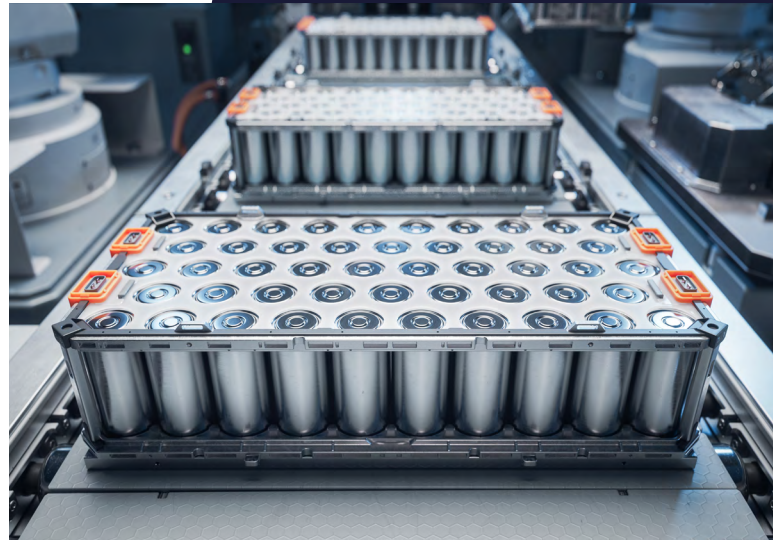


Case Study.

Energy storage solutions company.
Switzerland.
Power & Utilities.



Assessment of electricity storage for a microgrid

The client is a leading company specialising in energy supply, water production, distribution, and handling of waste treatment for a Swiss canton with 500,000 residents. They sought to implement an industrial microgrid with solar panels and charging stations for heavy goods vehicles. With their local production at 3.5 GWh/year and consumption at 6 GWh/year, power peaks led to increased costs. They evaluated the use of an electric battery to optimise costs and improve local utilisation during the energy transition.

Challenge

The customer had already developed the expertise to simulate the electrical operation of the site, including storage. However, they were less familiar with the latest advances in battery technology, their performance in real-life conditions, and their second life potential. In addition, they aimed to confirm the carbon impact of this application during production and the environmental impact of battery manufacturing.

Solution

dss+ collaborated with a university team to provide innovative, up-to-date expertise on battery technologies and a critical analysis of environmental impacts throughout the battery life cycle. A three-way partnership was also established with our customer teams to develop an algorithm for simulating the electrical operation of a site equipped with storage. Due to dss+ innovative industrial vision, the client has acquired a pivotal operational tool that has significantly elevated the performance of their sales teams.

"Electrical storage performance is evolving rapidly, requiring regular updating of the state of the art, and feedback from field experience."

Benjamin Herbreteau, dss+ Senior Consultant



Assignment

Assess technical, economic and environmental feasibility of electric storage in industrial microgrids.



Offering

Provide environmentally friendly solutions for energy transition and decarbonisation.



Impact

- Reduced battery capacity from **3 to 1** and extended lifespan from **1 to 6**.
- Saved up to **\$50,000** on a **\$250,000** CAPEX with an optimised electric storage set-up.
- Decreased critical metal usage by **25 times** through technology and design optimisation.

dss+

Protect. Transform. Sustain.

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