

TIMBER MERCHANT GOES

ALL OUT FOR NET-ZERO

Timber merchant saves costs with energy storage system and participates in flexibility market



PROFILE

Client:
Somerslap Forest Products Ltd

Business:
Production and sale of timber products

Installer:
Gridimp Ltd Wells Enterprise

Region, country:
Somerset, UK

THE BACKGROUND

The British company Somerslap Forest Products requires a large amount of electricity to produce its timber products – so when electricity prices increased, it really felt the pinch. At the same time, its high level of energy consumption resulted in a poor carbon footprint. This set the producer off on the search for a technical solution that would make its production more climate friendly and would reduce its electricity costs.



THE CHALLENGE

In the village of Mark in picturesque south-west England, Somerslap Forest Products makes high-quality timber products for the garden as well as pallets for trade customers. With a range that includes fences, wooden gates, garden furniture and sheds, Somerslap Forest Products makes most of its timber products on its own six-hectare site. This takes a lot of electricity, with the use of electric forklifts further increasing the company's power consumption. Although the timber product manufacturer had invested in a 150-kWp photovoltaic installation, it was feeding much of the valuable solar power from its own roof to the utility grid rather than using it itself. In this scenario, it would have taken many years before the PV installation paid for itself. But assistance came in the form of Gridimp Ltd. Gridimp helps companies take part in energy trading with the electricity they produce themselves, and their own energy storage capacities. They installed the AI-supported control software "im-pHub" on site. The aim initially was for the software to assess the potential of the site

for becoming an environmentally friendly, intelligent, flexible consumer. For this, a high-performance battery storage system would be essential.

Requirements for a storage solution:

- Long service life with many guaranteed cycles for sound returns
- High availability due to highest quality standards for hardware & software
- Straightforward installation and compatibility with the PV components



SELF-CONSUMPTION
OPTIMISATION



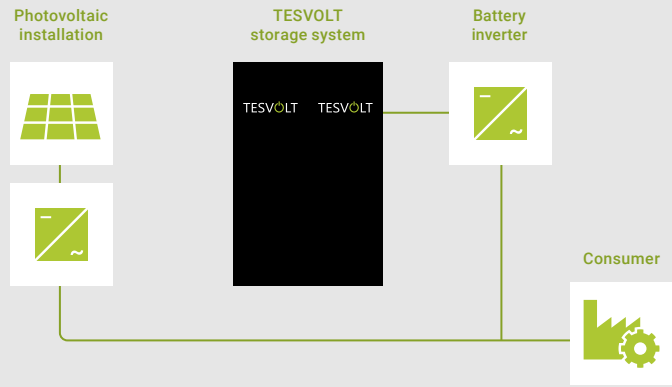
ANCILLARY
SERVICES



TIME OF USE

THE SOLUTION

With a high-performance TESVOLT battery storage system and impHub control software, Somerlap Forest Products can take part in energy trading – a lucrative additional revenue stream. The storage system is part of the flexibility pool of the local grid operator Western Power Distribution. Using a fully automated process, the control software decides when it is better to use the solar power in-house and when it is better to sell it to the grid operator. If the utility grid is overloaded, excess electricity flows from the storage system.



»As an established leader in technology, TESVOLT offered us the best battery storage system solution. We took a close look at the components of the system and the guarantees they were offering to ensure that the system meets our expectations.«

Richard Ryan, Commercial Director, Gridimp

»I am very glad that our automatic control system and the battery storage system have enabled us to increase our energy flexibility, support the UK's efforts to reach net zero and decarbonise our energy consumption.«

Kevin Bond, Managing Director, Somerlap Forest Products

THE BENEFITS

- Energy trading as a key revenue stream – in recent months the income from energy trading has amounted to over GBP 850 per month. This equates to around a third of the site's energy costs.
- Battery storage system costs written off after four years
- **Improved environmental footprint:** around 17 tonnes of carbon saved per year
- Less load on the utility grid at peak times reduces the need for DNOs to operate gas peaker plants and coal-fired power plants.
- Enables the company to achieve their net-zero goals
- **Powerful**
Thanks to the battery management system, TESVOLT's storage systems make the energy they accumulate fully available. TESVOLT storage systems are 1C-capable, meaning they can be fully charged or discharged in one hour with the proper configuration. As a result, even high-performance consumers can be kept running when the sun isn't providing enough power.

FACTS AND FIGURES

Storage system	TS HV 70 E
Energy/Power	648 kWh / 180 kW
Cell	Lithium NMC prismatic (Samsung SDI)
Efficiency (battery)	up to 98%
Cycles	6,000 to 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	3 x Sunny Tripower Storage 60 by SMA
Installer	Gridimp Ltd

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TESVOLT
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