

PLENTY OF POWER

IN SMALL DOSES

Battery storage takes over night shift in pharmaceutical laboratory



PROFILE

Client:

Laboratoires Lehning SAS

Industry:

Pharmaceutical laboratory and factory

Region, country:

Sainte-Barbe, Lorraine, France

THE BACKGROUND

Laboratoires Lehning is a French pharmaceutical company. At its main location near Sainte-Barbe in Lorraine, the company develops and produces herbal and homeopathic medicines, herbal cosmetics and dietary supplements. Laboratoires Lehning, which specializes in the production of plant-based active ingredients, also produces its own basic substances.



THE CHALLENGE

Laboratoires Lehning sees itself as a close partner of nature and so the company is also strongly involved in the field of social responsibility and sustainability. At the Sainte-Barbe plant, this includes investments in efficient waste recycling, the operation of 15 hectares of partially wooded gardens, and an initiative to reduce CO2 emissions. The company wants to minimize emissions above all with a solar power plant system.

With a specialist partner, Laboratoires Lehning installed solar modules with a total capacity of 980 kWp on its roofs and next to the plant across an area of over 5000 m2. The laboratory can supply itself with electricity from the solar plant during the day in fine weather. The problem is that the facility's modern hardware consumes very large amounts of energy even during the night. Air conditioning systems and Pharmaceutical air treatment station have a total consumption of 300–400 kWh each night. In order to be able to service this

from self-produced electricity, Laboratoires Lehning needed an energy storage system.

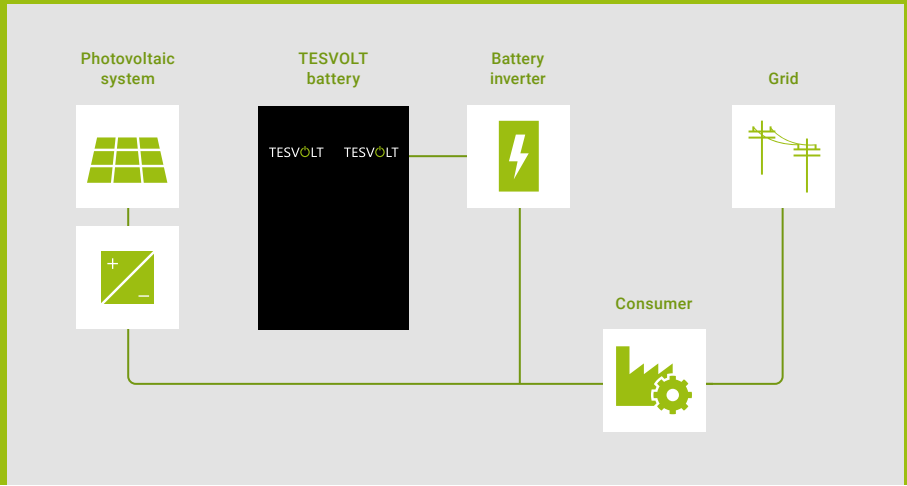
Requirements for a storage solution:

- Powerful storage system with high depth of discharge and many guaranteed cycles for a sustainable and secure investment
- Easy installation and harmonious interaction with the already installed setup



THE SOLUTION

The solar company Hanwha Q Cells took over the selection of the storage systems. Due to their high quality, lithium-ion battery storage systems from the German company TESVOLT were used. Powersol SARL installed TS HV 70 models with a combined energy content of 614 kWh and an output of 120 kW on behalf of Hanwha Q Cells.



“TESVOLT storage systems are of impressive quality. In particular, their longevity makes them attractive to any company with high electricity consumption in which sustainability plays an important role.”

Abdessamad Zouhairi, Sales Manager Battery Storage Systems at Hanwha Q Cells France

“The TESVOLT storage systems fit perfectly with our corporate philosophy and allow us to operate not only profitably but also sustainably in the long term.”

Stéphane Lehning, CEO of Laboratoires Lehning SAS

THE ADVANTAGES

With the TESVOLT storage system, Laboratoires Lehning can consume more of the electricity it generates itself to save substantial costs. The TESVOLT system is:

• Durable

Thanks to Samsung's robust battery cells and one of the most advanced battery management systems on the market, which not only optimizes cells within a module, but also between the modules in each cabinet, the system has an above-average lifespan of up to 30 years.

• Expandable

TESVOLT systems can be expanded or exchanged at any time – not just after the first few months of operation, but even many years later.

• High-performing and fast-reacting

Thanks to the battery management system, TESVOLT's storage systems make their energy fully available. TESVOLT storage systems are 1C-capable, meaning they can be completely charged or discharged within an hour with the proper configuration.

• Efficient

100 % depth of discharge and only 5 W self-consumption

PROJECT: FACTS AND FIGURES

Storage system	TS HV 70
Energy content	614 kWh
Discharge power	120 kW
Cell	Lithium NMC prismatic (Samsung SDI)
Efficiency (battery)	up to 98 %
Cycles	6.000–8.000 (0,5C- to 1C at 23 °C +/-5 °C with 100 % depth of discharge)
Operating temperature	-10 °C to 50 °C
Battery inverter	SMA Sunny Tripower Storage
Installer	Powersol SARL

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THE ENERGY STORAGE EXPERTS