

# Home Energy



## **Health and housing conditions**

The main reason for living in a house is to shelter us from the elements. A well-built home with good insulation, ventilation and heating is ideal. If any of these are missing, health can suffer.

For example, a home that does not have cavity wall insulation will lose more heat through the walls than it should. You will be paying to heat the air outside your house, when you really want the benefit of that heat inside.

A home that leaks heat through the walls and roof will be more expensive to run – your heating bill will be higher than it should be.

If a home is not heated properly, or has poor ventilation, a number of problems can arise that could affect your health and the condition of your home. For example, damp and condensation can contribute to respiratory problems.

Mould growth can contribute to asthma and other respiratory diseases. Any form of damp and mould growth can disfigure a home and, if left untreated, can lead to problems with plaster and even the structure of the home.

The issue of damp, condensation and mould growth is covered later in this section.

## **Safe room temperatures for comfort and health**

The ideal living room temperature for the great majority of people is 21°C (70°F), with temperatures elsewhere in the home varying from 18 to 21°C (64-70°F). This is often referred to as the ‘comfort zone’.

People with circulatory problems, or who are on certain prescription drugs, may need a higher temperature.

For example, temperatures in sheltered accommodation are often set at 23 to 24°C (73-75°F).

## Temperature too high

Unless you have a medical condition, temperatures in the home higher than 21°C (70°F) should be avoided.

Higher temperatures can cause heatstroke and attract pest infestations, such as pharaoh's ants and cockroaches.

Damp conditions above 24°C (75°F) are ideal breeding grounds for house dust mite, whose faeces are a cause of a number of allergies and can trigger asthma attacks, especially in children.

## Temperature too low

At temperatures below 16°C (61°F), there may be an increase in the risk of respiratory illnesses.

Temperatures of 12°C (54°F) or below can result in raised blood pressure, which in turn might induce cardiovascular disorders. At 9°C (48°F) and below, there may be increased risk from the onset of low deep body temperature – hypothermia. These low temperatures would need to be maintained

for some hours – or even days – before the health problems take effect.

## How to use heating controls

It is very important that heating appliances are controlled in some way, even if it is only with an on and off switch. Plymouth Community Homes does its best to provide you with heating controls that are effective and easy to use. The controls you have will vary according to the type of heating system you have. Some of the more common types of control are listed below:

- **Boiler thermostat** – this is on the gas boiler itself and controls the temperature of the hot water flowing around the pipes to the radiators. Remember to turn this to a low setting for the summer.
- **Room thermostat** – this is usually in the hallway or living room and controls the temperature in the whole home based on

the room it is in. It should be set to 21°C (70°F) for pensioners or families with young children, or between 18 and 21°C (64-70°F) for everyone else.

- **Programmer/timer** – this controls the times you want the heating and/or hot water to switch on and off. Set it to come on half an hour before you get up, or come home and to go off half an hour before you go to bed.
- **Thermostatic radiator valves (TRVs)** – these are found on the radiators themselves and control the amount of heat released to a room. They should generally be set to three or the middle setting. You should try adjusting them

gradually until you get the temperature right for each room, then leave them at that setting.

- **Hot water cylinder thermostat** – this can be found on the hot water cylinder, usually in an airing cupboard. It controls the temperature of the hot water coming out of the taps and should be set to 60°C (140°F).
- **Storage heater dials** – most electric night storage heaters have two dials: one controls the amount of heat put into the heater during the night, the other controls the rate at which heat is released into the room. Each heater must be set individually. If you have this type of heater, ask your local housing office

- It is important that heating appliances are controlled in some way, there are several different types of controls that you should be aware of.
- Every tenant is provided with the manufacturer's manual for using the heating controls in their home.

for the 'How to get the most from your electric heater' leaflet, from Plymouth City Council's Home Energy Team.

Every tenant is provided with a copy of the manufacturer's manual for using the heating controls in your home. If you don't have a manual, get in touch with Plymouth Community Homes – we will do our best to get one for you as soon as possible. When leaving your property, please leave the manual for the next tenant.

Examples of heating controls are shown in the illustrations below: Left to right: 1. TRV (Thermostatic Radiator Valve); 2. Timer/programmer; 3. Room thermostat; 4. Hot water cylinder thermostat.

## Importance of saving energy

It is becoming increasingly important to use energy wisely.

This means using as much as you need, but no more. Most of the energy we use in the home comes from fossil fuel – coal, gas or oil. For example, the electricity we use is generated in power stations a great distance from Plymouth that use mainly coal or gas.

The Government and Plymouth Community Homes are becoming increasingly concerned about our dependence on these fossil fuels. This is partly because of security of supply and partly because they are a major cause of climate change.



The security of supply issue relates mainly to our increasing dependence on imported gas and oil, much of it coming from Russia and the Middle East.

As the supply of gas and oil reduces, the price will rise. We have already seen significant price rises during the last few years and these are set to continue for the foreseeable future.

The less well off in our community will have the greatest difficulty in paying for enough fuel to keep warm, to provide hot water and to provide all the other services that we take for granted, such as lighting and refrigeration.

Every time we switch on a light or any other appliance we are causing carbon dioxide emissions at a power station. These emissions are making a substantial contribution to climate change that will have an effect globally and locally.

This will affect us in Plymouth. We can expect to see an increase in the

number and ferocity of storms. These storms could increasingly cause damage to homes. Other problems that could affect us in Plymouth, are increased risk of flooding and of subsidence and heave – where buildings move and cause structural cracks to appear in walls.

Some people minimise their impact on climate change – and reduce their dependence on fossil fuels – by switching to a ‘green’ electricity tariff. Most electricity companies offer this option and there are some companies that specialise only in green or ‘clean’ electricity.

## **Energy efficiency**

Plymouth Community Homes is responsible for ensuring that your home is as energy efficient as it can be within the budget available.

This will usually mean providing a range of measures, including insulation, ventilation, good heating controls

and an energy efficient heating system. The mix of measures will depend on the type of home you have and your personal circumstances.

There is a great deal that you can do to be more energy efficient in the home. The following give a flavour of the things you could do – and they cost nothing:

- Switch lights off when no-one is in the room.
- Switch the TV off at the set, NOT with the remote control.
- If you're making a cup of tea, put just the water you need in the kettle.
- Use the lids on saucepans.
- Draw curtains at dusk – this will help to stop draughts as well as keep more warmth in the room.

There are other things you can do to save energy that do not cost very much. For example, you could gradually replace all your old light bulbs with new energy saving bulbs. These now come in all shapes and sizes

and are less expensive than they used to be.

Burning a 100W lamp for 10 hours uses 1 unit of electricity (1 kilowatt-hour or kWh). You get the same level of light from a 20W energy saving lamp, but with only one-fifth of the electricity. So, if one unit of electricity costs 10p, the 100W lamp will cost 10p to run for 10 hours, compared to only 2p for the low energy lamp. Multiply that by the number of lights you have in your home and you can begin to see the savings you could make.

**REMEMBER** – if you do any of these things you are not just doing your bit for energy conservation and the environment, you will also save money on your fuel bills.

### **How to save money on your fuel bills**

In the previous section, we showed how you could save money on your fuel bills by being more careful about how you use energy. It is also very important that you get the best deal possible from your energy supplier.



There are three questions you should ask yourself:

- Do I pay by the cheapest method?
- Do I have a 'dual fuel' tariff?
- Do I have the best deal from my energy supplier?

There is no simple answer to these questions, free independent advice is available. For help with any aspect of your fuel bill including dealing with complaints – contact Consumer Focus (details on page 11).

If you have access to the internet you might want to go to an energy comparison website that provides information on which energy companies are offering the best deals and how the quality of service varies.

Our advice is:

- Pay by Direct Debit if you can – this is the cheapest way to buy fuel, provided your supplier has estimated how much you use correctly.
- Avoid prepayment key or card meters if you can – this is an expensive way to buy fuel.

- Buy your gas and electricity from the same supplier – this is a ‘dual fuel’ tariff and will save you money.
- Shop around as you would when you buy food or clothes – some very good deals are available.
- Don’t forget that if you are not satisfied with your supplier you can switch to someone else after 28 days.

### **Terminating your gas and electricity supply on giving up your tenancy**

Before giving up your tenancy you should contact your gas and electricity supplier and ask them to terminate the supply and read the meter. Get them to call on the day you leave.

The new tenant/s moving into your property will want to arrange their own gas and electricity supply, which could become very complicated if you have not terminated the supply. It is also important that the new tenant is not faced with bills for which you

are responsible. Plymouth Community Homes cannot intervene in any dispute: this will be a matter between you, the new tenant, and your energy supplier.

### **Avoiding condensation and mould growth**

When warm, moist air from household activities like cooking and bathing hits a cold surface – like a window or outside wall – condensation occurs.

Unless the moist air can escape through an open window, air vent or extractor fan, it will stay in your home until it hits a cold spot where it can condense.

If you warm up the cold spots you will help to control condensation. This can be done by insulation and by draught-proofing doors and windows.

You should try to avoid having cold areas in the home. It is better to have the whole home at a lower temperature than one room at a high temperature and the heating off in other rooms.



Quite often condensation and mould will occur in an unheated room – such as a spare bedroom – rather than in the room where the moisture is created – usually the kitchen.

You can also reduce condensation by reducing the amount of moisture you produce. The following give an idea of the amount of moisture produced by everyday activities:

- Drying 6lb of spun washing in a tumble drier produces 10 pints of moisture.
- Having a bath produces two pints.

- Cooking by gas for three hours produces three pints.

All of this moisture has to go somewhere. It is important to ensure that tumble driers are vented properly to the outside, unless you have a condensing drier.

You must not use paraffin or bottled gas heaters in your home.

Always use extractor fans in the kitchen or bathroom, where fitted, when you are cooking or having a bath or shower. Try to get into the habit of using saucepan lids when cooking vegetables, you will reduce moisture and save money on your fuel bill.

## Where to get **FREE** energy advice

A range of leaflets is available on request from Plymouth City Council's Home Energy Team.

- How to get the most from your electric heating system.
- How to get the most from your gas/oil heating system.
- How to control condensation in the home.
- How to get the most from your humidistat fans.
- How to get the most from your solid fuel central heating system.

- How to get the most from your night storage heaters.
- Low cost/no cost energy and tips.
- How to read gas and electricity meters.

**FREE** energy advice is available from Energy Action Devon. Contact them on freephone 0800 512 012.



**energy saving trust**<sup>®</sup>

For advice and information on energy supply issues contact Consumer Focus on 0207 799 7900 or [www.consumerfocus.org.uk](http://www.consumerfocus.org.uk).



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