

Solar-Powered Security: Transforming Surveillance in Panama's Free Zone

KBC Networks Delivers Continuous Monitoring and Sustainability in Remote Areas.



Case Study

Background

Tracking Security Panama, a leading security solutions provider, needed a reliable surveillance system to secure warehouse facilities within Panama's free zone. The end-user required robust, secure and uninterrupted monitoring at critical road access points to enhance security and manage vehicle access effectively.

The Challenge

The project faced a major obstacle: the remote location of the facilities lacked existing electrical infrastructure. The solution required an autonomous system connecting wireless real-time video without interruptions.

The Solution

KBC Networks, in collaboration with Anixter/Wesco, designed a customized, solar-powered surveillance solution that met Tracking Security Panama's requirements. The solution featured KBC's advanced solar technology, with three tailored configurations to accommodate varying power needs:

- **51-watt system** for low-power applications.
- **85-watt system** for medium-power requirements.
- **94-watt system** for high-power demands.

These configurations ensured uninterrupted operation of wireless security cameras and License Plate Recognition (LPR) technology. Key features of the solar-powered systems included:

- **24/7 surveillance capability:** Continuous monitoring with no reliance on grid power.
- **Environmental sustainability:** The systems collectively prevent approximately 1.5 metric tons of CO₂ emissions annually, equivalent to the emissions from driving over 5,000 kilometers in a gasoline-powered car.

Complete Solution Components

[Solar Power Kit](#)
[WES4 Wireless Ethernet System](#)
[ThruLink 4G-5G LTE VPN](#)
[PoE Switches](#)

Outcome

The deployment of KBC Networks' solar-powered solution transformed Tracking Security Panama's surveillance operations:

- **Enhanced Security:** Continuous monitoring ensures timely detection of suspicious activity, unauthorized vehicles and potential risks.
- **Reliable LPR Connectivity:** Constant operation of the License Plate Recognition (LPR) system provides consistent performance in remote areas without existing infrastructure.
- **Autonomous Monitoring:** The solar-powered system provides consistent performance in remote areas without existing infrastructure.
- **Carbon Footprint Reduction:** Over five years, the solar-powered solution is projected to prevent more than 7.5 metric tons of CO₂ emissions, equivalent to planting 375 trees or removing 1.6 gasoline-powered vehicles from the road annually.

KBC's advanced solar technology, paired with responsive local support from Anixter/Wesco, has delivered a reliable, sustainable, and efficient surveillance system for Tracking Security Panama.

The successful deployment demonstrates the capability of solar-powered solutions to excel in remote and challenging environments, highlighting KBC Networks' expertise and making them the preferred choice for innovative security applications.

"The KBC solar panel system has enabled us to monitor critical access points in areas without existing power infrastructure, meeting our goals for autonomous and continuous monitoring."

Jorge Hernán Idrobo
Commercial Director
Tracking Security Panama

KBC
data delivered