# Perimeter security

## Layered security solutions that safeguard your energy or utility facility

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Invented for life

## The challenge

Many thousands of customers rely on your facility to supply the energy or utilities they need to power businesses, plants and infrastructure. If your critical assets are damaged or disabled, this can have a devastating effect on your security and what you can supply. What's more, any breaches to your assets can also pose a serious risk to health and safety, which could result in an expensive enforced shutdown or worse. Bosch Security solutions have a wide range of advanced detection and security features that help you meet your strategic and compliance objectives. So you'll have the ultimate peace of mind when it comes to your facility's perimeter security.

## The solution

Legislation to secure critical infrastructure facilities from theft, vandalism or acts of terrorism is becoming increasingly stringent. Guidelines such as the North American Electricity Reliability Corporation Critical Infrastructure Protection (NERC-CIP), or The European Programme for Critical Infrastructure Protection (EPCIP), set the framework for the security standards required to detect, assess and respond to objects approaching the perimeter of critical assets, with the ultimate aim of safeguarding your energy and utility facilities.

Whatever guidelines are applicable to your facility and region, the Bosch portfolio will create a strong perimeter security solution with sophisticated analytics functions that are designed to combat attempts to breach your security. All while integrating seamlessly with other complex systems that protect your facility, such as access control, gunshot detection, or even HVAC.

**Security Operations Center**

**Integrated Operator Console**
▶ Alarm Management
▶ Surveillance

**Wide Area Network/ Local Area Network**

**Substation/Generation Plant**

LAN

**3rd Party Integration**
▶ Video Management System (VMS)
▶ Local Storage
▶ Access Control
▶ Vehicle LPR
▶ Gunshot Detection
▶ RF Detection

# A layered approach to high-level security

Bosch perimeter security solutions can play a key role in your approach to securing your critical assets – and more. A combination of Bosch IP moving, fixed, low-light, and thermal cameras offer a range of analytic functions for perimeter protection including line crossing, object left behind, loitering, and more. Bosch MIC IP cameras even use an industry leading robust gear design to drive the motors which makes them far better at maintaining and recalibrating an accurate home position than belt-driven alternatives over years of service.

The broad portfolio is particularly suited for this type of application as the cameras work seamlessly together, and integrate into larger systems. Crucially, in remote, unmanned environments that are common for energy and utility sites, the built-in analytics can be configured to ignore wildlife approaching the perimeter. This significantly reduces false alarms, and the time and expense of security operators investigating the problem.

## Act fast with analytics at the edge

Video Analytics enables Bosch IP cameras to interpret scenes, so operators can respond to potential threats quickly and more efficiently. It also significantly reduces network strain and storage by streaming only the data you need, and because each camera operates independently, the infrastructure is more resilient and reliable.

## Extreme protection for critical security

Specifically designed for mission-critical applications like perimeter security for energy and utilities, cameras with Intelligent Video Analytics like the Bosch FLEXIDOME IP starlight 8000i, can differentiate between genuine security events and known false triggers such as snow, rain or harsh winds. Robust cameras such as the Bosch MIC IP range are also extremely resistant to shock, vibrations and corrosive atmospheres for extreme protection in demanding environments.

## Highest levels of data security

Bosch perimeter solutions also meet the highest standards in end-to-end data security. These include network authentication keys for individual network components, managed user access rights, and encryption at the hardware level with a cryptographic key stored in a unique Trusted Platform Module.

## Detect early over long distances

Perimeter security in these types of facilities requires video content analysis over large distances. With excellent thermal performance, Bosch DINION IP thermal cameras and MIC IP fusion 9000i cameras with Intelligent Video Analytics deliver scenes in QVGA or VGA resolutions over distances of up to 610 meters (2000 feet), making information easier to interpret.

## Respond in real time with Intelligent Tracking

With Intelligent Tracking, once an alarm is triggered, moving objects are tracked automatically. Dynamically adjusting the field of view while the camera pans, tilts or zooms to ensure that all images are captured with optimal clarity for Video Analytics on the move.

## Integrate seamlessly with multiple systems

In addition to working with other Bosch systems and our world-class channel and ecosystem partner solutions, all our perimeter security solutions for critical assets integrate seamlessly with third-party systems. These include gunshot control, radar technology, HVAC, lighting, and more. Bosch layered perimeter security detection with thermal and low light cameras and Video Analytics also integrate with all the leading names in video management systems, with the ultimate aim of retaining all the key system features.

## Add an extra layer with communication

Integrating your solution with a public address system like Bosch PRAESIDEO or PAVIRO, can create a powerful deterrent. Audio responses can be implemented automatically or triggered remotely by personnel. These can be used to target whole energy or utility sites, a particular location within the site, or even an individual.

If an alarm is triggered, a message can broadcast through a loudspeaker, warning the intruder they are on camera. A solution with a MIC camera with an illuminator can also be used to shine a light on intruders and follow their every move. This is often enough for them to flee before they cross a perimeter or cause damage.

**For layered perimeter security that safeguards your critical assets — and your national power grid, trust Bosch Security and Safety systems.**