

Rittal – The System.

Faster – better – everywhere.

TESVOLT: Hot water on the mountainside

CUSTOMER REFERENCES

Renewable energies



Customer: Tesvolt GmbH
Industry: Energy storage systems
Company size: 40 employees
Established: 2014
Headquarters: Lutherstadt Wittenberg, Germany

For a secure energy supply, the storage of electrical energy is often indispensable. One example is the Alpenvereinshütte alpine hut of the German Alpine Association's Coburg section, located 1,900 metres above sea level in the Mieming mountain range in Tyrol. The electrical energy for the building is generated, CO₂-neutral, by means of a photovoltaic system and a combined heat and power plant operated with vegetable oil. To ensure that

the energy generated by the photovoltaic system can also be used in the dark, electricity storage system manufacturer TESVOLT has installed a lithium-ion battery storage system with a capacity of 77 kilowatt hours in the Tyrolean hut. The mountaineers and hikers who stay there benefit from hot showers, a drying room and even from the Internet, with standardised components from Rittal make a major important contribution.

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THE PROJECT

The Challenge

- Storage of electrical energy in an alpine hut from a photovoltaic installation and a combined heat and power plant
- Securing of a long working life of the energy storage system
- Perfect interaction of all components (e.g. power distribution, climatisation and monitoring)

The Solution

- Rittal enclosures as well as components for power distribution, climatisation and monitoring that already fulfill all necessary engineering standards
- Possibility of flexible arrangement
- Protection against extreme environment requirements such as heat, cold and humidity



Flexibility in energy supply

TESVOLT supplies energy storage systems with extremely powerful battery cells. In combination with a wind, solar, water, biogas or combined heat and power (CHP) power plant, energy storage solutions offer the greatest possible flexibility in energy supply. The storage systems have not only proven themselves for use in industry, but also secure the power supply needed in rugged and remote areas worldwide.

Components of very high quality

Reliable energy storage systems call for several components to work together in harmony. Besides the battery cells, this includes energy distribution, climate control and plant monitoring. And it all has to function perfectly so that the storage system achieves its maximum service life of approx. 30 years and operates with a high level of efficiency. That is another reason why TESVOLT relies exclusively on the highest quality components, such as system components from Rittal. The extremely large, standardised product variety permits a high degree of technical flexibility. Short delivery times are another added extra. The components comply with all the relevant standards and meet the highest quality requirements.

Stable and flexible

As many as eight battery modules, each weighing 50 kilograms, can be safely integrated into the stable enclosure. The enclosures, which can be arranged flexibly, can also withstand extreme environmental demands when it comes to heat, cold or moisture. In addition to enclosure housings, TESVOLT also uses Rittal components for power distribution, climate control and monitoring. It is vital that the company can react quickly to new market requirements. With its variety of components, Rittal offers precisely the flexibility that TESVOLT needs. TESVOLT not only supplies electricity storage systems, but also provides consultation on planning the entire energy system. Today, TESVOLT is supplying its flexible power storage solutions all over the world and has gained a further and highly competitive market share.

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