FUERGY

flexibility brAIn by FUERGY

Fully automated management of energy sources and technologies with the potential for regulation or accumulation:

- Heat pumps
- Furnaces
- Reservoirs and tanks
- HVAC systems
- Compressors
- PV systems
- Other technologies and energy sources

Software solution with zero initial costs

Immediate savings in the form of a success fee

Fast implementation

Efficient reduction of CO_2 emissions

Flexibility brAIn is available as a standalone service or as an extension to smart battery storage brAIn.

How does the flexibility brAIn work?

1. For each energy source or energy-intensive technology, the conditions and limits within which the regulation can be activated are set. This will ensure that the activation of flexibility brAIn won't interfere with the customer's operations or reduce the comfort of the users.

2. Based on online data and AI predictions, such as customer's electricity consumption, situation in the power grid, electricity prices, or electricity supplier's load deviations, the software identifies those time periods during which the power regulation generates a financial effect. It also identifies the optimum amount of regulation power, i.e. the power decrease or power increase, that should be activated through a given source or technology.

3. The increase or decrease of the power output is activated through the system for Measurement and Regulation, the so-called MaR, in a fully automatic mode, which also guarantees the best possible financial results. Manual mode is available upon request.

4. The user of flexibility brAIn earns a success fee, i.e. a share of the total financial effect achieved. Such energy management helps to stabilize the power grid in an efficient and emission-free manner, which means that the user of flexibility brAIn also contributes to the reduction of CO_2 emissions on a national level.

Example – chillers

The regulation range and limits for the chiller's cooling performance are set. In this example, we assume cooling to a temperature between 20°C and 25°C.

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When the **software identifies**, a **surplus of electricity in the power grid, it increases** the chiller's power output.

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The power output remains increased either until the end of the time period reserved for regulation **or when the limit temperature of 20°C is reached.**

Automated smart regulation of technology's power output helps to stabilize the power grid and thus reduces CO_2 emissions in **exchange for a financial reward**.

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The same principle applies in the case of a power shortage in the power grid. The software then switches the chiller off until the temperature reaches 25°C.

Financial results achieved in Q3 2022

Average monthly effect → **50 EUR** per **1 kW of regulation power**[1]
Investment costs → **0 EUR**
Implementation period → **1 to 2 weeks**

Textile plant

flexibility brAIn
for chillers

Maximum power:
700 kW

SLOVENSKÉ ELEKTRÁRNE energetické služby

National Football Stadium

flexibility brAIn
for heat pumps

Maximum power:
3.15 MW

SLOVENSKÉ ELEKTRÁRNE energetické služby

Ironworks

flexibility brAIn for arc furnace and hydropower plant

Maximum power of the arc furnace: 35 MW

Maximum power of the hydroelectric power plant: 2.5 MW

ŽELEZIARNE PODBREZOVÁ

1 *The regulation power represents approximately 10% of the maximum power of the technology. In case the technology is regulated by its total switching off and on, the regulation power corresponds to the maximum power of the technology.*