



Case Study

Hydra PTZ Camera Platform Supports Motorway Improvements



The Customer

Balfour Beatty's road works and highways experience includes specialising in various fields such as road design, construction, asset management and providing maintenance.

They offer a range of services from design, build, finance and operation to smart motorway schemes. They have long-established relationships with the Department for Transport, Highways England, Transport Scotland, the Welsh Assembly Government and many local authorities.

Balfour Beatty were awarded the project to make highway improvements to a section of the A2 in Kent.

Sunstone Systems, a British technology company focused on creating robust, innovative, renewable energy solutions, were invited to provide a roadworks surveillance solution for the project.

The Challenge

The prime purpose of the surveillance was to achieve coverage of a 3km section of roadworks via a stand-alone surveillance system, that could be deployed quickly and moved around the site with ease.

Sunstone presented their Solar IP CCTV System (SICS), surveillance units powered entirely by renewable energy, in this case, solar power, which meant that coverage could be achieved without the need for groundworks, cable runs or additional road closures, reducing installation and running costs.

Not restricted by power or cable needs, the SICS units could be deployed and stream live video within minutes of positioning.

The cameras required to complete the solution, needed to offer full PTZ functionality, providing directional control and zoom capabilities so that any incidents on-site could be investigated. They would need to deliver exceptional image quality, both day and night, and have a range of at least 250m.

The cameras also needed to use IP networked video to stream footage back to a central viewing position.

Overview's Solution

Sunstone selected the "Nautilus" camera, a variant of Overview's Hydra™ PTZ series, designed and manufactured in the UK.

Designed from the outset to support operation in harsh environments, Overview's PTZ platforms achieve ultra-reliable performance in a rugged housing manufactured from die-cast aluminium. IP68 weatherproof rated and featuring corrosion resistant fixings and a wiper to remove dirt and rain from their optical camera windows,



Overview's CCTV cameras represented the ideal solution for the tough, outdoor surveillance requirements of motorways.

Fitted with HD IP cameras with 30x zoom, the Overview's PTZs offered exceptional image quality, whilst the integral adaptive infra-red and white light illuminators delivered clear night-time images over significant distances.

Their IP functionality meant that the SICS wireless IP radios could transmit the video from the cameras back to a central viewing position on site.

The camera's pan and tilt movements are driven directly, without the need for intermediate belts or gears, by Overview's unique, integrated servo drive technology.

This afforded the operator a previously unattainable level of control, positional accuracy, and smoothness making its operation effortless.

Benefits to the Customer

The combination of Sunstone's Solar IP CCTV System with Overview's rugged PTZ cameras provided a robust and reliable motorway surveillance solution.

Sunstone Systems said: "We selected the Nautilus camera as it not only offers exceptional HD image quality over a significant distance. It also operates with a low power draw making it ideal for a solar powered solution."

The flexibility afforded by the solar-powered solution meant that cameras could be repositioned around the site depending on the needs of the ongoing construction work and without the need for expensive power and data cable changes.

In delivering reduced operational and capital product costs, the Nautilus enabled SICS solution offered both a flexible and cost effective roadwork site surveillance.

