



Natural Power has successfully developed a rapid subsea inspection technique for offshore turbine foundations and cables. Our experienced engineers and marine biologists use underwater imagery to undertake structural/engineering inspections and assess colonisation.

The system is quick to set up and flexible, utilising light weight cameras, and micro ROVs which can be deployed from small vessels without the use of winches. Live-streaming allows specific components to be targeted.

Surveys provided by the system include:

- Bio-fouling surveys, especially at key structural junctions, which provide important information prior to maintenance works or during changes to infrastructure (e.g. repowering)
- Inspection of the in-situ condition of structures, such as sacrificial anode consumption
- Condition monitoring of scour



// these inspection techniques can be used prior to maintenance works or re-powering, and are a low risk and efficient alternative to diver surveys, helping to address safety and OPEX considerations //

Craig Gordon, Senior Mechanical Engineer



Natural Power Offshore Inspection Surveys



Case Study **Robin Rigg Offshore Wind Farm | E.ON**

Natural Power has provided consenting and operation services to E.ON's Robin Rigg Offshore Wind Farm, in the Solway Firth, including managing the Environmental Statement and the Marine Environment Monitoring Plan. As part of the services undertaken, Natural Power has utilised drop down video cameras and micro-ROVs fitted with laser scaling systems to investigate and assess the level of biofouling on foundation structures, as well as levels of corrosion on sacrificial anodes, for project engineers. A particular focus was on gathering colonisation data from key structural junctures to aid in effective planning of operation and maintenance procedures.



Colonisation at base of turbine



Bio-fouling of J-tubes




Inspection of sacrificial anodes



Live streaming



Bio-fouling of turbine tower



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