



Lower costs. Higher comfort.



STEPS - the System of Thermal Energy
Packed Storage





PILOT

The Problem

- High heating costs, especially in the face of rising energy prices.
- Low efficiency of traditional heating systems.
- Difficulties in managing thermal resources due to lack of automation.
- Lack of integration with modern IoT solutions.

The Solution

The STEPS is:

-  Smart algorithms to predict heat demand.
-  Full integration of a thermal accumulator, a heat pump, and a solid-fuel boiler in the single system.
-  Automated work processes with minimal manual intervention.
-  Intelligent savings are up to 30% on heating costs.



What our partner gets?

- ✓ **Three types of generation**
- ✓ **Heat pump** (air-water) with a capacity of 40 kW.
Total power generation: 150-200 kW (depending on the country, permits and certifications)
- ✓ **Capacity of the sectional heat storage at the maximum charge-discharge cycle:** 2400 kW/h.
- ✓ **Maximum peak power:** 500-600 kW
- ✓ **Free service** is for one year
- ✓ **Warranty service** is for **5 years**, concluding a service contract.
- ✓ **Delivery time** is up to **six months** after order confirmation.

STEPS ensures complete energy independence by integrating and managing multiple energy sources. It achieves fuel diversification through the use of three types of fuel: pellets, wood, and electricity.

The diagram illustrates the MAITEK smart energy management system architecture. It shows the flow of energy from various sources through a central management module to storage and then to customers.

Energy Sources (Left):

- SP – Solar panels
- SC – Solar collector
- WB – Wood Boiler
- PB – Pellet Boiler
- A/W HP – Heat Pump air/water

Inputs to EMM (Bottom):

- AP + P – Agro Pellets & Pellets
- Wood
- Electricity

Central Component:

- EMM – Electro Management Module (MAITEK)

Energy Flow (Blue Arrows):

- From sources to EMM.
- From EMM to FS – flow switch.
- From FS to HES – Heating Energy Storage.
- From HES to HCus – Heat Customer and ECus – Electricity Customer.
- From EMM to EAc – electric accumulator.

Control and Monitoring (Right):

- MAITEK CONTROLLER (large unit with screen).
- MS – meteostation (connected to the controller).
- Artificial Intelligence (AI icon, connected to the controller).
- CLIENT (represented by a person icon, receiving heat and electricity).



Economic Benefits

**HEATING COSTS SAVINGS ARE UP TO
30% BY THERMAL ACCUMULATOR
AND AI-BASED OPTIMIZATION.**

FAST INVESTMENT RETURN.

LOW MAINTENANCE COSTS.

PRICE

from 56,000 to 59,000 € *

***not including the cost of delivery
of components and the
dispatch of specialists for installation**

**The price depends on the conditions of the project, such as
the type of construction: modular, built-in or combined.**



Client Testimonials

“STEPS has helped us to reduce heating costs and automate energy management. We attest to real savings and feel satisfied with our own contribution to sustainability.”

— Mykhailo, the owner of Kazimir Resort Hotel, Bukovel



Key advantages

- ✓ Autonomy and fuel diversification
- ✓ Green transition support
- ✓ High generation efficiency
- ✓ Forecasting through Artificial Intelligence.
- ✓ The STEPS thermal accumulator has a 30 times greater capacity than Tesla's most powerful 82 kW*h accumulator.
- ✓ The possibility of connecting solar collectors
- ✓ High peak power
- ✓ The Accumulator is operating in case of an emergency.

**Lower costs.
Increased
profitability.
Reduced energy
consumption.**



About us

LLC MAITEK PLUS

Established since 2011 in Ukraine. Software and hardware producer. More than 1,000 objects in Ukraine and in EU were automated.

MAIN SPECIALIZATION IS:

- automation of technological production, enterprises, multifunctional facilities and business processes;
- energy efficiency and energy supply systems;
- systems for monitoring and managing business and working processes.



**Contact us to get
a pilot installation
calculation!**



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