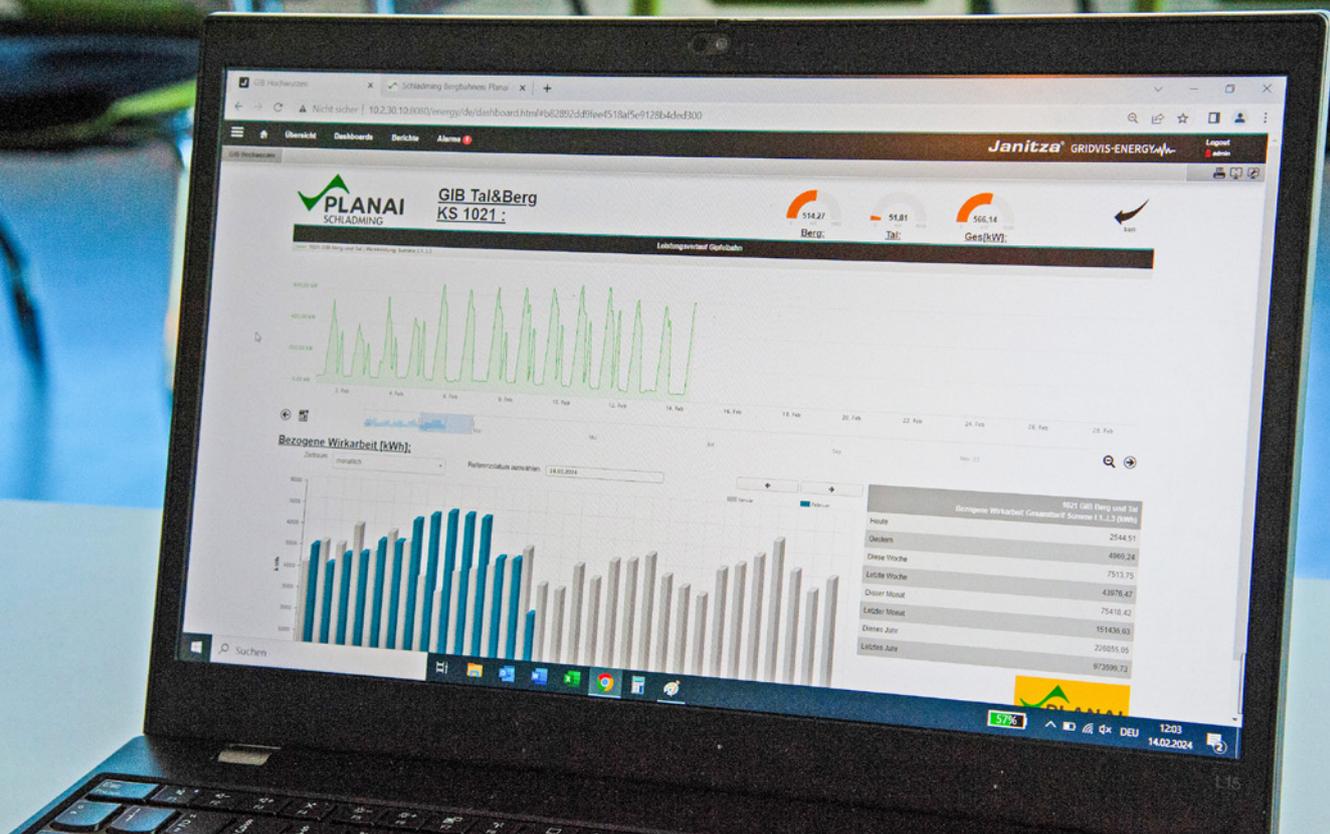


Project Brief



ENERGY MONITORING FOR A WINTER SPORTS RESORT



With power grid monitoring software GridVis®, measurement data can be processed as desired

MEASUREMENT TECHNOLOGY ON THE SLOPES

REQUIREMENT

Winter sports are an important factor for Austria as a business location. In order to meet the requirements of ski resort guests, more and more technical effort is being made. As the largest mountain railway and leisure group in Styria, Planai-Hochwurzen-Bahnen GmbH operates 31 cable cars and lifts as well as around 700 snow-making machines. Due to the rising costs of these facilities and the increasing awareness of guests regarding the carbon footprint of their vacations, energy consumption has become a focus of attention. The operators have therefore installed a monitoring system that allows them to identify potential savings and monitor the success of measures.

SOLUTION

A 30 kV grid with over 30 transformer stations supplies the area. They were equipped with UMG 96-PA modular power analyzers, which could be integrated into the existing IP network as an open communication interfaces. Existing sub-counters were connected via the pulse inputs. These can also record the water levels in the reservoirs used for snow-making. In addition, UMG 801 measuring devices register the S0 pulses from the EVU meters for medium-voltage measurement. Another benefit of Janitza's hardware is differential current monitoring, which is mandatory in lift stations as a fire protection measure. In older systems for which manufacturers no longer stock spare parts, this can be taken over by the multifunctional measuring devices.



Location

Schladming,
Austria



Year of implementation

2023



Application

Energy monitoring



UMG 96-PA power analyzers from Janitza replace the old door-mounted devices

The experts at Planai chose Janitza GridVis® as their visualization software. Whereas previously only the consumption of the transformer stations was known, visualization now allows individual consumers to be recorded and displayed in a cost allocation. This identifies energy-intensive loads and deviations in operating behavior that indicate wear or a fault in the control system. Another advantage is that operators can easily import and configure devices themselves if additional metering points are required.

BENEFIT

Snowmaking requires a lot of water and therefore large storage facilities and pumping stations. Thanks to energy monitoring, it was possible to determine exactly where it made sense to convert simple pumping stations with star-delta starters to frequency converter control. The system also offers great advantages for external communication. The operators already pay attention to energy-efficient operation. However, consumption also depends on factors such as weather and visitor numbers. With GridVis®, these correlations can be taken into account, providing concise figures for external presentation that also satisfy critical inquiries.



Hardware

UMG 96-PA, UMG 801



Software

GridVis®



Service

Consulting, training, commissioning support

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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