

### Energy Efficiency starts in the home

#### What is Fuel Poverty?

*Fuel poverty is when you spend more than 10% of your income on fuel.*

- It is estimated that 29% of energy use in the UK is in the domestic sector.
- The housing fabric/construction of the dwelling is crucial to the efficiency with which energy is used. Insulation can be applied to walls, roofs and floors to reduce heat loss from the home. Other conventional energy efficiency improvements comprise draught proofing of doors and windows and double or secondary glazing of windows.
- Another key to improvement of energy efficiency in the home is the use of modern, efficient domestic appliances and heating systems, which would ensure that the least amount of energy provides the maximum benefit.
- Domestic appliances vary greatly in energy consumption, and significant savings in both energy and expenditure can be gained using modern, efficient fridges, freezers, lighting and washing machines, etc.
- The cost of space and water heating also varies considerably according to the quality of the systems and their control by room and radiator thermostats, time-switchers or programmers and hot water cylinder thermostats. The heat source itself (the boiler or room heater) is also crucial in determining cost and energy consumption; a modern boiler is much more efficient than an older system and will use less fuel to produce an equivalent amount of heat.

### FACTS AND FIGURES

#### Where does the heat go?

A home loses heat continually whenever it is warmer inside than outside. You cannot stop this happening but you can slow it down, and that will reduce your fuel bills, make you more comfortable, and benefit the environment. Here are some of the facts:

#### Walls, roof, windows and doors

- More than 40% of all heat lost in the average home is through loft space and walls
- In fact, the amount of heat lost annually through roofs and walls is enough to heat 3 million homes for a year
- Money spent on cavity wall insulation would be recovered within 3-5 years and there are no ongoing maintenance costs

#### Electrical appliances

- We use £800 million worth of electricity on washing machines, tumble dryers and dishwashers
- £1.2 billion worth of electricity a year goes on cooling and freezing food and drinks in the UK. In fact, refrigeration appliances in homes use nearly as much electricity as all offices
- An energy efficient washing machine needs a third of the energy of an old, inefficient model and cuts water consumption considerably. An energy efficient dishwasher cuts energy wastage by half on non-efficient models. And with an efficient tumble dryer you can cut energy wastage by almost a third

#### Lighting

- In most homes lighting accounts for 10-15% of the electricity bill
- UK households use £1.2 billion worth of electricity on lighting every year
- Electricity consumption by domestic lights and appliances has nearly doubled since 1970. And it's set to increase by 12% by the end of the decade
- By buying an energy efficient light bulb rather than the other alternatives you can cut

energy wastage by over 75%. That's around £10 a year on the average energy bill or £68 over the bulb's lifetime

- If every household installed three energy efficient light bulbs, enough energy would be saved in a year to supply all street lighting in the UK

### **In an uninsulated house:**

- 33% of wasted heat is lost through the walls.
- 26% of wasted heat is lost through the roof.
- 8% of wasted heat is lost through the floor.
- 12% of wasted heat is lost through ventilation and gaps round windows, doors etc.
- 18% of wasted heat is lost through windows.

Using heating systems and appliances inefficiently also contributes to wasted energy and increased fuel costs.

### **The Bigger Picture.**

How do improvements to individual homes relate to the broader environment? Here are some facts and figures which show the link between individual and local action and the UK-wide situation:

- Households spend £5.3 billion each year on domestic lighting and appliances.
- The average household produces more than 6 tonnes of CO<sup>2</sup> each year.
- The average household could save £250 a year by installing energy efficient measures.
- If every household installed three low energy light bulbs the savings would pay for all the street lighting in the UK.
- As a nation we waste £5 billion worth of energy each year.
- If current trends continue, in 100 years time the temperature will be 3°C higher than it is now.