1

REDUCE YOUR HEATING NEEDS

IMPROVING THE INSULATION AND DRAUGHT PROOFING IN YOUR HOME IS LIKELY TO BE THE MOST IMMEDIATE AND EFFECTIVE WAY TO SAVE CARBON AND MONEY ON HEATING - SEE THE 'FABRIC FIRST' STEPPING STONE.

2

IMPROVE YOUR EXISTING GAS HEATING SYSTEM

While you plan your transition to low or zero carbon heating, there's lots you can do with your gas boiler system to make it more efficient:

Many boilers aren't set at the optimum operating temperature, which means they are less efficient. You could save 10% of your gas consumption by making sure the boiler is working at the optimum temperature. Flow/return temperatures should be 70/50°C or 60/40°C.

Remember that the domestic hot water must be at least 60°C to prevent legionella growth - you may be able to set this temperature separately or need to alter the system temperature.

INSTRUCTIONS ON ADJUSTING YOUR BOILER'S FLOW TEMPERATURES CAN BE FOUND HERE:

LOWER TEMPERATURES AND SMARTER HEATING

The quickest and simplest way to save energy is to adjust your thermostat. The Energy Saving Trust suggest a 1°C reduction could save 10% on your energy bill.

Another good approach is to be smarter with how you heat your home. Different rooms can be set at different temperatures at different times of the day. Suggested room temperatures are: living-room/office 20-22°C; bedroom 16-19°C; hall 15-18°C; bathroom 22-24°C; kitchen 18-20°C.

Smarter heating control is easier if you have individual control valves (thermostatic radiator valves, or TRVs) on your radiators, or individual control on your room heaters.

TRVs can be fitted to existing radiators. Automated radiator valves or automated multi-zonal heating control systems can be installed to run your heating for you.

THE ENERGY SAVING TRUST HAS LOTS OF GREAT INFORMATION AND INSTRUCTIONS ON HOW TO SAVE ENERGY IN YOUR HOME HEATING:

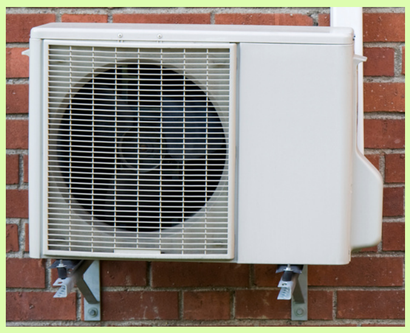
CHANGE YOUR SETTINGS AS OFTEN AS THE WEATHER!

Your heating settings should change to suit the weather, the time of year, and how you (and anyone you live with) are using your home.
Set a monthly reminder to check the settings for both your heating and hot water. Adjust for seasonal as well as the number of people and their needs.
It is important to stay warm enough, but wearing a jumper around the house and having a cozy blanket over you when you are sitting still can reduce the need for heating.

3

GREENER WAYS TO HEAT YOUR HOME

MANY OF US USE FOSSIL FUELS LIKE NATURAL GAS OR OIL TO HEAT OUR HOMES. SWITCHING TO ELECTRICAL HEATING METHODS WILL REDUCE YOUR CARBON IMPACT, PARTICULARLY AS THE ELECTRICITY GRID BECOMES GREENER AND MORE RENEWABLE OVER THE NEXT DECADE OR SO.



Heat pumps are extremely efficient, using one unit of electrical energy to bring about three units of heat into your home. Therefore, this is likely to be a good choice if you can make your home suitable for a heat pump. This will include ensuring that your home is very well insulated, and that you have modern and well-sized radiators or underfloor heating systems. Heat pumps also require space for the outdoor and indoor equipment. If your home is not already well-insulated, these changes can be made gradually to spread the cost over time, with the eventual aim of introducing a heat pump but in the meantime making your home cosier and lower cost to heat.

ELECTRICAL HEATING METHODS INCLUDE:

Infra-red (IR) heaters work by converting electricity into radiant heat, which heats the people and other objects in front of it. The heat is the same feeling of warmth as the sun on your face and the heat from a fire. This is seen as effective and efficient because it 'heats people not rooms' - energy is not wasted heating the air, and instead the focus is on heating the people in the space when they want it. IR heaters are now very slim, and can be made in different colours, even showing a picture or a mirror to suit your home.

Electric heaters use electricity from the grid to generate and give out heat directly through convection, under floor or radiant heaters. These are likely to be applicable to smaller well insulated properties and can be an effective heating approach where only a small amount of heating is required, and is very direct and immediate. These devices are also often used as stand-alone supplementary heating to another, existing heating system. Care should be taken when buying and using these methods that you are not incurring 'hidden' heating costs by using multiple approaches in parallel.

Storage heaters use electricity to generate heat, which is stored for use when is it needed. They are designed to be used with off peak electricity tariffs or solar panels. Individual storage space heaters can be used in key rooms in smaller, well insulated homes, and the temperature in each space can be controlled separately so that you are heating only the rooms you need at different times of the day. Whole-home storage systems (often called zero emission or electrical boilers) are connected to new or existing hot water heating systems for space heating and domestic hot water.

4

OTHER FORMS OF HEATING

HEATING USING FIRES: If you are thinking of changing your heating system from another source, it is unlikely that a fire is the best solution. Burning wood is associated with air quality issues, and the need for a properly engineered furnace to ensure efficient burning. Where you get your fuel needs to be considered carefully, to make sure it is genuinely sustainable and environmentally sensitive. This includes how it is grown, processed, and transported.

HYDROGEN: There is a lot of talk about hydrogen as a heating solution, and many new boilers are being sold hydrogen ready. Currently in the UK there are no definitive plans to pipe hydrogen to our homes, and there is active debate about if this is the most effective solution for heating as it is less efficient than heat pumps and other electric alternatives. Therefore if you want to decarbonise your heating any time soon, it is likely that electric solutions are going to be more effective.

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STORE YOUR OWN HEAT ENERGY

You can store the heat from the sun using solar thermal water heating systems. You can also store electricity generated from your solar panels in batteries and use it for hot water, space heating, electric vehicle charging, direct use in the home or export to the grid.