



Solar

Ground source heat pumps predominantly utilise which type of energy: geothermal or solar.

The average solar thermal domestic hot water heating system reduces carbon dioxide emissions by how many kg per year?

400 - 600

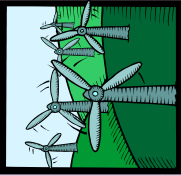
Is charcoal a form of biomass fuel?



Rape seed oil is used to produce a form of?

Bio diesel fuel

Most homes have a heat pump which works in reverse, what is it?



1200

The average roof in the UK is able to collect how many kWh per m²?

4

Can biomass boilers using wood pellets to produce heat be also used for supplying heating and hot water?

Yes



The ideal heat emitters to be used with GSHP systems are...

No



Solar thermal panels are most efficient when facing which direction?

South (at an angle of 30° East - 40° West)



For wind turbines to be effective they need a minimum annual wind speed of at least how many meters per second?

Feed in Tariffs

What are used to calculate the money earned by a PV system putting power back into the national grid?



Name one of the two types of solar thermal panels that can be used to energy to heat for domestic hot water systems

20 - 30%

The co-efficient of performance for a GSHP is...

Converting low grade ground source heat to a higher temperature

Ground source heat pumps work by...

A refrigerator



The slinky system used with a GSHP is.....

A coiled version of the horizontal ground loop heat collector



Two types of PV systems can be used, they are...

Stand alone or grid connected

Photovoltaic systems use an inverter to...

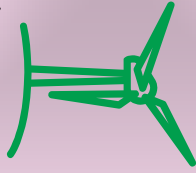
Convert the energy collected from DC to AC



Proportional to the sweep area of its rotor

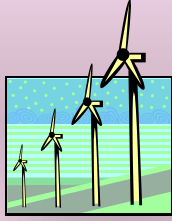
Is planning permission generally required before installing solar panels?

No



Yes

Is a twin coil cylinder recommended for solar thermal DHW systems?



The ratio of useful heat output produced to electrical input used

Vertical bore holes used for GSHP systems are normally how many meters deep?



The condenser and evaporator in a heat pump contain?

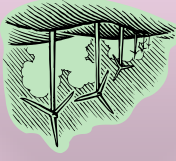
Under floor heating circuits



What is anaerobic digestion used for?

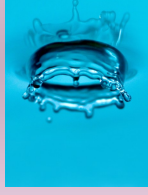
Yes (as it is made from wood)

In the UK, are Micro Hydro systems suitable for use in most domestic premises?



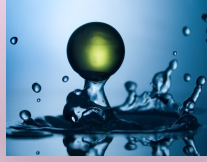
Storage capacity for a solar thermal DHW system should be?

30% larger than normal



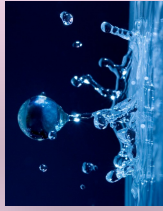
GSHP provides a more stable COP than air source heat pumps because?

Evacuated tubes



What is the function of a flat plate panel used on solar thermal systems?

Produce bio-gas



Woodchips used for biomass boilers should have a maximum moisture content of?

Refrigerant gas

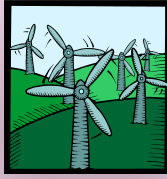


Vertical and horizontal axis

Domestic wind turbine kW outputs range from...

2.5 - 15

Power produced by a wind turbine is...
...is air input power



Wind turbines are available with which two types of rotor blades?



The ground temperature remains consistent all year