “London Array is a testament to how collaboration, the right policies and a commitment to sustainability can advance the new energy industry.”

* Based on an average annual household energy consumption of 4,478kWh and site specific data indicating a load factor of at least 39%. 
Key milestones so far

Cleve Hill onshore substation
- Groundworks begin at Cleve Hill
- Transformers are delivered
- Electrical equipment installed
- North Wall and pods go up
- Cleve Hill is completed

Out at sea
- The first foundation is installed
- Offshore substation foundations installed
- Both topsides installed at the offshore substations
- The first export cable is laid
- The first turbine is lifted into place
- Array cable installation starts
- The second, third and fourth export cables go in
- The final array cable is installed
- The wind farm begins generating energy
- The 175th and final turbine is installed

The images show some of the key milestones above.
Operations & Maintenance – welcome to a new team and the start of a new chapter

As you may know, our Operations & Maintenance team is based in Ramsgate, in a purpose-built facility which is home to around 90 staff and 6 maintenance vessels. London Array’s turbines are designed to run 24 hours a day, 7 days a week for over 20 years. Each turbine will be serviced regularly by our technicians, who’ll normally travel to the wind farm by high speed crew vessel.

Interview with Mike O’Hare, General Manager, Operations & Maintenance.

We caught up with Mike to ask him how he feels about London Array going fully operational and what’s involved in looking after the world’s largest offshore wind farm.

What kind of day-to-day tasks need to be done to run an offshore wind farm? Mainly there’ll be annual maintenance on each of the turbines, a little like an annual car service. We’ll also have to react if there are any breakdowns and we’ll be doing preventative work and regular checks too.

Are there any special considerations because of London Array’s size or location? London Array is the largest offshore wind farm in the world. On top of the sheer size and difficult marine environment, some of the turbine locations dry out at low tide, making access harder than normal. Fortunately, we’ve got a great onsite team, quality contractors and experienced owners, that mean we’re well placed to meet these challenges.

Are there still lots of local people on your team? Yes. We’re lucky that there’s a big pool of highly skilled and committed people in Thanet and the surrounding area. There will be around 90 people working at London Array on an ongoing basis, and the majority of those are local.

You’ve been training local people as apprentices. How are they progressing? They’re well on the way with their apprenticeships. The plan is for the apprentices to move from the classroom to working on site later in 2013.

How do you see the wind farm benefiting the local area? London Array has created skilled jobs for local people and opportunities for local businesses, both of which will directly benefit the area financially. We also pay local taxes. As well as the apprenticeships we’re supporting, we’re planning to bring a mock-up transition piece to the Royal Harbour in Ramsgate. This will be used to train local people, boosting the number of skilled technicians in the area.

What do you like best about London Array? It’s been fantastic to be involved in London Array as the wind farm is such a big step towards solving the UK’s energy challenge of building a clean, affordable and secure electricity supply. I’ve also enjoyed working with my colleagues and I’ve been delighted to work in Ramsgate. The welcome we’ve been given by the harbour and wider local population has been exceptional.

What’s been your greatest highlight since the project began? Standing on top of one of our offshore substations for the first time on a good day. Seeing the scale of London Array was awe-inspiring.

What was the biggest challenge? Personally, I’ve been studying for an MBA part-time while working. Balancing intense work, study, hobbies (I like running and ran the 2012 Canterbury half marathon) and family life is not always easy.

Do you think London Array will pave the way for more offshore wind farm projects? I’m convinced London Array will pave the way for more offshore wind farms. In a year when the UK has shown it can deliver big projects such as the Olympics so successfully, the London Array project team has shown that we can deliver colossal offshore wind farms on time and budget. London Array has cemented the UK’s position as world leaders in offshore wind and we need to keep building on that.
It’s 5am on a dark and cold morning. I get out of bed, have a wash and brush my teeth, eat some breakfast and get ready to leave for work. On the drive to work, I start thinking of the jobs to be carried out on the turbine for the day. I arrive at work awake and ready for another hard day’s graft. I get all my PPE (protective kit) ready and meet for the morning toolbox talk. Once the talk is over, it’s into the warehouse to get the tools ready for the day, load up the van and then start the walk down to the pontoons. The boat arrives and we board, swipe on and take a seat.

As we arrive at our turbine for the day, the deckhand tells us to get ready for transfer. We get our kit on, jacket, harness, helmet and life jacket. We take a seat again and wait for the deckhand to give us the green light, then we swipe off the boat and head for the ladder and climb up to the transition piece. It can take your breath away but you get used to it after a while. A quick radio check to the boat and some lifts with the davit crane and we’re there. We gain access to the turbine, take control and radio in. We take the lift to the top leaving two guys at the bottom, get out of the lift and then it’s another short climb into the yaw section, before one final climb and finally we reach the nacelle. As the lead tech starts to carry out his checks, I open the nacelle covers and start to carry out crane ops. A few lifts later, we have all our tools for the day but most importantly, my food (there are not many shops around)! We make a start on the jobs, bolt torqueing – it’s not hard but very time consuming.

Next thing you know it’s lunchtime and you find a nice bit of chequer plate to have a seat for half an hour. No sooner started and it’s back to work, more bolt torqueing. A few hours later, we hear on the radio that it’s nearly time to leave, so we start to pack up all our kit and get ready for the slow trip back down to the transition piece. The boat calls us on the radio and requests a green light for the ladder. The green light is given and it’s time to put all our PPE on. We crane our kit back onto the boat, climb down, swipe on and rest, the boat ride home is normally quiet as many have a little power nap. An hour later, we arrive back in Ramsgate, swipe off, put our kit on the van and walk back to the O&M building. A few things left to do, sort out and clean our PPE and fill in our timesheets.

Then it’s time to say goodbye for the day, get in the car and drive home, but now instead of thinking about the work ahead, my thoughts turn to a lovely hot bath!

London Array Phase 2 – an update

In October, we submitted a proposal to the Department of Energy and Climate Change (DECC) and the Marine Management Organisation (MMO), asking for permission to start Phase 2 of the project. We’re now waiting for their decision which we expect later this year.

We support Kent’s Coastal Week for the second year running in October 2012 by inviting visitors on board the Marianarray, one of the wind farm’s state-of-the-art Crew Transfer Vessels. We also put together a fun display celebrating the history of Ramsgate’s Royal Harbour, challenging would-be marine engineers of all ages to tackle the challenges of boat design, maximising wind power and floating marbles!
Third University Bursary awarded

We’re very pleased to announce we’ve awarded a third London Array University Bursary to Thomas Pearce from Goodnestone. Thomas went to The Queen Elizabeth School in Faversham and has taken up a place at Bath University to study for a MEng Hons in Aerospace Engineering. The selection and interview panel was made up of representatives from London Array and Kent County Council, as well as a local resident. The quality and standard of all the candidates was very impressive but Thomas really stood out at the interview. Mike O’Hare said: “Thomas gave an excellent presentation on non-contact wind speed measurement and answered the panel’s questions confidently, which is why he caught the panel’s eye.” Thomas had also taken part in the Nuffield Foundation Science Bursary Programme for Schools and Colleges 2011. Thomas is delighted and says his bursary from London Array will “help bridge the gap between my tuition fees, living expenses and the student finance available.”

The London Array University Bursary will be awarded to a different student every year for the next seven years and will help pay three years of tuition fees for a local student studying a subject related to science, engineering or sustainable development.

The very first Bursary student was Benjamin Wigmore from Graveney, who started a Mechanical Engineering course at the University of Southampton in October 2010. Thomas Gray from Rodmersham was our second Bursary student and is now in his second year of an Electronic Engineering degree at Surrey University. The Bursary scheme is just one of the ways we’re supporting the parish of Graveney with Goodnestone, home of our onshore substation at Cleve Hill. For instance, for a period of 10 years we also award £2,000 to three local schools each year.

Blue Transmission – our new Offshore Transmission Owner

The energy watchdog Ofgem has introduced a new arrangement for all offshore wind farms. Under the arrangement, we have to sell the transmission assets we’ve built (including offshore and onshore substations and array and export cables) to an Offshore Transmission Owner (OFTO). The OFTO is appointed by Ofgem and after a tender exercise it announced recently that Blue Transmission is the preferred bidder for London Array’s transmission assets. Blue Transmission is a joint venture between several financial and technical organisations and they’re already an OFTO for another offshore wind farm. We expect the sale will happen by March of this year.

Even though we have to sell our transmission assets, we’ll still be ‘landlord’ at Cleve Hill and it’s our job to make sure the site meets planning conditions. We’ll continue to deal with any community enquiries and we’re also bidding to become the Operations & Maintenance contractor for the transmission assets.

Heritage grant awarded

London Array has given a heritage grant of £20,000 to Kent Heritage, part of Kent County Council. The money will be used to research the amazing military heritage of the Graveney area, whilst bringing it to life for local people and visitors. Work on the project started towards the end of 2012 and will include preserving local World War II coastal fortifications known as ‘the forgotten frontline’.

In fact, remains of World War II structures were discovered and recorded whilst we were building Cleve Hill. The project will also map and catalogue the 20th century military and civil defence heritage of Swale, working together with local heritage groups and schools. The project is due to run throughout 2013, so we’ll bring you an update on its progress.

Bringing electricity ashore

For anyone who doesn’t already know, we’ve built a brand new onshore substation at Cleve Hill, near Graveney, to flow energy from London Array straight into the National Grid and then into UK homes. Building work at Cleve Hill is now complete and the site is getting ready to go fully operational. We’re arranging for Kent Highways to check the condition of the roads around the site and for Swale Borough Council to inspect the site.

A big thank you to local people

Thank you to everyone who came along to our Local Liaison Committee Meetings – we wouldn’t be where we are today without your feedback and support. The meetings have finished now, but we’ll still be listening to your views and ideas as the wind farm goes fully operational. We’ll be updating local people on London Array at the Parish Council AGM in April. Until then, you’re welcome to get in touch with us on our free Community Helpline number 0800 881 5266, which will run 24 hours a day, 7 days a week until the spring. Alternatively, you can contact us through our website londonarray.com
Need to contact us?

Our Community Helpline is available 24 hours a day. Please call us free on 0800 881 5266

You can also contact us through our website. Simply complete the enquiry form at londonarray.com/contact-us

Or you can write to our project office in London
London Array Limited 7th Floor 50 Broadway London SW1H 0RG