

cambridge·solar

Open Eco Homes – Alternative Energy

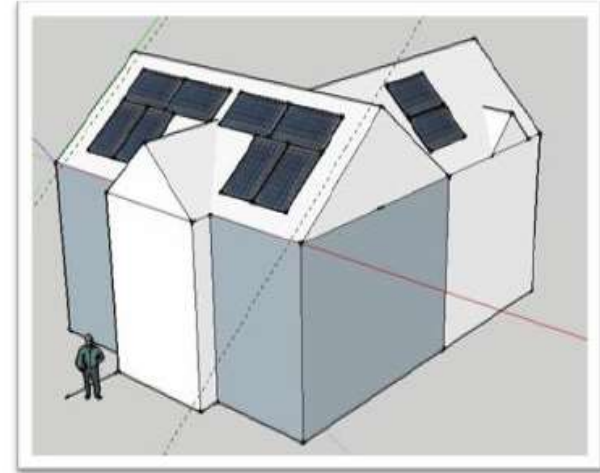
**Innovations in Solar PV and battery technology
for homes**

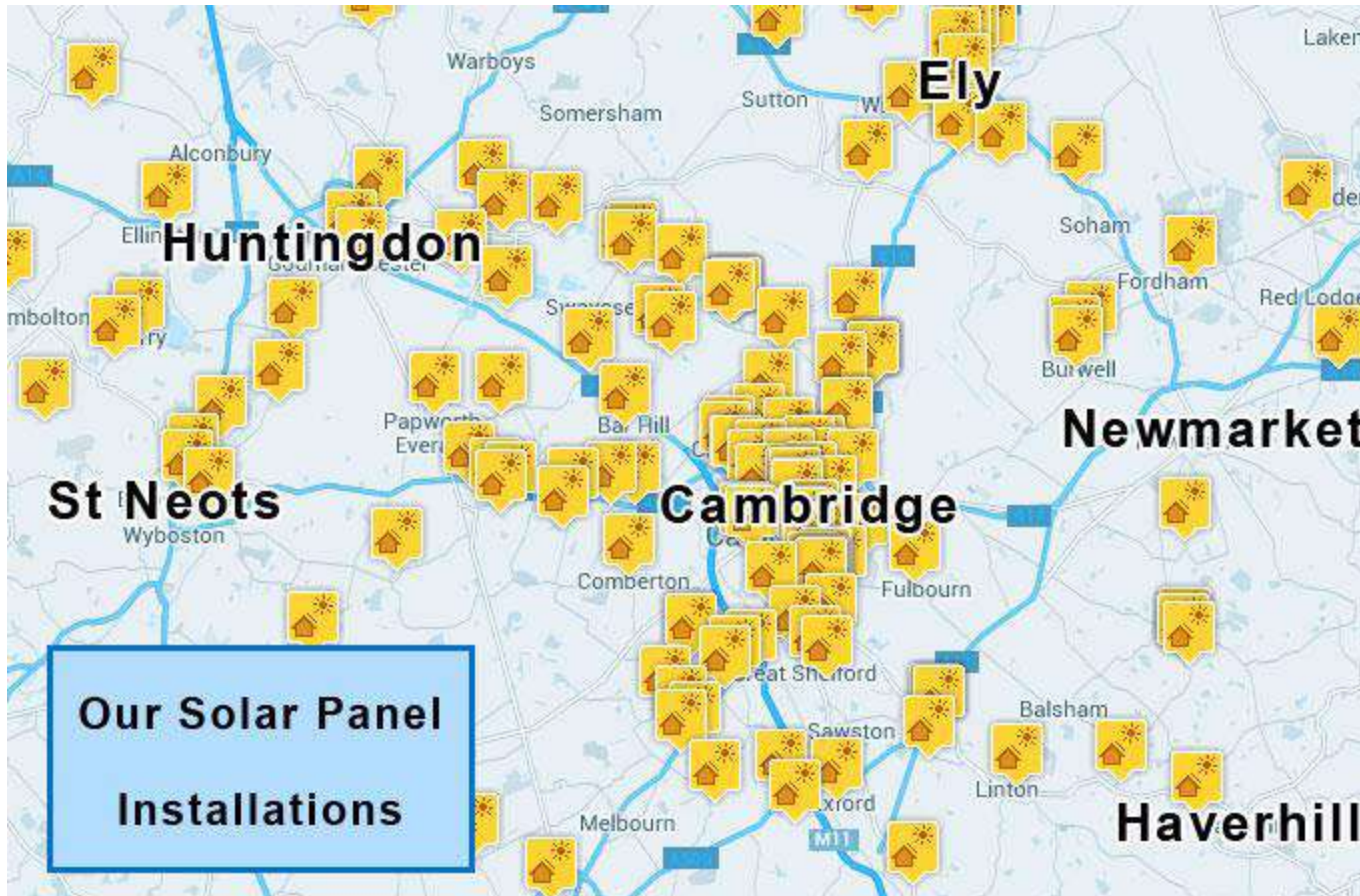
22nd April 2017



Summary

- Intro to Cambridge Solar
- Solar Panel Systems - The Basics
- New developments
 - Panels – Increased efficiency + Bifacial
 - Systems – Fits no longer so important
 - System – 4 kWp no longer so important
 - Batteries
 - Self consumption
 - Monitoring
 - Electric Vehicles
- Q&A





Cambridge Solar Ltd

- Set up in 2009
- Carried out 100's of installs around Cambridgeshire
- Our own local installation teams
- Strong emphasis on quality of our products and the quality of our workmanship
- Great customer relationships, lots of happy customers



Owen Morgan, MSc

- In the industry since 1999
- Worked for:
 - The Centre For Alternative Technology
 - Dulas Ltd
 - Bright Light Solar / TRUE Energy
- Education
 - BEng: Engineering & Business Management from Warwick
 - MSc: Architecture: Advanced Energy & Environmental Studies - CAT
- Designed solar panel systems that have been installed all over the world!



Solar PV – The basics

- Install solar panels
- Generate your own electricity
- Get paid for the electricity you generate
- Save on your annual electricity bills

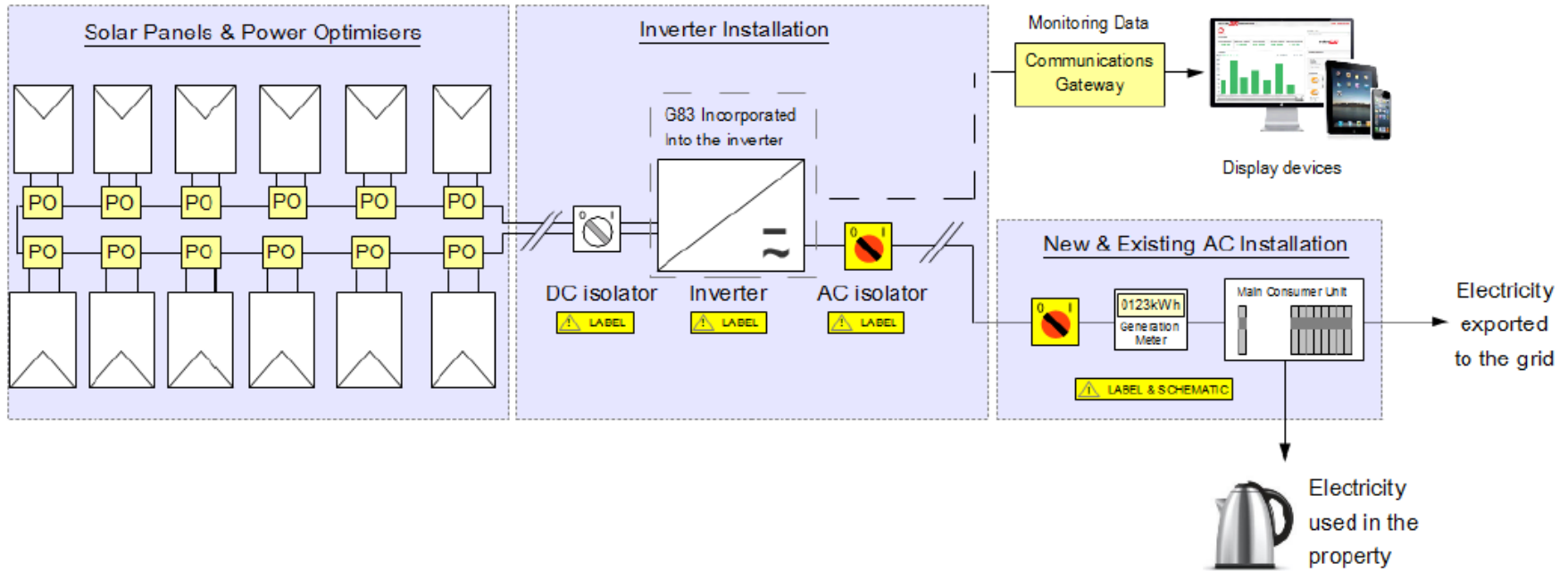


Solar Batteries – The basics

- Charge batteries with spare energy during the day
- Use up the spare energy at night so no need to consume from the grid



Schematic



New developments

- Panels – Increased efficiency + Bifacial
- Systems – Fits no longer so important
- System – 4 kWp no longer so important
- Batteries
- Self consumption
- Monitoring
- Electric Vehicles

Panels – Increased efficiency + Bifacial

- 9 x 230 = 2.07 kWp
- 9 x 250 = 2.25 kWp
- 9 x 300 = 2.70 kWp
- 9 x 360 = 3.24 kWp



Systems – Fits no longer so important

Systems – 4 kWp limit no longer important



25/10/2017 - 31/10/2017

System Production: **34.2 kWh**

Consumption: **66.34 kWh**

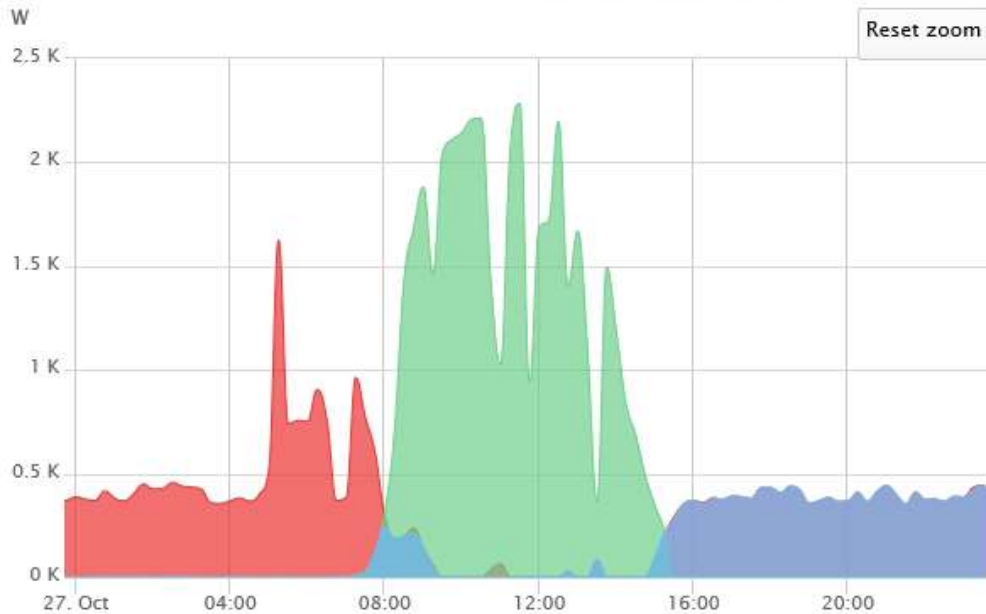
61% 39%

31% 69%

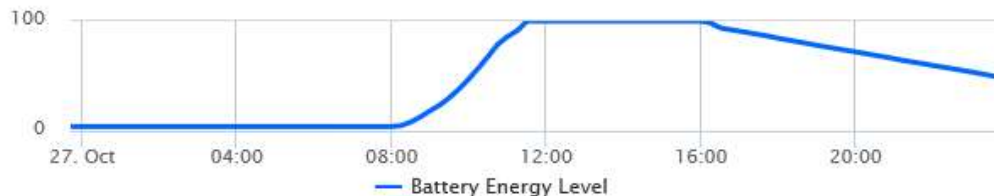
Self-consumption: **20.7 kWh** Export: **13.51 kWh**

Self-consumption: **20.7 kWh** Import: **45.65 kWh**

↳ **18.81 kWh from batteries (90.9%)**



■ Consumption ■ System Production ■ Solar Production ■ Self Consumption



From:

◀ Previous week | Next week ▶

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Batteries



www.cambridge-solar.co.uk

25/10/2017 - 31/10/2017

System Production: 60.95 kWh

Consumption: 64.59 kWh

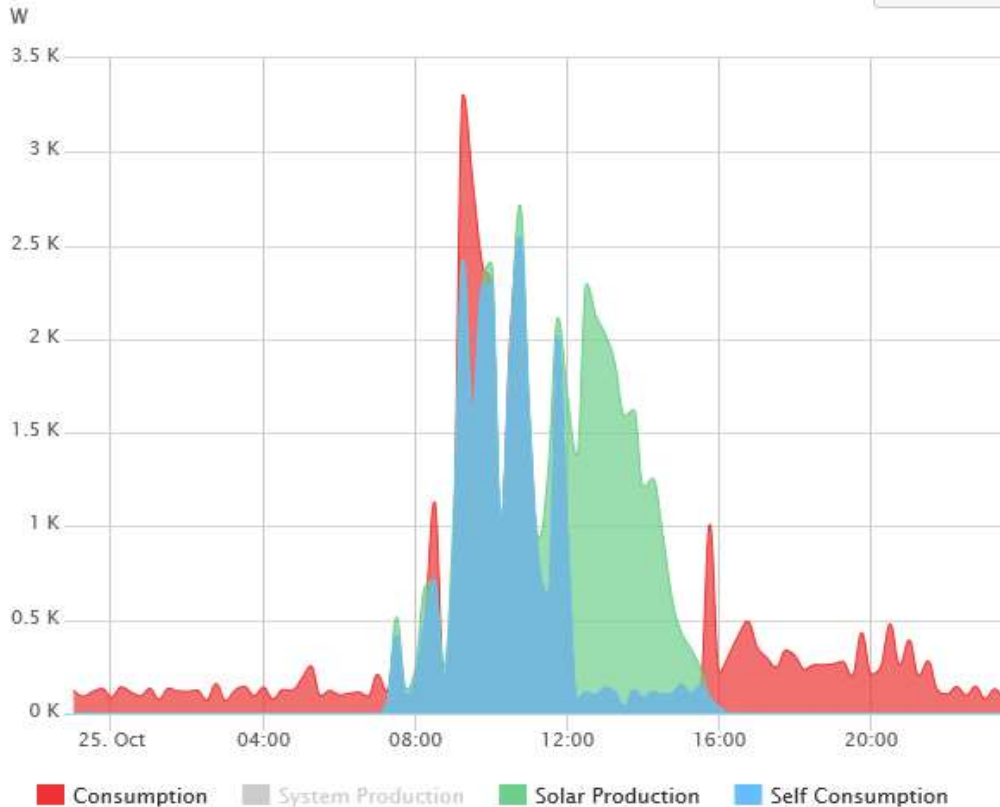
60% 40%

57% 43%

Self-consumption: 36.67 kWh
Export: 24.28 kWh

Self-consumption: 36.67 kWh
Import: 27.93 kWh

Reset zoom



From: 25/10/2017

◀ Previous week | Next week ▶

Self Consumption

Monitoring

Smart Homes

Electric Vehicle Chargers



Contact Details

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