



Technology checklist
Physical safety & security
for electric utility substations



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Solving for safer electric utility substations

Keeping our critical infrastructure safer and our communities powered have become top priorities for electric utilities nationwide. Faced with an ever-increasing demand for reliable, secure service delivery, threats that undermine stable service continue to increase. Today, modern utilities must balance grid modernization, physical and cyber security, quick outage restoration, and customer satisfaction. It is more important than ever to ensure utilities can generate, and deliver energy to customers, all from an environment built on a foundation of safety and efficiency for people, properties, critical assets and the community.

Our safety and security ecosystem works together to help your teams respond to and recognize patterns, anticipate actions, and prevent situations before they escalate into emergencies. From the moment power is generated to when a light switch is turned on, you can secure your facilities, equipment and employees by connecting your critical communications, video security, access control, data and analytics on one common operating platform.

Securing critical infrastructure with connected technologies

Discover how we can help electric utilities power neighborhoods, keep communities connected and businesses thriving through an end-to-end physical security technology ecosystem.





Security at the corporate wide level

Technology integration and coordination begins at the county level, on the outskirts of your operations, to ensure the safety and security of your equipment and facilities.

RECOMMENDED TECHNOLOGY	INSTALLED ✓ OR ✗	STATUS / YEAR	NOTES
Two-Way Radio System			
Mass Notification System			
Standardized Video Surveillance Cameras and Video Management System			
License Plate Recognition			
Long Range Video Cameras			
Thermal Perimeter Detection			



Video security & access control

Strengthen safety with integrated video security and access control systems built to secure vulnerable areas and provide frictionless access.

- Complete situational awareness
- Cloud versatility
- Driven by AI
- Manage from anywhere

[Learn more](#)





Security at the property perimeter

The property perimeter begins at the access road and extends to the fenceline surrounding your equipment. Storage sheds, equipment buildings, and other structures may also be included within the property perimeter. Ensuring your physical security begins at the property perimeter enables you to detect and manage potential incidents or threats before they reach equipment and employees inside the substation.

RECOMMENDED TECHNOLOGY	INSTALLED ✓ OR ✗	STATUS / YEAR	NOTES
Two-Way Radio System			
Gates with Electronic Card Access			
License Plate Recognition			
Video Surveillance Cameras			
Thermal Video Surveillance Cameras			
SCADA-enabled Sensors			
Advanced Video Analytics i.e., object recognition, unusual motion detection			
Virtual Video Surveillance Fence			



Astro P25 Radio Communications

Combine the best audio possible with sophisticated features in a rugged portable radio that is easy to use. Access radio details in three ways - voice, touchscreen or hard controls. Expand intelligence in the field via optional LTE and smart applications.

- P25-Compliant
- Interoperable
- Rugged design tested to military standards
- Ultra-connectivity with LTE, WiFi and Bluetooth

[Learn more](#)





Security at the fence perimeter

Many activities take place at the fence perimeter – employees arrive in vehicles and prepare to enter the facility, as well as unknown individuals potentially causing threats or vandalism. This sensitive area should be monitored because knowing who should - and shouldn't - be approaching your substation barrier is a valuable component of your physical security strategy.

RECOMMENDED TECHNOLOGY	INSTALLED ✓ OR ✗	STATUS / YEAR	NOTES
Advanced Video Analytics i.e., object recognition, unusual motion detection			
Gates with Electronic Card Access			
License Plate Recognition			
Video Surveillance Cameras			
Thermal Video Surveillance Cameras			





Security at the equipment level

The equipment level includes the substation equipment and buildings inside of the fenceline. Key security functions take place at this level and can range from simple to complex depending on the layout and the type of equipment within.

RECOMMENDED TECHNOLOGY	INSTALLED ✓ OR ✗	STATUS / YEAR	NOTES
Two-Way Radios			
Access Control			
Advanced Video Analytics i.e., door position, unusual motion detection			
Video Surveillance Cameras			
Thermal Video Surveillance Cameras			
SCADA-enabled Sensors			



Wave PTX Carrier Independent Broadband MCPTT

Connect your team with greater speed and efficiency with a push to talk over cellular service without boundaries. With heavy-duty traditional and lightweight, wearable communications options that work together, your employees can have a device to meet their needs.

- Instant PTT communication
- Multimedia messaging
- Nationwide service
- Location tracking and Wi-Fi calling

[Learn more](#)





Take safety & security to the next level

It's time to rethink what safety can do—driving efficiencies, bolstering performance and helping you deliver a secure space. Motorola Solutions' safety and security ecosystem brings together the technologies and solutions you need to detect, analyze, communicate and manage, solving for safer utilities and powering your community.

Learn how Motorola Solutions can help ensure that these critical physical security technologies are checked off and installed at your substations.

Explore the Safer Utilities Ecosystem at
www.motorolasolutions.com/en_us/solutions/utilities



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