

Self-Sufficient Alpine Lodge

Reliable Emergency Power Solutions for High-Altitude Applications

Brigitte and Josef Kohlmaier have been operating the traditional alpine lodge in Lendorf, Carinthia, for three generations.

kohlmaierhuette.at



Status Quo

To ensure the comfort and reliable supply of all guests at all times, the operators have relied on a Banner emergency power system for more than 20 years. The system complements a diesel generator and covers peak power demands.

A modern battery system has now been installed with a strong focus on sustainability. Particular emphasis was placed on environmental and climate protection, which is why the battery installation was combined with a photovoltaic system on the lodge roof.



The main reasons for choosing Banner are the high quality of consulting, products, and service. In addition, the local proximity is a major advantage for urgent maintenance operations

- Kohlmaierhütte -

Our Approach

An optimally designed battery storage system combined with an off-grid photovoltaic installation.

The solar modules were installed on the lodge roof, and the generated energy is stored in battery cells. A total of 12 OPzS 1200 single cells (each 2 V, 1,380 Ah – C10) are used. These cells are characterized by high reliability, long service life, and excellent cycle stability.

OPzS cells are specifically designed for applications involving frequent charging and discharging cycles as well as standby operation.

The system provides a total voltage of 24 V and a total capacity of 1,380 Ah (C10), corresponding to a stored energy capacity of 33.12 kWh.

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Added Value & Benefits

Stand by Bull Flooded (OPzS Cell)



Stand by Bull OPzS cell modules ensure a stable and continuous power supply. In combination with photovoltaic systems, they enable a highly reliable and sustainable energy supply that can operate completely independently of the public grid.

The selection of the appropriate system always depends on the location, energy demand, and local conditions. An additional benefit: the existing high-quality battery rack could continue to be used.



Suitable for high-current discharges



Maximum service life



Excellent price-performance ratio



Modular and scalable design

The Result

A sustainable and environmentally friendly energy storage solution with significant savings potential.

The combined system of emergency power batteries and photovoltaics now ensures a reliable electricity supply for several days.

In periods of increased energy demand or unfavorable weather conditions, the diesel generator is automatically activated only in exceptional cases as a backup system.

Today, the Kohlmaier family rarely uses the emergency generator and only during short-term peak loads.

A major advantage is the significant reduction in diesel consumption – from approximately **7,000 liters to just 500 liters per year.**

This reduces environmental impact, contributes to the peace and quiet of the alpine environment, and significantly lowers operating costs.



For more information about our products, services, and support solutions, visit: [bannerbatteries.com](https://www.bannerbatteries.com)

* C10 = Battery capacity at a discharge period of 10 hours
** OPzS = Stationary tubular plate batteries

#sparkthedifference