



**E-MOBILITY READY**

## **THE PEACE OF MIND PACKAGE** ELECTRICITY, HEAT AND MOBILITY FROM PV ENERGY

RIEDEN, DE: A roof-mounted system owned by the Auer family in southern Germany is a classic example of an intelligent, complete solution. The 16-kWp photovoltaic system has a battery for storing energy, a Fronius Ohmpilot for heating water and a wallbox for intelligently charging an electric car. As a result, it provides the six-person household with maximum independence from rising electricity prices.

#### THE CHALLENGE:

- / Integration of electricity, heat and mobility
- / Reduction of energy costs
- / Protection for heat pump
- / Greater degree of self-sufficiency

#### OUR SOLUTION:

- / Fronius Energy Package for efficient storage
- / Fronius Ohmpilot for heating water
- / Open interfaces to allow common charging cables for electric cars to be connected
- / The wallbox energy management system assumes control over the integrated eCB1 controller (the eCharge Hardy Barth)

#### SYSTEM HIGHLIGHTS:

- / Self-sufficiency of up to 90%
- / Fronius Ohmpilot lowers energy costs
- / Deactivation of the heat pump from March to October
- / Increase in heat pump service life of 20%



*“Originally a no-go, it now makes perfect sense to heat water with solar energy,”* reports Peter Maul from Hardy Barth GmbH. *“The Fronius Ohmpilot makes it possible. It can be integrated into an existing photovoltaic system and connected to the existing heating element in the boiler.”*

The Fronius Energy Package has been integrated into the system to allow PV energy to be stored. During the day, solar power that is not required is efficiently saved in the Fronius Solar Battery. The Auer family can then use it to power their appliances and other loads during the evening and at night.

The package is rounded off with the connection of a charging station from Hardy Barth for electric cars. *“Because the Auer family are exploiting every opportunity from their PV system, they have managed to achieve an impressive self-sufficiency rate of up to 90%,”* calculates Peter Maul.



*“I wanted to optimise our PV system for my family. The Fronius Energy Package, Fronius Ohmpilot and wallbox mean we are as insulated as possible from rising electricity prices,”* says system owner Josef Auer.

- / 90% SELF-SUFFICIENCY RATE
- / INCREASE IN HEAT PUMP SERVICE LIFE OF UP TO 20% AND MORE
- / AVOID THERMAL LOSSES OF HEAT PUMP IN SUMMER

SYSTEM DATA	RIEDEN, DE
Size of installation	15.82 kWp
System type	Roof-top installation
Inverter	1 Fronius Symo 10.0-3-M, 1 Fronius Symo Hybrid 5.0-3-S, 1 Fronius IG 60
Storage solution	Fronius Solar Battery 12.0, Fronius Smart Meter
Solution for heat generation	Fronius Ohmpilot
Solution for e-mobility	Continuous regulation of the charging power with the eCharge Hardy Barth wallbox cPH1
Commissioned	Total system: September 2017
Annual yield	Approx. 13.1 MWh
CO <sub>2</sub> savings / year	Approx. 7 t
Self-sufficiency rate	Up to 90%
Special features	Electricity, heat and mobility using PV energy

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