

# Energy saving features at a glance

## Airtight construction

The method of making new or refurbished buildings highly airtight to minimise ventilation losses; often associated with MVHR.

## Condensing boiler

A type of boiler that captures more usable heat from its fuel. Its efficiency is made possible by the design of the condensing boiler's larger (or dual) heat exchanger. Most modern boilers are condensing boilers.

## Draughtproofing

Lots of heat is lost through draughts so this is a priority for saving money. Typical draughty areas of a house include chimneys, loft hatches, windows and doors, around skirting boards and floors.

## Energy controls

Heating systems with simple controls in an accessible place can be more efficient as people are more likely to use them. Typical controls include thermostatic radiator valves for each radiator, room thermostats – and programmers, which enable more control.

## Flue gas heat recovery (FGHR)

Even a condensing boiler vents useful heat in the flue gas, but this can be recovered to preheat water using a simple FGHR unit.

## Green roof

A roof that is partially or completely covered with vegetation and a growing medium, planted over a waterproof membrane.

## Grey water recycling

Collecting waste water from sinks, showers and baths and reusing

See house pages for details of work done

		Airtight construction	Cavity wall insulation	Condensing boiler	Electric car charging	Food growing	Green roof		Grey water recycling	Ground floor insulation	Heat pump	Heating controls	Double or triple glazing	Lifestyle changes	Low energy appliances	Low energy lighting	Loft insulation (270mm+)	Low water goods	MVHR	Natural materials	Passive solar	Rainwater harvesting	Solar PV	Solar thermal	SWI external	SWI internal	Underfloor heating	Woodburning stove
<b>1</b>	<b>62 Sompting Road</b>			•		•			•		•	•	•	•	•		•				•						•	
<b>2</b>	<b>Lancing Beach</b>	•	•						•	•		•		•	•	•		•				•					•	
<b>3</b>	<b>39 Downlands Avenue</b>		•	•		•			•			•	•	•	•	•	•			•	•	•	•	•	•			
<b>4</b>	<b>58 Upper Brighton Road</b>		•	•		•			•			•	•	•	•					•	•	•	•	•				
<b>5</b>	<b>46 Beechwood Avenue</b>		•	•		•					•	•	•	•	•	•	•					•	•			•	•	
<b>6</b>	<b>257 South Farm Road</b>					•		•	•		•	•	•		•						•	•				•	•	
<b>7</b>	<b>51 Northcourt Road</b>			•		•					•	•	•	•	•		•				•						•	•
<b>8</b>	<b>Henry House</b>			•		•		•			•	•	•	•	•						•	•	•					
<b>9</b>	<b>Relish Show Flat</b>	•	•	•							•	•	•	•	•		•											
<b>A</b>	<b>Community House</b>					•						•			•						•							
<b>B</b>	<b>Downsbrook Middle School</b>					•	•		•		•	•			•	•	•	•			•	•		•	•	•	•	
<b>C</b>	<b>Sidney Walter Centre</b> SNUG workshop																											
<b>D</b>	<b>Splashpoint Leisure Centre</b>					•				•	•	•					•											
<b>E</b>	<b>Maybridge Keystone Centre</b> w/shop					•	•								•		•											
<b>F</b>	<b>10 Orchard Close</b> Solar PV workshops																											

it for toilet flushing or watering the garden. Grey water is waste water that has not been mixed with sewage.

## Ground floor insulation

For suspended floors, mineral wool or rigid insulation boards are installed between beams. For solid floors, rigid insulation board is placed on top of the solid floor and under a finishing layer. Installing thicker carpets and/or insulated carpet underlay may also help reduce draughts.

## Heat pump

A heating unit that extracts heat from the external environment, e.g. air or ground, and uses it to heat a building. The pump uses electricity to power it.

## High performance glazing

Windows that are designed to minimise heat loss, for example

through an insulated frame, a low E coating, an inert gas filled cavity, triple glazing, or any combination of these.

## LED lighting

A very low energy form of lighting (light-emitting diode) which uses significantly less energy, is long-lasting and cheap to run. LEDs are now available for most light fittings.

## Low energy appliances

All appliances are rated from A to G, with appliances rated A to A+++ for refrigeration using the least energy. Washing machines and dishwashers are also rated for the amount of water they use per cycle.

## Low water goods

Taps, showers or toilets that are designed to use less water than

typical plumbing fittings, typically by aerating the water.

## Mechanical ventilation with heat recovery (MVHR)

A ventilation system with a heat exchanger that recovers warmth from outgoing air to warm cooler incoming fresh air. This requires a high level of airtightness to be effective.

## Natural materials

Products that comes from plants or animals – including sheep's wool insulation, sweet chestnut cladding, sustainably sourced timber paints and clay plaster. Natural materials tend to be more sustainable than artificial materials and allow breathability and movement of moisture.

## Passive solar design

Careful design using building orientation, solar gain, super

insulation, thermal mass and passive ventilation. It can take advantage of the sun's energy and internal gains from cooking and other activities to reduce the amount of heating required.

## Photovoltaic (PV) panels

Panels usually mounted on a south-facing roof that convert sunlight into electricity. Electricity generated using PV panels attracts a payment known as the Feed in Tariff (FIT).

## Rainwater harvesting

Collecting water that falls on a roof and using it at home for washing clothes, flushing a toilet or watering the garden.

## Solar thermal panels

Using the sun's energy to directly heat water. Can be a flat plate system or evacuated tube system. From 2014, the

Government plans to introduce the Renewable Heat Incentive, which will give payments for solar heat.

## Solid wall insulation (SWI)

Solid walls can be insulated externally or internally. Walls are usually insulated externally by fixing insulation boards to the wall and then finished with rendering or cladding. Walls are internally insulated by fixing rigid insulation boards to existing walls or by building a stud wall filled with mineral wool or equivalent which is then dry lined with plasterboard.

## Woodburning stove

A simple measure that can substitute low carbon heat from wood for a large proportion of fossil fuel space heating.