EU Heroes

Connecting Communities

2 years of living in a passive, solar-powered house: surprises and adaptations of daily habits

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12th April 2019

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 764805

Short characteristic of the house

- 205 m2
- A passive building
- Family of four
- Since Aug 2016
- 9,750 kWp
- Electricity only
- Heat pump

Electricity goes for:
hot water, heating, cooling, cooking, recuperation, lighting, sauna, household appliances and rtv

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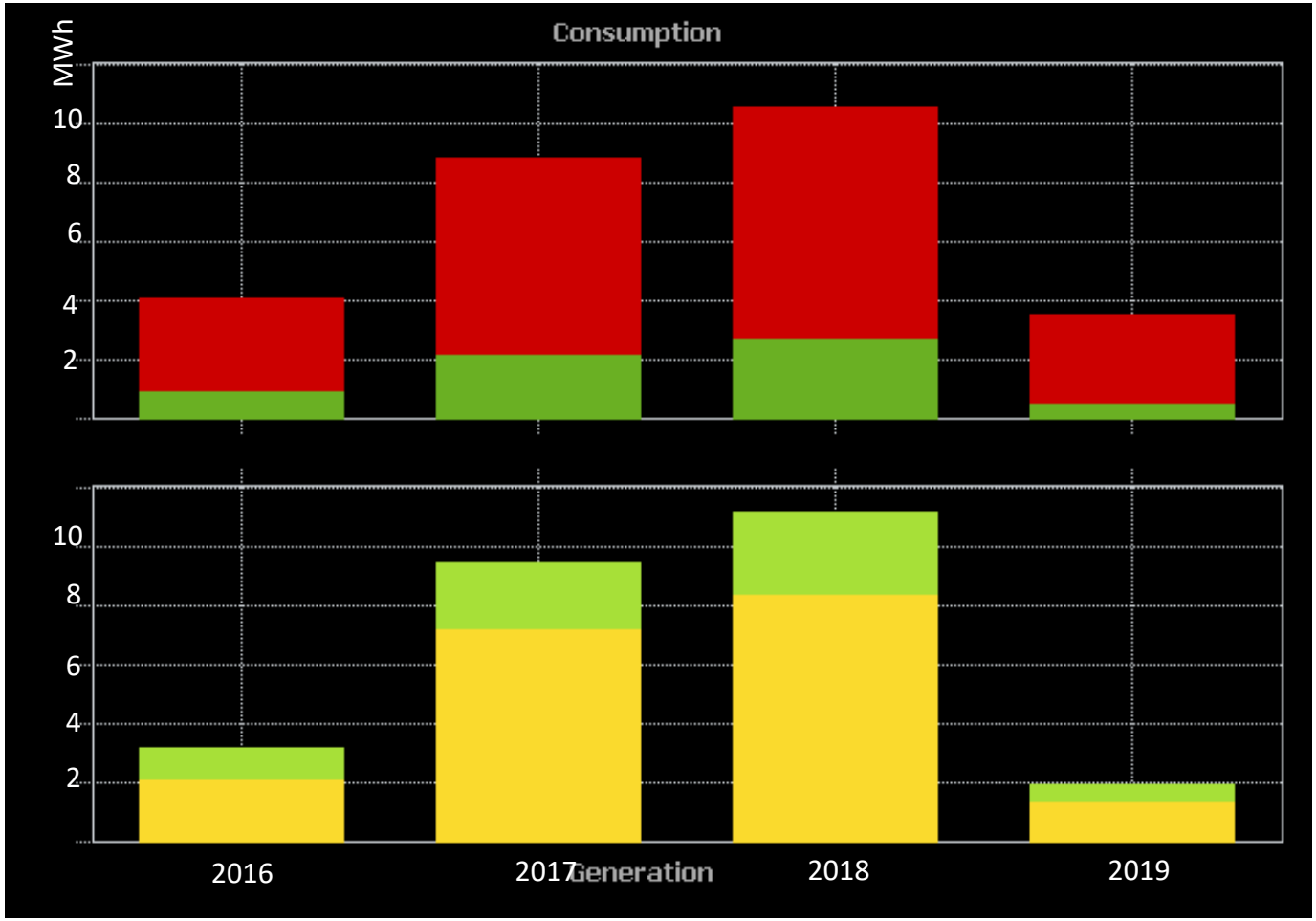
Energy consumption (2016-2019)



External energy supply

Self-consumption

Solar power not used at home

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Surprise 1 – More is less

Solar production 2017 kWh	9 426
Yearly consumption 2017 kWh	8 811
Solar production 2018 kWh	11 142
Yearly consumption 2018 kWh	10 557

The balance is minus 833 kWh (2017) and minus 1 113 kWh (2018) (?)

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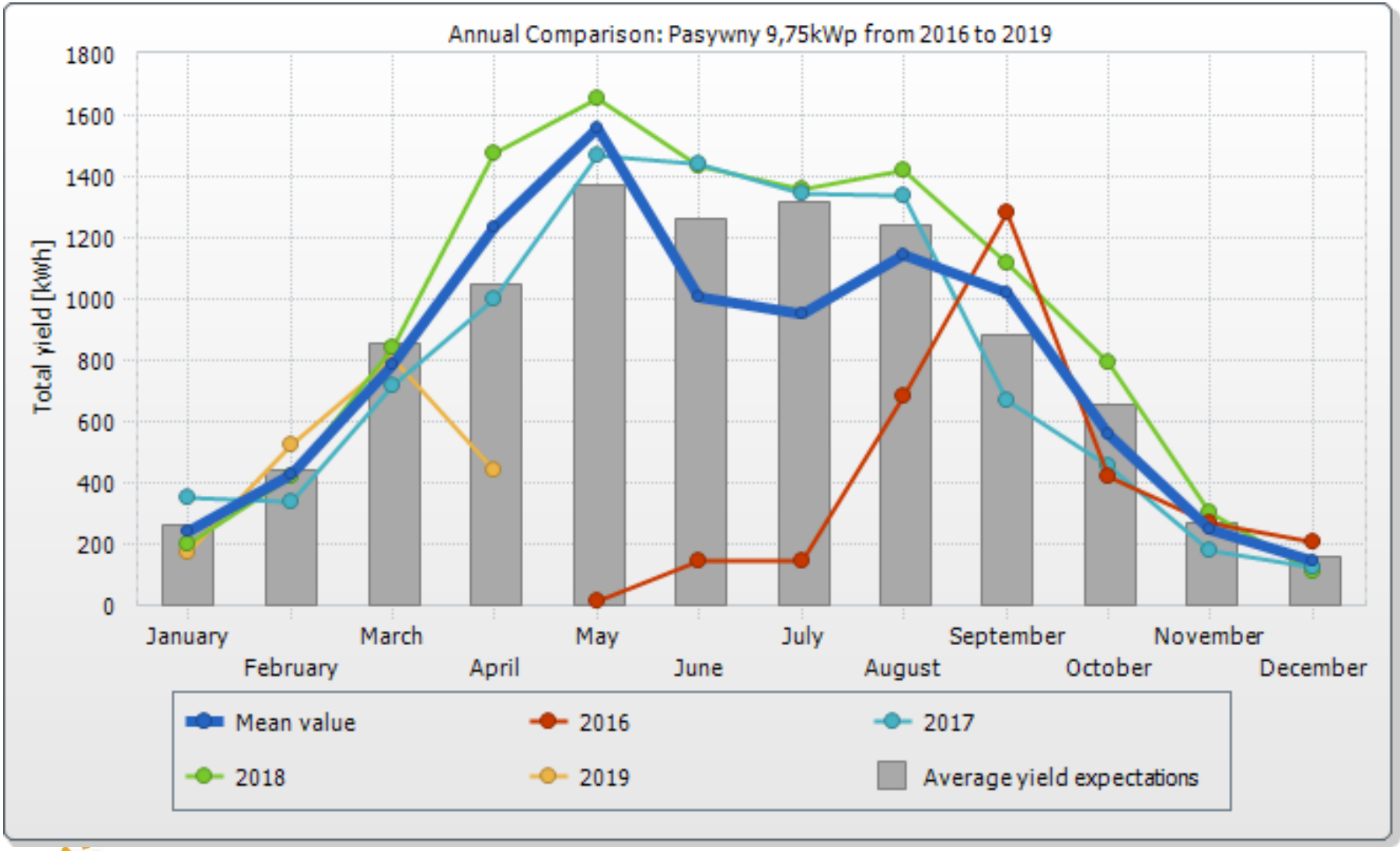
Surprise 2 – Solar energy is predictable



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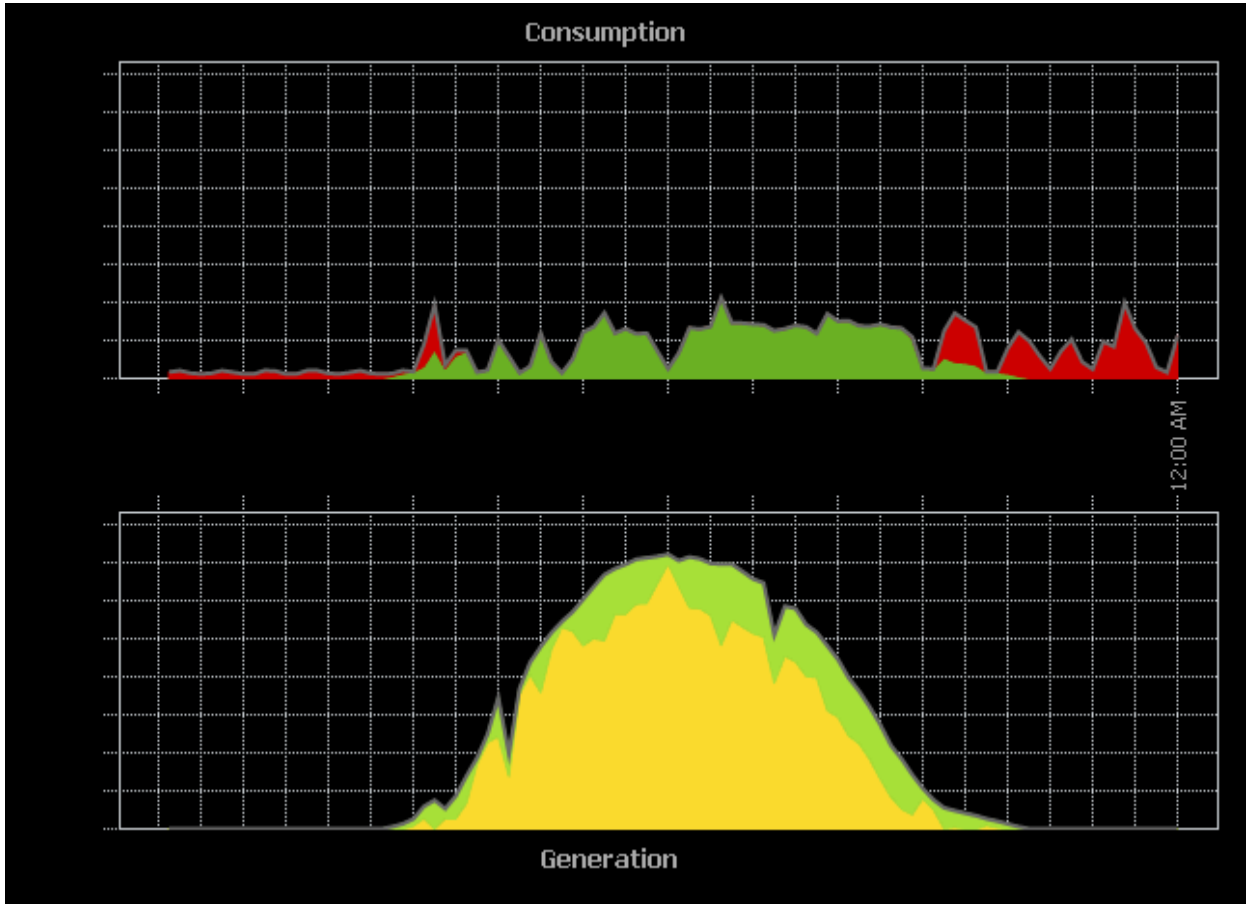
Surprise 3 – Cooling for free

- 1st of August 2017
- Hot summer
- Cooling for free
- Temperature is

an efficiency factor



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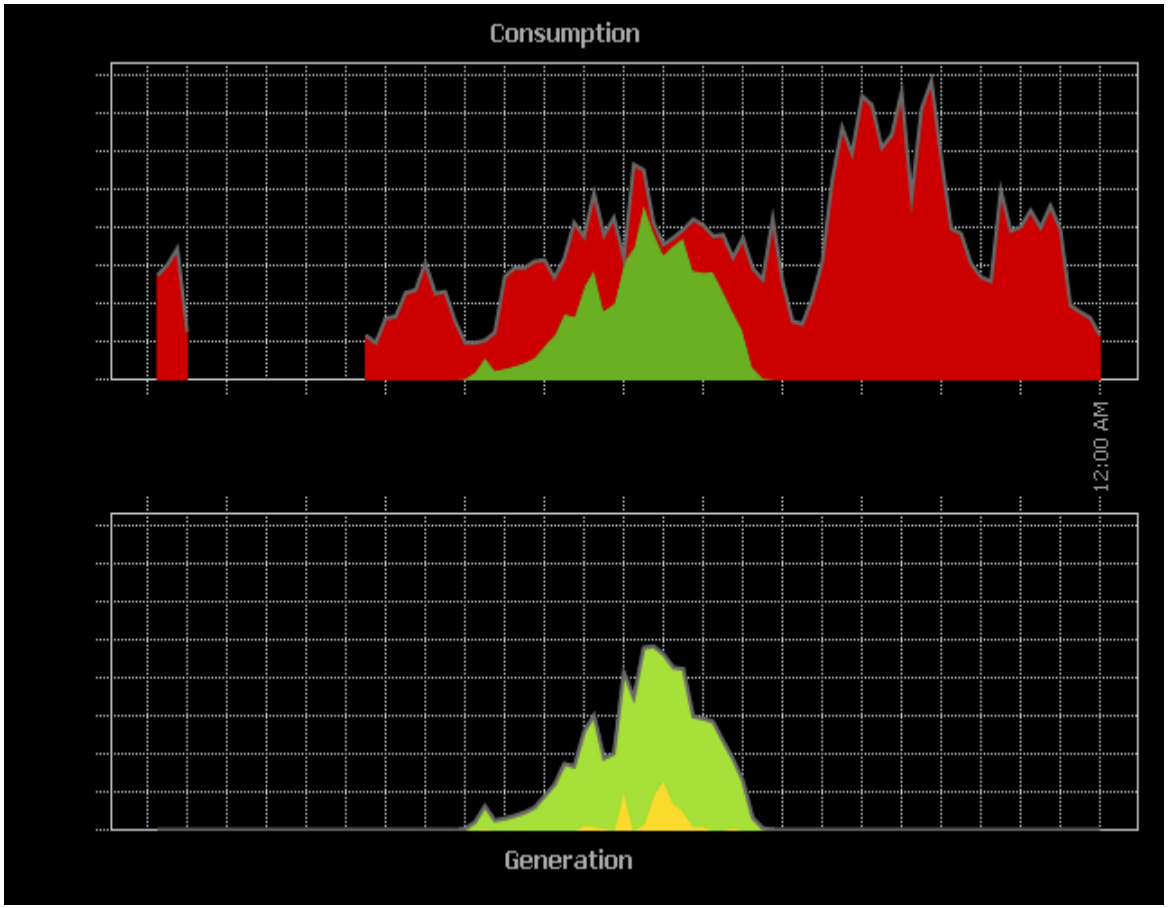
Surprise 4 – Highest efficiency in the deepest frost

- 7th of January 2017
- Frost = high = clear sky
- 95% of solar energy consumed on spot



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Changes of daily habits

Things that we're waiting with for the sun appearance:

- Washing machine
- Dishwasher
- Ironing
- Bread baking
- *Charging an electric car (when we buy it)*

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End

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