



Case Study

Tower 115



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TOWER 115

JTRE



Bratislava Tower 115 has undergone a fundamental energy modernization upgrade

With an annual savings of thousands of euros and several hundred tons of CO₂e*, this renovation is available for any large building as well as hundreds of smaller administrative buildings.

Situation

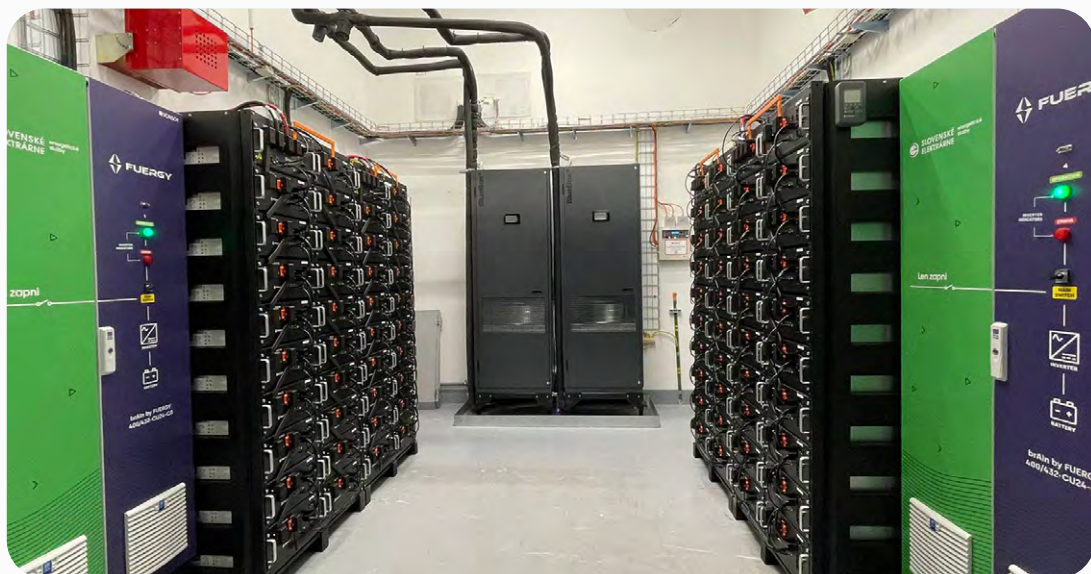
From its opening in 1984 until recently, Tower 115 in Bratislava was one of the three tallest buildings in Slovakia. Today, its 28 floors with 1,390 m² are each filled with offices and meeting rooms, as well as warehouses, shops, restaurants and a variety of services. The tower consumes approximately 4.7 gigawatt-hours of electricity annually. The building's operational equipment has been routinely upgraded, but now 17 years after a fundamental reconstruction, the time has come to revitalize the energy efficiency of the building so it can once again keep up with the times. The biggest challenge of this project was insufficient roof space for the installation of solar panels. As such, an innovative solution had to be developed by FUERGY.

* Carbon dioxide (CO₂) is just one of several greenhouse gases with global warming potential (GWP). CO₂ equivalent or CO₂e represents all the molecules that capture heat and warm our atmosphere, not just carbon dioxide. It is the unit that FUERGY uses for the calculation of the achieved emission reduction in line with ESG reporting standards.

Solution

Even administrative buildings that do not have sufficient roof area for solar panels can save money on electricity costs and reduce CO₂e emissions. **The innovative solution developed by Slovak start-up FUERGY is based on a large smart battery storage that can shift the consumption of electricity over time, thereby reducing the building's load on the electricity grid.**

A 432-kilowatt-hour brAln battery storage, designed according to the building's energy consumption, is controlled by intelligent software that charges the batteries when the grid needs to get rid of surplus electricity and discharges them automatically when the grid lacks electricity. A solution including a large-capacity smart battery storage, i.e. with a capacity of more than 100 kWh, works optimally for an annual consumption of 1.5 gigawatt hours. **Buildings with lower energy usage can either be connected to a single centralized large-capacity battery, or use their own smaller batteries. These can work independently, or can be connected to each other physically or virtually and managed as a single unit.** As a result, smaller administrative buildings can earn from the storage operation and simultaneously reduce CO₂e emissions.



The results



Thousands of euros
annual cost savings.



-400 tons of CO₂e
can Tower 115 save emissions per year
and **reduce its carbon footprint by 35%.**



Input data
for ESG reporting

to improve the ESG profile of the
building owner.

- After only 1.5 months, the carbon footprint of the battery production (57 tons) is compensated for and the building produces a net carbon savings.
- Owners **can report the net carbon savings** (more than 400 tons / the equivalent of solar panels with a huge installed capacity of 2.6 MWp) **in the form of a carbon offset in the ESG report, and thus improve the position for bank financing and vis-à-vis business partners and the public.**

Interesting notes from the Tower 115 installation:

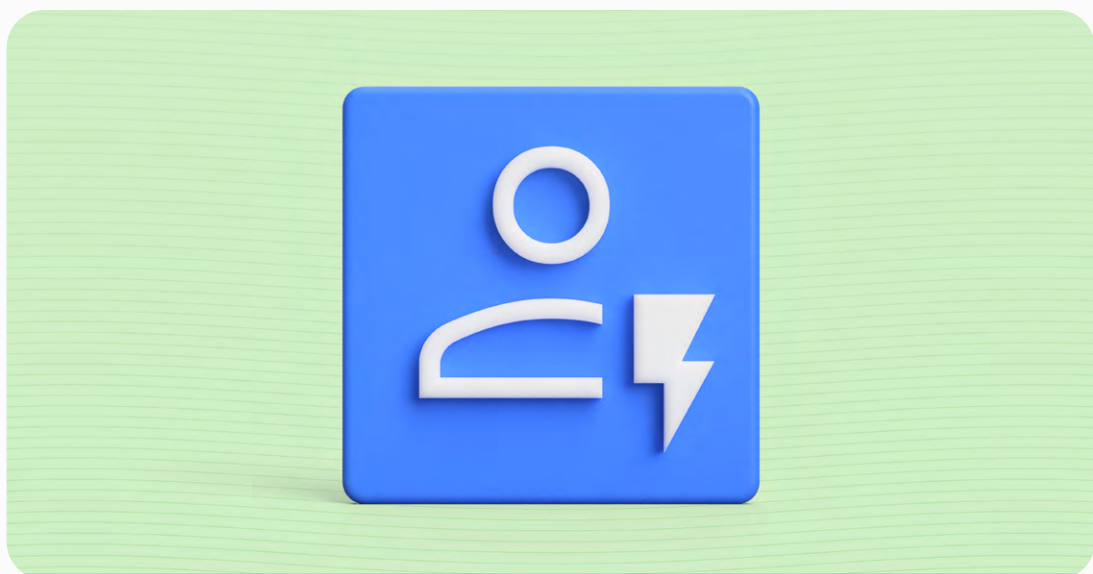
- weight: 7400 kg
- non-flammable batteries (a different design compared to electric cars), BMS (battery management system), converters, switchgear and other electrical components
- 700 kg of cables
- 13 people, 160 hours and 30 walked kilometers during installation
- 6 months (from the signing of the contract to the start of operation)



Instead of investing Energy as a Service

(EaaS)

Procuring a Smart battery storage brAI can be investment-intensive for some companies. Moreover, its design, installation, operation and maintenance requires a great deal of technical and energy specific know-how. One alternative is the Energy as a Service model offered by FUERGY under the name "Smart battery storage brAI as a Service", provided in cooperation with selected energy suppliers. **Thanks to EaaS, the owner of the building – a company, municipality or region – is not required to invest a single euro in the smart battery storage technology brAI and still benefits from all the advantages, saving from the first day of operation.** The Tower 115 battery storage, whose investor is Slovenské elektrárne - energetické služby, was also implemented via this principle. Here you can find more information about the [Energy as a Service model](#).



Process:

How to save on energy and CO₂e without worries or the need to invest a single euro

1. Free energy audit: FUERGY will assess your consumption diagram and propose a unique solution.
2. Inspection of the installation site: Assessment of possible construction / electrical modifications
3. Installation of batteries and components in proximity to the main switchboard
4. Storage up and running 24/7
5. Online battery storage system monitoring and its regular maintenance



Zero worries about paperwork and permits.



Zero worries about technology management or energy management.

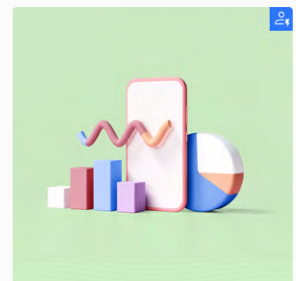
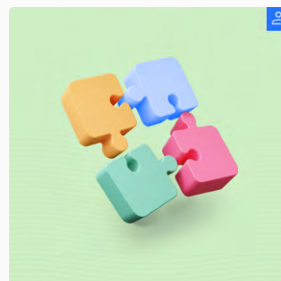
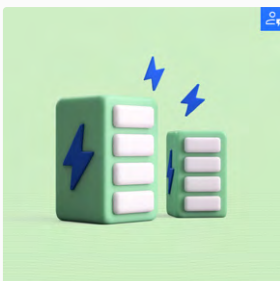


Zero worries about technology repairs and maintenance.

Energy modernization without any investment:

What as a Service models are available?

1. Smart battery storage brAIIn as a Service
2. Solar panels as a Service
3. Technology regulation as a Service
4. Energy Department as a Service



Thinking about the battery storage **brAIIn** by FUERGY?

Excellent!

You are on the right path to a more economical
and greener operation.

I want to save



Headquarters
Eurovea City, Pribinova 34
821 09 Bratislava
Slovakia

R&D center
Závodská cesta 38
010 01 Žilina
Slovakia

info@fuergy.com
www.fuergy.com