





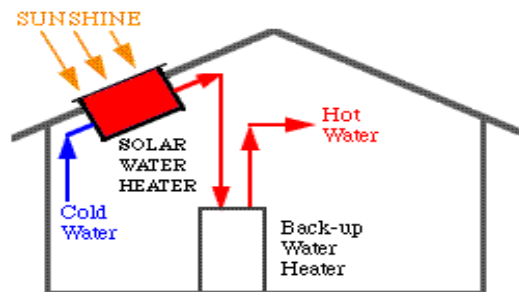
## ACTIVE SOLAR WATER HEATING

This uses panels, called collectors, usually located on the roof of a building, to trap and store heat from the sun through water storage systems. These collectors heat up a liquid which circulates a water tank. This heat is used to heat water in domestic dwellings and also industrial and commercial buildings.

### BENEFITS

-  Possible savings of up to £150 per year for a typical home
-  Capital is recouped in around 15 years, compared to 20-25 years for double-glazing.
-  Stabilises energy costs for the future as fossil fuels become more expensive.
-  Saves between 300kg and 2 tonnes of CO2 per year depending on which fossil fuel is being displaced, i.e. gas, oil or coal.

**“With over 50,000 solar water heating systems installed in the UK, the concept is fast becoming a prevalent method of sustainable energy.”**



A Simple Solar Water Heating System

A commercially installed system ranges from approximately **£2500** to **£4500**, dependent on the size of the system. A typical installation in the UK required a PV panel of 3m<sup>2</sup> to 4m<sup>2</sup> with a storage tank of 150-200 litres. However, the size of the system will depend on the amount of hot water used, which can be calculated using specialist software.

#### PLANNING

If any changes are being made to a property, you must apply to the local council for approval. Planning permission may be required depending on individual specification.

**Diversitec specialises in all aspects of the planning process and can help you with your application.**

#### FUNDING

Currently there is substantial funding available for renewable energy installations, as a drive to increase the use of such technologies.

**Diversitec can help you to access this funding and give you the best possible opportunity for such assistance.**



*The introduction and increase of the 'climate change levy' within our electricity bills will soon result in people trying to source **cheaper, renewable alternatives.***

**So, as the scale of production increases then prices will fall and PV will soon have a higher position than grid electricity**

## WHY GO RENEWABLE?

The threatening recent change of climate is known to have been caused by the burning of fossil fuels to power homes and whole industries. So, the most obvious and effective solution is to change the source of this energy to a renewable one, like **solar power**.

Prices vary, depending on the type and size of the system. Integration during a new build is usually substantially cheaper than installation into an existing property, as the PV panels replace other building materials

In the past two decades the price of installation has reduced and the cost of a domestic system is now between **£5000 to £7000 per kWp** installed. (It takes 5 kWp to meet a household's annual electricity bill.)

## C O S T

## PHOTOVOLTAICS (PV)

This method of renewable energy involves the conversion of energy from the sun into electricity by means of "semiconductors", which are non-metallic materials such as silicon, which generates electricity when exposed to light.

## INTO THE FUTURE

In addition to this, threats of terrorist attacks have resulted in oil sources becoming extremely unreliable.

Renewable energy offers **stability** and 'peace of mind' and it is time to move into the future and utilise this opportunity.

**Development companies** must keep ahead and use such opportunities to improve their businesses by integrating technologies like solar power into their new developments.

The United Kingdom is a major exporter of PV technology to areas of the world in which grid electricity is remote or expensive.

## F A C T

Modern PV cells **do not require direct sunlight**, so normal daylight is sufficient to produce electricity.

## F U N D I N G

A **grant** of between **40% and 60%** of the total installation is available for Commercial organisations, small businesses, homeowners, public sector organisations and voluntary/community groups

**BENEFITS FOR DEVELOPERS** – Developers would benefit by using PV in their new builds, as it is a growing market and they must remain competitive in such a dynamic environment. Their properties could sell better, at a higher price and they would be enhancing their businesses 'green credentials'.

**BENEFITS FOR FARMERS** – The use of Photovoltaics reduces electricity bills and enable the farmer to produce their own electricity and even get paid to provide electricity to the grid.

MAKE THE CONVERSION THAT MAKES THE DIFFERENCE.

Be it planning issues, funding queries, sourcing contacts or even management and co-ordination of the whole project,

LET  TAKE CARE OF IT.