

## Case study: real installation - reference 2017

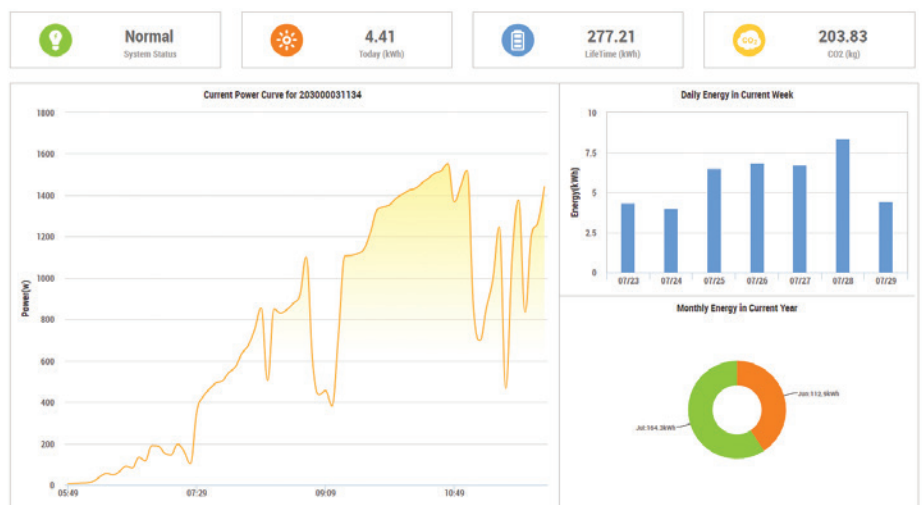
# GridFree solar power plant on a family house - 1,5 kW

### INSTALLATION:

- solar panels GWL - 4 pcs 310 Wp and 2 pcs 320 Wp
- 3 pcs GridFree microinverter YC500T
- 1 pc monitoring gateway YC500
- 2 pc consumption meter GridFree 230 V /16 A with LCD display in the socket
- 1 pc Wattrouter
- 1 pc electricity meter for DIN Eltako WSZ12DE-32A - connected to the wattrouter input FVE1

### USE OF THE INSTALLATION:

- hot water boiler - resistance appliance
- electric car charging
- reducing costs of electricity



### PROJECT EVALUATION:

I enjoy monitoring the amount of money that I save each month thanks to the photovoltaic power plant. It is very pleasant electro kit. It is the simple way to convert the GridFree system into the island off-grid system and so secure against a power failure from the distributor. I am completely satisfied with my installation and used components. Everything works on 100 %.

### ENLARGEMENT PLANS:

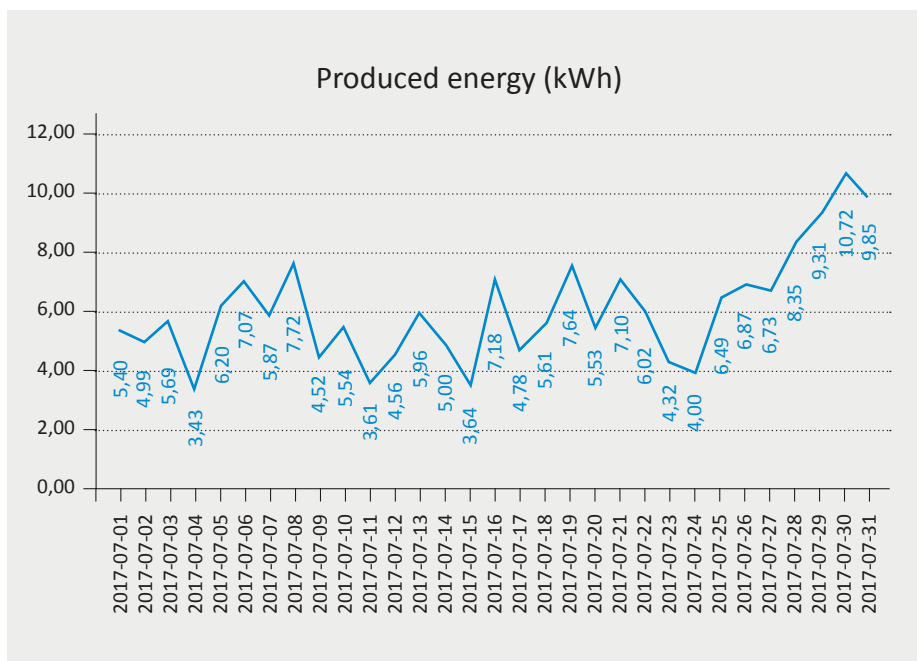
I'm going to cover with photovoltaic panels the whole of my roof. I intend to install additional panels in the future (at least 1,5 kWp). I can divide all gained power output in to three phases making all production even more efficient.

*Installation of Mr. Robert G.  
in Nučice, Czech Republic*



## Solar power plant production in July 2017

July 2017	Energy (kWh)
2017-07-01	5,40
2017-07-02	4,99
2017-07-03	5,69
2017-07-04	3,43
2017-07-05	6,20
2017-07-06	7,07
2017-07-07	5,87
2017-07-08	7,72
2017-07-09	4,52
2017-07-10	5,54
2017-07-11	3,61
2017-07-12	4,56
2017-07-13	5,96
2017-07-14	5,00
2017-07-15	3,64
2017-07-16	7,18
2017-07-17	4,78
2017-07-18	5,61
2017-07-19	7,64
2017-07-20	5,53
2017-07-21	7,10
2017-07-22	6,02
2017-07-23	4,32
2017-07-24	4,00
2017-07-25	6,49
2017-07-26	6,87
2017-07-27	6,73
2017-07-28	8,35
2017-07-29	9,31
2017-07-30	10,72
2017-07-31	9,85
<b>Total</b>	<b>189,7</b>



### POWER PLANT EVALUATION IN 2017:

The panels are installed on a sloping roof with an angle of about **30** degrees and roof orientations to the south. The installation is located on a family house in Nučice, Czech Republic (ZIP 251 16)

The total peak power of the panels is 1880 Wp.  
 Maximum output power of the whole system is **1500 W**.

Total monthly production in July (2017) was **189.7 kWh**.  
 The highest daily production in this month was **10.72 kWh** (on 30th July 2017).

### REFERENCE WAS PROVIDED BY:

Mr. Robert G.  
 252 16 Nučice  
 on 1st August 2017

