

JAEGGI INDUSTRIES

Purpose of Storage Solution:

Increase Self-Consumption & trading of ancillary energy services

JAEGGI has a long and successful tradition in equipment and instrument manufacture. It was founded in 1929 in Berne (Switzerland) as a company of coppersmiths and tin platers. Today JAEGGI has sold more than 3000 hybrid dry coolers and is the technical innovator and market leader of hybrid cooling technology.

VoltLink is an aggregator, which brings in energy producers, consumers and energy storage systems into a single powerhouse that operates in the energy market.



CLIENT REQUIREMENTS & CHALLENGE:

The JAEGGI Factory in Sibiu, Romania is a typical manufacturing business with a big roof space. With the main usage being during the day a solar solution to cover their needs was a obvious solution. Having a constant consumption during the day, a 3.0MW rooftop photovoltaic plant was installed in conjunction with, two 500kVA electricity storage systems that will time-shift the extra PV energy produced in the middle of the day. In addition the storage system will be partaking in the virtual power plant management from VoltLink and trade ancillary services - 15min hot reserve in the Romanian energy market.

In partnership with



EPC of the project

Project Fact Sheet:

The **Kehua Tech BCS500K-A** is a high-efficiency solar inverter, boasting a 500 kW rated capacity. It guarantees top-notch performance and resilience in diverse environmental settings, making it perfect for battery backup solutions.

The **Solar MD Battery Energy Storage System (BESS)** is a high voltage system with advanced BMU and BMS technology, designed for use in containerized solutions, suitable for commercial and utility-scale operations. The LFP Prismatic Cells are incredibly durable, safe and powerful. Solar MD uses the renowned CATL cells thereby offering a performance guarantee of 12 years on the battery modules.

The **Plant Controller from Solar MD is connected to the VoltLink trading platform.** It utilizes real-time data analytics, advanced forecasting algorithms, and machine learning to optimize energy usage, reduce waste, and balance the grid.

Project Details:

- **2x 20ft Container**
- **2x Kehua Tech BCS500K-A 10Y**
 - Includes bidirectional converter for battery charging or discharging.
- **2x 4x Solar MD SS7019**
 - 2 battery systems with 743.6 kWh = 1477.2 kWh Total capacity
- **Solar MD Plant Controller and EMS**
- **Photovoltaic system (3000kVA)**
- **VoltLink Trading platform integration**

Engineering Aspects:

Designed by Solar MD, executed and build by VoltLink

- Container Procurement and Fabrication
- Hoist Rail Design
- Separation Wall Design
- CABW Outer Frame Design
- Front Wall + Door Assembly & Design
- Louvre & Ducting Design
- Cable Trays & Ladder Design
- Electrical Detailed Design
- Ensuring compliance with safety standards IEC 62933-5-2:2020
- DB Construction & Design
- AC Breaker Design
- DC Disconnecter Box Design
- Busbars Design
- Fire Suppression System
- Cooling and temperature management
- Project specific software adjustments
- Integration into [mypower24](#)
- Programming and testing

Integration with VoltLink - Virtual Power Plant

The Virtual Power Plant manages a network where all players - producers, consumers and as well as storage solutions - work together.

Requirements:

- Storage system to supply full output power within 1 min
- 15min full output power
- Direct connection and control of the EMS
- Durable and well build storage
- High efficient build to reduce losses
- Low round trip efficiency
- Availability 24/7
- Registration and testing with the transmission system operator (TSO)

