Insulation & Draught Proofing Your Home

Warm air in a room cools quickly when it hits cold walls or windows. Insulation and draught proofing are great ways to save money on your heating bills!

- A draughty house not only loses heat more easily, it feels colder than a non-draughty one at the same temperature. Deal with yours draughts and you will find it easier to turn your thermostat down a degree or two. You should consider draught proofing:
  - around your windows and door frames
  - around letter boxes and key holes
  - qaps around the floor and skirting board
  - the edges of the loft hatch
- Don't heat the sky! Think about loft insulation –
  a good amount to have is 300mm, so pop your
  head in your loft and see if you need a top up.
- Cavity wall insulation, if suitable for your home, can save you £135 a year
- If you can't have cavity wall insulation, consider external or internal insulation solutions. You could save around £450 a year.
- Floor insulation is a good solution for many homes, saving around £60 a year.
- · Double glazing can save £160 a year.
- If you have a chimney, a chimney balloon can save around £40 a year.
- Use curtains to keep the heat in, opt for heavier curtains in the winter months and draw them at dusk.

























Feeling the Heat

Understanding how your home is heated will help you **reduce** the amount of energy you use in your home.

- Take time to understand how your heating system
  works and how to get the most out of the controls.
  Get the system to work with your lifestyle patterns,
  there is no need to heat an empty home for long
  periods of time or to heat empty rooms to the same
  temperature as those you live in.
- Having controls on your radiators (TRV's) enables you to control the temperature by room, and can save around £10 a year.
- Warm air in a room cools quickly when it hits cold walls or windows, wall insulation (cavity or solid wall) and draught proofing are great ways to save money on your heating bills!
- Bleed your radiators regularly to ensure they are working as well as efficiently as they can.
- To ensure it is working to its full potential, keep your boiler in tip top condition with regular servicing.
- Don't dry clothes on radiators, this reduces the temperature of the room and means your boiler has to work harder to get your house back up to temperature, costing you more money (it also causes issues with condensation).
- Foil radiator panels or sheets of tin foil behind your radiators can reduce heat lost through the walls behind them.
- Replacing an older F or G rated boiler with an A rated one can save you around £300 per year.
- In the winter months, close your curtains before it gets dark and the temperature drops.
- Set the room thermostat between 18°C (for the more active of you) and 21°C (for the more sedentary of you).



























Heating your home with electricity

Many UK homes are heated with electric storage heaters. They are designed to heat up over night and release the heat gradually during the day.

- Keep the grills on your storage heater closed at night to keep in as much heat as possible.
- When you want to release more heat, open the grills and adjust them to get the units working as you want them.
- If you have a water tank, make sure it is well
  insulated to avoid the need to top up your hot
  water with your immersion heater.
- Ensure your home is well insulated and draught proofed, no need to lose heat unnecessarily.
- Consider upgrading your old electric storage heater to a more modern slimline or fan storage heater would save you around £120 to £180 per year.



























## Electricity

Even the small things add up, by making lots of small changes you could shave hundreds of pounds off your electricity bills. Just to light a home in the UK costs an average of £85 per year.

- By line drying in the summer months rather than using a tumble dryer, you could save £17 on electricity and 65kg CO<sub>2</sub> – if everyone in the UK did this it would be equivalent to taking around 270,000 cars off the road.
- Leaving your computer monitor on when not in use could cost £35 a year and generate 120kg of CO<sub>2</sub>.
- Replacing a 50W halogen down lighter with a 6W LED bulb, will save £4 per bulb. Many kitchens have between 8 and 10 down lighters!
- Use the right light for the job. If you are watching television you probably only want low level background lighting, if you're reading a book you may want something bright but near by.
- If you still have traditional light bulbs in your home, remember, replacing them will save you on average
   £3 per year per bulb, sometimes more.
- Turning appliances off at the wall rather than using standby, could save you £35 a year
- Put a lid on it! When cooking, you won't need to turn the temperature up on your hob if you put a lid on the pot.
- Invest in an energy monitor. This will help you see
  the cost of using all the different electrical
  appliances in your home.







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## A changing climate

Climate change adaptation is the **changes** that people, plants and animals make to **reduce** the consequences, or to **exploit** the opportunities, of a changing climate. Weather patterns are changing and we must allow for this in daily life by **adapting** our homes, communities, organisations and services to ensure they are **resilient** to this changing climate.

## What can we expect in our changing climate in Hampshire?

- More frequent extremes of flooding, heat-waves and drought;
- A reduction in frost days and snow cover;
- Milder, wetter winters, with potential rainfall;
- Hotter, drier summers putting more pressure on public water supply;
- Greater average warming in the South, may lead to health problems including sun stroke, heat exhaustion and tropical insect bites and diseases;
- Sea level rise in coastal areas, more flooding and coastal erosion.





## Renewable Energy Choices for the Home

Reducing your **dependency** on fossil fuels in your home is **good** for the environment and **saves** you money. Here are some of the options available to you.



#### · Solar photovoltaic (PV) panels

 Generates some of the electricity requirements for your home, how much will depend on system size and available roof space.

#### · Solar thermal panels

Produce around 60% of your homes hot water requirements

#### · Air source heat pumps & Ground source heat pumps

 Take care of all your heating and hot water requirements. They do use electricity to run, so make sure your home is well insulated before installing them.

#### · Wind

 Where suitable, this can generate some of your homes electricity

#### · Biomass boilers

- Can provide some or all of your homes hot water and heating requirements depending on what you put in place. The fuel you use in them should be from a sustainable source, making this a carbon neutral heating choice (although you must take into consideration the creation and transport of the fuel).

#### Micro CHP (combined heat and power)

 A high efficiency gas (or LPG) boiler that generates electricity while the boiler is on.

























### What a Waste

Current landfill sites could be **full** by **2018**, the solution should not be to simply find more sites.

The alternatives to landfill:

Reduce - minimising what we throw away

Re-use - avoid needlessly making new products

Recycle - recycling old products into new ones saves raw materials

Incinerate - Generating electricity through burning rubbish cuts down the fossil fuels we use

- It is likely that food waste will be banned from landfill by 2020.
- You can freeze baked beans if you know you won't be able to eat them in time – freeze within two days of opening and then defrost in the microwave and heat till piping hot.
- Did you know food can be frozen any time before
  the 'use by' date on the label? Then when you have
  an evening where you don't feel like cooking, take it
  out of the freezer, defrost and use within 24 hours.
- After using **tea bags**, let them dry out, soak them in **paraffin** (or similar) and allow them to dry. These make great fire lighters for your BBQ. You can also use your used tea bags in hanging baskets to help retain water.
- Always think about packaging, do you need to put your fruit and veg into a plastic bag when you are buying it?
- Unwanted items such as books, games and clothes can go to charity shops, be listed on Freecycle or donated to local community groups for selling.
- If the item is higher value, use an online auction site or market place to sell it.



























## Transport and Travel

Reducing your weekly car mileage by 5 miles a week could save you £40 and 85kg CO<sub>2</sub> per year. If everyone in the UK did this, we would save £1.1 billion and 3 million tonnes of CO<sub>2</sub>.

- Smarter driving, by driving more slowly and using your gears correctly, could save you around 15% on your petrol spend each month.
- Sharp acceleration and heavy breaking uses fuel unnecessarily.
- Half of all UK car journeys are for fewer than five miles. Short hops like this can be expensive, because cars can use twice as much fuel when engines are warming up.
- The average UK commuter would save around £220 and 470kg CO<sub>2</sub> by sharing their commute with two other drivers.
- If everyone in England who takes three or more flights to Europe per year, reduced the number of flights by one, it would be the same as taking 200,000 cars off the road.
- Remove roof racks from cars when not in use and avoid driving around with unnecessary loads in the boot as this increases fuel consumption.
- Tyres that are under inflated are not only dangerous, they also make you use more fuel when driving.
- New cars do not need to be left to warm up before driving.
- Air conditioning drains fuel, but at high speeds it is better than having the windows open as this creates drag.



























## A Bit of Hot Water

Heating the hot water in your home will, on average, account for 23% of your heating bill - around £160 a year.

- If every home in the UK reduced their hot water use by 5% it would be equivalent to taking 340,000 cars of the road.
- The immersion switch gives you instant hot water when you need it. Check you are not leaving it on constantly!
- Savings could be made in the depth and frequency of baths.
- Use a basin rather than cleaning dishes under a running tap.
- If you have a hot water tank with a thermostat, try turning it down to 55°C.
- Changing your shower head to a more water efficient one could save you £50 a year on heating the water.
- Rinse vegetables using the cold tap.
- Washing your clothes at 30°C instead of higher temperatures can save £12 a year.
- When you are running your hot tap to get it to temperature, save the water and use it to water your plants.
- If every person in the UK only boiled as much water as they needed in their kettles (which could save you £7 per year), we could save enough electricity to power the UK's street lighting for 2 months.



























# Water, water everywhere? Not so much.

Each Briton uses about 150 litres of tap water a day, but if you include the amount of water embedded within products, our water consumption increases to about 3400 litres a day.

- A dripping tap wastes at least 5,500 litres of water a year: that's enough water wasted to fill a paddling pool every week for the whole summer.
- Water plants only once or twice a week in the summer, unless showing signs of distress. This way they will root deeper looking for their own moisture.
- The energy used to process water in the UK accounts for 3% of electricity use in the UK.
- A dripping tap can fill a bath in a day or so.
- Bottled water has carbon footprint loop times higher than tap water – don't be afraid to ask for it even in very posh restaurants.
- No need to water your lawn, it will revive at the end of the dry period.
- Use bath and dish water to water your plants.
- When running your tap to get it hot, save the water and use it to water your plants.
- Bury a lemonade bottle or similar neck down into the soil at base of plants/flowers and fill with water – this takes the water down to the root and means less evaporation.
- Turn off taps properly. If the entire adult population of England and Wales remembered to turn off the tap when they were brushing their teeth, we could save 180 mega litres a day-enough to supply nearly 500,000 homes and fill 180 Olympic swimming pools.



























## Top Tips

The average UK home could save £280 and 1.1 tones of CO<sub>2</sub> by being more energy efficient. Everyone has their favourite top tip for making savings, here are some of ours...

- Use a tiered steamer for cooking vegetables as just one ring can cook several vegetable varieties at the same time.
- If you have a fan oven, turn it off 5 to 10 minutes
   early as the oven will maintain its temperature and continue cooking for this time.
- Use your oven to its full potential (e.g. bake a cake when cooking your roast or put in a casserole when baking a pie)
- A room decorated with pale colours needs less light than darkly coloured rooms.
- Defrost your fridge regularly the more ice the more electricity it uses.
- Dry washing outside when you can, a tumble dryer will cost about £17 over the summer months.
- Don't dry washing directly on radiators, this cools the room and makes your boiler work harder, it also causes condensation issues.
- Wait for a full load in dishwashers and washing machines, to cut down on 'wasted' electricity. And remember, washing at 30°C uses 1/3 less electricity than washing at 40°C.
- Check to see that windows and doors are closed when heating or cooling your home.
- Use your curtains and blinds to help regulate the temperature in your home. Closing curtains earlier in the evening in the winter months keep heat in and keeping blinds closed in the bedroom will keep it cooler in the summer.
- Once a week take a shower instead of a bath and save £18 in energy bills per year.
- Your roof collects enough water to fill 450 water butts per year. You could even use this water to wash your car.

























