



Energy is at the centre of sustainability and has a considerable effect on ecological, social and economic dimensions. As high-energy company with an energy demand of approximately 1,000 households, the **LUDECKE** GmbH has recognised its tremendous potential for sustainable actions and started the project **LUDECKE** energy campus in 2020.

The Concept “**LUDECKE** Energy Campus”

The **LUDECKE** energy campus represents a milestone in the development of the company. At the beginning of the project, **LUDECKE** was exclusively dependent on external energy supply sources. The building as well as the surrounding rental units were equipped with four separate electrical connections and the heat supply consisted of six partly outdated oil and gas boilers.

Long before the energy crisis in 2022, the **LUDECKE** company drew up a comprehensive concept for a sustainable and future-oriented energy supply at the Amberg site. Within the Green Company Concept, this included the following requirements: in-house energy production, a central heat and cooling supply as well as the modernisation of the entire energy system.

Moving gradually towards a sustainable Future

As a first step, the company renovated and enforced the roofs. Subsequently, a photovoltaic rooftop system was installed with a performance of almost 1 mwp. Simultaneously, all buildings of the campus were integrated into the company network via an underground power grid.



Photovoltaic rooftop system

The next step was to replace five outdated heat generators with a central solution: an approximately 500 kw cogeneration unit in combination with an absorption cooling unit.



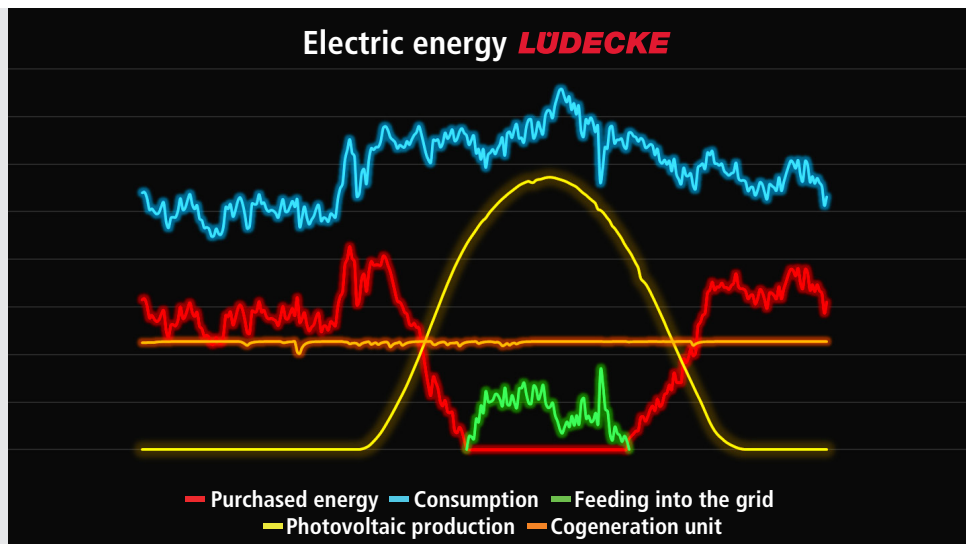
This efficient solution allows for an all-year long use of the cogeneration unit. This affects the heat supply in the winter, the machine cooling in the summer and the energy supply throughout the entire year.

To use electricity surpluses reasonably for heat production, a 100 kw heating cartridge as well as a heat pump were installed additionally. Due to complex power grid work, all buildings were connected to the central supply system via local heating pipes. An energy monitoring system as well as a load management system monitor the consumption and deploy controllable consumers profitably.

Improvement of Energy Efficiency

All these actions led to a considerable improvement regarding energy efficiency. Moreover, the **LUDECKE** energy campus is a huge step towards energy independence and supply security by local energy producers.

In total, the project took three years from the planning phase to completion. In this period, a new production hall was built using a wooden hybrid construction which accommodates the new energy centre.



Significant decrease from purchased energy. To some part, energy is fed into the grid via the energy production facilities

The **LUDECKE** energy campus considerably strengthens the positive development of the company in all three areas of sustainability. By implementing an advanced energy system, **LUDECKE** is well-prepared for all coming challenges and can look ahead with strong confidence.

Since more than 90 years, **LUDECKE** is the leading partner for coupling systems to connect flexible fluid lines with tools, machines and industrial equipment. Since 1949, we have been manufacturing fittings at the headquarters in Amberg for a variety of applications and media, which are distributed worldwide by the technical trade or used by the leading machine manufacturers (OEM) in their own machinery.

We are developing and producing first-class, innovative and sustainable products according to the highest quality standards. The product portfolio is comprised of a comprehensive standard range as well as individual custom item projects. Thanks to our broad product range, our many years of know-how and our versatile range of services, we always guarantee safe and efficient solutions for your daily work.

More information at www.luedecke.de

LUDECKE GmbH
Heinrich-Hauck-Str. 2 · D-92224 Amberg
Phone: +49 96 21 76 82 0
Fax: +49 96 21 76 82 99
www.luedecke.de
info@luedecke.de