



ELECTRICAL UTILITIES **APPLICATION**

# SUBSTATIONS, CONTROL AND SERVICE CENTERS







**SUB-STATIONS, CONTROL CENTERS AND SERVICE STATIONS APPLICATION**

# ADDRESSING YOUR NEEDS

FROM EARLY APPROACH DETECTION TO INTEGRATION WITH YOUR EXISTING ON-SITE SYSTEM

Managing the grid and aspects of it is a sensitive and critical operation. Every aspect requires the very best in protection and therefore, the most innovative technologies with virtually zero false alarms while maintaining the highest probability of detection.



LEADER IN PERIMETER PROTECTION  
**YOUR SAFETY. OUR BUSINESS.**

The more you detect, the more you *reduce the risk* of intrusion, malicious acts or thefts and *increase your ability* to protect personnel, property and assets.

Perimeter intrusion detection at your site allows for:

- **Advance warning of an intrusion,**
- **Early verification upon receiving an alarm notification,**
- **Early response triggered through the centralized alarm information system.**

Perimeter intrusion detection is our business. PROTECH and its family of companies have developed a wide range of technologies that include wireless and solar powered systems, offering the most innovative solutions in the industry in the protection of critical infrastructure sites.

**INNOVATIVE TECHNOLOGIES  
INDUSTRY FIRSTS**  
TO MEET EVERY NEED





- **Fence-mounted detection with accelerometer based technology** (unique to the industry).
- **Active infrared detection with barriers** (virtual/invisible fencing).
- **Outdoor motion detection to protect critical areas and assets** by dual technology sensors.

**EXPERIENCE AND COMMITMENT**  
SECOND TO NONE

- **Guaranteed quality and innovation:** Over 40 years of experience in the industry; always on the leading edge with new solutions based on customer requirements.
- **Tailored service** to support you at every stage of your project.
- **On-site technical support** for engineering, pre-sales support, design assistance and site commissioning.
- **A network of trained installers and integrators worldwide.**

**YOUR NEEDS**

**OUR TECHNOLOGY**

<p>Eliminates the need for civil works (no wiring, trenching or electrical supply required)</p> <p>An alternative to physical fencing</p> <p>Rapid installation (once base for towers in place)</p>	<p><b>Reliable detection and precise location of the intrusion</b></p> <p><b>Operates in all weather conditions</b> (300 ft. range)</p>	<p>Secures perimeters with existing fence in place</p> <p>Adapts to <b>different types of fencing</b></p> <p>Limits amount of <b>infrastructure required</b></p> <p>Rapid deployment/ <b>Easy to install</b></p> <p><b>Next to zero false alarms</b> in challenging weather conditions</p>	<p>Secures <b>gates and gaps</b></p> <p><b>Protects</b> critical equipment &amp; control houses</p> <p>A <b>second layer</b> of defense</p> <p>Unmatched <b>false alarm-free</b> performance</p>
<p><b>SOLAR-POWERED &amp; WIRELESS INFRARED BARRIERS</b></p>	<p><b>HARD WIRED ACTIVE INFRARED BARRIERS WITH ZONING FUNCTION</b></p>	<p><b>FENCE MOUNTED INTRUSION DETECTION SYSTEMS</b></p>	<p><b>DUAL TECHNOLOGY MOTION SENSORS</b></p>
			



# REFERENCES

For many years, PROTECH has been securing electrical transformer and distribution substations throughout North America and abroad. We have worked with facilities undergoing CIP-014 regulation upgrades to ensure the transport and distribution of electricity is protected to maintain service, while complying to regulations.

## NORTHWEST ELECTRICAL UTILITY

### G-FENCE 600Z

#### CHALLENGE/REQUIREMENT

- Previous generation technology had high nuisance alarm rates
- Security Operation Center (SOC) needed reliable intrusion events to eliminate false alarms

#### SOLUTION

- G-Fence 600z (12VDC powered) eliminated false alarms and maintained high probability of detection
- Relay output Integration for zones into Access Control, VMS or Alarm Panel

#### BENEFITS & RESULTS

- Unmatched Probability of Detection
- Multiple detection zones



## NATIONWIDE APPLICATION

### PIRAMID XL2

- Dual-technology sensor protects critical assets, control houses, gates, gaps
- Offers a 2nd layer of defense for utilities
- Delivers false alarm-free performance in all weather conditions
- Robust metal housing for peak performance in all-environmental conditions

#### BENEFITS & RESULTS

- Fast and easy installation of systems
- On-site commissioning & training provided
- Design assistance built into the project
- One manufacturer with many solutions for different needs



## WESTERN ELECTRICAL UTILITY

### SOLARIS

#### CHALLENGE/REQUIREMENT

- Required a zero-infrastructure solution (no trenching)
- Application and design assistance required

#### SOLUTION - Substation

- SOLARIS solar-powered infrared barriers required no civil engineering
- Battery back-up and wireless communication with AES 256 encryption

## SOUTHWEST ELECTRICAL UTILITY

### MAXIRIS

#### CHALLENGE/REQUIREMENT

- Required harsh desert environment, extreme temperature solution
- Needed to eliminate nuisance and false alarms from older generation technology
- Company's False Alarm Reduction Program required search for new alternatives

#### SOLUTION

- To test Maxiris performance by deploying at a few lower tier sites
- Maxiris Active Infrared Barriers chosen for high security and critical infrastructure sites



#### BENEFITS & RESULTS

- Unmatched Probability of Detection with extremely low to non-existent nuisance alarms in all weather conditions
- Zero gaps of detection inside IR Barrier
- Eliminated need for real-estate inside perimeter
- Multiple detection zones for improved camera functionality
- Maxiris was standardized as primary perimeter detection system for all high security sites

#### BENEFITS & RESULTS

- Utility standardized on MIRIS technology and is deploying at all substations
- No loss of investment in existing video analytics technology
- Eliminated false alarm issues previously faced



## SOUTHEASTERN UTILITY

### MIRIS

#### CHALLENGE/REQUIREMENT

- Utility was experiencing poor performance of its video analytics solution which was being used as the primary alarm system at substations
- Required a technology that could drive their existing camera system
- Utility didn't want to lose its initial investment in video analytics

#### SOLUTION

- PROTECH's Miris Active Infrared Barriers inside the fence of substations using relay outputs through SCADA system
- Integration of PROTECH's technology with existing investment in cameras and video analytics

## MIDWEST ENERGY GROUP GAS & ELECTRIC UTILITY

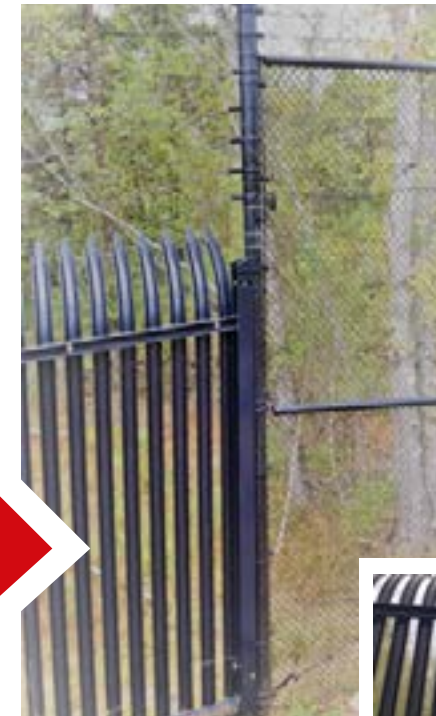
### G-FENCE 3000

#### CHALLENGE/REQUIREMENT

- Multiple types of fences on-site (chain-link, anti-climb & decorative)
- Application and design assistance required
- Needed high probability of detection

#### SOLUTION - Service Centers

- G-Fence 3000 - solar powered (with battery back-up) fence-mounted accelerometer sensors to detect intrusions of climbing, cutting, stripping or lifting the fence.
- Accelerometer technology is individually adjustable (by sensor - every 10 feet) and conforms to all fence types



#### BENEFITS & RESULTS

- Deployed multiple solutions for different requirements
- Fast and easy installation of systems
- On-site commissioning & training provided
- Design assistance built into the project



# SECURITY SOLUTIONS

## FOR YOUR SUBSTATIONS, CONTROL & SERVICE STATIONS

For close to 40 years, PROTECH's intrusion detection systems have been protecting critical infrastructure sites in a range of markets.

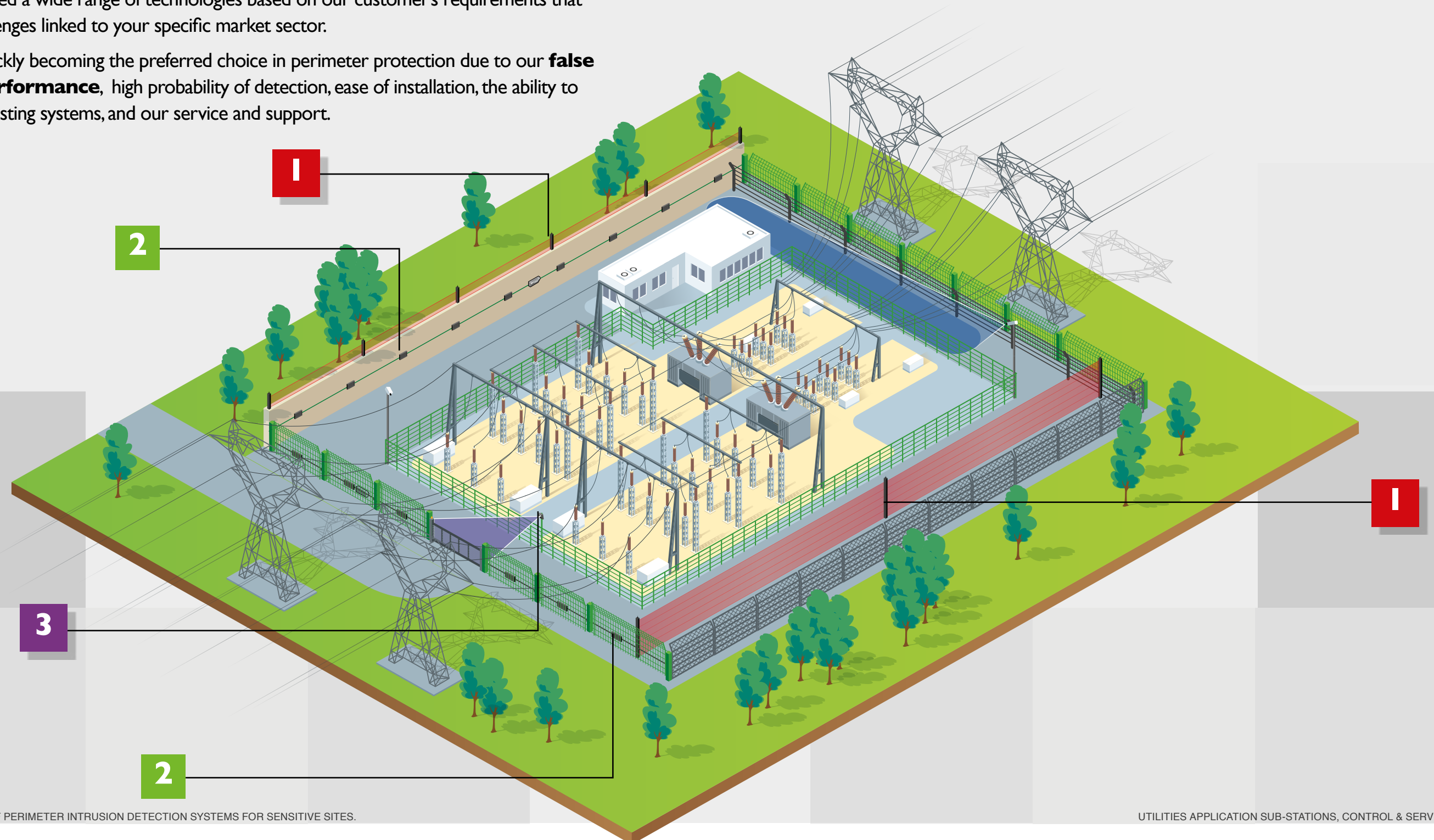
We have developed a wide range of technologies based on our customer's requirements that address the challenges linked to your specific market sector.

PROTECH is quickly becoming the preferred choice in perimeter protection due to our **false alarm free performance**, high probability of detection, ease of installation, the ability to integrate with existing systems, and our service and support.

**1** ACTIVE INFRARED BARRIERS

**2** FENCE-MOUNTED DETECTION (ACCELEROMETER TECHNOLOGY)

**3** DUAL TECHNOLOGY MOTION SENSORS





A MEMBER OF  
THE VITAPROTECH  
GROUP



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