Thermal Cameras Protect Power Stations

As system integrators, we were looking for an experienced partner with a good product and technical knowledge. We searched for the best partner that we could work with on a long-term basis.

Amar Amraoui, Project Manager, Cofely Fabricom

Electricity Transmission System Operator, Belgium

Electrical substations are an easy target for professional thieves, who steal copper from earthing cables for resale.

Many substations, located in remote areas, are protected by perimeter fences which are easily breached. Copper theft can result in power outages, which is costly for utilities and causes customers a great deal of inconvenience. Removal of the earthing cables can cause fire or explosions, as well as injury or death – since it carries extremely high voltages.

SCENARIO

Facing regular break-in attempts, ELIA, Belgium's electricity transmission system operator, was seeking a cost-effective and efficient perimeter security solution for its 30 substations located throughout Belgium.

"Copper theft from earthing cables is a dangerous situation which can cause a great deal of damage," commented Amar Amraoui, Project Manager at Cofely Fabricom, the system integrators contracted to manage the project. "Faced with frequent bad weather and poor lighting, we needed a proven all-weather, round-the-clock solution to detect and identify possible threats at the unmanned sites. With thermal imaging cameras located at the perimeter, movement at any of the sites could be monitored at the central command center."

SOLUTION

ELIA required thermal security cameras coupled with analytics to address the specific challenges of this environment. It was critical that the system had a low false alarm rate to avoid unnecessarily alerting local authorities and sending them to the site. "It was very important that security guards only receive alarms in the event of actual threats, and not because an animal has strayed into the area, or a casual passerby was picked up on the system," noted Amraoui.

Amar Amraoui
Project Manager, Cofely Fabricom

We wanted high performance equipment that was tough and robust.

The camera had to meet all our technical requirements, with a proven track record for similar applications.

The Sii AT met all our needs.

OPGAL Beyond the Visible

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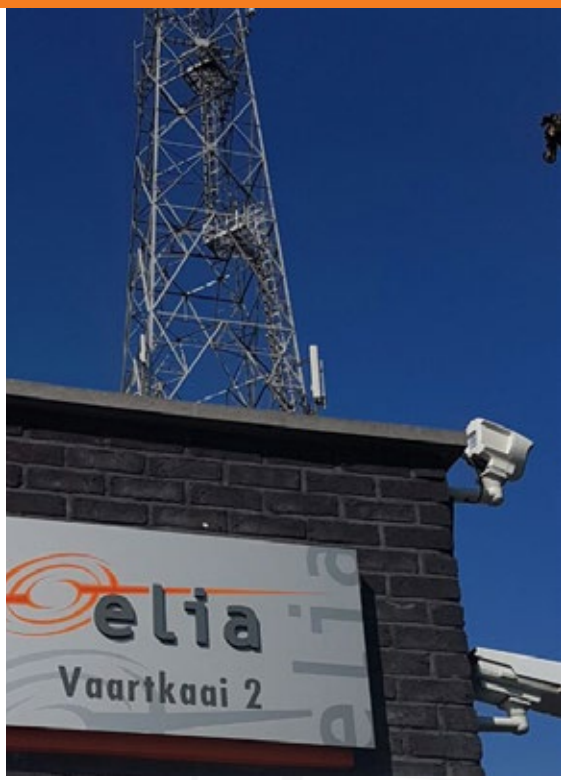
The solution proposed by Opgal offers round-the-clock protection without the need for additional lighting. The Sii AT thermal cameras are used to observe and monitor sensitive sites, providing full perimeter security 24/7, irrespective of prevailing weather conditions. Sii cameras offer a wide range of lenses and can be configured with IP video and integrated with a pan and tilt unit, according to customer requirements.

The Opgal Sii line of products offer high quality combined with the best signal to noise ratio, making the cameras the perfect partner for analytics software. All Sii cameras are designed for easy integration with Video Management Systems (VMS), enabling seamless communication between the cameras and the DIVA VMS system monitoring, analyzing and recording activity at the sites.



SUCCESS

Since installation, the high quality thermal imaging systems have been performing to customer expectations. “The system performance is very good and has already prevented a number of attempted break-ins,” said Amraoui. The security team supervises all the unmanned sites from a central command center, receiving real-time alerts of potential threats, enabling them to investigate and alert local law enforcement if necessary. Opgal Sii AT systems continue to provide effective coverage of ELIA’s substations nationwide.

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

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

Easy Integration & Compatibility
ONVIF Profile S compatibility ensures simple integration into new or existing infrastructures.

Rugged Design
Ruggedly designed to withstand the harshest environmental conditions.

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