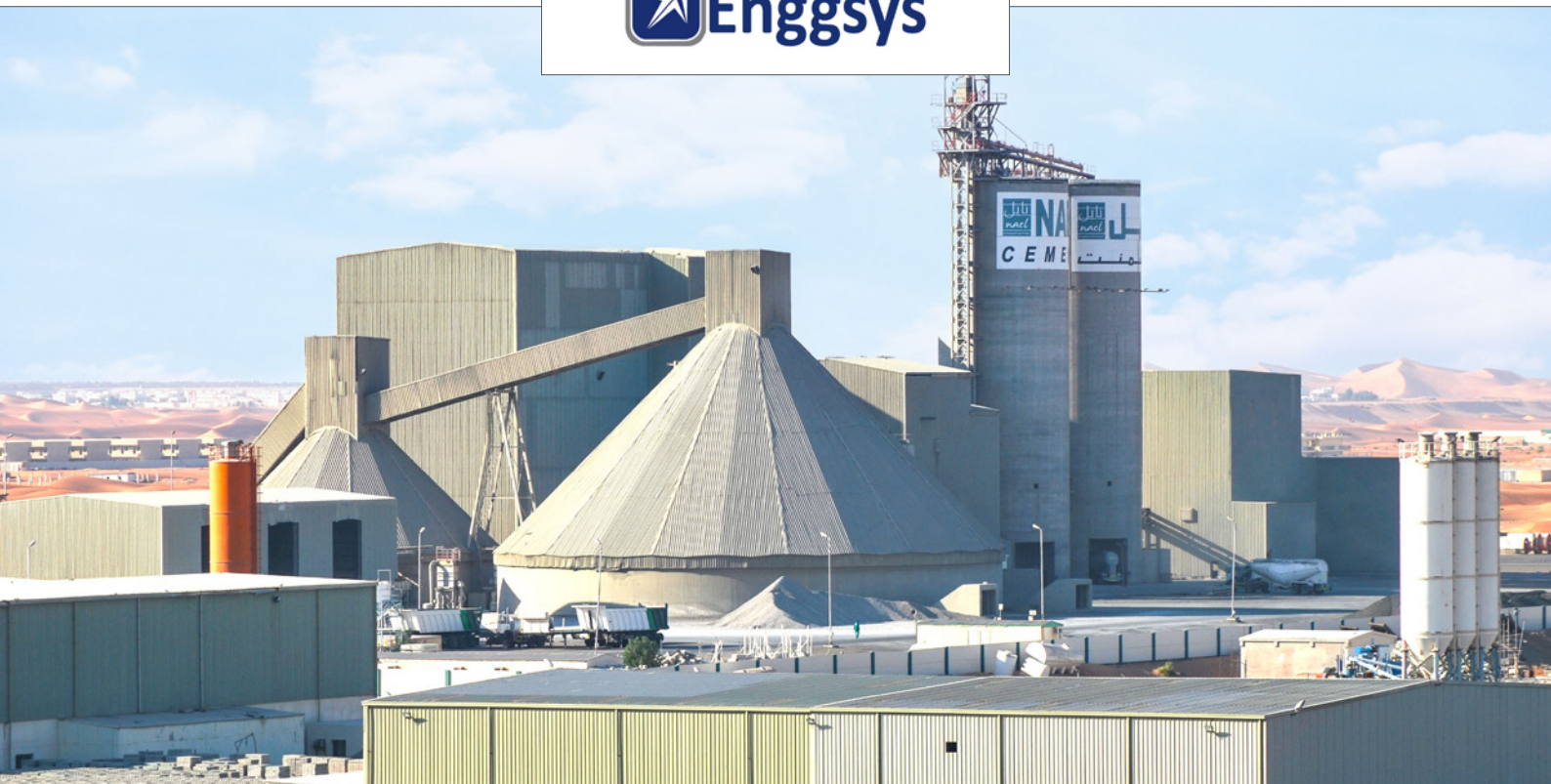


Case Study

SUCCESS STORY CEMENT PRODUCTION FACILITY

Achieving sustainability with an EMS system
integration in a heavy industry plant





ENERGY MONITORING SYSTEM FOR A CEMENT PRODUCTION FACILITY

Customer Challenges

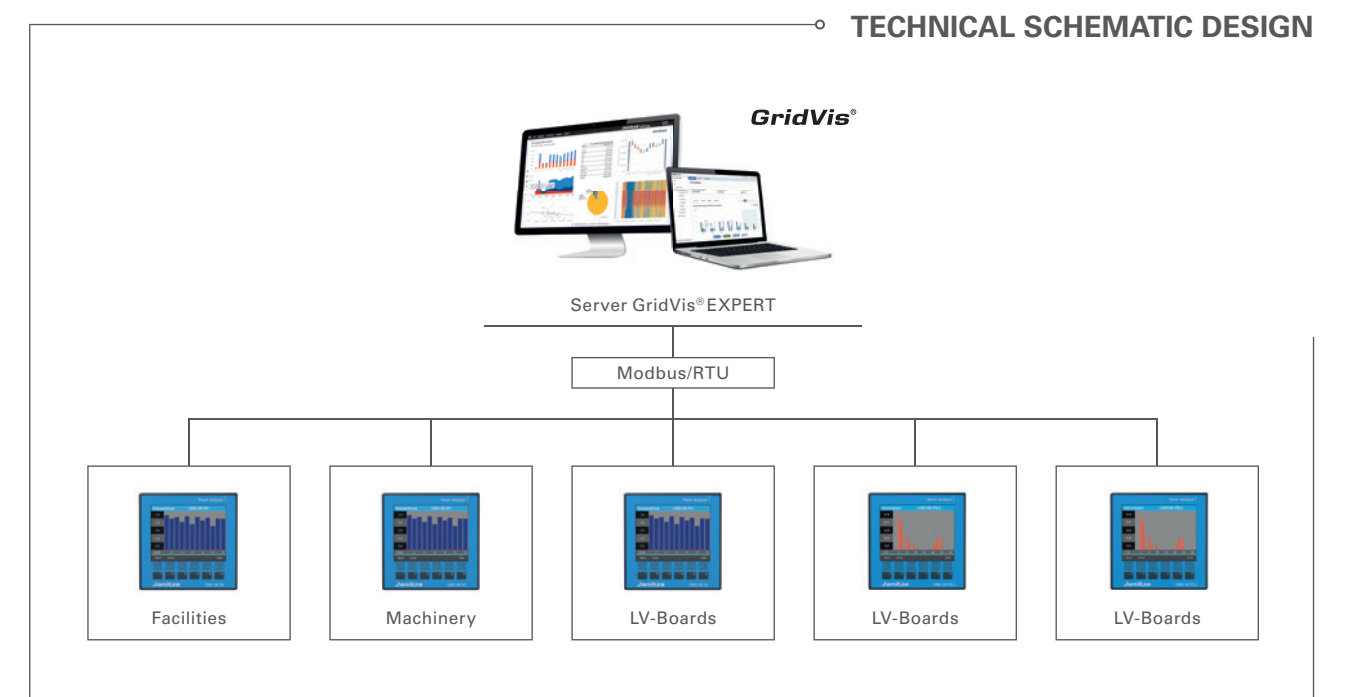
The customer NAEL, based in their headquarters in Al Ain, UAE, has facilities that include partly old buildings and machinery, and partly new extension phases and machinery parks. The challenge for the customer is the reduction of energy costs, especially when no energy monitoring and transparency have been implemented so far.

Therefore, planning for shift works and the cost of energy per ton of cement is a critical factor for the client, who seeks transparency through automatically generated reports and a scalable system for energy monitoring with customizable dashboard designs by the customer.

The substantial energy demand of the machinery parks, along with crushers, filters, and hopper systems across the plant, spanning more than 700 meters in length, presents a challenge for the customer to remain competitive in the future. Additionally, there is a request for more extension phases for other machinery parks to integrate a full smart factory system in the coming years.

The Solution

In 2021, the Janitza Team Middle East and their local solution partner, ENGGSYS, introduced the design concept of an EMS (Energy Management System) with power

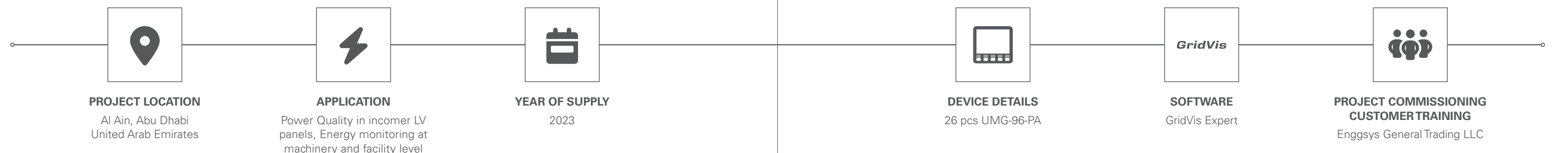


quality options for the main incomer panels of facilities and machinery parks. This system has been consistently expanded to include new machinery through to 2023.

Customer Benefit

With the energy analyser UMG-96-PA system, Janitza's mid-range metering solution, customers gain access to a sophisticated power quality meter and a multifunctional energy metering option. This enables them to monitor energy flow and identify the largest consumers within the plant. Janitza provides a true EPMS solution tailored to individual customer needs, featuring customizable dashboards.

Key functions include weekly energy reports and KPI comparisons with previous periods, generated by GridVis®, to help assess costs per shift and per ton of product. These reports also allow clients to monitor power quality, including phase balances. Looking ahead, plans are in place for future expansions with retrofit projects to include more sections of the plant. Additionally, the system will integrate monitoring for mechanical energy consumption, such as water and gas heating, enhancing its comprehensiveness.



About Janitza electronics GmbH

Janitza makes energy flows transparent - championing the responsible use of energy resources. Janitza electronics GmbH is a German company that specializes in manufacturing energy measurement technology, designed to enhance energy efficiency and ensure the security of energy supply.

Our portfolio boasts innovative measuring devices and the advanced Power Grid Monitoring Software GridVis® – all complemented by high-quality components.

Customers around the globe trust in Janitza for solutions in Energy Management, Power Quality Monitoring, Load Management, and Residual Current Monitoring, all harmonized within a comprehensive system environment – a testament to the quality assured by „Made in Germany.“

Janitza®

Janitza electronics GmbH
Vor dem Polstück 6
35633 Lahnau
Germany

Tel.: +49 6441 9642-0
info@janitza.com
www.janitza.com

About Enggsys General Trading LLC

Janitza electronics certified Gold Level Partner ENGGSYS Technologies from Dubai /UAE, based in the heart of the industrial sector, specializes in providing cutting-edge engineering solutions and products for energy management and automation.

With a keen focus on sustainability and efficiency, ENGGSYS offers a comprehensive range of products including power quality meters, energy management systems (EMS), and smart monitoring software. Renowned for its innovative approach, the company caters to a wide array of sectors, aiming to enhance operational efficiency and reduce energy costs for its clients. ENGGSYS stands as a key player in the field, committed to delivering high-quality engineering solutions worldwide.

 **Enggsys**

Enggsys General Trading LLC
Sundos Al Nahda Building - Office 405
Amman Street - Dubai
United Arab Emirates

Tel : +971 56 68 20 700
srinivasan.murugan@enggsystechnologies.com
www.enggsystechnologies.com