Elecsys Case Study -

COPPER THEFT PROTECTION

Elecsys remote monitoring protects critical traffic management infrastructure against copper theft.

BACKGROUND

Kansas City Scout is Kansas City's bi-state traffic initiative between the Missouri and Kansas Departments of Transportation to operate a traffic management system covering more than 125 miles of continuous freeways in the greater Kansas City metropolitan area. KC Scout uses a system of more than 300 cameras to monitor the highways from its traffic management center, sensors to gage traffic flow, and large electronic message boards to send urgent traffic notices to drivers along area freeways. KC Scout also uses its message boards to notify drivers of emergency alerts such as evacuations and child abductions (AMBER Alerts). KC Scout works to improve rush-hour speeds, decrease accidents and improve emergency response to traffic situations.

PROBLEM

KC Scout had experienced recurring issues of significant roadside equipment theft and damage from thieves stealing copper wire. In pursuit of the copper, thieves damaged the equipment cabinets and the fiber optic cables that connected the system, even though there was potentially little copper wire at the site. In 2011, the system required $150,000 in repairs to restore the system to operational status following a single theft attempt. With parts of the system down, motorists and first responders who rely on the KC Scout system for managing their commutes or responding to incidents are negatively impacted.

KC Scout tried video surveillance to prevent theft, however the video cameras required 24/7 monitoring for real-time prevention and only provided evidence after-the-fact since they were not actively monitored. Worse yet, the security cameras themselves became new targets for thieves.

APPLICATION
Copper Theft Prevention

ORGANIZATION
Kansas City Scout

INDUSTRY
Traffic Management

PRODUCT
Light Guard

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"The units worked great and alerted us to two theft attempts during the first six months. By police responding quickly to the power loss at the site, the thieves were prevented from stealing any copper or damaging equipment."

- Gary Covey
KC Scout Technical &
Project Management Consultant

SOLUTION

After consulting with the remote monitoring experts at Elecsys Corporation, KC Scout installed the Elecsys Light Guard remote monitoring solution at several of their highest-risk sites to help detect and prevent equipment vandalism and theft. The Light Guard has the capability to monitor up to six different inputs, but for KC Scout, it was sufficient to monitor just one: AC voltage. AC power serves as a key indicator of an attack because thieves will interrupt the power as they begin their theft attempt.

When the Light Guard unit detects an interruption in the AC supply voltage, it sends an immediate alarm via its built-in cellular modem to the KC Scout system operators who dispatch police units to investigate. The Light Guard does not need external power to call for help because its on-board battery provides continuous back up power. Because the Light Guard unit is designed and manufactured in the USA as an industrial-grade unit, it is built to withstand the extreme temperatures and harsh conditions of the roadside environment.

RESULTS

The combination of instantaneous alarms from the Elecsys Light Guard remote monitoring system and quick response times by police has completely stopped theft and vandalism at the protected sites.

Gary Covey, KC Scout Technical & Project Management Consultant, said, "The units worked great and alerted us to two theft attempts during the first six months. By police responding quickly to the power loss at the site, the thieves were prevented from stealing any copper or damaging equipment. The Elecsys remote monitoring units are an ideal solution to prevent copper theft at wayside equipment sites."

The ease of installation and low cost of the Elecsys Light Guard units have provided a positive return on investment to KC Scout by helping to keep their critical traffic management infrastructure up and running for the benefit of motorists, the community and first responders.

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