FENECON

POWERING THE FUTURE

of your farm

FENECON Industrial S | Agriculture

Vision

The Fälschle vegetable farm in Nürnberg-Höfles represents modern, energy-intensive agriculture. Leek production in particular has led to a continuous increase in electricity demand – and consequently to rising energy costs. In order to operate both sustainably and economically, the farm set out to find a solution that would efficiently utilize both existing and planned energy generation.

The requirements were clear: an outdoor-capable storage system that can intelligently integrate the existing 30 kWp photovoltaic system, as well as the on-site combined heat and power (CHP) units with capacities of 20 kW and 5.5 kW. In addition, a further photovoltaic system with 61 kWp is already in the planning stage and should also be seamlessly integrated into the energy management system.

Customer profile

- Bernd Fälschle
- Vegetable farming operation
- Nuremberg, Bavaria
- Annual electricity consumption: 182,000 kWh
- Existing installation: 91 kWp PV system and CHP units with a total output of 25.5 kW

Watch the video here

Project Details

- FENECON Industrial S
- 92 kW power
- 82 kWh capacity
- Installed by Elektro Fälschle GmbH
- The self-consumption rate increased by 52%

Energy Management in Detail

- FEMS App PV Inverter
- FEMS App Grid-Optimized Charging
- FEMS App Production and Consumption Meter

More info about FEMS

Results

86 %
Self-consumption rate

90 t
Annual CO_2 Savings*

130.000 kWh
Reduced monthly electricity consumption

*based on data from the German Federal Environment Agency

Energy Journey

Thanks to the FENECON Industrial S, the Fälschle vegetable farm can make optimal use of its self-generated energy: surplus energy from photovoltaic systems and combined heat and power (CHP) units is stored and deployed exactly when it is needed. The new PV system, in combination with the storage solution, has increased the self-consumption rate to 86 % – saving around 21,000 kWh per month.

Energy costs have decreased significantly, the system operates reliably, and it ensures that the farm is now running both efficiently and sustainably. At the same time, it is well prepared to intelligently and cost-effectively utilize surplus grid electricity in the future via time-of-use tariffs.

"What makes this project particularly special to me is our energy management system FEMS, where sector coupling is brought together. This is where the combined heat and power (CHP) units and external inverters are centrally integrated, making the overall system particularly efficient for the customer."

Arthur Rube, FENECON GmbH