

Ternberg and Garsten Hydropower Plants

Emergency Power for Clean
and Sustainable Hydropower

As one of Austria's leading electricity producers, Ennskraftwerke AG (Ennskraft) generates approximately 1.872 billion kilowatt-hours of electrical energy annually.

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Ennskraft

Status Quo

At two hydropower plants, Ennskraft comprehensively modernized the emergency power supply systems after more than 15 years of continuous operation. The objective was not only to renew the systems but also to significantly increase performance. Particular attention was paid to the optimal sizing of the emergency power system to ensure full functionality in emergency situations, as well as to the easy replacement of individual cell modules.



Banner truly goes the extra mile in every respect. We highly appreciate this commitment – in every single project without exception.

- Ennskraft -

Our Approach

The battery system is based on a modular design with standardized cell modules that can be flexibly combined and scaled according to requirements.

A total of 108 OPzS 600 single cells (each 2 V, 690 Ah – C10) were installed. These battery cells are characterized by high reliability, long service life, and outstanding cycle resistance.

The implementation of this system doubled the performance compared to the previous installation.

OPzS cells are specifically designed for applications involving frequent charge and discharge cycles as well as standby operation. They are primarily used in safety-critical areas, such as energy supply systems for controlling hydropower plants.

The emergency power supply of a weir and dam facility ensures that essential functions remain operational even in the event of a power outage. These include the opening and closing of gates, control systems, and critical pumping equipment.

As a result, water level regulation, flood protection, and other safety-related functions remain fully operational even under extreme conditions.

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Added Value & Benefits

Stand by Bull Flooded (OPzS Flooded Cell)



Stand by Bull OPzS cell modules ensure a reliable and consistent power supply and are ideally suited as energy buffers for electrical drives, such as those used in weir systems, pumps, and control equipment.

Thanks to their robust design, OPzS batteries are specifically engineered for deep and regular discharge cycles. This represents a significant advantage, particularly in power plant applications with highly fluctuating energy demands.



Suitable for high-current discharges



Maximum service life



Excellent price-performance ratio



Modular and scalable design

The Result

The successful implementation of a highly reliable energy storage solution for critical infrastructure – to the complete satisfaction of the customer.

Ennskraftwerke AG is extremely satisfied with the new emergency power systems, the professional installation, the successful commissioning, and the precisely executed maintenance intervals. With this modernization, both hydropower plants are now equipped with state-of-the-art technology and are optimally prepared for the requirements of the coming decades.

Even the grid-independent, partially solar-supported power supply of remote weir facilities is reliably ensured by this system.



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