Thermal Cameras Provide Effective Protection for Solar Farms

> **With a growing black market in solar panels, solar farms in remote locations are vulnerable to vandalism and theft.**
>
> *Rainer Boettcher, CEO, KB Videosystems*

Solar Farms, DACH-Region

SCENARIO

The black market for solar panels is booming, particularly in Europe. It's a lucrative business — thieves sell the panels to nearby countries, where there's strong demand due to feed-in laws. The theft of thermal collectors from solar arrays impacts electricity production, and the components are costly to replace.

Faced with ongoing vandalism and break-in attempts, one of Europe's largest solar farm operators sought a practical, all-weather, round-the-clock site monitoring solution for a number of their solar facilities across the country.

The solar farms are often in remote locations; therefore, the system needed to have the ability to differentiate between animals and intruders through the use of video content analytics (VCA) — sending alerts only in the event of attempted theft.

SOLUTION

The solution proposed for the solar farms was Opgal's Sii AT thermal camera, a 24/7 outdoor camera used for observing and monitoring sensitive sites. "When selecting a viable perimeter security system for the solar farms, we focused on providing a total solution that was both effective and economical," said Rainer Boettcher, CEO of KB Videosystems, specialists in thermal cameras for industrial applications.

Thermal imaging cameras provide an efficient solution day or night, delivering cost-effective total coverage. "In remote locations, the ability to identify potential threats and alert local police promptly is essential to prevent ongoing damage and losses. One system delivers both monitoring and identification, substantially reducing both the purchase price and ongoing costs," said Boettcher.

Rainer Boettcher
CEO, KB Videosystems

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> The performance was consistently good, especially during bad weather. The ease of use, short- and long-range capabilities, and excellent all-weather performance, delivered an optimal solution.

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The Sii AT went through a testing process together with a competitive solution over several months. A key deciding factor was the proprietary Opgal software, which enabled complete control of the thermal core, and configuration of each camera's parameters (such as NUC time, gain control, region of interest, polarity, and more) to deliver optimal performance. It also offered the ability to monitor multiple cameras from the same desktop, enabling operators to monitor unauthorized activity at the sites easily.

SUCCESS

The Sii AT thermal cameras have been installed at all sites and continue to perform well. The cameras deliver crisp and detailed pictures, enabling timely detection, recognition, and response to suspicious perimeter events. Built to withstand harsh environmental conditions, the ruggedized Sii AT provides a reliable solution all year round. "The company's hands-on support during the installation process as well as ongoing service and maintenance continues to be an essential element in the project's success," said Boettcher.

Today, Opgal offers a more advanced model - the Sii OP.

Sii OP Key Features

Onboard VMD Analytics
Identification and analysis of raw video data, with no need for a human operator.

Cybersecurity Ready
Regularly tested against an application security verification standard to ensure peace of mind.

Mulitple Lens Options
A wide range of lens options to ensure effective coverage for all projects.

Compact & Feature Rich
Simultaneous HD visual and VGA or QVGA thermal channel in one compact unit.

Easy Integration & Compatibility
ONVIF conformity ensures simple integration into new or existing infrastructures.

Rugged Design
Ruggedly designed to withstand the harshest environmental conditions.

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