

Citizen cooperative energy in the district Pfaffenhofen a. d. Ilm



Since 2025, the Bürger-Energie-Genossenschaft Pfaffenhofen a. d. Ilm has been implementing an innovative project: an AI power plant. It is a mobile-expandable IT container data center that operates using surplus local renewable energy. The data center provides AI server capacities for external companies, start-ups, research institutions and local businesses. The project combines citizen energy, regional digitalization and sustainable IT operations.

Challenge

BEG Pfaffenhofen a. d. Ilm operates several wind turbines and PV plants, some of which have significant **yield peaks**, which cannot be fully fed into the power grid. These surpluses led to:

- uneconomic curtailments in the summer.
- low remuneration rates for Peak times.
- and untapped renewable potential.

At the same time, the need for **computing power for AI applications is increasing**, especially in medium-sized companies. Many companies are looking for regional, GDPR-compliant alternatives to international hyperscalers.

Solution

Fsas Technologies developed the concept for the AI power plant together with BEG

- **Economic use of surplus energy** instead of curtailment.
- Development of a **regional, decentralized AI infrastructure** for SMEs and research.
- **CO₂- neutral operation** of a data center.
- Creation of a **new source of added value** for cooperative members
- Minimization of structural interventions through **modular container technology**.

Results

Location

- Directly next to an existing wind turbine and/or BEG solar park.
- Connected to the grid, access to medium voltage is available.
- Low approval, as container construction by Prior 1.

Usage concept

External customer groups:

- Medium-sized industry (e.g. simulations, AI analyses)
- Research institutions
- Start-ups with high GPU demand
- Municipal applications (smart city, traffic analyses, energy optimization)

“With our cooperative energy, we want to inseparably combine civic engagement, climate-friendly energy generation and economic success. We therefore initiate and finance projects for the generation, storage and distribution of renewable energies in the district of Pfaffenhofen a.d. Ilm. Pure profit maximization is the focus not in the foreground.”

***Andreas Herschmann**, Chairman of the Board BEG Pfaffenhofen*



Regio AI GmbH

The AI operation and marketing of the computing power is handled by Regio AI GmbH. The company offers a regional AI platform for this purpose.

Core elements

- **AI-plattform** ([MYREGIO.AI](https://myregio.ai)) as central control
 - **AI-hosting & operations** in regional data center (dedicated hardware)
 - **GDPR-compliant integration of own company data** (RAG)
 - **AI Agents & Chatbots for Business Processes**
1. **Full data sovereignty** (no data outflow to US clouds)

Next-generation AI data center

The platform is ideal for enterprises, research institutions, and government agencies that want to run demanding AI, LLM, and HPC applications productively.

Intel® Xeon® and **NVIDIA® Blackwell** as drivers of innovation

- Accelerate AI transformation with **state-of-the-art hardware**
- It is based on 5 high-end AI servers (**SYS-822GS-NB3RT**) from Supermicro with 8 NVIDIA HGX B300 GPUs.
- **Enterprise AI Infrastructure** powered by Intel & NVIDIA

By combining high AI performance, energy efficiency, and scalability, as well as the integrated Intel® AMX AI accelerator, Intel® Xeon® 6 helps companies grow their AI initiatives economically and future-proof.

Project: Surplus solar power becomes AI computing power

The citizen energy cooperative, which increasingly produces more solar power than it can use or feed into the grid profitably, has found an innovative solution. Instead of leaving the surplus unused, it is converting it into a scalable and highly profitable business model by operating an energy-efficient AI data center. This project creates a modern infrastructure for the growing regional demand for privacy-compliant AI computing power, opens up a new field of value and transforms fluctuating energy production into a predictable, high-margin digital service.

For this purpose, a modular IT container data center from Prior 1 uses surplus solar power directly on site to operate climate-neutral AI servers. This high-performance, regional infrastructure serves companies, research and municipalities with secure and sustainable computing power. The flexible container with state-of-the-art GPU and CPU technology enables the economical, resource-saving and future-oriented use of wind energy and PV peaks through the intelligent coupling of energy generation and IT load.

The result is an innovative lighthouse project that shows how decentralized energy in the hands of citizens and high-tech work together. Citizens can participate in the BEG's AI power plant and thus invest in a model that combines ecological responsibility, technological future capabilities and economic attractiveness.

This model was made possible by a co-creation approach in which Fsas Technologies developed the concept for the AI power plant together with BEG Pfaffenhofen – from the initial potential analysis to the technical and economic design of the solution.

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