Keeping warm in your home

A guide to reducing energy costs and keeping your home warm and healthy
Some people find it difficult to keep their home warm and comfortable, especially with the strain caused by rising energy prices. This guide is designed to help you reduce your fuel bills while still keeping your home warm and comfortable.

**Why is it important for me to keep my home warm?**

Many people know how uncomfortable it can be to live in a cold home, however few are aware that it can actually be harmful to their health. Living in a cold, damp home can:

- Weaken your immune system, meaning that you are more likely to suffer from cold-related illness such as bronchitis, flu or pneumonia
- Exacerbate conditions such as asthma
- Affect blood pressure and increase the risk of a stroke or heart attack
- Cause reduced concentration or alertness, increasing the risk of accidents
- In extreme cases lead to hypothermia

**How warm should my home be?**

To be sure of avoiding these health hazards the room in which you spend most time (usually the living room) should be between 18°C and 21°C (64°F and 70°F). The ideal temperature in the other rooms is 18°C (64°F).

**How can I keep my home warm when energy bills are so high?**

Unfortunately we live in a time when energy prices are high and are likely to remain so for the foreseeable future. The good news is that there are a number of things you can do to help you keep your bills as low as possible.
Getting the most out of your heating system

Getting the best out of your heating system for the least cost depends on what sort of heating there is in your home and what fuel it uses. Usually homes will have central heating fuelled by gas or oil, or storage heating fuelled by electricity.

**Oil or gas central heating**

Set the timer control so that the heating comes on half an hour before you get up in the morning, and goes off again when you go to bed. If you are usually out during the day, set your heating to go off when you leave the house and on again half an hour before you return. To prevent it becoming too hot or cold keep any room thermostats at around 21°C in the room in which you spend the most time, and 18°C in any other rooms.

You may also have thermostats fitted to your radiators. These allow you to control the heat from individual radiators according to your needs. Placing aluminium foil behind radiators will help reflect heat back into the room. Move furniture away from radiators so that heat is not blocked. Remember that your gas boiler should be inspected every year to ensure it is working properly and safely.

**Storage heating**

Storage heaters will have an input and output control. Using these controls correctly can help you to get the cheapest heat. The input control regulates the amount of heat that is stored up during the night. It should be set higher in cold weather and turned down in warmer weather. The output control regulates the rate at which the stored heat is released. It should be left on a low setting during the day and then turned up in the evening if more heat is needed. Use this easy guide as a reminder:

<table>
<thead>
<tr>
<th>Time</th>
<th>Input</th>
<th>Output</th>
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<tbody>
<tr>
<td>Night</td>
<td>Set to high in cold weather</td>
<td>Set to low</td>
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<tr>
<td>Day</td>
<td>Set to high in cold weather</td>
<td>Set to low unless extra heat is needed</td>
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<td>Evening</td>
<td>Set to high in cold weather</td>
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Make sure you are on the right electricity tariff for storage heaters. Storage heating should be run on an off-peak tariff such as Economy 7 tariff which gives seven hours of cheap electricity between midnight and 7am. Some suppliers now offer an Economy 10 tariff which provides an extra three hours of cheap electricity in the afternoon. Check with your energy supplier to see if they offer this tariff.

A boost switch fitted to many storage heaters allows immediate warmth from a separate ‘electric heater coil’ within the unit. If you use this boost heating outside of the cheap electricity hours you will be paying full rate for electricity consumed. This is **VERY** expensive.

**Room heaters**

Room heaters come in many shapes and sizes. As a rule, electric heaters are more efficient than bottled gas or paraffin heaters and cause less condensation.

Buy heaters with thermostats and time controls and set them according to the instructions.
Making your home more energy efficient

Insulation

Home insulation helps prevent heat escaping and keeps your home warmer (and cooler in summer). It is also one of the most effective ways of reducing your annual fuel bill. Installing loft insulation could save you up to £70 a year, and cavity wall insulation could save up to £270. Different types of internal and external wall insulation are also available for homes that do not have cavity walls.

Grants are often available from energy suppliers to cover some or all of the cost of cavity wall and loft insulation. Contact the Home Heat Helpline on 0800 33 66 99.

Draught proofing

Draught proofing is one of the cheapest and most effective ways of reducing heat loss in your home. Closing your curtains at dusk; using insulation strips on windows and doors (available from DIY stores); fitting covers to your front door’s keyholes and letterbox; and using underlay with carpets can all make a big difference to the warmth of your home.

Lighting and appliances

When buying new appliances such as fridges, washing machines and lamps, look for the energy efficiency label which will rate the appliance from A-G. Aiming for an appliance with an ‘A’ rating will save you money on running costs.

Replacing standard bulbs with energy saving light bulbs can save you around £45 over the lifetime of the bulb.

Remember to switch off any lights when you leave the room and don’t leave any appliances on standby or mobile phones on charge unnecessarily.

Other top tips for saving energy:

- Reduce the temperature of your hot water cylinder to 60°C
- Don’t overfill your kettle – just boil as much as you need
- Turn the washing machine down to 30°C
- Keep internal doors closed
- Insulate your hot water tank with an insulation jacket (available from DIY stores)
- Choose the right size of pan for the food you are cooking and for the size of the hob
Once you have ensured that your home is as energy efficient as possible, you may wish to consider reducing your fuel bills further by installing renewable and low-carbon technologies like micro-wind turbines, solar panels and biomass heaters. These are growing in popularity and offer an alternative to fossil fuels. Installing renewable technologies will reduce your monthly fuel bills and, if they generate electricity, can provide an income from any surplus energy that is exported back to the National Grid. Technologies can include:

**Solar photovoltaic (PV) systems** convert sunlight into electricity for use in the home or to export to the National Grid. Typical systems will cost around £12,500 and can provide over 40% of a typical household's electricity use. It is one of the simplest technologies to install although the initial outlay can be expensive.

**Solar thermal panels** use the light from the sun to heat water. Sited correctly on a house with a south facing elevation, a panel can provide up to 60% of the hot water needs of an average family. They typically cost between £4,000 and £6,000.

**Wind turbines** can either be integrated into the local electricity grid or operate as off-grid devices, charging batteries when excess electricity is generated. A small 1kW wall-mounted turbine will cost around £2,000.

**Heat pumps** move heat from outside the building to provide heat indoors. They use some electricity but they generate more heat than the electrical energy they use and are a good option to consider if you have no access to mains gas as a fuel. An air-source heat pump will cost between £6,000 - £10,000, and a ground-source heat pump will cost between £9,000 - £17,000.

**Wood-fuelled heating** (pellet boilers, pellet stoves, log boilers and log stoves) is a good option to consider for those who have no access to natural gas as a fuel and have sufficient space for the boiler and fuel storage. Stoves cost around £3,000 to supply and fit, while a complete domestic pellet boiler heating system will cost around £11,500.

There are a number of financial incentives available for those wishing to install low-carbon technologies. For more details on these and the various technologies available contact the Energy Saving Trust on 0800 512 012 or visit www.est.org.uk.

### Where do I go for help?

If you are struggling to pay your energy bills, contact your energy supplier. They will work with you to find solutions to payment difficulties and formulate an acceptable payment plan, but they can only do this if they are alerted to the problem. If your energy supplier considers you to be vulnerable, you may be eligible for a special discounted tariff.

The Home Heat Helpline is free to call and can provide advice on benefits, grants for free home insulation and special payment options that your energy company provides, to help those struggling with their fuel bills. You can call the helpline yourself or on behalf of a relative, friend, patient, client or neighbour that you’re worried about.

Tel: 0800 33 66 99.

Make sure that you are claiming any benefits to which you may be entitled. This will not only increase your income, but may also make you eligible for further assistance. Contact your local office of the Pension Service or Jobcentre Plus, Citizens Advice Bureau, Money Advice Agency or Welfare Rights Office. These agencies may also provide you with additional advice on tackling fuel debts.
About...

National Energy Action

NEA is the only national affordable warmth charity. Over the last thirty years NEA has helped thousands of low-income and vulnerable households achieve affordable warmth through its project work, and millions more through campaigning for additional resources for affordable warmth programmes. In 2011 NEA marks 30 years of assisting low-income and vulnerable households.

NEA is recognised by government, the energy industry, the media and local communities as the leading expert on affordable warmth. Working closely with its membership base of more than 250 community organisations, local authorities and other partners, NEA has developed hundreds of successful projects and partnerships across the UK to improve access to affordable warmth.

NEA has its headquarters in Newcastle upon Tyne, a separate office in Belfast which works throughout Northern Ireland, and also has two bases in Wales. NEA works closely with its sister organisation Energy Action Scotland on affordable warmth in Scotland.

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Banks Renewables

Banks Renewables develops renewable energy solutions to meet society’s increasing demand for electricity and heat. We are committed to generating power from renewable technologies such as wind farms and combined heat and power plants.

Our large development team works with landowners and takes projects from inception to completion, handling all aspects of the planning and delivery process. We are committed to our development with care approach and develop all our sites in close consultation with the local community.

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