

Case Study

Rau GmbH

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RAU.
ARBEITSPLATZEINRICHTUNGEN



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Rau, a family-owned business, manufactures workplace furnishings in Balingen, Germany. This medium-sized company remains competitive in the market only because it invested millions to switch its high energy consumption to renewable energy generated on-site. Its sustainability reporting has also played a role in this.

Challenge

As a manufacturing SME, Rau GmbH is highly energy-intensive: electricity consumption, process heating, and building heating have been the largest cost drivers for years. In 2022, amid the energy crisis, energy costs rose by 101% compared to the previous year. And this was despite the fact that the family-owned company had reduced its electricity consumption by 12%. This highlighted just how dependent the company was on external suppliers and fossil fuels. Furthermore, without a clear climate strategy, the company risked damaging its reputation among customers and specialty retail partners, who are increasingly demanding proof of sustainability.

“The energy crisis served as a wake-up call for us, showing that dependence on external factors is a real business risk.”

Jannik Rau, Chief Sustainability Officer

Sustainability Report as a Basis for Decision-Making

Sustainability reports are a driver of optimization: By analyzing consumption data (electricity, gas, load profiles), Rau was able to identify where the greatest costs arise and where quick wins can be achieved. This analysis served as the basis for investment decisions and enabled realistic profitability calculations.

The reporting also helped create transparency for management and external stakeholders—and thus provided the clarity needed to successfully implement a project of this scale.

Profile Rau GmbH



Headquarters: Balingen (Germany)

Employees: ≈ 120

Revenue in 2024: approx. 24 million €

Founded: 1946

Sales: > 90% in Germany

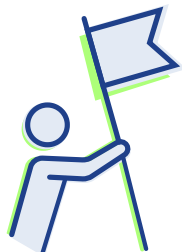
Core offerings: Workplace equipment such as workbenches and ergonomic office furniture

From goal to implementation

Rau is in the process of expanding its photovoltaic systems to over 500 kWp and introducing a battery storage system to reduce electricity procurement costs by 40% and sustainably decrease dependence on the electricity market.

In the long term, the goal is to increase annual self-generation to 700,000 kWh and to gradually raise the self-sufficiency rate from 37% in 2025 to 70% by 2030.

Through its own internal local heating network, 100% of the building's energy will be generated from wood waste from production.



“We don't write a report just because we want to; rather, we collect data that is useful to us for improving our sustainability and cost efficiency, which we then make available to our stakeholders in a report.”

Jannik Rau, Chief Sustainability Officer

Detailed Timeline of Measures



2021

Transition Plan: CO₂ Neutrality by 2040.

2022

Energy Crisis: Energy Costs Rise 101% Compared to Last Year

Spring 2024

Analysis of available rooftop and open spaces, as well as infrastructure

2024

Rebuilding Rau GmbH's internal power grid:

- Unified power grid
- Substations modernized
- New medium-voltage lines installed
- Architecture coordinated with the grid operator
- Coordination with external partners

Construction of a Future District Heating Network: Installation of Local District Heating Pipes

September 2024

Commissioning of a 500 kWp Ground-Mounted PV System

2024-2025

Procurement of Modular Battery Storage Systems

January 2026

Commissioning of a Modular Battery Storage System

2027

All local heating pipes have been installed, and the heating plant is being expanded



Challenges & Investments

Interface expertise is crucial: The biggest risk was not the technology itself, but rather local bureaucracy and the coordination of the numerous specialized service providers involved in the implementation:



Photovoltaic general contractors, manufacturers of battery storage systems, medium-voltage technicians, transformer service providers, civil engineering firms, electrical contractors, as well as local public utilities and building authorities.



Why did it pay off?

Thanks to the detailed data analysis, Rau GmbH was able to secure better loan terms for financing its battery storage system and PV system.

With the commissioning of the PV system in September 2024 and its connection to the power grid, Rau GmbH was able to significantly increase its share of self-generated electricity, reducing both costs and emissions:

- Increase in the self-sufficiency rate to 37% in 2024, even though the battery storage system will not begin regular operation until early 2026.
- Noticeable reduction in electricity procurement costs (approx. €200,000 in 2025, adjusted for electricity prices)
- Reduction in emissions: 50 tons of CO₂ from the battery storage system & 140 tons of CO₂ from the PV system
- Payback period of five and a half years

Conclusion & Outlook

The escalation of the energy crisis due to the war in Iran shows that the transition to renewables among small and medium-sized industrial companies is not only environmentally sound but also an economic necessity. Generating your own energy also makes planning easier: even just a few months of operating a PV system make it clear how much self-generated electricity cushions price volatility and increases operational stability. Early modernization of the infrastructure is crucial for this. Sustainability reporting provides the data foundation for well-informed investment decisions, creates transparency for management and investors, and minimizes risks.