

Using open data to help achieve the university's ambitious sustainability objectives

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ICTF July 2011

<http://www.ictf.ox.ac.uk/conference/2011/workshops.html>

Strategic statement on CO2 emissions

1. Reduce CO2 emissions by between 3% – 10% between April 2010 and March 2011 (compared to 2009 emissions levels)
2. Reduce scope 1 and 2 CO2 emissions by 11% by 2015/16 (compared to 2005/6 levels)
3. Reduce scope 1 and 2 CO2 emissions by 33% by 2020/21 (compared to 2005/6 levels)

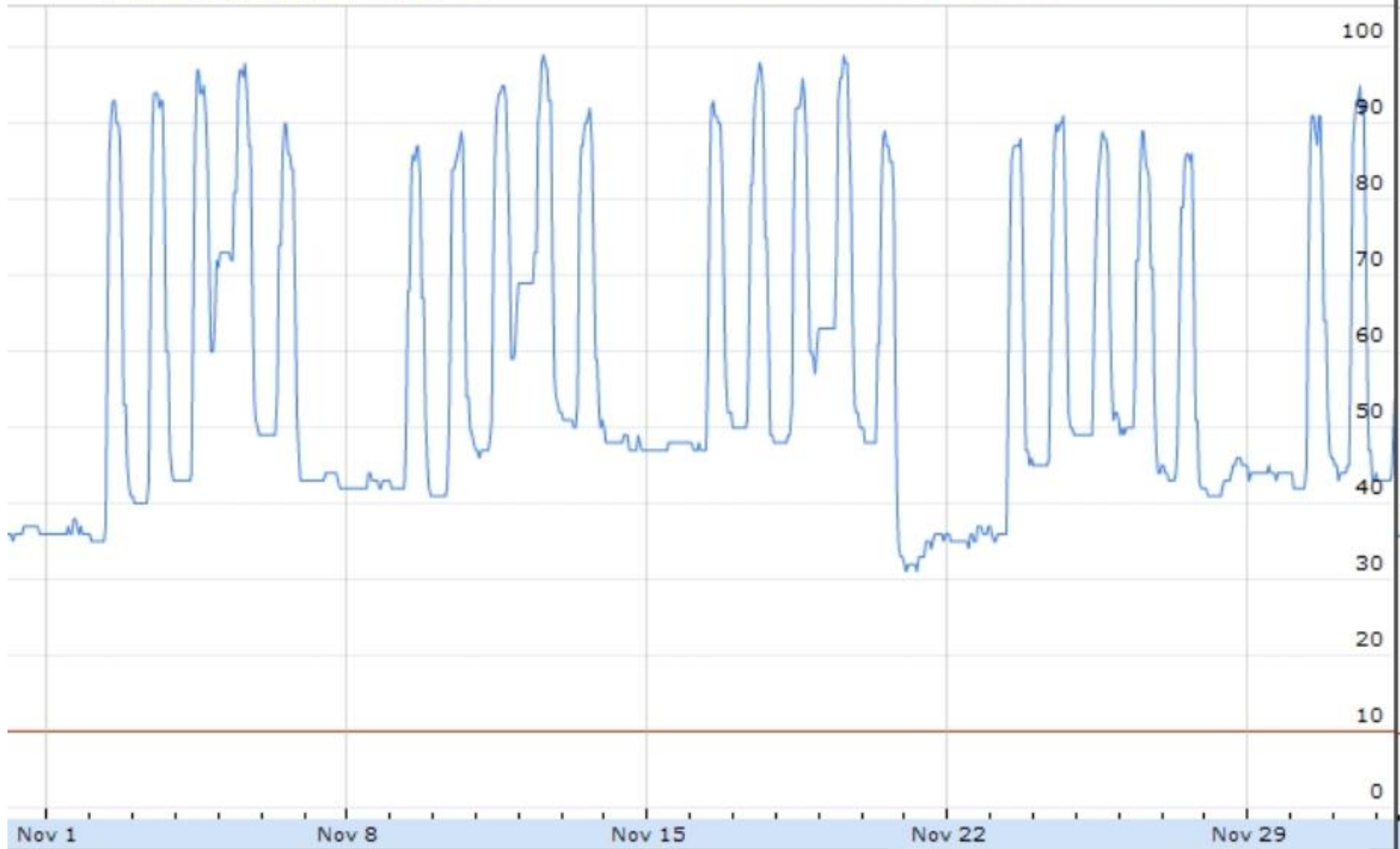
(Nothing on scope 3 emissions yet).

<http://www.admin.ox.ac.uk/estates/environment/energy/>

<http://www.carbontrust.co.uk/cut-carbon-reduce-costs/calculate/carbon-footprinting/pages/organisation-carbon-footprint.aspx>

Zoom: [1'](#) [5'](#) [1h](#) [1d](#) [5d](#) [1m](#) [3m](#) [6m](#) [1y](#) [Max](#)

• Active Nodes 58 • target 10 | 10:00 December 02, 2009



Nov 1 Nov 8 Nov 15 Nov 22 Nov 29

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A thought experiment:

Consider a population:

20% have reduced their consumption significantly

30% consume to their heart's desire

50% mirror the consumption patterns of people close to them

What effect might the 20% have on overall consumption?

A. It will decrease

B. It will stay the same

C. It will increase

JISC Open to change project

1. Series of requirements gathering workshops that include a survey, design exercise and a common goods game
2. An open data store with electricity meter readings
3. Innovative and compelling approaches for representing and presenting electricity meter data
4. An agent-based model for thinking about the way social norms contribute to energy consumption
5. A capacity-building event (at OUCS in October 2011)

Open to change project wiki:

<https://sites.google.com/site/jiscopentochange/>

Energy Efficiency Rating

	Current	Potential
<i>Very energy efficient - lower running costs</i>		
(92-100) A		
(81-91) B		
(69-80) C		73
(55-68) D		
(39-54) E		
(21-38) F	37	
(1-20) G		
<i>Not energy efficient - higher running costs</i>		



tariff 0

10:49

energy now 2.35 £ per hour

daily average 8.02 kWh

9 3 kWh 3 9 5
yesterday today

efergy



people & planet

student action on world poverty and the environment

People & Planet Green League 2010

First Class award

Rank	University	Policy						Performance				Total Score		
		Env. policies	Env. Staffing	Env. Auditing	Ethical Investment	Carbon Mgmt.	Sustainable Food and Fairtrade	Student and Staff Engagement	Energy	Waste	Carbon Emissions		Water	
1 ₁	University of Plymouth	★	★	★	★	★	★	★	★	★	★	★	51.0	
2 ₁	University of Gloucestershire	★	★	★	!	★	★	★	★	!	★	★	48.0	
3 ₁	University of Hertfordshire	★	★	★	★	★	★	★	★	!	!	!	45.5	
4	University of Central Lancashire	★	★	★	!	★	★	★	★	!	★	!	45.0	
5= ₁	Aston University	★	★	★	★	★	★	★	★	!	!	!	44.5	
5= ₁	Nottingham Trent University	★	★	★	★	!	★	★	★	!	!	!	44.5	
7= ₁	University of Bradford	★	★	★	!	★	★	★	★	!	!	!	43.5	
7= ₁	Oxford Brookes University	★	★	★	★	★	★	!	★	!	!	!	43.5	
9 ₁	University of Huddersfield	★	★	★	★	!	★	★	!	★	★	!	43.0	

Are we saving energy?

No

The UK used 2.7% more electricity over the last 7 days compared to the previous year.





What have we learnt so far?

“Guilt is not a good long term driver! And a polar bear is hardly relevant to most of us. Please don't develop anything like this!”



Performance of your department this month in the energy saving initiative.

Pete the polar bear is **very sad!**

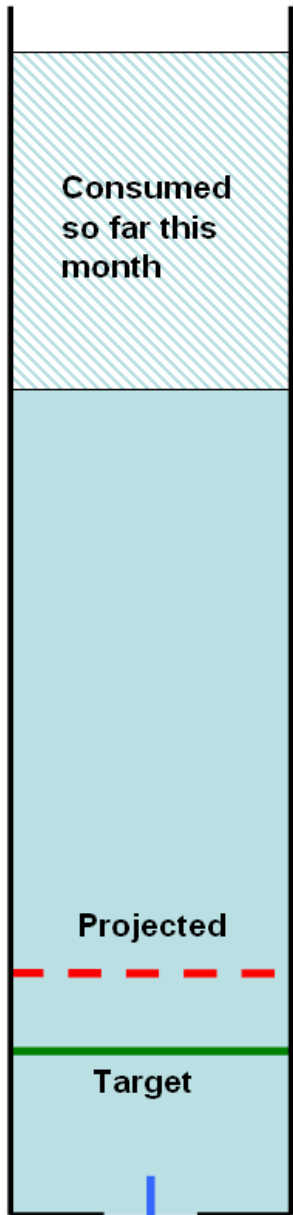


Very poor

Average

Excellent

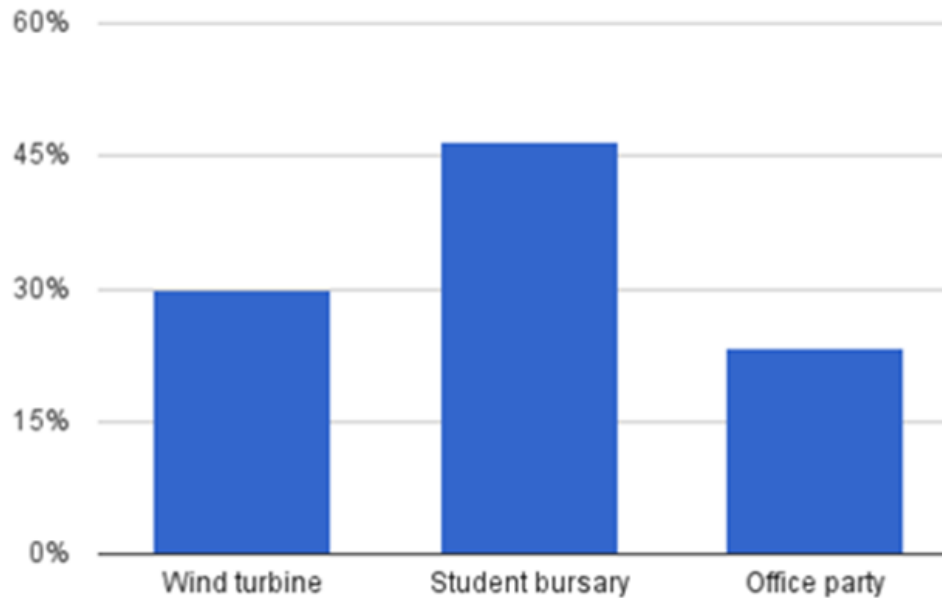
Energy dashboard for <insert your group name>



Current use
[Get the data!](#)

Monthly update

1. Are we saving energy? **YES!**
2. We are currently on course to save **£498**.
3. We voted to invest the **£823** savings proportionally in the following causes:



[Get the data!](#)



Dr Safepair O' Hands is responsible for energy and causes.

We are currently 8th in the **energy-saving league table**.

Group activity story RSS

[PC switch off campaign started](#)

[Green procurement brainstorm sent out via *all our ideas*](#)

[8 flights substituted so far this year](#)

[Departmental compost just been fed to the roses](#)

[We just signed up to a better green energy tariff](#)

[Last month's pledge investment just sent to our fund manager](#)

[86% now endorse the University carbon management targets](#)

[Read more news on our energy timelines!](#)

I urge developers to use **data.ox.ac.uk** to re-represent electricity as a **public good** i.e. help others understand how *private* consumption has *public* ramifications. Help reduce the ignorance that is propelling us to a **tragedy of the commons** and/or **social injustices** with respect to electricity, clean water, air quality, natural gas, nuclear waste, fish stocks...

Please **get creative** with the University electricity meter readings and help us upload **more data sets**.