

Seriously saving energy at home

Nicola Terry

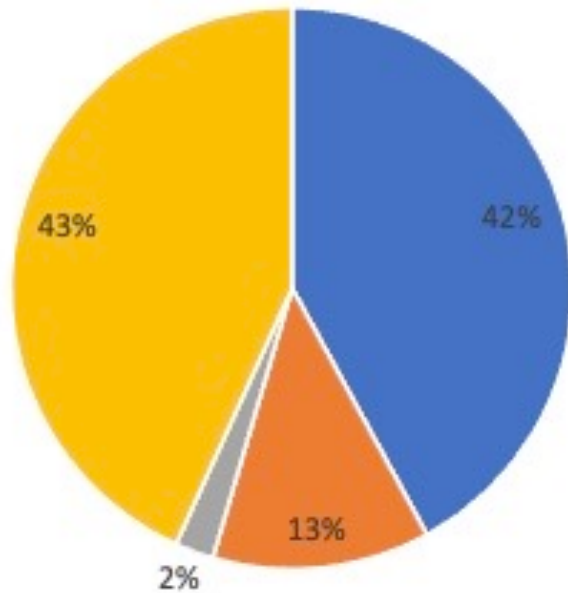


The current energy crisis

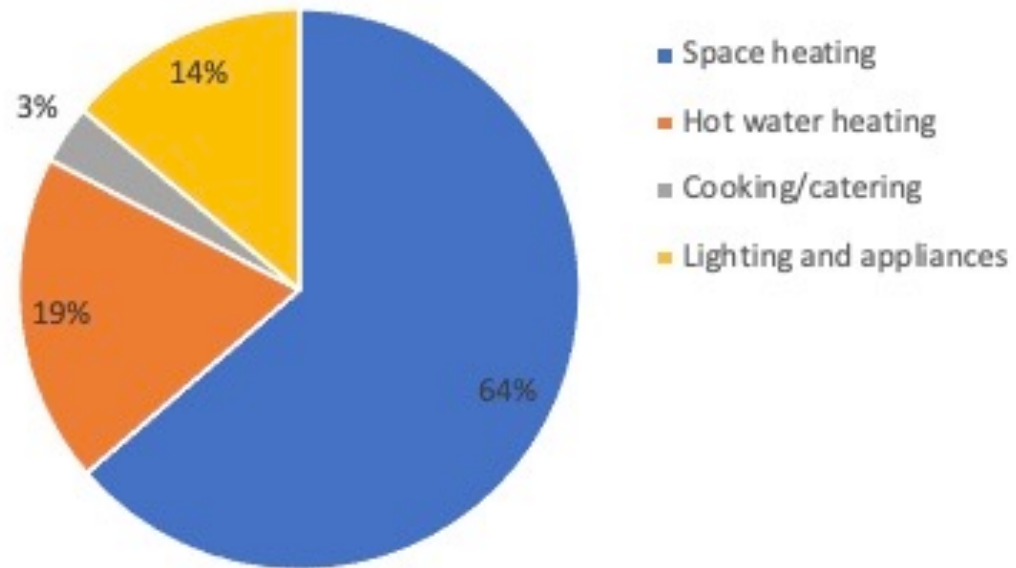
- We have a *shortage* of oil and gas *right now*
 - Globally - except for countries willing to buy from Russia
- Subsidies will not make more available
- Prices rise until demand reduces to match supply
- *We have to reduce our energy demand*
 - even if we can afford not to
 - to keep prices down
 - *and to avoid power cuts*

What do you want to save?

Typical bill by cost



Typical bill by gas



How do we reduce demand?

- Generate our own energy
 - Installing PV panels helps (but not much in winter)
 - Switch to heat pump for heating
 - Provided $SCOP > 2.1$, this will use less gas, even if the heat pump uses electricity generated via gas.
- Improve efficiency
- Avoid waste
- Reduce services

How many of you:

- Turn down radiators in unused rooms
- Have 300mm loft insulation
- Have draught stripped your home
- Have any single glazed windows
- Wait for the hot tap to run hot when you wash your hands
- Shower/bath every day – more than 5 minutes?

Efficiency: cooler radiators

- Condensing boilers are more efficient at lower temperatures (condense more effectively)
- Space heating only
- Reduce to 55°C or even lower if you can
 - At lower temperatures, your radiators will put out less heat and it will heat up less quickly when you turn it on
 - If you can handle 55°C you are heat pump ready!
 - Can turn it up again if you need to in cold weather.
- Combi boilers (others if the controls let you)
- Typical savings between 3% and 8% of space heating

DIY heat savings (annual)

- Top up loft insulation to 300mm*
 - From 50mm – cost £7/m² savings £2.90/m²
 - From 150mm – cost £3/m² savings £0.80/m²
- Temporary secondary glazing film*
 - Cost £2/m²
 - Savings single glazing £5.20/m², double glazing £2.20/m²
- Draught proofing
 - Hard to gauge costs and savings but generally good
 - **Do not block necessary ventilation**

* savings calculations from Nesta



Window film- image:
<https://www.stormguard.co.uk/stormguard-products/seasonal-double-glazing-film/>

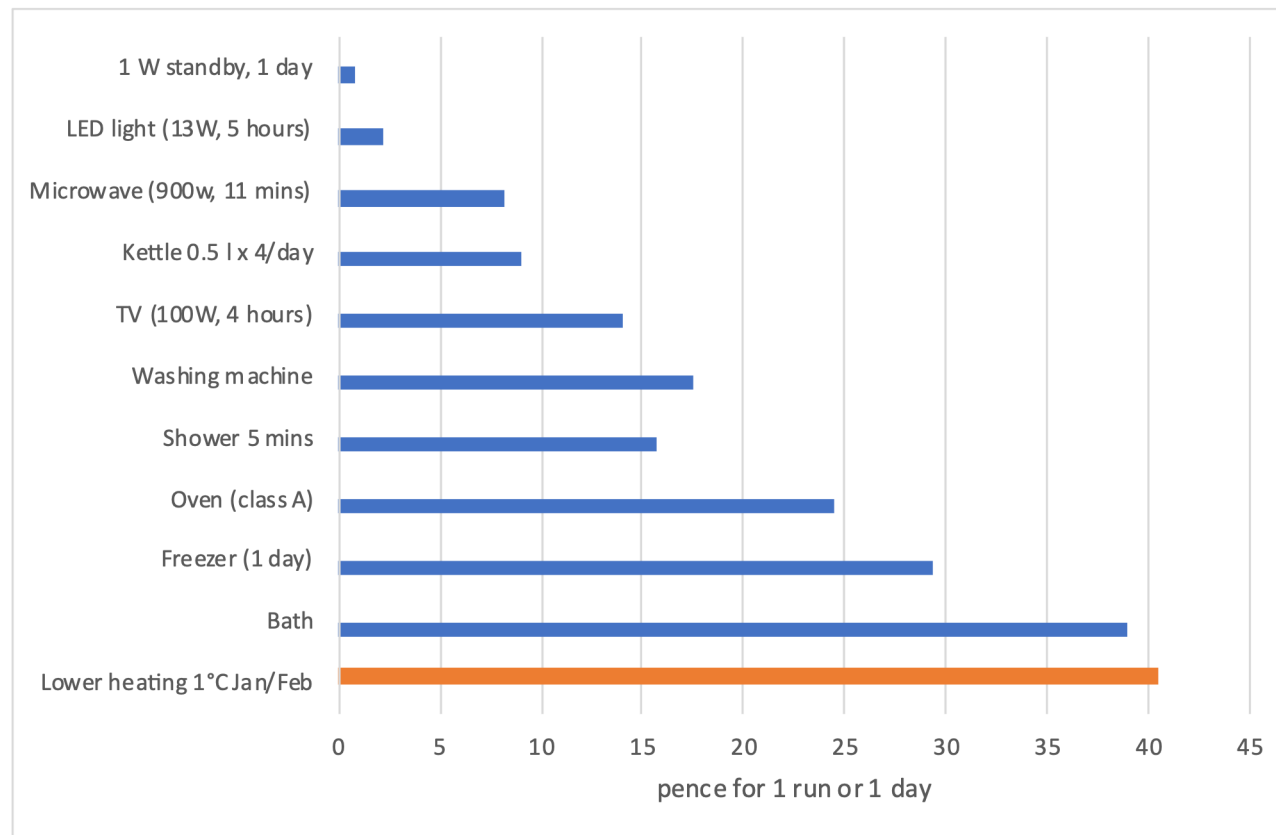
https://media.nesta.org.uk/documents/Free_and_low-cost_energy_actions_to_bring_down_bills_improve_energy_security_and_help_the_planet.pdf

Longer term

- Insulation!
- Double glazing
- Solar PV/battery
- Heat pump



Daily activities - cost



[Downloadable spreadsheet](#)
with these
calculations and
more.

Based on gas 10.4p/kWh electricity 34p/kWh

Your ideas

- Avoid waste
- Reduce service
- Increase efficiency



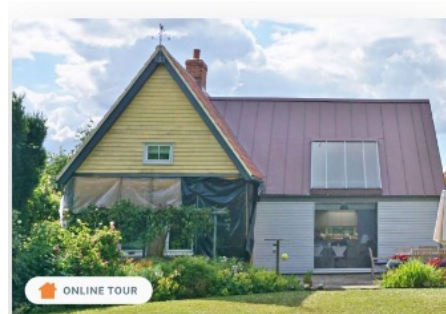
More information

- Come to the stall for more information
 - Meet Warren Pope, now from Save Money Cut Carbon
- Or the website
 - www.transitioncambridge.org/energy
 - Lots more ideas on our advice pages
- Next Transition Cambridge Energy Group
 - Wed 16th Nov 8pm (zoom) on dealing with contractors





Tours and Talks (a selection)



ONLINE TOUR

Deep Green Retrofit: 17th Century Suffolk Timber Framed House

Explore this deep 3 stage retrofit of a 17th century house in an online tour, featuring high grade insulation and glazing, solar PV + more.

Mon 19 Sep 2022, 7:00pm - 8:00pm



ONLINE TOUR

Our Zero Carbon Phased 1905 Retrofit - Cambridge

Join Martin on an online tour of his 1905 home. Hear how he improved his homes comfort whilst reducing energy use and carbon emissions.

Tue 27 Sep 2022, 7:00pm - 8:00pm



ONLINE TALK

Living with a Heat Pump

Quiz our panel - an installer plus four home owners - to find out if a heat pump is right for you and your home.

Thu 29 Sep 2022, 7:00pm - 8:15pm



ONLINE TOUR

Towards Decarbonisation: A Home Living Lab - Ely

Peter has been experimenting with low carbon technologies for nearly 20 years, join him for an online tour of his 1970s home and living lab.

Wed 5 Oct 2022, 7:00pm - 8:30pm



ONLINE TALK

Smart Electric Homes

Find out how to make all things electric work together to reduce your electricity bill and lower your CO2 footprint.

Thu 6 Oct 2022, 7:00pm - 8:15pm



ONLINE TALK

Greening Your Older Home

Online talk covering how to make your older/historic building more energy efficient, with the support of planning and conservation officers.

Thu 13 Oct 2022, 7:00pm - 8:30pm