



CASE STUDY  
**INVENERGY**



## BlackHawk Datacom Provides Smart Technological Solutions to Remote Video Surveillance and Access Control Challenges

*BlackHawk's thorough knowledge of managed security solutions helps Invenergy maintain site safety while ensuring compliance with the industry's stringent critical infrastructure security guidelines.*

“ BlackHawk provides an even more desired service. They understand our security needs so they can deliver welcome advice like equipment recommendations and engineering support to meet those needs. They exceed expectations. ”

### EXECUTIVE SUMMARY

Invenergy drives innovation in energy. They solve energy challenges for customers and their communities by providing power generation and storage solutions at scale with locations in the Americas and Europe. The company has completed over 100 projects—totaling more than 15,000 megawatts—comprised of wind, solar, storage, and natural gas.

Since Invenergy opened their first facility, more scrutiny has been placed on eliminating critical infrastructure vulnerabilities, increasing security challenges. With the North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) requirements becoming increasingly specific to all types of security, Invenergy knew they needed to partner with a leader in complex infrastructure security that could scale operations globally.

BlackHawk Datacom met this need and has the ability to integrate Video Management (VMS), Access Control (ACS), and IP Cameras into one solution covering the interior and exterior of all buildings as well as exterior substation areas.

## CLIENT CHALLENGES

Invenergy has numerous remote generation facilities located primarily throughout the United States and Canada that must have physical security solutions in place that meet or exceed NERC CIP requirements before September of 2018. These critical infrastructure protection requirements are not static. Periodic reviews of existing deployments are required to ensure ongoing compliance. The requirements, or calls to protective action, are to:

- ▶ Improve worker safety and equipment protection by tracking ingress and egress of employees working in potentially dangerous environments.
- ▶ Provide security until the site is operational. The theft of spools of copper or damage to wind turbine equipment can cost thousands of dollars per week.
- ▶ Deter unapproved substation entry.
- ▶ Collect evidence for local authorities to conduct investigations and seek prosecution.

## BLACKHAWK AS A BUSINESS PARTNER

National critical infrastructure security, under the guidance of NERC CIP, is a difficult subject to navigate. A working knowledge of the NERC CIP requirements, in addition to a mastery of the current—and future—security technologies, is critical to the design and deployment of a strategic security solution.

For Invenergy, the BlackHawk team has been a great partner throughout this process. The project managers have been extremely accommodating, especially given the unique challenges surround-

“BlackHawk does a great job adapting to the design and equipment variations present at our sites. It is comforting to know that no matter what situation they run into, we will receive the best solution to meet our needs.”

ing a remote site deployment project. The BlackHawk team provides engineering solutions and operational efficiencies recommendations tailored to the equipment Invenergy wants to use.

Invenergy has grown to know and trust the BlackHawk team. A consistent point of contact throughout deployments has allowed for singular and daunting challenges to be addressed confidently.

## RESULTS

BlackHawk implemented a NERC/CIP compliant system for Invenergy by integrating the video management system (VMS), the access control system (ACS) and multiple megapixel IP cameras into a single solution covering the interior and exterior of all buildings and substation areas.

This solution proved to be extremely scalable with only minor modifications required to accommodate the incorporation of existing equipment across multiple locations throughout North America. With this system, Invenergy is able to monitor and control access to all of their remote locations from a single command center based in Chicago while maintaining local monitoring and control at each individual facility. This highly scalable solution increases operational efficiency, ensures regulatory compliance while dramatically increasing safety and security.

An unexpected and positive outcome was the ability to investigate substation electrical trips, most often caused by lightning. While investigating the incidents, recorded camera feeds were reviewed to determine the root cause of the trips through video verification. This allowed Invenergy Services to streamline repair procedures, reduce downtime, and ultimately reduce power costs to the customer.