Smart Energy & Power Quality Solutions

Project Brief



REFERENCE
Cemex Deutschland AG, Rüdersdorf

SMART METERING TECHNOLOGY IN OPEN-PIT MINING

Janitza



The drive motor of an air blower. A UMG 96-PQ-L monitors its energy consumption

JANITZA ENABLES FULL TRANSPARENCY INTO CEMEX'S ENERGY DATA

CUSTOMER REQUIREMENT

CEMEX Deutschland AG operates a limestone quarry, its corporate headquarters and a cement plant in Rüdersdorf, near Berlin. The site covers almost five kilometers, remote metering points could only be accessed via wireless communication, which was not available throughout the entire site. At the same time, measurement data had to be transmitted securely. Parts of the site are leased to operators of concrete, asphalt and brick manufacturing plants, requiring their electricity consumption to be metered and billed on a monthly basis. In addition, CEMEX wanted to integrate further ready-mix concrete plants across Germany into its metering infrastructure. As part of its long-term goal of achieving carbon neutrality, the company also needed a consistent foundation for collecting, analyzing and managing its energy data.

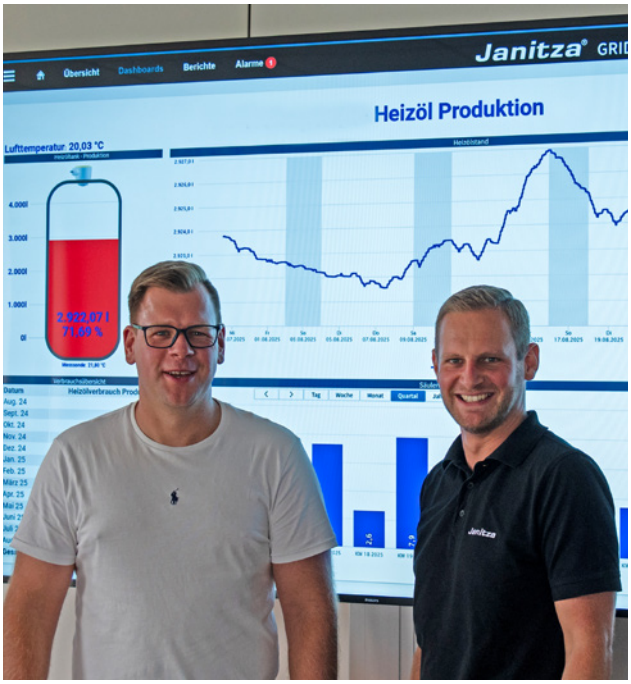
SOLUTION

CEMEX evaluated metering solutions from several manufacturers at multiple sites before selecting Janitza for its Rüdersdorf facility. The decision was based on the broad product portfolio, the quality of the devices and the company's technical support. MID-compliant energy meters were installed for submetering applications, while UMG 96-PQ-L power analyzers monitor the majority of metering points. At selected medium-voltage locations, UMG 512-PRO power quality analyzers provide advanced power quality monitoring. Today, approximately 200 Janitza devices are installed across the site. To enable wireless communication, Janitza partnered with a specialized engineering company. All metering points across the extensive site were connected via LoRaWAN. The low-bandwidth wireless technology is also

Project location	Year of implementation	Application
Rüdersdorf, Germany	2026	Power Quality, Energy Management



A UMG 512-PRO power quality analyzer installed in the main distribution board



Marcel Sawade (left) and Tobias Franz in front of the fuel oil consumption dashboard developed by Sawade

well suited for third-party energy meters, as transmitting meter readings is sufficient for billing purposes. For collecting, analyzing and visualizing energy data, CEMEX selected the GridVis® energy monitoring software. As a result, there was no need to implement a separate energy management system.

CUSTOMER BENEFIT

The Janitza solution meets CEMEX's key requirements with open interfaces, local data storage, high-performance devices for main distribution systems, and cost-effective MID-compliant energy meters for third-party submetering. GridVis® largely automates energy data analysis and electricity billing. The wireless infrastructure is based on an open standard and eliminates recurring fees for sensor and meter management. Even after communication outages lasting two or three days, complete meter readings can be fully recovered while all energy data remains on-site. The solution has enabled CEMEX to streamline data collection, simplify billing processes and improve the operation of energy-intensive equipment such as cement mills, resulting in greater efficiency and lower operating costs. The system is also designed to accommodate additional sites and energy sources in the future.

Hardware	Software	Service
MID-compliant energy meters, UMG 96-PQ-L, UMG 512-PRO	GridVis® Expert	Consulting, Commissioning

ABOUT JANITZA

Janitza develops comprehensive energy measurement solutions that ensure transparent energy flows and monitor power quality. The global company, headquartered in Germany, provides individual solutions to meet specific customer requirements across a wide range of industries, including data centers, manufacturing, buildings & infrastructure, utilities, and renewable energy.

PRODUCT RANGE

Janitza's portfolio includes innovative measuring devices and the perfectly integrated Power Grid Monitoring Software GridVis®, complemented by high-quality components. Customers worldwide benefit from solutions in energy data management, power quality monitoring, and residual current monitoring, all within a unified system environment – Made in Germany.

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