



NOV[®] MONO[®] PROVIDES SOLAR SOLUTION FOR WELSH WATER

As part of a major project to improve treatment efficiency, NOV[®] Mono[®] has installed a solar powered recirculating pump at Welsh Water's Llanrhidian WwTW, a remotely located wastewater plant on the Gower Peninsular which has no power supply.

Llanrhidian WwTW, which consists of a biological filter bed and two final tanks, was found to be drying out during long spells of dry weather, killing off the biological process that is fundamental to treatment at the site. To resolve this issue, the site planned to fit a recirculation system from the final tank up to the filter bed that would pump around 2 l/sec of final effluent onto the filter bed and prevent the biological system drying out. However, with no power supply at the site, this presented a challenge.

NOV Mono, a framework supplier for Welsh Water, recommended installing one of its solar panels and recirculating pumps. The Mono pump uses renewable energy from the PV solar panel to pump the effluent back to the filter bed and keep the biological process from drying out.

Mike Gillard, Capital Engineer at Welsh Water, commented: "We chose to go with Mono's system as it offered the most cost-effective solution for the site's remote location. The company listened to our needs and worked with us to solve our problem in the most efficient way possible.

"We've also been impressed by Mono's recent pump design innovations, which have gone a long way to solve the challenging maintenance and repair issues that we have struggled to tackle over the years.

"We are very happy with this unique solution, so much so that we are looking at how we can use the technology to resolve similar issues at other remote sites within our business."

The installation consisted of a Mono SunSub submersible pump, solar array, controller cable and safety wire together with a GRP Kiosk to house all control components, back up batteries, pump starter for the solar unit and day/night/summer/winter timer controls. All mechanical and electrical installation was carried out by Mono's projects and installations team.

Solar powered water pumps have been developed by Mono for use with boreholes, wells, lakes or rivers where electric or diesel power is unavailable. Installation is quick and simple, and the robust and effective design ensures maintenance is minimal, enabling the units to be serviced or repaired with basic maintenance skills and little spare parts back up.

Solar power is now more reliable and more cost effective than either windmills or diesel motors, and Mono's equipment has been designed to withstand the toughest conditions while maintaining operation.

Solar Pump:	1 x SS0600 Sun-Sub System
Product:	Final effluent
Capacity:	Up to 5m ³ /h
Complete with:	Solar array, controller cable, control components, batteries, pump starter, day/night/summer/winter controls, GRP kiosk



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