

Energy Action Scotland Advisors Toolkit

Chapter I. Ways to save money

1. Billing and Payment
2. Meters and How to Read Them
3. Tariffs and Switching
4. Insulation and Other Physical Measures
5. Home Energy Monitors and Smart Meters –
Monitoring Energy Usage
6. Renewables
7. Hints and Tips



***“Working to end fuel poverty and achieve warm,
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Billing and Payment

Who supplies electricity and gas to the home?

To find out who supplies a home with electricity or gas contact the following companies:

Electricity:

- for Southern Scotland **0845 270 9101**
- for Northern Scotland **0845 026 2554**

Gas:

- for Scotland **0845 601 3048**

What next – setting up an account?

First, phone the electricity and/or gas supplier with the meter readings. The previous tenant might not have given a final reading and it's important to make sure that the new tenant's bills are accurate right from the start of their tenancy. If the home already has a prepayment meter, ask the supplier to ensure that any debts outstanding from a previous customer are cleared from the meter.

If the householder wants to change their supplier, they do not usually need their landlord's permission, but it may be advisable to check first because some landlords have contracts with suppliers.

Changing energy supplier can be one of the easiest ways to save money, but it is worth shopping around for the best deals – that includes asking the current supplier whether the bill payer is on the best tariff they offer. There are many different tariffs to choose from. If there is access to the internet, try using one of the independent price comparison websites. These list most of the tariffs available. Online deals are often amongst the cheapest. If the householder's new home has both electricity and gas, they should consider buying both fuels from the same supplier ('dual fuel'), because they may get a further discount. Alternatively, ask for independent price factsheets from Citizens Advice (formerly Consumer Direct).

For access to approved comparison websites:

<http://energyapps.consumerfocus.org.uk/price>

For factsheets:

Citizens Advice **08454 04 05 06**



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The householder must keep a note of their meter readings during the transfer process to ensure they are billed correctly by both their existing and new supplier(s). See more on Switching in Factsheet I.3 Tariffs and Switching.

However, if the householder has a debt of more than £200 with their current energy supplier that has been outstanding for 28 days or more it may prevent a transfer.

How to pay for fuel

There are several different ways to pay for electricity and gas. It is important to choose the method of payment that suits the householder's circumstances – there are difficulties as well as benefits associated with all payment arrangements.

See more on each in the Factsheets in Chapter II. Paying for Energy.



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Meters and How to Read Them

Electricity Meters

There are three types of electricity meter in common use – standard (credit), variable rate (credit) and prepayment meters.

Standard (credit) meters: A standard meter usually measures electricity consumption in terms of kilowatt-hours – the amount of energy used by a load of one kilowatt over the period of one hour. With this type of meter, all electricity units are charged at the same rate, 24 hours a day.

Variable rate meters: Variable rate meters operate on the same principle as standard meters, but give more than one reading, i.e. for daytime/standard electricity usage, and for overnight/off-peak electricity usage.

Prepayment meters: Prepayment meters accept tokens/keys or cards that can be 'topped up' at a variety of local outlets. If a customer stops paying for electricity, the electricity supply can be cut off by a relay fitted into the meter. Prepayment meters are for both standard and off-peak supplies.

Gas Meters

There are two types of meter in common use – credit and prepayment meters.

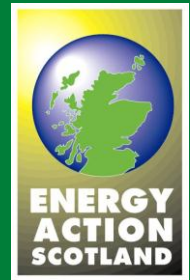
Credit Meters

The majority of gas customers have a credit meter which records the amount of gas used. Gas consumption is measured in units. For many older meters – imperial meters – gas usage is measured in cubic feet. For newer metric meters, gas usage is measured in cubic metres. These gas units need to be converted into kilowatt hours by:

- multiplying units used by 2.83 to give the number of cubic metres of gas used (if the meter is a newer metric one measuring gas in cubic metres this part of the calculation is not needed)
- multiply by the temperature and pressure figure (1.02264)
- multiply by calorific value (approximately 39.25, though the exact calorific value can be found on a gas bill)
- divide by 3.6 to get the number of kilowatt hours (kWh)

Prepayment Meters

Prepayment meters accept tokens/keys or cards that can be 'topped up' at a variety of local outlets. If a customer stops paying for gas, the supply can be cut off by a relay fitted into the meter.



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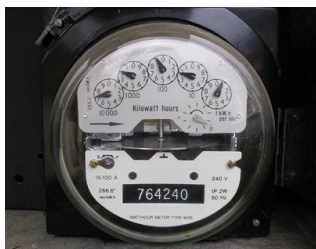
Recognising Types of Meter

Digital Meters:



These should be read from left to right. Electricity and gas metric meters have five numbers in a row whilst old-style gas imperial meters have four numbers in a row. Always ignore the red digit when recording a meter reading.

Dial Meters:



Dial meters are less common and more difficult to read. If the householder has one of these meters they may wish to contact an energy advisor from the local council or from the local Energy Saving Scotland advice centre for assistance in recording meter readings. Telephone free on **0800 512 012**.

Off-Peak Meters:



If the householder has electric central heating there will be either one or two meters showing up to three sets of numbers.

Electricity is usually charged at two different rates with a night (off peak) rate considerably cheaper than a day (peak) rate. It may be worth using certain electrical appliances, such as the washing machine, during the cheaper night hours.

If there are three sets of numbers, all the electricity for heating is recorded separately at a 'control' rate. All the electricity used for lighting and appliances is recorded at day or night rates, depending on time of use.

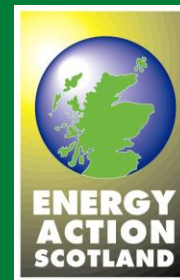
Reading a Meter

Credit Meters:

The majority of credit meters are digital i.e. a straight row of numbers. All digital meters are read in the same way. For electricity and for modern gas meters which measure intake in cubic metres read the first five digits. For older gas meters which measure in cubic feet only the first four digits should be read. Meters should be read from left to right. Zeros should be included, but red number(s) or any number(s) after a decimal point should be ignored.

However some older types are 'dial' meters. These have rows of dials with pointers which move from 0 – 9 which should be read from left to right. For electricity read all five dials, ignoring the final (usually red) dial.

The majority of gas dial meters have been replaced with newer meters. However, imperial (cubic feet) gas dial meters should be read in the same way, but there are only four dials.



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Prepayment Meters:

Visual displays are available usually by pressing a button. The display will 'scroll' through a cycle to show:

- Fuel used
- Fixed charges (if applicable)
- Rate(s) per unit of fuel
- Credit inserted (meter top-ups)
- Current credit
- Outstanding debt (if applicable)
- Debt repayments per week
- Emergency credit level



Different makes and models of prepayment meter may show slightly different ranges of information.

For information on Home Energy Monitors and Smart Meters, see Factsheet I.5.



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Tariffs and Switching

Tariffs

There are an endless number and range of tariffs from different suppliers. Sometimes switching tariff with the existing supplier can save money, including by switching to online account management or paperless billing.

Consumer Focus Scotland provide regularly updated price comparison factsheets which display the **average** annual bills for Standard Tariffs, Economy 7 Tariffs and Online Tariffs for high, medium and low energy users with each of the Big Six energy suppliers.

These price comparisons are available online, and are split into North Scotland and South Scotland regions.

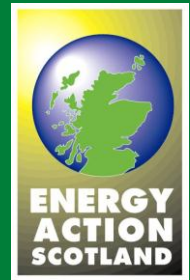
<http://energyapps.consumerfocus.org.uk/assets/pdf/price/scottish-hydro.pdf>

<http://energyapps.consumerfocus.org.uk/assets/pdf/price/scottish-power.pdf>

The second page of these price comparison factsheets also provides the phone numbers for each of the energy supplier's websites which offer energy price comparison tools and the phone number for Citizens Advice (formerly Consumer Direct) - **08454 04 05 06** or **08451 28 13 84** (Minicom users) - for independent advice and information on energy matters.

Price comparison websites allow more accurate comparison of the prices of different suppliers. It is best to use sites that have the Consumer Focus Confidence Code logo, which means they are reliable. The Consumer Focus list of approved sites that offer a free switching service for consumers is below. Many of these sites also offer a telephone service.

www.ukpower.co.uk
www.uswitch.com
www.simplyswitch.com
www.theenergyshop.com
www.beatthatquote.com
www.moneysupermarket.com
www.unravelit.com
www.confused.com
www.energylinx.co.uk
www.fuelswitch.com
www.which.co.uk/switch
www.energyhelpline.com
www.switchelectricandgas.com



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Switching

Most gas and electricity consumers can switch their supplier, unless they have more than £200 of fuel debt, have a term in their lease which prohibits them from switching supplier or they have a specific tariff from a supplier for their electric storage heating.

Switching supplier could save householders money, as tariffs change and suppliers compete with one another. It is important that consumers ensure they are on the cheapest tariff possible and this may be with another supplier. Switching supply can take a few weeks and during that time supply continues from the existing supplier and there is no break in the supply of gas or electricity.

The process of switching requires having information to hand on the current payment arrangements and tariffs of the householder. There are a number of price comparison websites which make the process of comparison straight-forward. The information that is used for these comparison tools should be as accurate as possible to ensure a correct picture of what is available and the likely savings, so the householder should have the following information to hand:

- name of current supplier
- tariff name
- details of previous energy use in kilowatt hours

The name of the tariff and energy consumption details are on the annual energy statement. If this is not available, ask the supplier for details of annual usage in kilowatt hours.

A householder can switch through these price comparison sites or by directly contacting the energy supplier they have chosen to switch to. The new supplier will take the details of the customer and contact their existing supplier to make all the arrangements. This process is normally very straight-forward and the householder will receive written confirmation of their new contract, the tariff and the date at which it will commence.

Citizens Advice currently runs Energy Best Deal Scotland which aims to promote switching as a way of ensuring that customers are paying the most competitive prices for their gas and electricity. As part of the campaign Consumer Focus Scotland published an Advisors Guide, which provides detailed step-by-step information on helping a householder through the switching process and working out what is best for their circumstances.

This guide can be downloaded from:

<http://www.consumerfocus.org.uk/scotland/files/2010/10/ebdsadviser-bookletv71.pdf>

Note – the Guide refers to ‘Social Tariffs’. Please see Factsheets IV.B.3 and IV.B.4 for additional information



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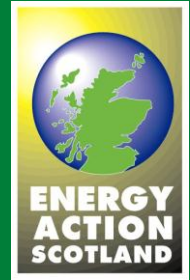
Insulation and Other Physical Measures

Installing insulation and undertaking other physical measures such as draughtproofing ensure that a home is as energy efficient as possible which can help save money.

See more about individual insulation types and physical measures to improve energy efficiency in Chapter III. Insulation and Other Physical Measures.

Energy Action Scotland runs a City and Guilds Energy Awareness training course. This course is aimed at those providing energy advice to clients and wishing to have a greater understanding of domestic energy efficiency.

For more information on this and other courses run by Energy Action Scotland, see our website – www.eas.org.uk



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Home Energy Monitors and Smart Meters – Monitoring Energy Usage

Home Energy Monitors

A home energy monitor lets the householder see how much electricity they are using at a given time. They work by clipping a device to one of the cables coming from the electricity meter. This device wirelessly transmits a signal to a display device plugged in anywhere in the home.

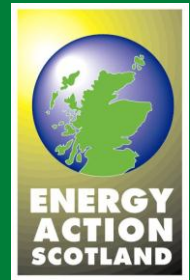
The amount of electricity being consumed will likely be given in kilowatt hours (kWh). If the monitor is programmed with the current electricity tariff being paid by the householder it can also provide a good indication of how much their electricity is costing at any given moment.

The monitors may also be called real-time displays and the information displayed is continuously updated so that if an appliance is turned on or off the display will update, usually within a few seconds.

Many energy suppliers offer these monitors to their customers on certain tariffs, however there are also some retailers who sell a wide range of monitors.

Some trials have shown that monitoring energy usage has helped to reduce electricity bills. However, there is a danger that if a concerned householder sees a high consumption level, they will turn off appliances/heating. This may lead to householders not heating their homes sufficiently, putting their health at risk. Effective education about controlling energy consumption is necessary to the effectiveness of home energy monitors.

These are only three examples – they come in all shapes, sizes and brands.



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Smart Meters

Smart meters are a new kind of electricity meter which the Government has decided must be installed in every home in the UK by 2020.

Smart meters will replace existing electricity meters and differ in one significant way. Smart meters will be able to send constant updates of the electricity usage to the energy supplier. How and when they do this may depend to a large extent on the supplier, but householders will no longer have to take readings themselves or wait at home for the meter reader.

Some suppliers may take a reading once a month to ensure an accurate bill, while others may constantly monitor the usage of their customers to see patterns and maintain effective supply. Some suppliers are looking at retrieving this information using SIM technology like in mobile phones; others are exploring the use of long-range radio signals.

A smart meter is most likely to come with an in-home display; much like the home energy monitors it will give real-time information on electricity consumption. There is a lot of talk in the industry of using this technology to provide customers with greater control, including the ability to programme appliances to be automatically switched on at off-peak cheap energy times and provide customers with variable tariffs according to electricity demand. Smart meters may also take the consumption reading to a new level by providing information on consumption divided up by appliance – so a householder can see at a given time exactly which of their appliances is using how much electricity, and how much it is costing.

Some suppliers have already started rolling out smart meters however the industry and Government are still trying to work out technology compatibility between suppliers to ensure smooth processes as customers continue to switch in the future.

Examples of smart meters and in-home displays:



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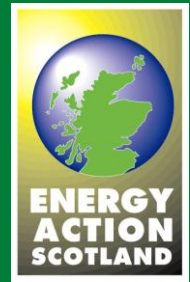
Renewables

Installing renewable technologies can help to limit the amount of electricity and gas which households need to buy from energy suppliers, or minimise how much heating fuels a household needs to purchase for its heating requirements. This can help save money.

See more about renewable technologies and how they work in Chapter VI. Renewables.

Energy Action Scotland runs a City and Guilds Renewable Energy in the Home training course. This course aims to increase the knowledge and understanding of energy advisors on household renewables and low carbon technologies as realistic interventions to reduce fuel poverty.

For more information on this and other courses run by Energy Action Scotland, see our website – www.eas.org.uk



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Hints and Tips

Here are some suggestions about what households can do to cut their energy bills without losing any comfort:

- If the home has a hot-water tank or cylinder, it should have at least 8cm (3 inches) of insulation. This will reduce the cost of heating the water and keep it hot for longer
- If there is no thermostat on the hot-water tank it is worth looking into having one fitted. The hot water thermostat should be set at 63°C (140°F), as this is usually hot enough for most household use
- Only switch the hot water on for the hours when hot water is needed. It is more expensive to leave it on all day. An hour in the morning and an hour in the afternoon/evening is usually enough for most people's needs
- Heavy curtains at the windows will help to keep the heat in and closing them as soon as it starts to go dark also helps. But make sure the curtains are tucked behind any radiators at the windows
- The thermostat on the central heating should be set at 21°C (70°F) for the living room. Do not waste energy by opening windows - turn down the room thermostat or individual radiator controls instead
- Use low energy light bulbs in rooms where the lights are on for long periods of time. They last up to 12 times longer than ordinary light bulbs and use only a fifth of the electricity
- With storage heaters, it is important to close the damper or output dial, (sometimes called the boost) before going to bed or if the house is unoccupied during the day
- Do not leave appliances on standby but switch them off at the wall instead
- Small shelves placed about 5cm (2 inches) above radiators help push warm air towards the centre of the room. If the radiators have individual thermostats these can be turned down a little – especially in rooms that are not used all the time



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