CASE STUDY

Temporary power provision for Japan offshore wind project

OEG was tasked with providing a comprehensive temporary power solution for the duration of the commissioning phase of the offshore wind project, including provision of temporary power equipment and specialist technicians. The temporary power team was contracted to provide temporary power equipment tailored specifically to the project and unique requirements of the region.

The offshore wind project, located <10km off the southwest coast of Japan, comprises 25 Vestas wind turbines each with a generating capacity of 9.6MW. This is the largest offshore wind farm to be constructed in Japan, with an installed capacity of 220MW.

Challenges

This offshore wind project was OEG's first workscope to be delivered in Japan, which presented some unique challenges in the initial stages of project delivery and commissioning.

These challenges included:

- Difficulties with mobilising the temporary power equipment within strict time constraints to Japan, as OEG's in-country office had not yet been opened
- Challenges with visa applications and country entry restrictions for OEG technicians

Solution

OEG's topside team delivered a bespoke temporary power solution for the duration of the project, including provision of temporary power equipment, all spare parts and specialist technicians for the commissioning activities of the wind turbine generators (WTG) located at the wind farm site.

OEG's comprehensive solution was inclusive of onsite maintenance of the temporary power equipment, conducted by onshore generator technicians every 4 weeks. To overcome country entry restrictions, local technicians were supplied to the project, with supervision and support from OEG's experienced technicians when required.

During the 8 months spent onsite, a total of 17 temporary power solutions and associated equipment were supplied for the project, with mobile fuel tanks, project specific cabling and electrical connectors. Heavy lift flat rack containers were also provided as part of the solution, to aid and ease load out of the equipment inline with WTG load-out schedules.

The team worked closely with one of OEG's key suppliers during the project preparation phase and pre delivery commissioning to deliver temporary power equipment which met both the client's specific power requirements of 400V/60Hz and the UK/EU Stage V emissions criteria. These restrictions and client requirements resulted in OEG supplying a unique temporary power solution, comprising of 17x G40RS Stage V generators.

As a result of working within these strict emissions regulations, OEG was able to supply reliable temporary power equipment with the latest in emissions control technology, without any loss in flexibility or performance of the temporary power supply.

OEG's established presence in Taiwan and extensive experience delivering temporary power solutions to several offshore wind projects within the APAC region proved invaluable during the Japanese offshore wind project. OEG's in-house team in Taiwan facilitated mobilisation of the temporary power equipment, and provided essential support throughout the project.

Client testimonial

"OEG delivered a reliable, high-quality temporary power solution for the offshore wind farm in Japan under challenging logistical conditions.

Their technical expertise, regional support, and flexible approach were critical to the successful commissioning of the wind farm."

- Vestas Project Team

Integrated energy solutions partner

OEG is a leading energy solutions business, providing mission critical infrastructure assets and technical solutions to the global offshore energy industry.

With a worldwide presence in more than 65 countries, we are a pivotal link in the global offshore energy project chain, partnering with major energy companies to deliver the energy needs of tomorrow. We deliver specialised and complementary solutions for above-water, on-water and below-water applications across the full energy lifecycle.

From the provision of offshore logistics equipment and bespoke solutions, through to the delivery of integrated services for larger project work scopes, we play a critical role in supporting the production of the world's energy needs whether that be electricity, gas or oil.