



SUN INSTEAD OF OIL THE FRONIUS OHMPILOT MINIMISES ELECTRICITY AND FUEL COSTS

STEINBACH, AT: wouldn't it be lovely if you could produce the majority of your required household energy for yourself? And not just electricity, but heating as well? The Fronius Ohmpilot allows you to use surplus energy from a PV system to heat up your water. What's more, it can be installed as an add-on – which is exactly what the Samwald family did to their system in Austria. The existing oil-powered heating system for the six-person household can now be deactivated for the entirety of the summer, thus reducing its usage and extending its service life. This has also led to reduced fuel costs - a saving of over 430 litres of oil every year.



THE CHALLENGE:

- / Preserve the 22-year-old oil heater
- / Reduce energy and fuel costs
- / Increase the proportion of self-consumption

OUR SOLUTION:

- / Connect the current 3 kW heating element to the Fronius Ohmpilot
- / Optimised energy management with the Fronius Smart Meter

SYSTEM HIGHLIGHTS:

- / Heating cost savings of 336 euros*
- / Annual oil consumption cut by 432 litres*
- / Increase in level of self-consumption from 30% to more than 60%
- / From the end of March until the beginning of November, no oil heating is required to heat water

* Based on 2017 values

The Samwald family from Steinbach in Austria have been using solar power since 2014 and own a 4 kWp photovoltaic system. Until now, the weak point in their green credentials had been their 22-year-old oil-powered heating system. *“We decided to invest in a Fronius Ohmpilot because we wanted to lower our electricity and fuel costs, to increase our rate of self-consumption and to reduce our CO₂ footprint,”* explains system owner Stefan Samwald.

The Fronius Ohmpilot was retrofitted to the Samwald family’s existing PV system. Surplus solar energy that was not needed by other consumers in the home used to be fed back to the grid. Now the Fronius Ohmpilot directs the surplus energy to the heating element in the boiler.

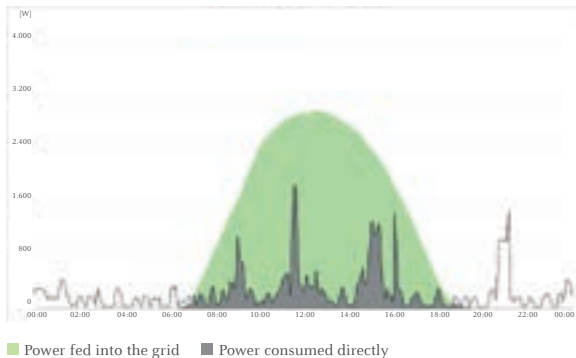
SYSTEM DATA	STEINBACH, AT
Size of installation	4 kWp
System type	Roof-top installation
Inverter	1 Fronius Symo 4.5-3-S
Further products	Fronius Ohmpilot, Fronius Smart Meter, Fronius Datamanager
Commissioned	PV system: October 2014 Fronius Ohmpilot: July 2016
Annual yield	4,172 kWh
CO ₂ savings / year	2.2 t
Self-consumption rate	Before installing the Fronius Ohmpilot: 30% After installing the Fronius Ohmpilot: 61%

	WITHOUT FRONIUS OHMPILOT	WITH FRONIUS OHMPILOT	MONTHLY SAVING
Heating costs / month	95 euros	67 euros	28 euros
Heating oil consumption / month	123 litres	87 litres	36 litres

/ Average oil price of 77 euros per 100 litres / 6-person household

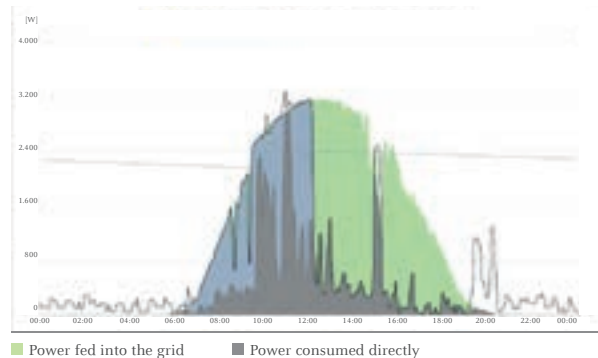
Refers to average savings in the year 2017

Before the Fronius Ohmpilot was installed, surplus PV energy was fed back into the public grid.



■ Power fed into the grid ■ Power consumed directly

After the Fronius Ohmpilot was installed, surplus PV energy began to be used to heat water until the target temperature is met in the boiler.



■ Power fed into the grid ■ Power consumed directly ■ Fronius Ohmpilot power — Fronius Ohmpilot temperature