

ENERGY EFFICIENCY IN THE HOME

KEEP WARM COOL WAYS



The intelligent energy approach is simple: stop the home leaking heat and then generate energy required with efficient systems. All of the external elements of a home, the ground floor, walls and roof, lose heat. The measures that can be undertaken to overcome this vary depending on the age, type of home and how it was built.

LOFT INSULATION Heat rises and 25% of heat escapes from the roof and loft.^[3] It is easy to put up to 300mm of insulation in a loft space

DOUBLE OR TRIPLE GLAZING Around 10% of heat is lost through windows.^[3] This can be reduced with thick insulated curtains and high performance glazing.

Triple glazing is not much more expensive than double glazing and is much more effective

WALL INSULATION 35% of heat is lost through walls.

Cavity walls can be easily filled with insulation.^[3] Solid walls can be internally or externally clad with insulation board

FLOOR INSULATION 15% of heat is lost where the house touches the ground. Floors are often suspended on a solid concrete slab.^[3] Suspended floors can be insulated between the joists and solid floors above the slab

VENTILATION Air Conditioning can be replaced by passive measures such as opening windows in the morning and keep them closed during the day and shading.

INSULATE HOT WATER TANK AND PIPES Hot water tanks store water at 65°C. There is a lot of heat to lose from this and the pipes to radiators

DRAUGHT PROOFING

Air flowing freely through the house accounts for 15% of heat loss.^[3] This can easily be reduced with tape and caulking around doors and window frames

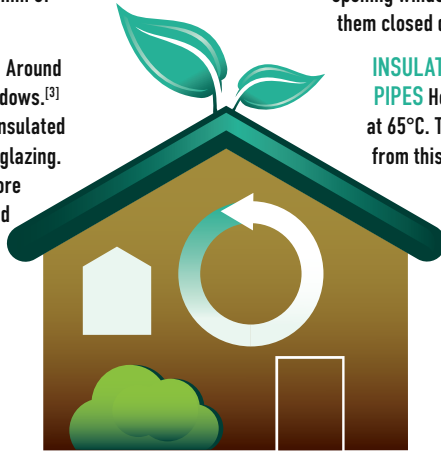
INEFFICIENT CIRCULATOR PUMPS The use of intelligent circulator pumps that turn themselves off when not in use can save lots of energy. These pumps can account for around a fifth of the average household energy bill.^[7]

MODERN GAS BOILER OR WOODCHIP BURNER

Condensing gas boilers are over 90% efficient by having two heat exchangers instead of one.^[4] The average lifespan of a boiler is 15 years so it's important to get the most efficient model you can and get it serviced regularly.^[5] Heating controls mean that the system can deliver heat when and where it's needed. The latest generation of boilers fuelled by wood pellets, corn pellets, or wood chips are highly efficient, clean burning and totally automatic, saving you time and money. Moreover they use a sustainable, renewable resource, unlike their oil or natural gas fired counterparts.^[6]

EFFICIENT LIGHT BULBS There are many low energy lighting systems from compact fluorescents to light emitting diodes (LEDs). They last much longer and are much cheaper to use than traditional incandescent light bulbs, which will be phased out across the whole EU in the next few years.^[8]

VERY EFFICIENT APPLIANCES White goods such as washing machines and dishwashers are rated from A to G under the EU's Energy Labelling Scheme.^[9] Refrigerators go up to A++ which is important as they are on all the time



In the EU housing accounts for 40% of total energy used and 36% of its carbon footprint.^[1]

Homes come in all shapes, ages and sizes, from nineteenth century detached houses, to 1930's multi-residential blocks of flats to modern bungalows or villas. What most of them share is that they all use lots of energy and are expensive to run. Rising energy costs, and the increasing age of our housing mean that more and more people will have problems paying their energy bills.

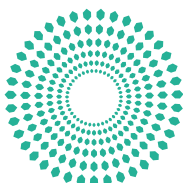
The European Union's Energy Performance in Buildings Directive rates the environmental performance of a home from 'A' (the most efficient) to 'G' (the least efficient).^[2]

Energy is used in the home for a wide range of things, from space heating and cooling, to water heating and electricity for lighting, appliances and gadgets. There are lots of energy efficiency measures that can be fitted to a home to make it use less energy.

The benefits of this are keeping warm in winter and cool in summer, saving money, better health, increasing the value of the home and feeling good about reducing energy and your carbon dioxide emissions.

Typical energy efficiency measures are loft insulation, wall insulation, floor insulation, double or triple glazing, draught proofing around doors and window frames, installing a modern heating system and controls, hot water tank and pipe insulation, installing energy saving light bulbs and very efficient appliances.

Some measures are cheap or free and 'payback' their cost very quickly, whilst others take longer. There are various grant schemes and incentives in different EU countries to help householders install these measures. Why not make some changes to your home today or talk to the person who owns your home about energy efficiency?



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