

Carbon Campaign Newsletter – August 2013

WHAT'S ON
AUGUST 2013?



National Allotments Week from 5-11 August aims to promote awareness and availability of allotments to show the public the benefits of growing vegetables, fruit and flowers.

Have a look at NAG (the National Allotment Garden Trust) web pages for details:- <https://www.nsalg.org.uk/>.

Celebrity Corner



Travis frontman Fran Healy did his bit for the planet by turning vegetarian - as a thank you to Sir Paul McCartney for playing the bass on his solo album! Instead of paying Sir Paul financially, he offered to turn vegetarian in a bid to be kinder to animals and reduce his meat-eating carbon footprint.

Fran is also highly supportive of Scottish radio and TV presenter Heather Suttie's "Say No To Plastic Carrier Bags" campaign.

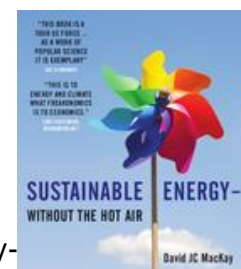
Introduction

Welcome to the Moray Council Carbon Campaign newsletter, part of the Local Authority environmental awareness campaign. It has been good to learn that over 700 members of staff are reading the newsletter every month and your feedback is always useful. This month's article about the use of kettles was prompted by a question we were asked about how much we are saving using the new water boilers in the Headquarters and the Annexe. If you have any questions or comments about energy use at your place of work please send them to energy@moray.gov.uk

Website of the Month

<http://www.withouthotair.com>

This website has been set up by David MacKay FRS, a Professor in the Department of Physics at the University of Cambridge, who studied Natural Sciences. The site, based on his book 'Sustainable Energy-



Without the Hot Air', reveals the science behind the research and myths that are behind climate change and energy consumption. Whilst this book can be purchased in paperback or hardback, Prof MacKay insisted that the information be made available for free on the internet because "sustainable energy is important". A fabulous read whether you purchase the book or dip in and out of chapters online, the author delivers a no-nonsense approach to a sustainable present and future which is both entertaining and refreshing. The text is crystal clear and the graphs understandable.

Anyone for a Coffee?

There are now 12 water boilers in the Elgin HQ and Annexe for use when making hot drinks. We have been asked what the energy saving benefits are of using these water dispensers rather than kettles.



The amount of energy a kettle uses to boil water depends on type of kettle, the temperature of the water to start with and how much water is in the kettle. According to the Energy Saving Trust it costs about 10p to boil a kettle for 4 cups, therefore 2.5p per cup. Remember if you are using a kettle to make your coffee, only boil as much water as you need to reduce the energy consumption and costs.

The new water boilers use 3kWh of electricity to produce 120 cups. 3 kWh of electricity costs 30p. Therefore each cup costs ¼ p to fill. We are now planning to add timers to the boilers to switch them off overnight and at weekends which will save £1,300 every year in energy costs.



Air Conditioning

As we carry out our everyday activities we spend approximately 90% of our time indoors. It is important, then, to try to reach a temperature that is agreeable for all parties. Any sort of chilling is an inherently energy consuming business and its installation will immediately increase electricity costs. Obviously not having to install it is the best option, although given the increasing amount of office equipment it is sometimes unavoidable.

Ideally buildings should be designed to be naturally ventilated and cooled to provide a comfortable place to work. Another obvious thing that everyone can do is turn off any lights, computers, PC monitors etc that are not needed or being used. This will prevent extra heat being put into the local environment. Effective ventilation can remove the need for chilling. Simple no cost measures to save energy in naturally ventilated buildings include:

- Check that window ventilation systems operate correctly and are user friendly.
- Educate occupants on how the building works and choices available to them.
- Remove barriers such as partitions that impede air movement.
- Close relief vents in winter.
- Use colder external night air to cool the building.

In areas where air conditioning units are required it is important to remember that in the warmest weather, by-and-large they don't need to be set lower than 24°C and this can be varied as conditions change. Remember that each extra degree you cool down increases the energy used by 11%! For example, setting a system at 18°C uses 66% more energy than is necessary.

Top Tips to Save Energy Through Cooling

- Reduce heat loads by reducing use of lighting/equipment
- Use artificial cooling only when necessary
- Set at 24°C and no lower
- Ensure switched off at end of day
- Set correct time/day/temperature on programmable controls
- Keep doors/windows closed when cooling is on
- Ensure heating and cooling are not both on together!



Exploding Environmental Myths

“Is it cheaper to leave my immersion heater on 24 hours a day?”



ANSWER: No, it is not cheaper. Assuming you are using electricity to heat the water, no matter how well insulated the tank, heat will be lost and will have to be replaced by more electricity use to maintain the water at the temperature set by the thermostat. Heat will be lost throughout the day, even in an unoccupied building. The most sensible approach is to only heat the water when required and this is usually best done by a timer. If hot water is needed early in the morning the timer can be set to heat the water when it is required and use can be made of cheap-rate electricity.

It is also important to have the thermostat correctly fitted and working and have proper insulation fitted. If the immersion heater is linked to the heating system it is usually always cheaper to let a gas or oil fired boiler to heat the water in the immersion tank rather than use electricity, even in the summer”.