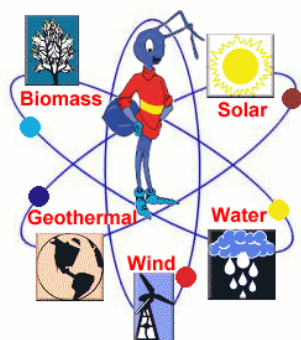


## **RENEWABLE ENERGY**



With the increasing realisation of the effect of greenhouse gas emissions on the planet has come a rise, both on an industrial and domestic scale, in the use of renewable energy sources. Not only can renewable energy reduce the carbon footprint of your home significantly but it will also save you money in the long term.

It is possible to sign up to a green tariff with some electricity suppliers, whereby the amount of energy you use will come from renewable sources. You can check out what tariffs are available, and find out whether you can save money on your gas and electricity bills via our energy switch marketplace - [http://www.uk-energysaving.com/cheap\\_gas\\_electricity.html](http://www.uk-energysaving.com/cheap_gas_electricity.html)

If you wish to take the next step and install renewable energy technology in your home, read on for an overview of the options available. Check out our Energy Saving Grants PDF at <http://www.uk-energysaving.com/energy-saving-grants.pdf> for details of any government grants currently available.

### **SOLAR PHOTOVOLTAIC (ELECTRIC) POWER**

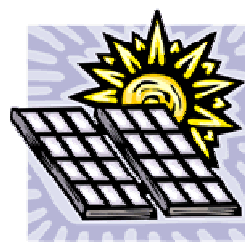
Solar photovoltaic panels are relatively expensive to install, with domestic systems starting at about £12,000, but solar energy could provide up to half of your annual electricity consumption. A solar PV panel installation will require approximately 10m<sup>2</sup> to 15m<sup>2</sup> of roof space, and the roof should ideally be facing southwest to southeast for maximum efficiency with no overshadowing from obstructions such as trees. Planning permission is not required to install solar panels (unless the building is listed).



Get more information at:

[http://www.uk-energy-saving.com/solar\\_electric\\_power.html](http://www.uk-energy-saving.com/solar_electric_power.html)

### **SOLAR THERMAL POWER**



Solar thermal power uses the energy of the sun to heat water providing hot water and heating for homes. In the UK this can usually be expected to meet about a third of a home's requirements over a year and costs start at about £4800. An installation of solar thermal panels only needs about 4m<sup>2</sup> to 5m<sup>2</sup> of roof space which should ideally be facing southwest to southeast for maximum efficiency with no overshadowing from obstructions such as trees. Again, planning permission is no longer required to install solar panels (unless the building is listed).

Get a free quotation and more information at:

[http://www.uk-energy-saving.com/solar\\_power\\_heating\\_system.html](http://www.uk-energy-saving.com/solar_power_heating_system.html)

### **WIND POWER**

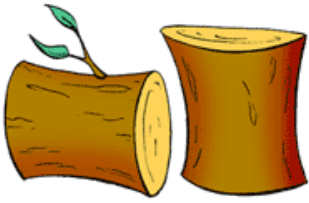
Domestic wind turbines are available in both roof- or ground-mounted varieties, but before considering either option, it is important to ensure that there is sufficient wind speed to make a turbine a viable option for your home (planning permission is also usually required). In order to fully power a modern home, a wind turbine would need to span five metres from tip to tip on a site with good wind conditions. Costs for a small roof-mounted wind turbine start at about £2000.



Get more information at:

[http://www.uk-energy-saving.com/domestic\\_wind\\_power.html](http://www.uk-energy-saving.com/domestic_wind_power.html)

## **BIOMASS**



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The main form of biomass used domestically is wood, with wood burning boilers and stoves available for logs, chips or pellets. Prices start at about £4300 for a wood pellet stove with a log burner costing about half of this. Wood-burning boilers are usually more expensive than gas-fired models, with a wood pellet boiler costing about £11,500, but the ongoing fuel costs will probably be cheaper than gas (depending on fuel source and type). Burning wood does produce carbon dioxide but this can arguably be 'cancelled out' if the wood is from a sustainable source.

More information at:

<http://www.uk-energy-saving.com/biomass.html>

## **SMALL-SCALE HYDRO ELECTRIC POWER**

Hydro power is considered to be very reliable and efficient but obviously is only an option in very specific locations close to a water course. In fact, small scale (or micro) hydro electric power is usually most cost effective where there is no national grid connection, with costs starting at about £4000 per KW.



More information at:

[http://www.uk-energy-saving.com/micro\\_hydro\\_power.html](http://www.uk-energy-saving.com/micro_hydro_power.html)

## **GROUND SOURCE HEAT PUMPS**



Ground source heat pumps use the heat of the earth (geothermal energy) to heat buildings and provide hot water, and they tend to be most cost effective where no mains gas is available. Costs start at about £9000.

More information at:

[http://www.uk-energy-saving.com/geothermal\\_energy\\_ground\\_source\\_heat\\_pump.html](http://www.uk-energy-saving.com/geothermal_energy_ground_source_heat_pump.html)

*We trust that the information provided above has proved to be useful. If there is anything you feel that we have missed, please do not hesitate to contact us. Every effort is made to maintain the accuracy of this information, but UK Energy Saving cannot be held responsible for any errors or omissions.*

### **UK Energy Saving**

Website - [www.uk-energy-saving.com](http://www.uk-energy-saving.com)

Blog - [uk-energy-saving.blogspot.com](http://uk-energy-saving.blogspot.com)

Email - [customerservices@uk-energy-saving.com](mailto:customerservices@uk-energy-saving.com)