

Natural Power Rampion Offshore Wind Farm



Project:	Rampion Offshore Wind Farm - ecological work spanning 3 phases of development
Client:	E.ON Climate & Renewables UK, Rampion Offshore Wind Ltd.
Project Description:	The Rampion Offshore Wind Farm is a 116 turbine development off the Sussex Coast in the English Channel. The site was consented in 2015, and construction began in 2015, with full commissioning expected in 2018
Services Provided:	Throughout the different phases of this project Natural Power has provided the Rampion team with bespoke solutions to project challenges. By taking a creative and adaptable approach, cost effective, yet robust outputs that satisfy stakeholders and regulators have been achieved

// Natural Power provided us with high quality, professional services, enabling us to work with key stakeholders to meet our consenting requirements //

Eleri Owen - Consents Manager, Rampion Offshore Wind Farm

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1. Development phase - EIA bird and marine mammal surveys

Natural Power designed and carried out bird and marine mammal surveys to inform the Rampion EIA. Additionally, information on avian migration was collected during appropriate times of year. Natural Power also managed the aerial bird surveys to inform the ES, and represented Rampion at Crown Estate ornithology meetings.

2. Pre-construction phase - Benthic, Annex 1 habitat and fish surveys

Natural Power designed and carried out the pre-construction benthic and fish surveys, as part of the Deemed Marine Licence requirements for ecological monitoring. Biannual fishing surveys were carried out on a chartered fishing vessel using an otter trawl and scientific beam trawl. All fish and shellfish species captured were identified by our in-house experts and returned to sea. Benthic surveys included both benthic grab sampling using a Hamon Grab and DDV (drop down video) surveys of Annex 1 reef. Natural Power undertook extensive analysis on survey data and provided pre-construction monitoring reports to satisfy the Deemed Marine Licence condition.

3. Construction phase - Marine mammal mitigation

During the construction phase Natural Power provided the marine mammal mitigation, via visual and passive acoustic monitoring (PAM), for all 116 turbine foundation monopoles over two piling campaigns totalling eight months. This involved providing up to two mitigation vessels, two teams of marine mammal observers (MMOs), PAM operators, PAM equipment and spares. A successful mitigation trial was also performed on board one of the piling vessels. Natural Power coordinated all mitigation services and provided 24/7 support to the vessels and MMO/PAM operators throughout the piling campaign. We also assisted with piling noise monitoring by deploying hydrophone equipment from our mitigation vessel. Natural Power also collated piling reports and deck forms into a comprehensive report to fulfil marine licence condition.

Added value:

During construction Natural Power assisted the client by facilitating the piling noise monitoring, by deploying and retrieving static hydrophone equipment from our mitigation vessel before and after mitigation work. This not only allowed Rampion to fulfil its piling noise measurement Deemed Marine Licence condition, but also reduced costs as an additional vessel was not required.

During the pre-construction benthic surveys Natural Power were able to assist the Rampion engineers at short notice by using our DDV survey to ground truth their geophysical survey data for boulder clearance along the cable route. We were also able to assist with the Marine Licence application for the boulder clearance, by carrying out an assessment of the impact on Annex 1 features on the south coast due to the boulder clearance operation.



For more information contact:

Jane Lancaster

Principal Marine Ecologist

janel@naturalpower.com

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