

HOSE FOR WHITE GOODS WITH GREEN ELECTRICITY

TESVOLT
Free to go green.

RiFlex cuts costs with energy storage and will be up to 70% energy self-sufficient in the future



PROFILE

Client:
RiFlex Schlauchproduktion

Business:
Production of hoses for plumbing, heating and air-conditioning technology

Special characteristics:
Gexx aeroSol

Region, country:
Brieselang near Berlin, Germany

THE BACKGROUND

In Brieselang near Berlin, the medium-sized company RiFlex produces various hoses for plumbing, heating and air conditioning. The energy demand for their machinery is high, around 215,000 kWh of electricity per year, and rising. The electricity costs add up to around EUR 57,000 per year.



THE CHALLENGE

Recently, the machines in the hose factory have also been running at night because RiFlex has switched from two to three-shift operation. In addition, the company, which employs 40 people, is converting its vehicle fleet to electric vehicles, so the demand for electricity is increasing even further.

Since electricity costs make up a large proportion of production costs, the company's founder and managing director René Richter was looking for a solution. He wanted to reduce costs and also be less dependent on rising electricity prices. As a father of four children, the company's carbon footprint is also particularly important to him.

The roof of production hall 1 was ideal for the production of climate-friendly electricity. The plan was to integrate a battery storage system, so that the green electricity from the company's own roof could also be used at night and on cloudy days. For this project, RiFlex wanted to take advantage of storage system funding

from Brandenburg's state investment bank Investitionsbank des Landes Brandenburg (ILB), which covers 80% of the acquisition costs. However, the prerequisite for funding was that the entire project had to be completed within just five months. In addition, the business also wanted to use the roof of production hall 2 for its own electricity production at a later date.

Requirements for a storage system solution:

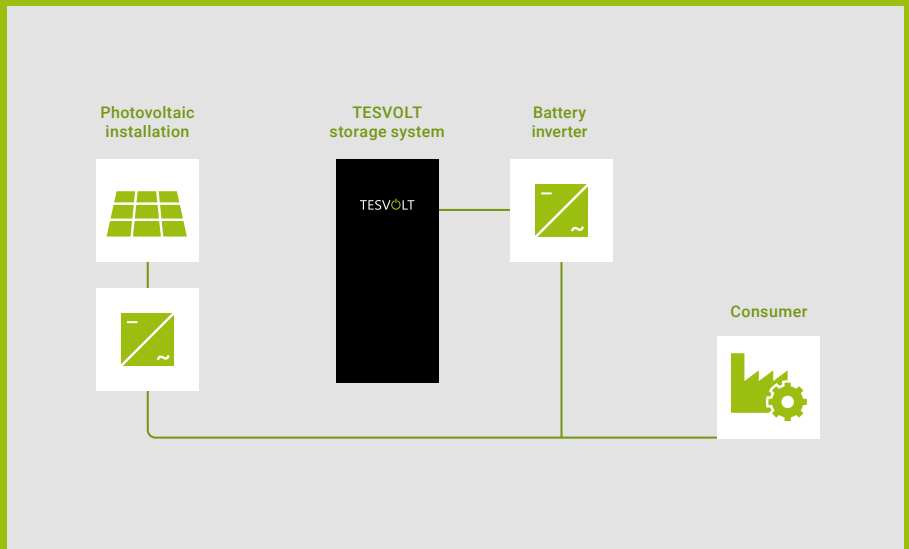
- High durability to safeguard operations and investment over the long term
- Problem-free subsequent expansion of storage capacity
- Fast delivery time



INCREASED
SELF-CONSUMPTION

THE SOLUTION

The experienced installation company Gexx aeroSol from Wildau near Berlin installed a 100 kWp photovoltaic system on the roof of production hall 1. The full-service provider for integrated energy systems planned from the start to install a TESVOLT battery storage system with 124 kWh. The entire system will pay for itself after approx. 4.5 years. Another 100 kWp PV system including a TESVOLT energy storage system is already being planned and will make the hose production 70 to 80 percent energy self-sufficient.



“We have been working with TESVOLT for several years now, because TESVOLT offers excellent storage systems that are very competitive, especially in terms of their electrical performance and modularity.”

Jochen Drepper, Head of Sales & Business Development at Gexx aeroSol

“I have been looking around the storage system market. TESVOLT has a very good reputation, also in the relevant forums. It was also important to me that the manufacturer be located nearby in case there are technical problems.”

René Richter, Founder and Managing Director of RiFlex Schlauchproduktion

THE BENEFITS

- Fast amortisation**
 The total investment costs will have already paid for themselves after approx. 4.5 years.
- High degree of self-sufficiency**
 The company will be up to 70% energy self-sufficient after completion of the second PV installation, including additional storage system.
- Green electricity for the vehicle fleet**
 Charging electric vehicles with clean electricity is also well received by customers.
- Problem-free storage system expansion**
 TESVOLT storage systems are designed so that they can be easily expanded.
- Availability**
 Fast delivery of the TESVOLT storage system is what made ILB funding possible.
- Cost reduction**
 The use of self-generated and stored energy is expected to reduce the high electricity costs by around 20,000 euros per year.
- Long lifespan**
 Thanks to the robust Samsung SDI battery cells and the unique battery management that optimises the battery across modules and cells, the system has a life expectancy of up to 30 years.

FACTS AND FIGURES

System	On-grid
Storage system	TS 48 V
Energy/output	124 kWh / 18 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 to +50°C
Battery inverter	SMA Sunny Island
Installer	Gexx aeroSol

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