

360 Vision Technology Predator Radar camera collaboration secures 1-Megawatt solar farm



Case Study: Solar Farm



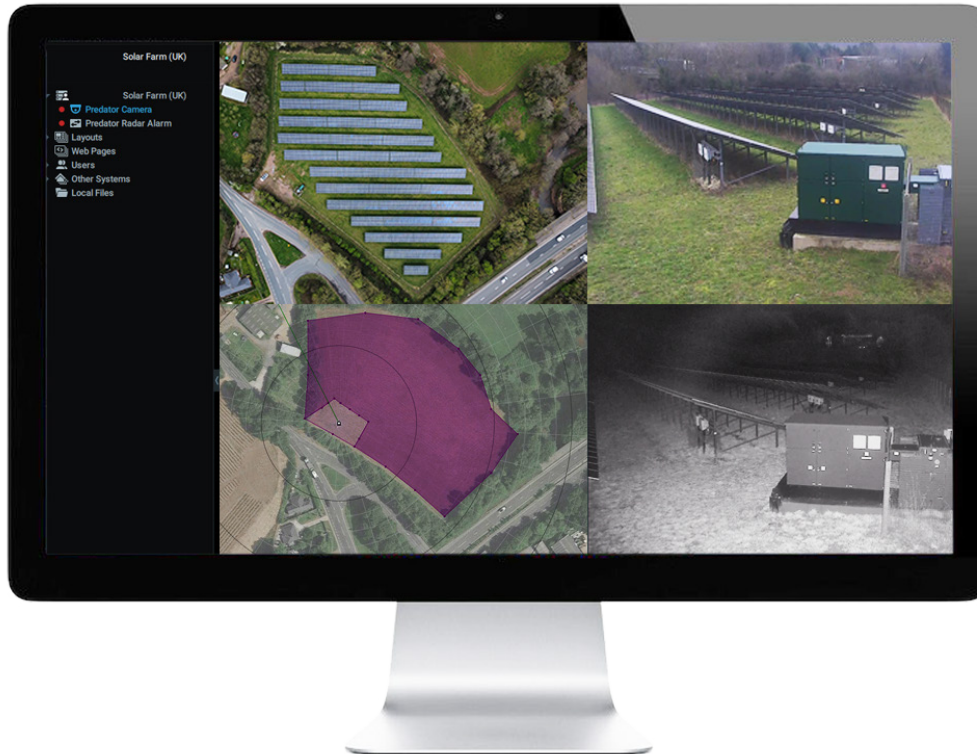
360 Vision Technology, the UK-based manufacturer of ruggedised HD, radar and thermal PTZ surveillance cameras, has been selected to supply its industry-leading radar surveillance camera technology to a solar farm site in Ross-on-Wye, Herefordshire.

Capable of generating 1-Megawatt of electrical power, the solar farm site was constructed by VARTEC EPC Limited for Lowther Renewables Ltd, to help offset the carbon footprint of its parent company, AJ Lowther & Son Ltd, which provides a range of steelwork, cladding and refurbishment services, including steelwork structures catering for manufacturing, industrial, agricultural, commercial and equestrian buildings.

In collaboration with VARTEC, a technical specification for the solar farm was jointly devised by Craig Carton, 360 Vision Technology's Technical & Customer Support Manager, resulting in the specification of a 360 Vision

Predator Radar camera unit specified to secure the entire site.

The 360 Vision Predator Radar camera unit deployed integrates radar technology with a Predator 1080p HD camera, to offer a cost-effective perimeter and wide area surveillance solution. With up to 200m radius/400m diameter constant surveillance capability, this provides a highly effective solution with which to secure the solar farm site, while minimizing costs compared to traditional CCTV camera solutions, with only one radar/camera unit being required.



“The site’s remote countryside location, coupled with its significant slope and numerous access points along its perimeter, presented many challenges,” says Craig Vardy, Managing Director of VARTEC. “Lowther Renewables required coverage of the entire solar farm and it would normally have required several traditional security cameras to provide adequate surveillance coverage which would have been prohibitively expensive. However, we were able to negate the need to install several surveillance cameras by specifying just one 360 Vision Predator Radar camera unit to cover the same area.”

Designed for applications where wide area detection and tracking of moving objects is required, Predator Radar works in all-weather scenarios (rain, fog, snow, mist) providing uninterrupted protection by scanning 360° twice every second, to detect and automatically track up to 40 simultaneous objects.

At the site, on detection of an object by the Predator Radar camera, an alarm activation is sent to the NX Witness VMS

via an I/O module. NX Witness sends this alarm onwards to the Sentinel alarm management platform at the Doncaster Security Operations Centre (DSOC), where alarms are prioritised and evidence for the events is retrieved. This provides the operators with live and recorded video and audio, allowing them to make a quick and accurate decision as to the cause of the alarm. Operators are guided through pre-defined manual and automated actions, based on the cause, to ensure a rapid response to the situation. The whole alarm handling process is fully audited allowing further analysis and reporting post alarm handling.

DSOC detects, responds, and reports any threat activation in real-time, meaning the solar farm is protected and immediately aware of any security issues. At DSOC, any Predator Radar camera alarm activations are overlaid on screen to notify the operator that an intruder has been detected, and tracking images are automatically sent to the operator’s screen for visual confirmation – all whilst the object is continuously and automatically tracked, whatever its path onsite.

On verification of an alarm threat, DSOC operators analyse the video data to make an informed decision; to either contact the police, a keyholder or OCTAGA, Hereford (a keyholder/physical patrol guarding service who respond in the event of an incident needing attendance).

Providing an additional deterrent and avoiding the requirement for a physical attendance to site for every activation, the Predator Radar camera carries integrated LED white light capability, to help confirm and disperse threats in the hours of darkness. "Since its installation, the VARTEC installed radar-based camera system has run trouble-free and there have been no false alarms, thanks to visual verification from DSOC," says Anthony Lowther, of Lowther Renewables.

In addition to DSOC, monitoring of the site and events can also be performed via a cloud based NX Witness VMS, where the transmitted video and data can be accessed remotely and a live insight viewed via a graphically rich desktop interface.

Craig Vardy adds: "Using the unique capabilities of the 360 Vision Technology Predator Radar camera, we were able to provide an error free security surveillance solution while also saving the customer money on capital outlay by using just one radar unit, versus the several traditional video cameras that would have been otherwise required to secure this large solar farm site."

"We are very happy to have been able to support VARTEC and Lowther Renewables to secure an effective solution for their challenging wide area surveillance challenge at the solar farm site," says Craig Carton of 360 Vision Technology. "Across the globe, our innovative radar

camera solutions are supporting high-security, safety and site management applications, from the protection of national borders, to protecting utility and commercial sites. This 5-acre solar farm project underlines the highly-effective surveillance capability of the Predator Radar camera range."

For more information on the 360 Vision Technology's Predator Radar camera, and range of ruggedised HD, hybrid, thermal and TX wireless imaging cameras, customers can contact 360 Vision Technology on +44 (0)1928 570000, email: info@360visiontechnology.com, or visit their website at www.360visiontechnology.com