



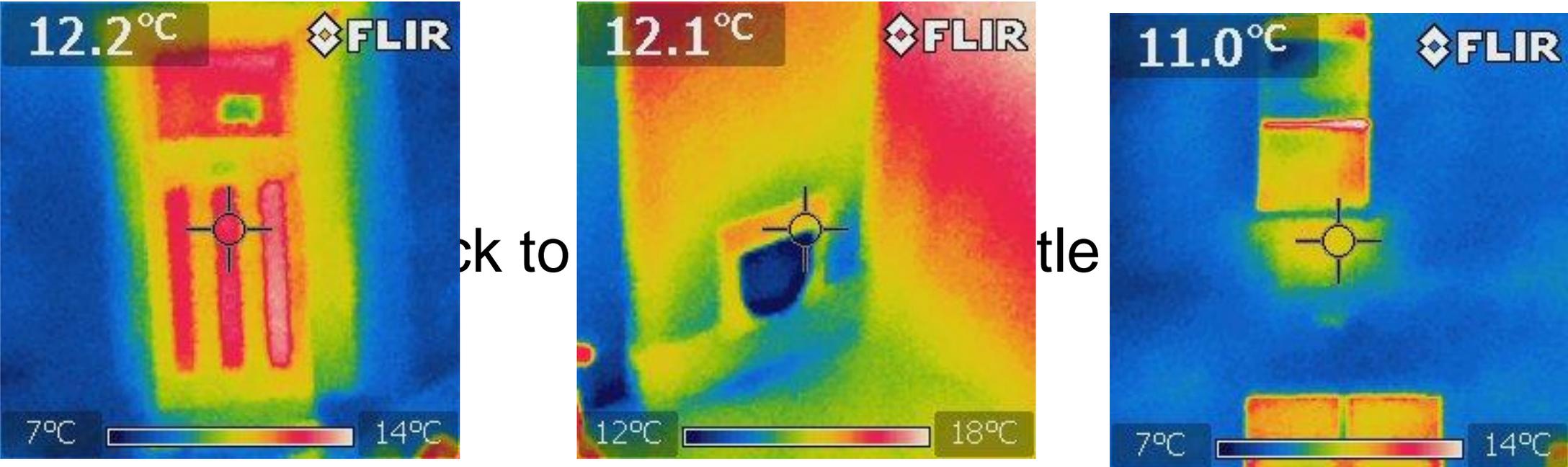
<http://ttkingston.org>



TTK keeping cosy workshops, February 2016 - outline

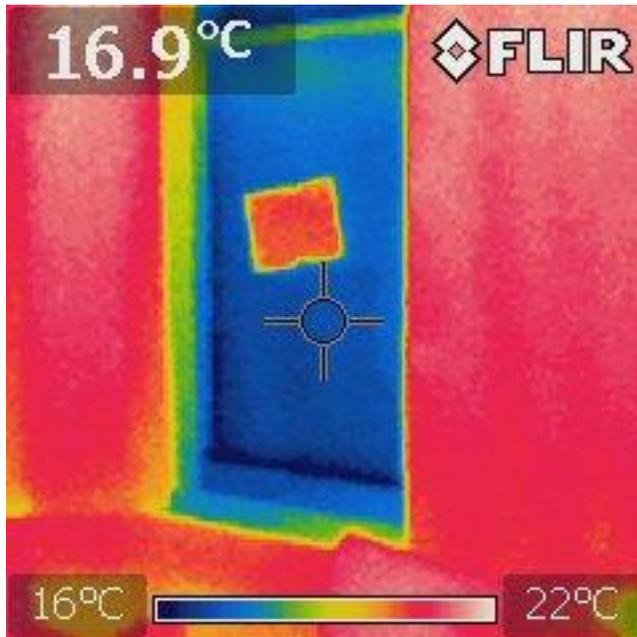
	1. Easy/Cheap	1. Medium	1. Difficult/Expensive
1. Insulation – heat your home, not the street and the sky	<ul style="list-style-type: none"> Insulate yourself! Radiator foil Loft (incl hatch door) Bookshelves Curtains & blinds Door panels Hot water tanks 	<ul style="list-style-type: none"> Carpets + high TOG underlay (John Lewis?) Under floor foil, insulation Cavity wall insulation Low emissivity film, blinds 	<ul style="list-style-type: none"> Changing windows & doors Low emissivity glass Walls, inside or outside
1. Mind the gaps: draught-proofing and ventilation (you need both!)	<ul style="list-style-type: none"> Letter boxes Doors and windows, curtains Draught excluders Chimneys Cat-flaps Relative humidity meters Basic / planned ventilation 	<ul style="list-style-type: none"> Seal wooden floors & skirting boards Heat recovery system (simple) Dehumidifiers? 	<ul style="list-style-type: none"> Changing windows & doors Large, mechanical heat recovery system
1. Other energy-/ carbon-saving tips	<ul style="list-style-type: none"> Turn down thermostat, radiators in some rooms Switch to a green energy supplier Change light bulbs Keeping cool in summer – shade etc Hot water 	<ul style="list-style-type: none"> Improve boiler and control systems Individual radiator valves (Damon's, Honeywell) 	<ul style="list-style-type: none"> Solar panels, PV and hot water Heat pumps Heat storage (Maintenance issues)

Some leaky places – found with TTK thermal camera



Left to right: door panels, door window with patch of low emissivity film; cat flap, radiator under window heating the external wall

Some solutions



Left to right: window from inside with patch of low emissivity film; foil for behind radiator

External wall insulation (EWI)



Left to right: EWI makes little difference to the appearance of a detached house; a neat job on an Edwardian semi; can make a house look much bigger than its neighbour!



Advice and/or energy audits

TTK Energy Group petermason142@gmail.com

TTK Energy Group tips at <http://ttkingston.org/wordpress/projects/energy/energy-tips/>

Smart Communities <http://smartcommunities.org.uk/>

Designers Green Tomato <http://greentomatoenergy.com/>

LED light bulbs, advice on choosing etc

<http://www.theguardian.com/lifeandstyle/2014/mar/28/led-lights-information>

<https://www.ovoenergy.com/guides/energy-guides/energy-saving-light-bulbs.html>

Richmond MakerLabs

http://wiki.richmondmakerlabs.uk/index.php?title=Main_Page

DIY advice

B&Q How to...

<http://www.diy.com/search/results/?question=How%20to%20guide&articleTrail=300001%3AHow+to+guides&tab=tab-ui-articles>

Youtube How to... <https://www.youtube.com>

Islington Council energy advice and shop <http://www.energyadvice.islington.gov.uk/save-energy-in-the-home/diy/>

How to make draught excluders

<http://tipnut.com/draft-stoppers/>

<http://www.theguardian.com/lifeandstyle/2010/jan/05/how-to-make-draught-excluder>



Materials 1 – windows and doors

Thermal blinds, e.g. Luxaflex Silhouette

<http://www.luxaflex.co.uk/products/indoor/silhouette-shades/>

Reflexrol <http://www.reflex-rol.co.uk/>

Sash windows draught-strip, QLON / FS strip for meeting rail

<http://www.schlegel.com/building-products.html>

Tesa Draught Excluder, E-profile

[http://www.tesa.co.uk/consumer/energy_saving/window-draught-excluder/door-and-window-draught-excluders,](http://www.tesa.co.uk/consumer/energy_saving/window-draught-excluder/door-and-window-draught-excluders)

available from various suppliers e.g. <http://www.amazon.co.uk/Tesa-Draught-Excluder-Profile-Brown/dp/B000VD5O3O>

Enerlogic window film <http://www.enerlogicfilm.com/>

Aerogel (thin insulation) <http://www.aerogel.org/>

Materials 2 – etc

Thermostatic radiator valves:

Honeywell <https://products.ecc.emea.honeywell.com/europe/pdf/hr90-en-50088280-uk07r0513.pdf>

<http://opentrv.org.uk/>

Loft insulation

Energy-switching

Info about energy generation mix from various suppliers

<http://www.electricityinfo.org/suppliers.php>

Price comparisons from uSwitch - <http://www.uswitch.com/gas-electricity/>

2 green electricity suppliers

Good Energy www.goodenergy.co.uk

Ecotricity <http://www.ecotricity.co.uk/>

Other useful websites

<http://www.amazon.com/NEEWER%C2%AE-LCD-Temperature-Humidity-Hygrometer/dp/B004GN9EH2>

Damon's review:

<http://www.earth.org.uk/note-on-desktop-humidity-RH-and-temperature-meter-HTC-1.html>

Damons's blog

<http://www.earth.org.uk/>

Department of Energy and Climate Change searchable announcements at <https://www.gov.uk/government/organisations/department-of-energy-climate-change>

e g, <https://www.gov.uk/government/news/residents-across-england-win-share-of-25-million-to-warm-their-homes>