

Article Overview

Poland employs a combination of smart meters, RTUs, and industrial IoT solutions for remote monitoring and communication across its energy infrastructure.

Remote Monitoring Technologies

Poland's energy sector uses Remote Terminal Units (RTUs) to monitor and control equipment at energy facilities, including wind farms, solar installations, and combined heat and power plants. RTUs collect operational data and communicate it to central control systems, enabling real-time monitoring and grid stability management. These systems are critical for distributed energy resources and are part of both operational technology (OT) and IT networks . The country is also implementing smart meters with remote reading capabilities. These devices automatically transmit energy consumption data to utility headquarters, allowing consumers to monitor usage via mobile apps or online platforms. The smart metering rollout aims to replace approximately 17 million meters by 2028, improving energy efficiency and enabling better demand management .

Companies and Solutions

Several companies provide remote monitoring solutions in Poland:

- o Monit24.pl: Offers continuous monitoring services with instant alerts and diagnostic data for IT and service availability .
- o AVSystem: Specializes in large-scale IoT device management, enabling deployment and lifecycle control of connected devices, particularly for telecommunications and industrial applications .
- o Elmodis: Uses AI and machine learning for real-time monitoring of electric motors and process parameters, providing insights into machine performance .
- o Blulog: Provides RF and NFC loggers for environmental monitoring, including temperature and humidity, with automated reporting and real-time alerts .
- o Cellcon IoT Controllers: Designed for asset monitoring, remote control, and data acquisition across industries .

Cybersecurity Considerations

Poland's energy communication systems have been targeted by cyberattacks. In December 2025, hackers disabled RTUs at over 30 energy sites, affecting monitoring and control functions without causing outages. The attack highlighted the importance of securing both IT and OT systems, particularly for distributed energy resources like wind and solar facilities .

Regulatory and Operational Context

The Energy Regulatory Office (URE) oversees energy market operations, including smart metering and grid modernization initiatives. Compliance with EU data protection regulations (GDPR) is essential for remote monitoring systems, especially when handling consumer data. The integration of smart meters and IoT monitoring supports Poland's goals for energy efficiency, renewable energy management, and grid resilience.

Summary

Poland's energy communication and remote monitoring infrastructure combines RTUs, smart meters, and IoT-based monitoring solutions to manage both traditional and renewable energy resources. Companies like AVSystem, Elmodis, and Blulog provide advanced monitoring technologies, while cybersecurity and regulatory compliance remain critical for maintaining grid stability and protecting operational data.

New CISA alert addresses OT vulnerabilities after the Poland energy attack damaged RTUs and wiped HMI data,

IT solutions for energy and utilities enable remote monitoring of critical infrastructure, helping organizations improve

The Poland attack demonstrates a different approach: targeting the distributed edge of the grid through remote

Blulog offers advanced remote monitoring solutions through its innovative devices, such as the RF and NFC loggers, which

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PSE operates under the guidelines set by the Energy Law of April 10, 1997, which outlines the responsibilities and standards for

Poland's remote monitoring market showcases significant advancements in technology and applications, indicating a robust future for

This work aims to design a communication network architecture for the remote monitoring of large-scale PV power



Poland Communication Site Energy Remote Monitoring Type

Key Takeaways Energy surveillance security uses video monitoring, AI detection, and remote intervention to protect

Energy always in view - With the sysWORXX CTR-700, which functions as an edge controller, the use of energy is meticulously

Monitoring of renewable energy installations, grid quality analysis and smart metering. Energy consumption optimization in industrial

Overview In December 2025, a coordinated cyberattack targeted Poland's power grid, impacting approximately 30

As Emitel, we construct a transmission network optimised for communication with various types of sensors, measures, and

Remote Energy Monitoring with IoT - Are they Essential for Smart Environments? Cutting-edge technology like the Internet of Things

The energy consumption of sites is a top focus for many businesses. From unstable energy costs to pressure for more

The hackers behind a cyberattack that targeted Poland's grid infrastructure in December disabled communication

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