

GC Heating

An established plumbing and central-heating company, and the region's first, foremost, and original supplier of domestic and commercial renewable systems.



GC Heating provides a comprehensive service for homes and domestic customers. We can provide advice and assistance on all forms of heating, from traditional gas central heating to cutting edge renewable energy systems, finding the best solution for you and your home.

And of course, we provide all the traditional plumbing services such as blocked drains, burst pipes, external taps, and everything else!

Solar Photovoltaics:

- Eco friendly - no CO2 emissions
- Independent of fossil and nuclear fuels
- Extremely low maintenance
- Vastly reduced energy bills
- Guaranteed payments scheme

These are just some of the benefits of a Solar Photovoltaic system. But how does it work? Read inside.

GC Heating are specialists in solar PV systems, ground-source pumps, biomass systems, and other eco-friendly systems. Our systems reduce your fuel bills, and can provide payment for the surplus energy you generate!

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GC Heating

Stoke's Premier Plumbers

Solar Energy: PhotoVoltaics

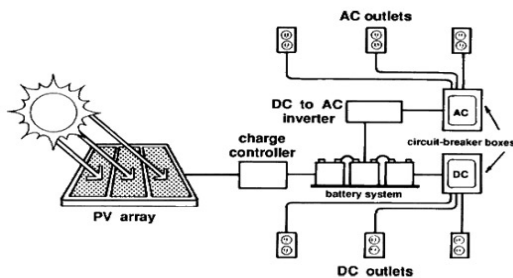


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Solar Energy - The Ins and Outs

Soaring energy prices and diminishing natural resources are driving the efficient use of energy in the homes and office. GC Heating are market leaders in providing cost-effective alternative energy systems. Solar power harnesses and stores the sun's rays to heat and power your property, no matter the weather. And solar power is wholly environment friendly.

The basic premise of solar power is to convert energy from the sun into a form we can use in the home or office. Traditionally, this has used *Solar Panels* to provide hot water. Whilst effective, they of course only worked on sunny days. No sun—no hot water.



Technology has moved on, and now we have Solar Photovoltaics (PV), an exciting new technology that generates electricity from daylight.

How it works

Photovoltaics convert solar radiation into electricity. A PV cell is nothing more than one or two layers of semi-conducting material which generates an electric field when light shines on it. This causes electricity to flow. The more intense the light, the greater the flow. The key ingredient is daylight, not sunlight.



The electricity is used to charge batteries (to supply power at night), and then into a converter to turn into the AC power that electrical appliances run on.

As PV's utilise daylight, they generate electricity even on overcast days, thus overcoming the main drawback of the traditional solar panel: the reliance on sunlight.

Energy source

The sun produces about 89000 TERRAWATTS of power; that's 89000 thousand billion watts! The entire world population uses about 15 Terrawatts, and the sun will last for millions of years. This source will not run out soon!

Benefits

Solar PVs are eco-friendly, and provide a cheaper long-term alternative to traditional heating methods due to lower operating costs. They are silent; maintenance needs and costs are negligible; and they can be installed in any home,

large buildings such as office blocks, residential homes or community centers; on roof tops or walls, or as standalone grids. They can even be incorporated into roofing tiles for the ultimate in discretion!

Installing a photovoltaic system can lead to a cut in fuel bills between 35% to 70% - saving tens of thousands over a period of years. And they qualify for the **Renewable Heat Incentive Premium Payment** which provides funding for installation; and/or a tariff



payment for each kilowatt of renewable heat produced; and Feed-In Tariffs, whereby you are paid for

generating energy. And these payments are tax free! The chart below shows possible annual savings on electricity bills and Feed-In Tariff payments.

The future looks bright—the future looks green!

Contact us for more details!

Estimated savings per year from a GC Heating solar PV system

System Size	2.0kWh	3.0kWh
Annual generation kWh	1667	2500
Savings @ 12p/kWh	£200	£300
Feed-in Tariff—41.3p/kWh	£688	£1032
Total	£888	£1332