

CASE STUDY

London Array is ship shape with Sennen



WHO IS LONDON ARRAY?

London Array is one of the world's largest offshore windfarms based 20 kilometres off the Kent coast in the Outer Thames Estuary. It has been producing electricity since 2012 and has a peak power of 630MW and 175 turbines.

THE CHALLENGE

At any one moment, there are regularly more than 100 people deployed and, at peak times, this figure can be more than 250. These individuals can be either in-house staff or from multiple different contractor partners all working at the same time across the wind farm. Effective coordination of resources is key.

Many of the turbines are sited in shallow water and this means operational constraints are that bit tougher.

The control room needs to be able to direct the work happening on-site so that the wind farm produces as much energy as possible while being operated in a safe environment.

WHY DID THIS PROJECT COME ABOUT?

The sheer size and make-up of the London Array wind farm brings significant challenges.

They work with a large number of contractors and managing the relationships effectively and safely is mission critical.

London Array needed a system that acted as a control room to direct work happening on site.



The tools we typically used were often quite generic and very basic. They weren't tailored specifically for the application. They wouldn't allow emerging situations to be captured. Sennen took the time to come and sit with us and unpick the challenges that we were facing. They worked together with the guys in the control room and with the engineers in the back office.

~

Ed Hall

Engineering Manager, London Array

WHY CHOOSE SENNEN?

Off-the-shelf software was ruled out because it could not be tailored to London Array's specific needs. Sennen approached the project differently, taking a collaborative approach underpinned by a flexible platform and with access to significant in-house development talent to create the system that the control room really needs to get the job done.



With Sennen we know at a glance where everybody is so that might be what turbines they're on, what vessels they are on and what sort of work scopes they are doing.

We can also see what the site conditions would be; so what the weather might be doing, what turbines are up and what turbines are down, and we have access to this information not only in the control room but also on our devices (smartphones or laptops).

It really provides the consistency we need when we have a lot of different contractors on site.

~

Holly Dalligan

Engineering Analyst, London Array

With Sennen, London array can co-ordinate vessels and manpower so that they know exactly where they are at any point and are ready to respond to anything including turbine issues, changes in weather, vessel breakdowns and emergencies.

London Array has confidence that personnel are only deployed if they have the correct qualifications. What was previously a manual task done through spreadsheets is now all incorporated into Sennen.



We could tell that the service was working because we could see an uplift in the performance. We can see the information that we are searching for directly available to us at any time we need it, whether that was in the control room or whether that was in the back office, whether that was with our contractors or whether it was in mobile devices at home.

~

Ed Hall

Engineering Manager, London Array



The Sennen system has been set up so that it can be shared and viewed by all our partner companies. Previously the control room spent up to 25 per cent of its time responding to questions about what was going on in the wind farm. Now, those companies can log in themselves, self-serve the information they need and remove this burden from the control room team.



With Sennen we have a system that we can trust which is really important because we use that information to make critical checks. It makes reporting easier and as a team, I feel like we're just working better and it's embedded in everything that we do.

~

Holly Dalligan

Engineering Analyst, London Array

Safety and planning have also been greatly improved. London Array is on top of hazard alerts and able to respond instantly to any emergencies. Potential issues are sorted at the planning phase and not once out at sea.

In 2020, while navigating the response to COVID19, Sennen has once again proved invaluable. London Array has been able to stagger teams and maintain small groups in separate bubbles to minimise contact risk but keep the work on track.

LOOKING FORWARD

Sennen is in regular contact with the team at London Array and working on a roadmap of iterative improvements and new feature requests. Recent updates have included custom dashboards, a revised marine map view and fully remote access when operators can't be in the control room.





Transforming infrastructure through technology, for a more sustainable world

For more information or if you'd like a demo of the
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