

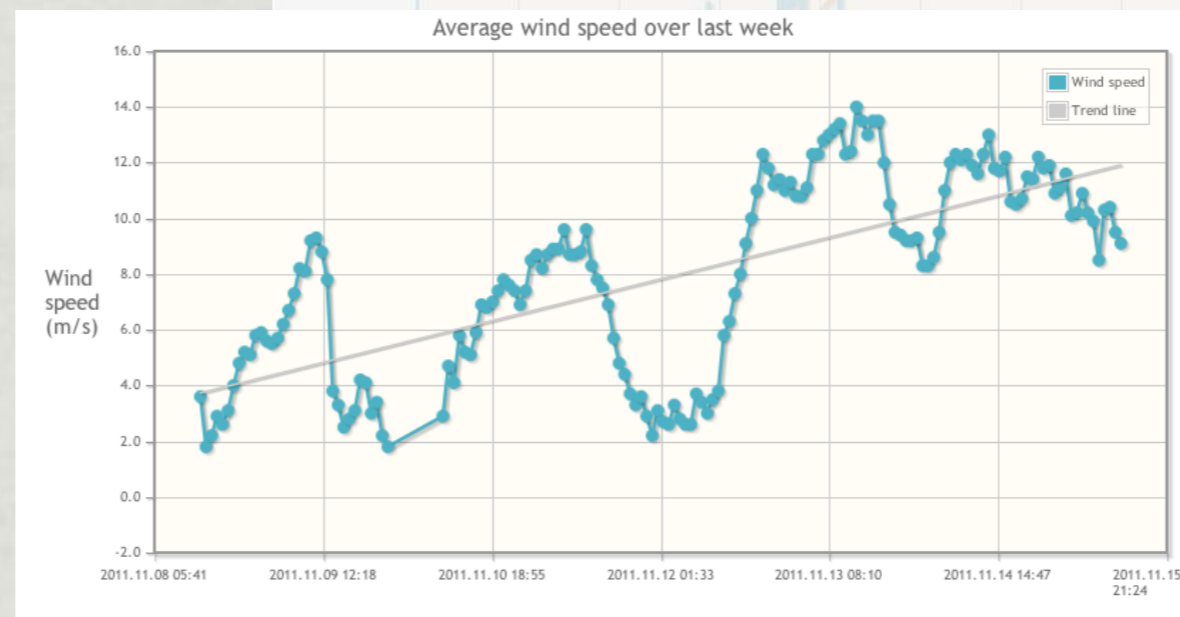
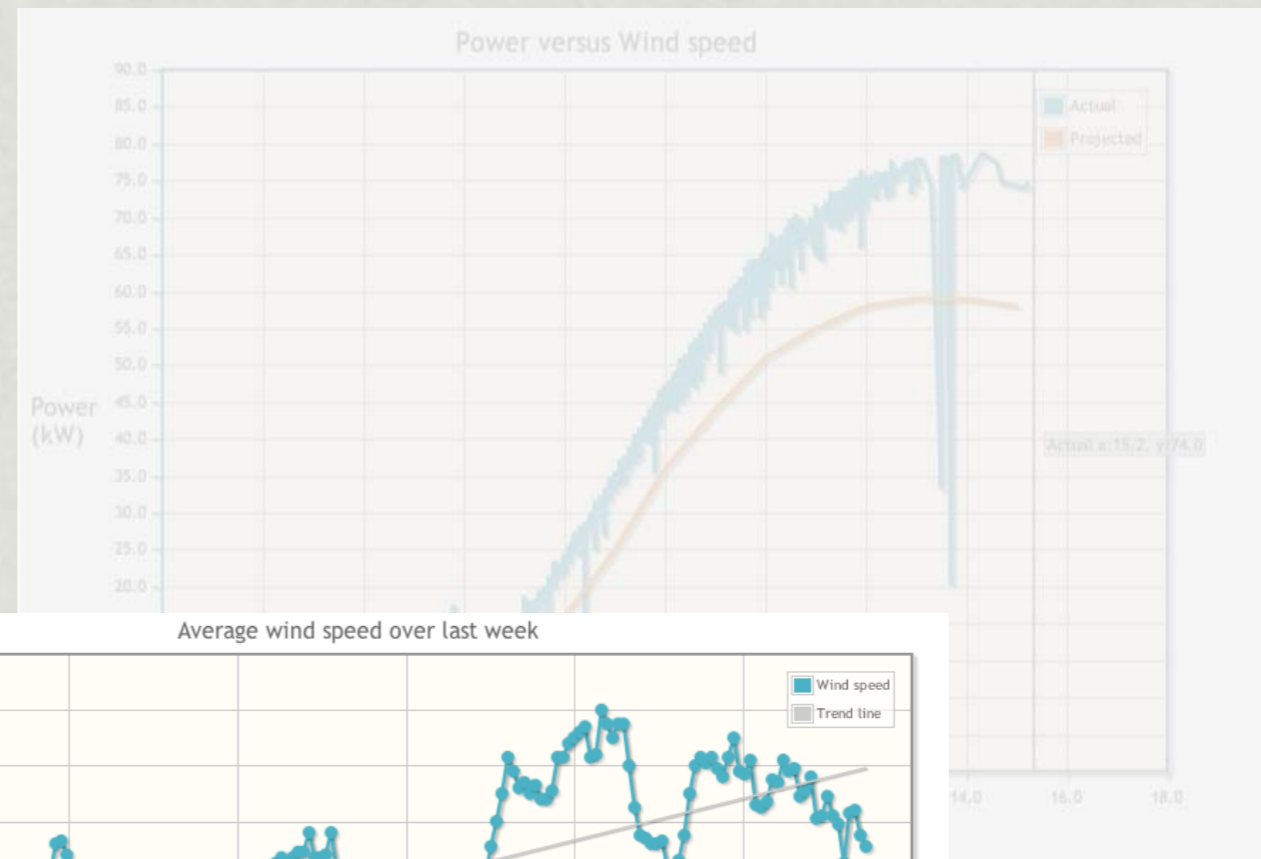
You can access data from your turbine at any time

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XOR
systems

Data from your turbine

- * Aeolus Power (Wind-Energy) offer an additional service to receive and store data from each turbine they install
- * it is independent of the turbine manufacturer
- * it asks for data from the turbine and then sends an email back to aeoluspower-windenergy.co.uk
- * on the hour, every hour
- * data is stored in a database, one for each turbine
- * and then the owner is issued with their own password-protected web page to view a series of graphs

The graphs we show

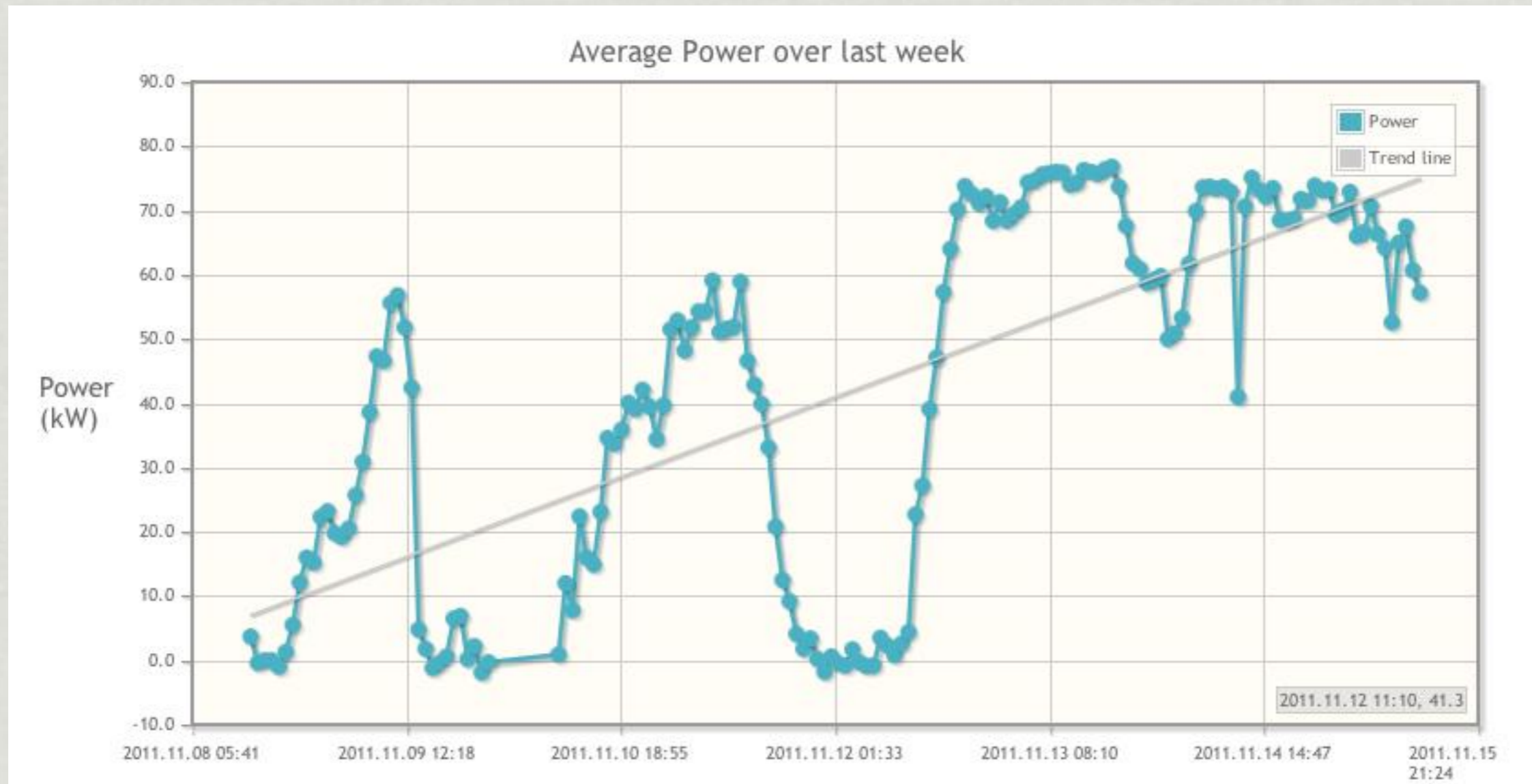
- * we store instantaneous values:
 - wind speed & power output, turbine status, generator speed
- * we store averaged data :
 - average and peak power in last hour, last 24 hour
 - average and peak wind in last hour, last 24 hour
- * we store accumulative values :
 - total energy generated in last 24 hours, forever
 - running time, online time

The graphs we show

- * we're accumulating hourly data and building up a database, recording what happens on the turbine.
- * this allows analysis of the data to evaluate the performance of the turbine and monitor the power and money it generates
- * the critical aspect is that we provide you with a view over time, so we can compare month to month or year to year
- * but it is important to realise that the numbers may differ from the export meter - and you get paid from the export meter

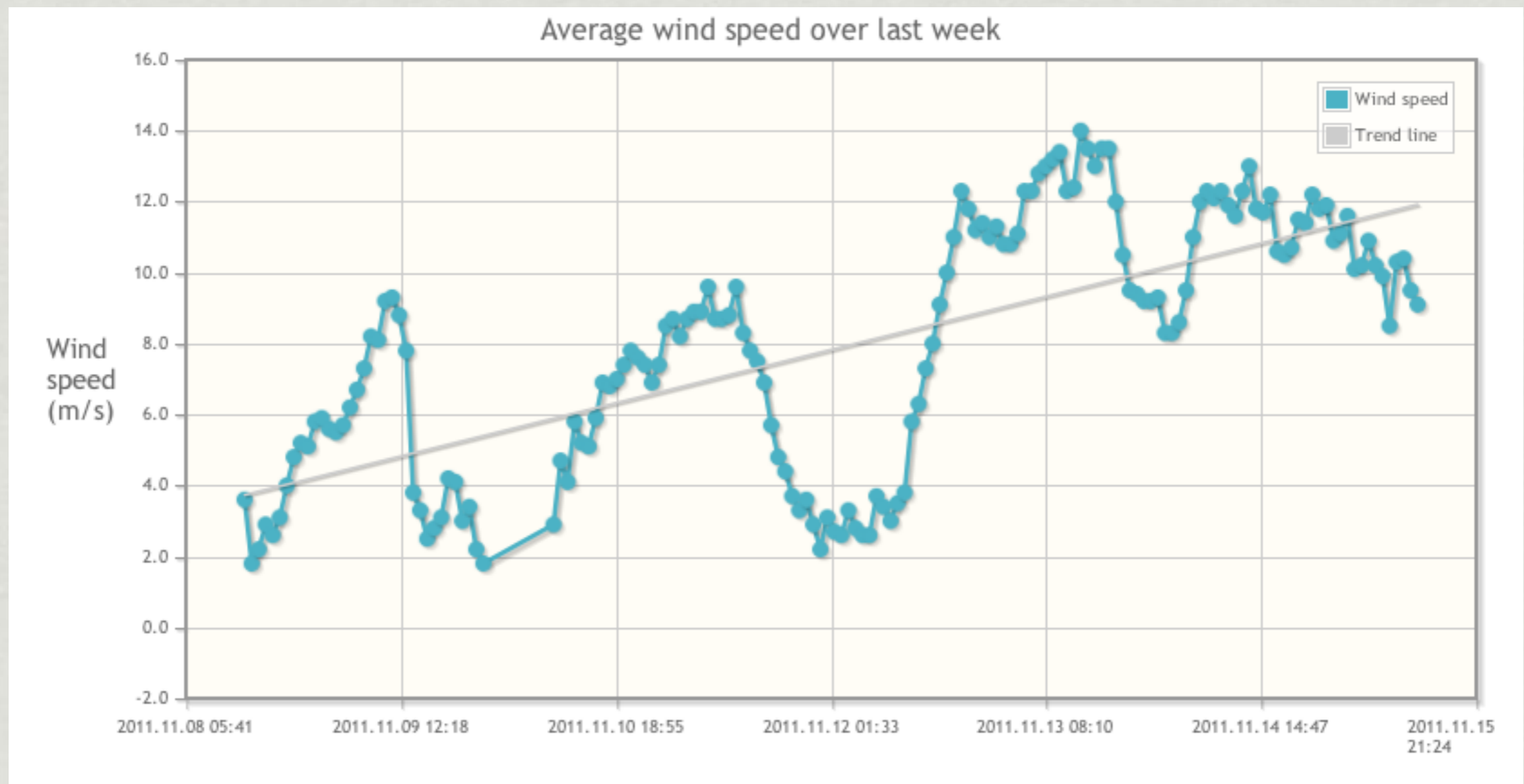
The graphs we show

- * we show a plot of average power and average wind speed for each hour over the last week and the last month (this example is at 3pm Tuesday 15th)



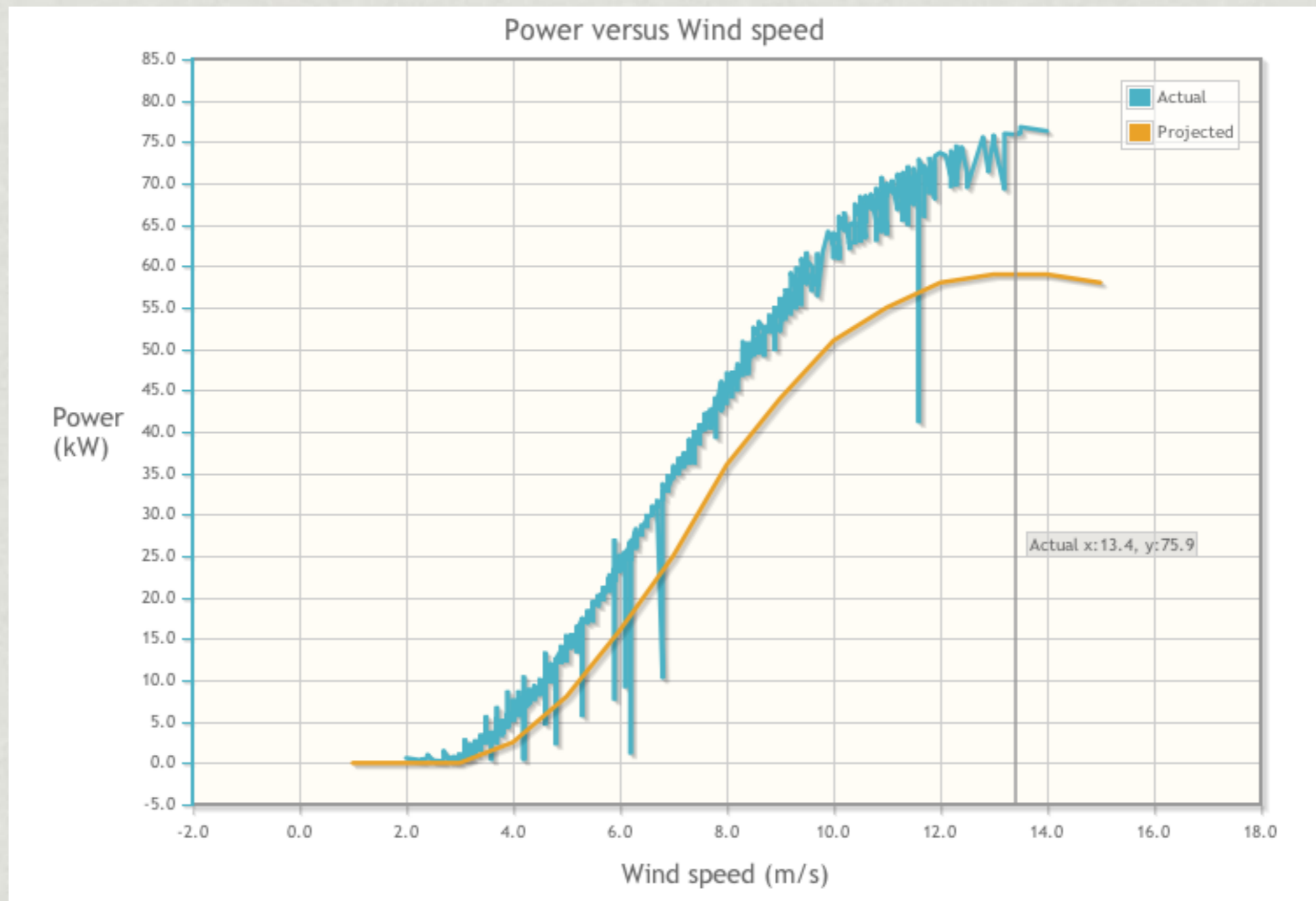
The graphs we show

- this is wind speed over the last week



The graphs we show

- we show a plot of wind speed versus power output



The email we receive

Data summary

Parameter	Value
Date	2011-11-16
Time	10:00:08
Power being generated	39.5 kW
Wind speed	7.4 m/s
Cumulative power	123423 kWh
Running hours	5676
Rotor speed	1508 rpm
Turbine status	6 - Generating

Power summary

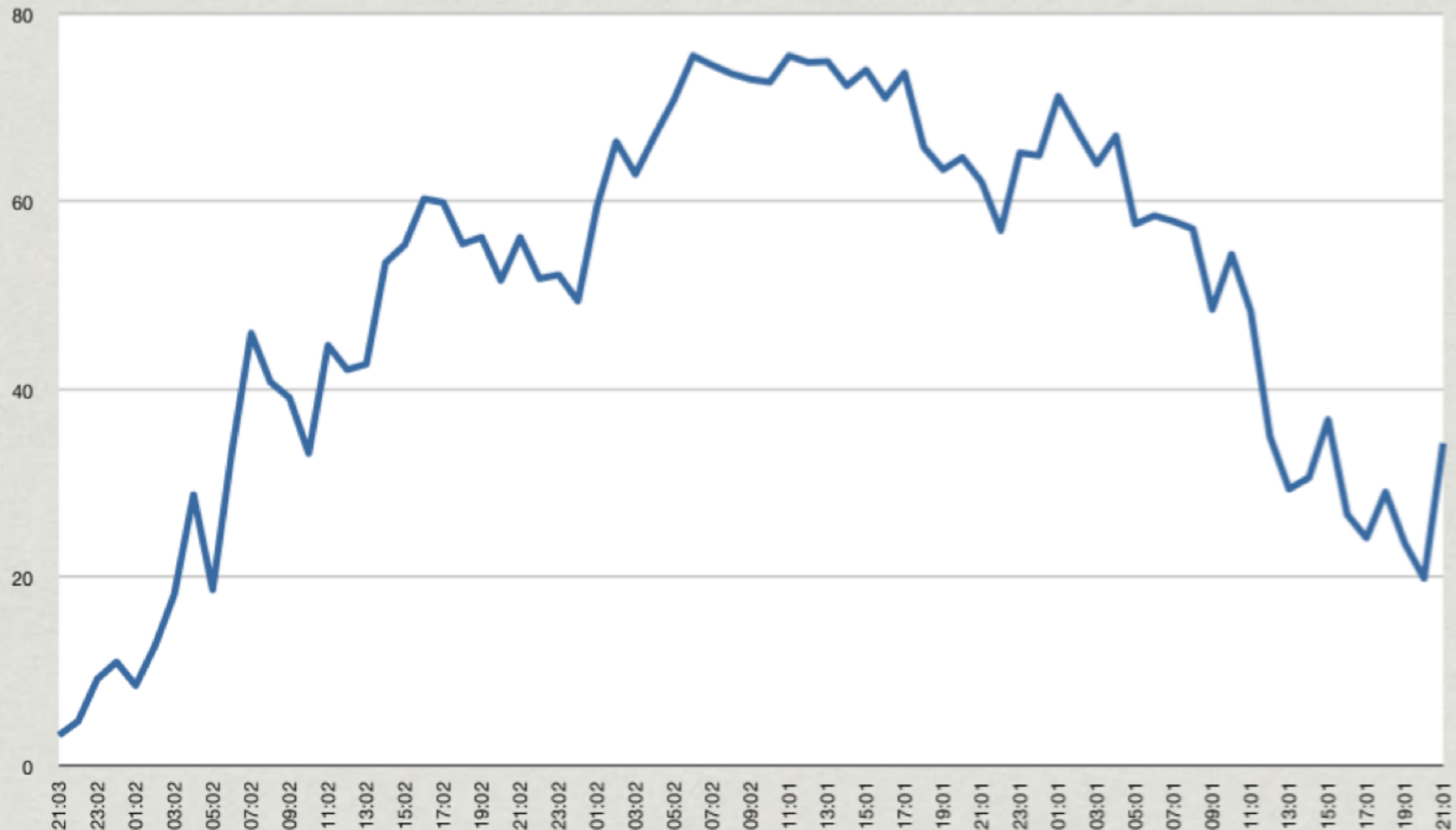
Parameter	Value
Average power over last hour	20 kW
Average power over last 5 minutes	23.7 kW
kVAR	-8.8 kVA
Cumulative power over last 24 hours	1233 kWh
Peak power over last hour	54.6 kW
Peak power over last 24 hours	71.9 kW

Windspeed summary

Parameter	Value
Average windspeed over last hour	5.7 m/s
Peak windspeed over last 24 hours	10.7 m/s
Peak windspeed over last hour	9.5 m/s

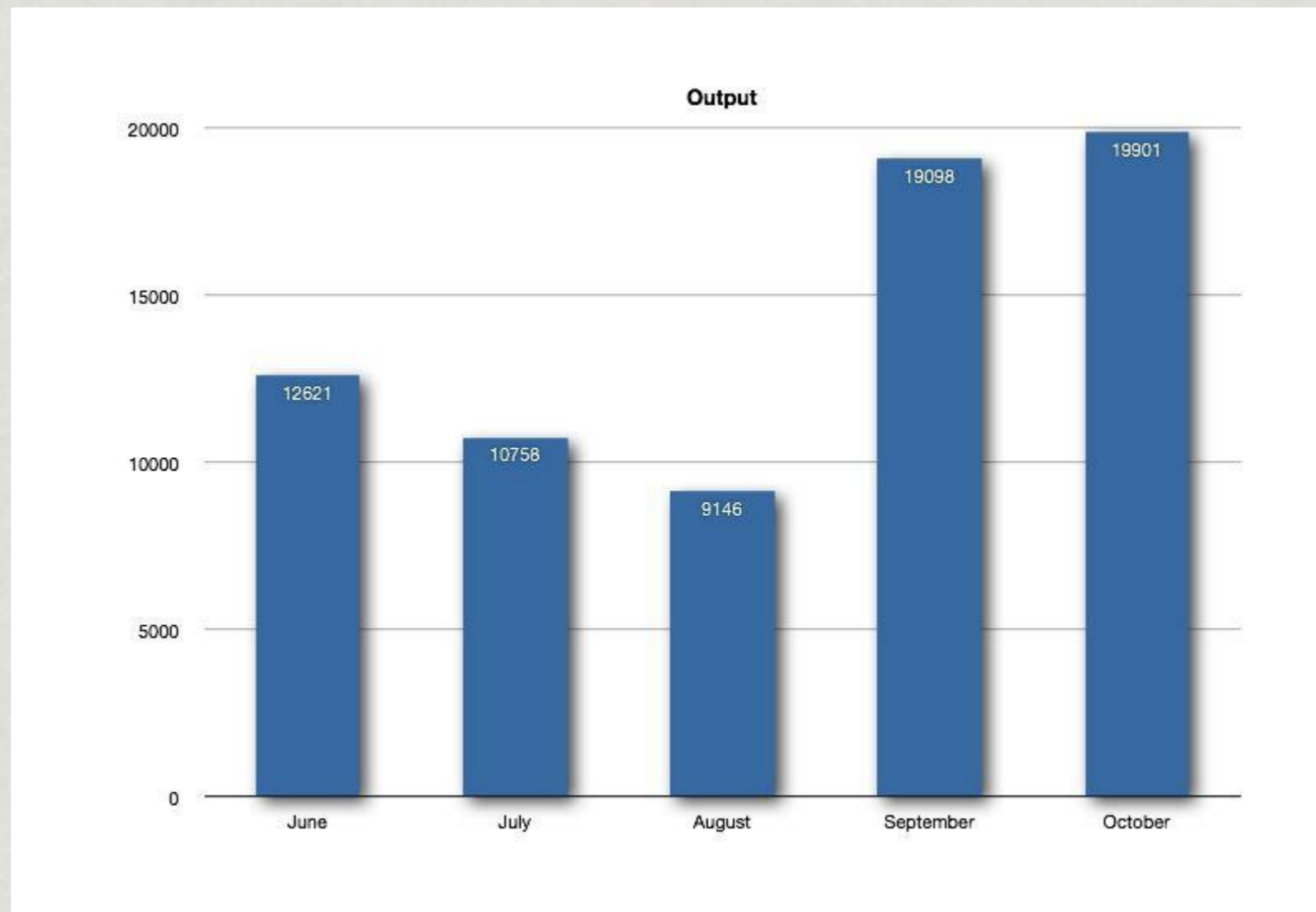
A good weekend...

- from 9pm, Friday 15th July to 9pm, Monday 18th July:
- over a **72 hour period**, the total energy output was 3650 kWh:
 - the **income generated was £1060.**



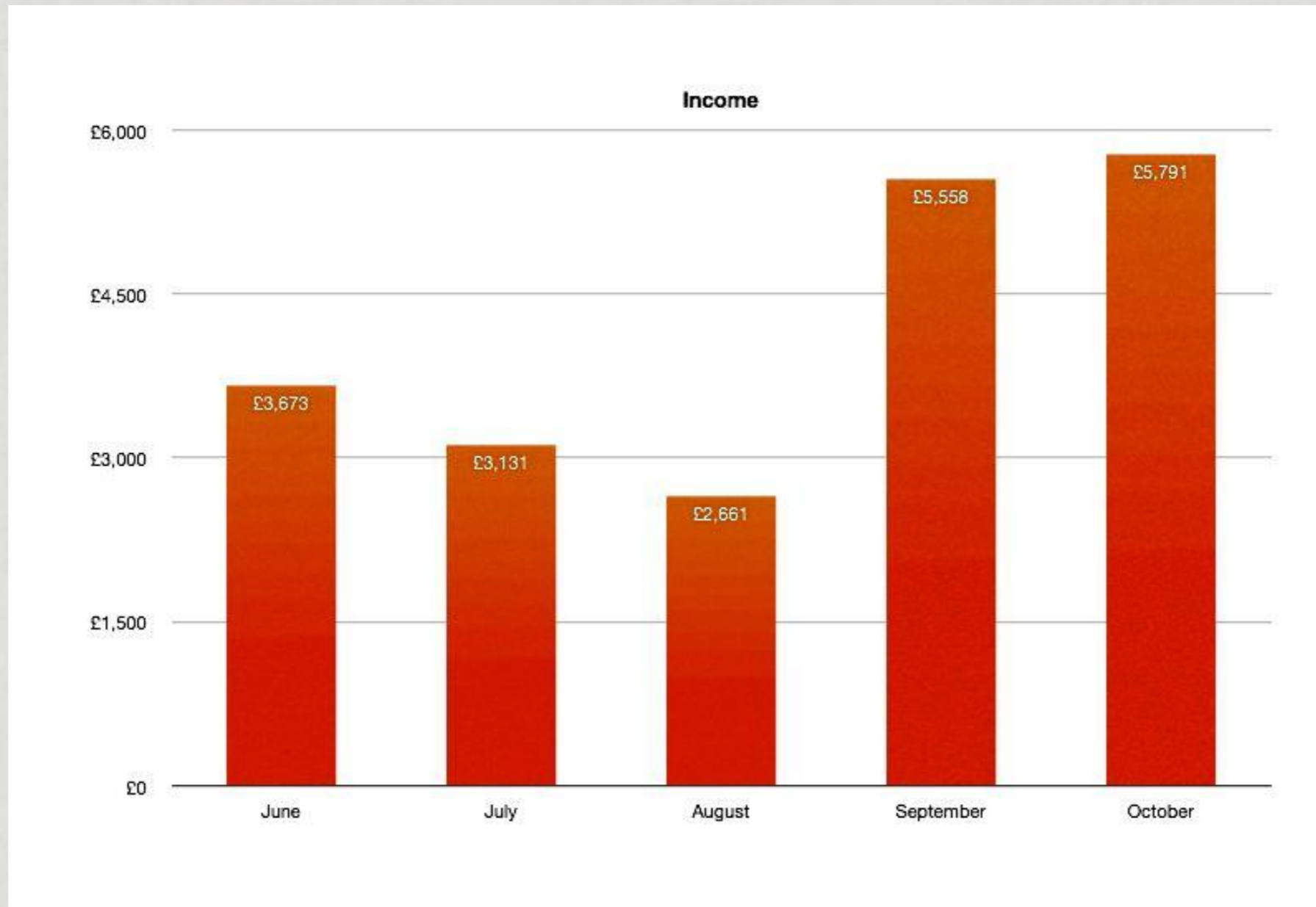
Graphs we plan to add

- energy generated each month



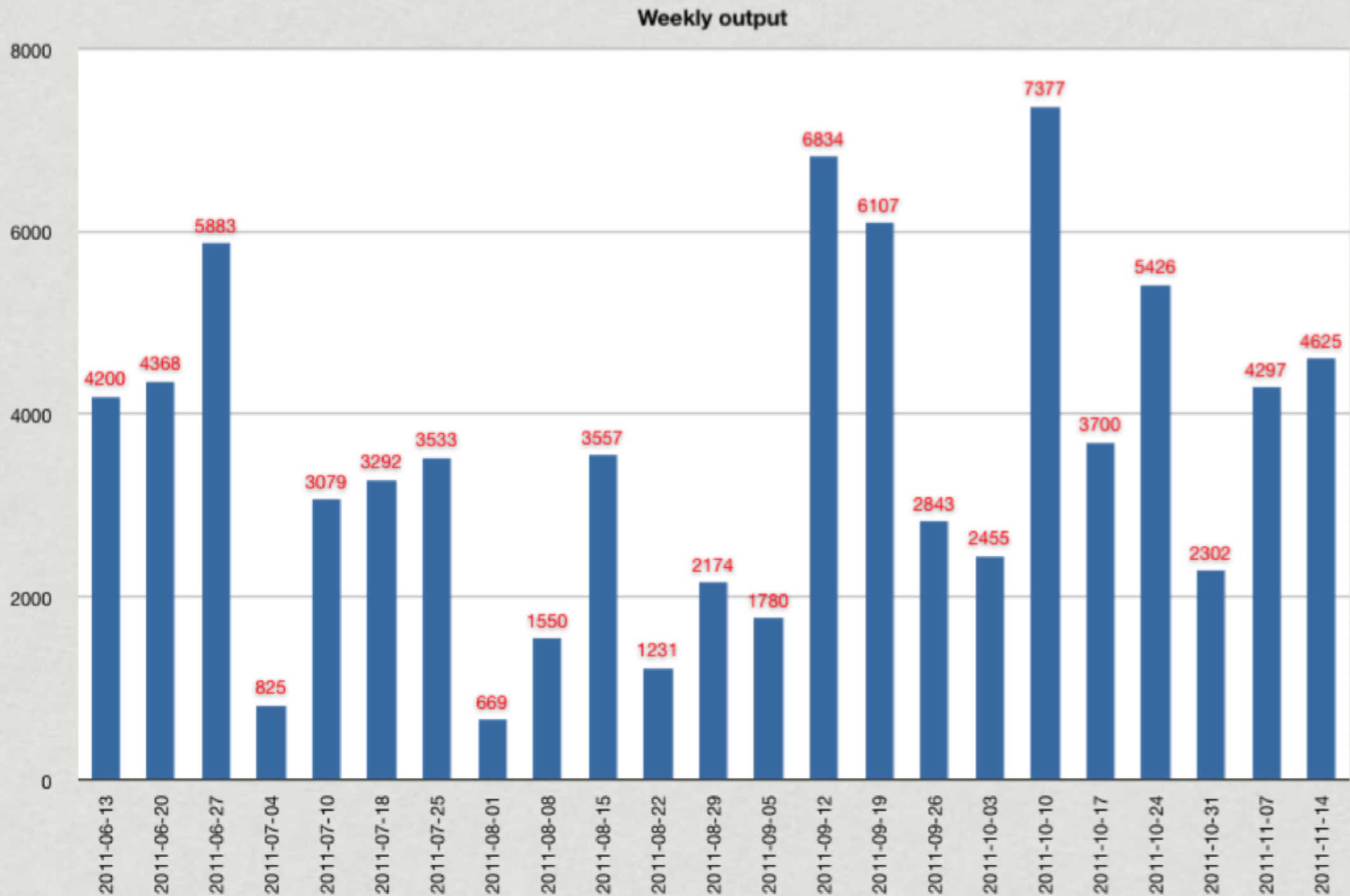
Graphs we plan to add

- * income each month



Graphs we plan to add

- energy generated each week



Graphs we plan to add

- * income each week

