plum HVAC

effective energy management at home with photovoltaics and a heat pump

evoSYNC + PV

evoSYNC
HEMS controller

ecoNET Cloud
internet system

inverter — Modbus — **evoSYNC** energy management module with evoINTELLIGENCE — Modbus — **heat pump**

- photovoltaics
- energy storage
- EV charger

- CO
- DHW
- buffer
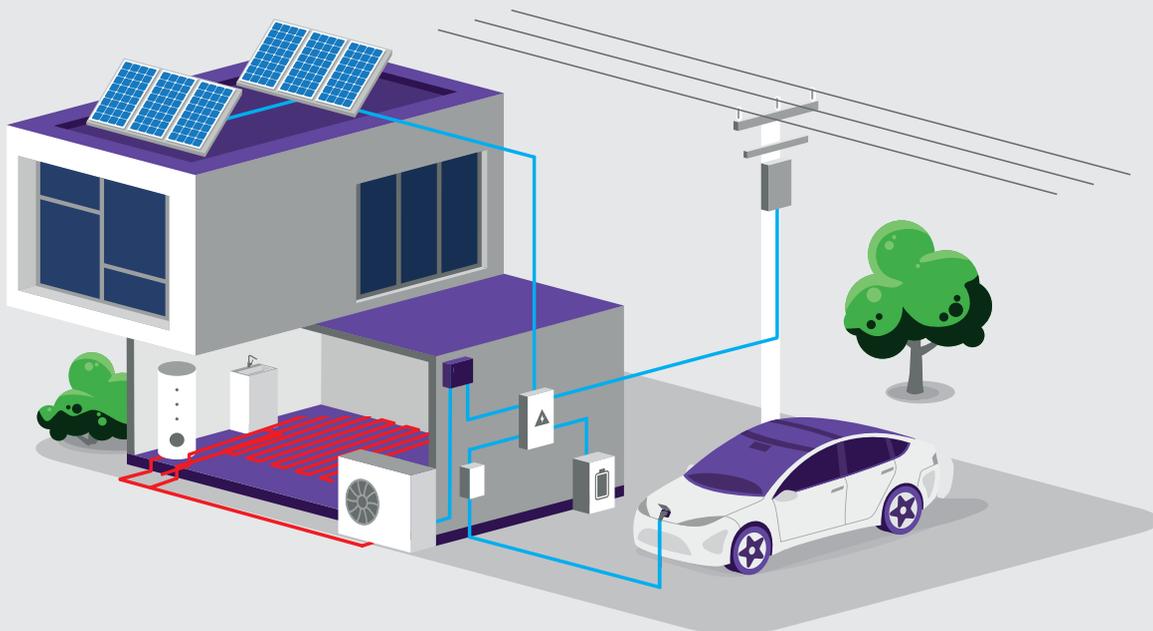
What is evoSYNC?

An intelligent control module that dynamically adjusts the operation of devices to maximize savings and system efficiency, using data on current energy prices, outdoor temperature, and device operating parameters.
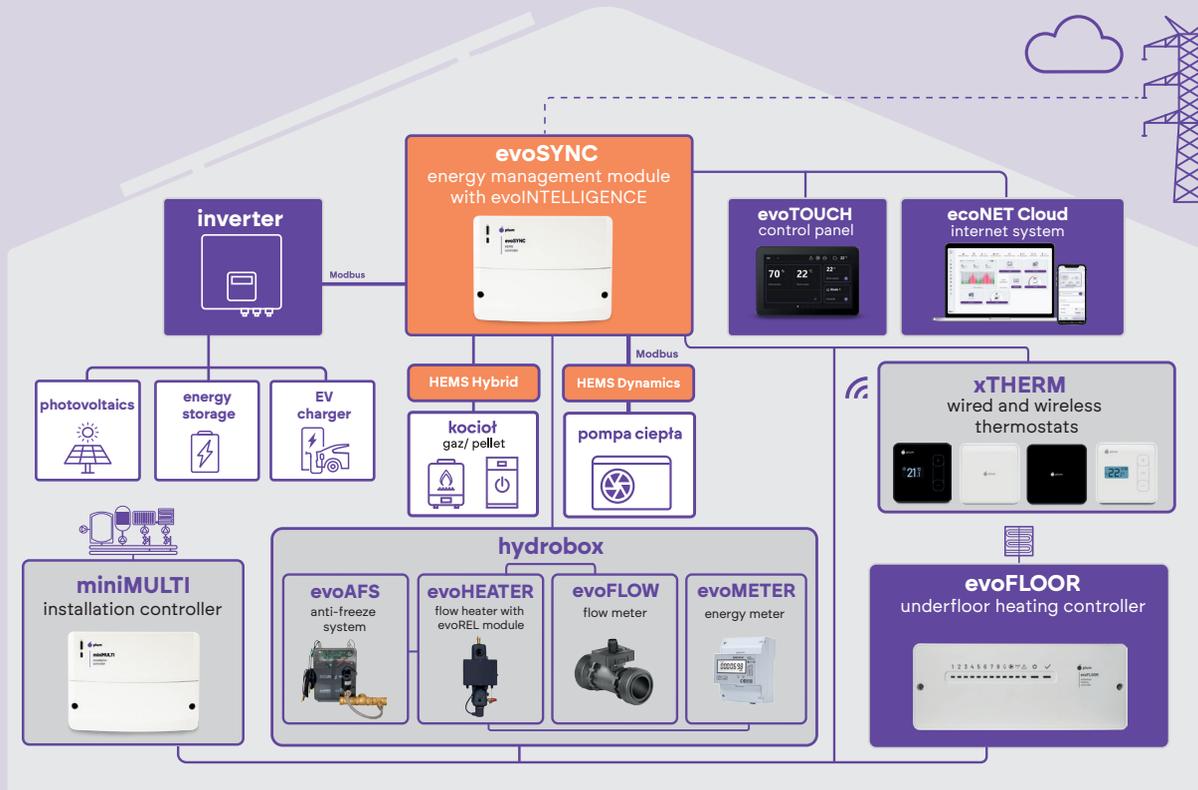
evoSYSTEM is a smart energy management system that integrates the operation of:

- photovoltaic installation
- energy storage
- heat pump
- heating system (central heating / domestic hot water / underfloor heating / buffer / radiators / fan coils)
- household appliances
- EV charger

Thanks to data-driven operation, solar irradiation forecasts, and real-time consumption analysis, evoSYNC helps efficiently utilize the energy produced by PV panels.

What makes evoSYNC stand out?

- precise energy balancing in real time
- easy integration with PV installations from various manufacturers
- compatibility with energy storage systems
- operation based on real data – not simulations
- readiness for changes in the energy market (dynamic tariffs, low prices, local balancing)

Predictive energy management
evoINTELLIGENCE

evoSYNC analyzes:

- solar irradiation forecast
- expected PV production
- outdoor temperature
- past energy consumption
- system operating mode

Based on this,
it plans ahead for:

- using cheaper tariff hours
- charging and discharging the storage
- heat pump operation
- domestic hot water heating
- lowering or raising underfloor heating temperature

100% automation
You configure it once, and the system does the rest.

Why is it worth installing evoSYNC if you have photovoltaics?

1 Maximum self-consumption

PV energy is used locally — in the energy storage, heat pump, and household appliances.

2 More stable operation of PV + storage

The system manages energy flow to better match production with home consumption.

3 Lower bills thanks to operation during cheap hours

evoSYNC uses PV production forecasts and energy prices to optimize the operating time of the heat pump and other devices.

4 Smart cooperation between the heat pump and PV installation

The heat pump heats water or underfloor heating when production is at its peak, reducing grid energy consumption.

5 Minimizing energy export

Especially important during periods of low or negative energy prices or in future settlement models.
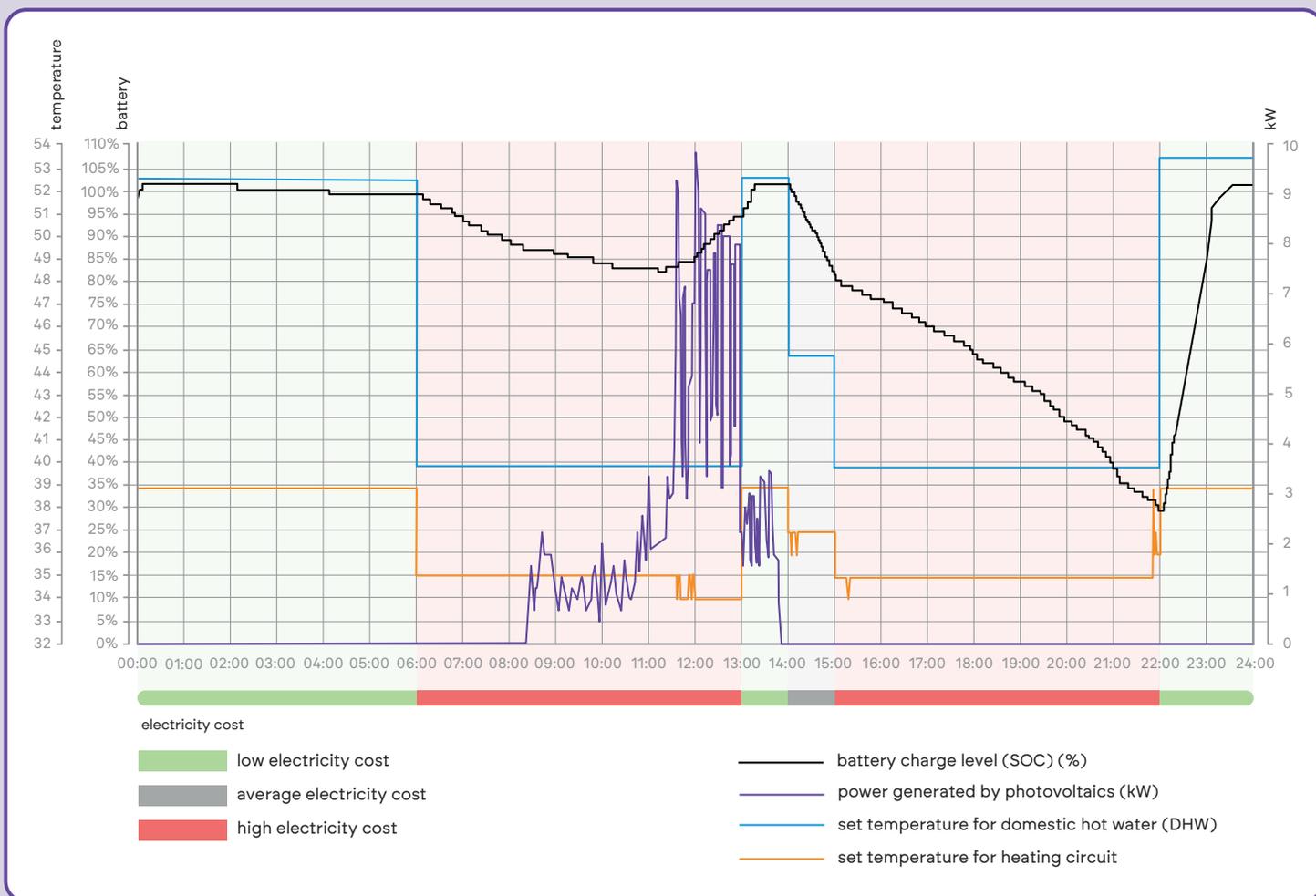
6 Using underfloor heating as a natural heat storage

The system allows storing part of solar energy as heat without additional costs.

7 ecoNET Cloud one app, full control

The user can monitor energy production and consumption, storage charge level, heat pump operation, and energy flows in real time.

Advanced intelligent energy management algorithm

electricity cost

- low electricity cost
- average electricity cost
- high electricity cost

- battery charge level (SOC) (%)
- power generated by photovoltaics (kW)
- set temperature for domestic hot water (DHW)
- set temperature for heating circuit

0:00 - 6:00
store thermal energy by increasing demand; block battery discharge

6:00 - 11:30
reduce thermal energy demand; use battery energy for household needs

11:30 - 13:00
PV energy becomes available and is used for household needs; surplus stored in the battery

13:00 - 14:00
store thermal energy by increasing demand; block battery discharge

14:00 -15:00
return to standard operation; use battery energy for household needs

15:00 - 22:00
reduce thermal energy demand; use battery energy for household needs

22:00 - 24:00
store thermal energy by increasing demand; store cheap energy in the battery