



# SOLAR

Energy Solutions



*"I'd put my money on the sun and solar energy. What a source of power!  
I hope we don't have to wait until oil and coal run out before we tackle that."*

**Thomas Edison 1931**



**Tackling climate change could be one of the most important things this generation does, and we at GHE Solar think that everyone should get involved.**

Climate change is extremely contentious. Even if you are not convinced that the human race are adding to global warming, do not overlook Solar Energy as an investment.

The electricity you buy from your energy company is supplied at around 12p per kWh, but fit a “typical” photovoltaic solar system (PV) and you’ll get paid 41.3p per kWh. **A small domestic “well-sited” solar array installed in the south can provide a return on investment of between 8 and 10%. It will also be index-linked and guaranteed by the government for 25 years - so it is very likely that your return will continue to rise. Absolutely best of all, income made from domestic installations will be entirely tax-free. IT MAY BE BETTER TO FORGET THE ISA and buy PV!!**

GHE Solar are solar energy specialists in both solar thermal and photovoltaic (PV). A division of Grange Homes Berkshire Ltd we are committed to providing a high standard of service. As importers of solar collectors we are able to guarantee that what we offer is of uncompromising quality whilst maintaining attractive prices.

GHE Solar act as principal contractor for both retrofit and new build work and are equally familiar with large or small sites. After more than 25 years of working within the construction industry we have a wealth of retained knowledge.

We are passionate about green energy and have carried out extensive solar research and are able to provide a complete package. Partnered with qualified energy consultants, we are MCS registered, qualified electricians, and trained in both solar system design and installation.

As seen at...





Every year the sun provides over 8000 times as much energy as we consume world wide and in the UK alone we receive between 900 and 1200 kWh of energy per m<sup>2</sup> of land per year.

## Why go solar, what are the benefits?

### Save carbon

One solar thermal collector installed will save ½ tonne of carbon each year.

A typical 2 kWp Photovoltaic array will save almost 1 tonne of carbon each year.

Reduce our dependence on fossil fuels.

### Domestic, commercial & community

By installing solar thermal collectors and photovoltaic electric systems (PV) all sectors can have the benefit of obtaining up to 70% of hot water requirements free each year, free electricity for own use and generous cash payments from the feed-in tariff.

### Domestic incentives

A £400 government grant for the installation of a solar thermal collector. PV is eligible for the feed-in tariff cash payments. Plus energy from PV can be used free of charge irrespective of any payments made. To be eligible for the incentives the installer and product must be MCS\* registered.

### Community incentives

50% or a maximum £200,000 grant for solar thermal Lottery funding available.

### Commercial incentives

0% interest loans from The Carbon Trust are available for commercial installations (subject to certain criteria). GHE Solar are affiliates of The Carbon Trust.

Generous tax incentives for solar installations – 100% first year tax write off (PV max £100,000).

Carbon credits generated can be sold.

Helps to meet green energy targets.

\*MCS is an independent scheme that certifies microgeneration products and installers in accordance with consistent standards. It is designed to evaluate microgeneration products and installers against robust criteria providing greater protection for consumers.

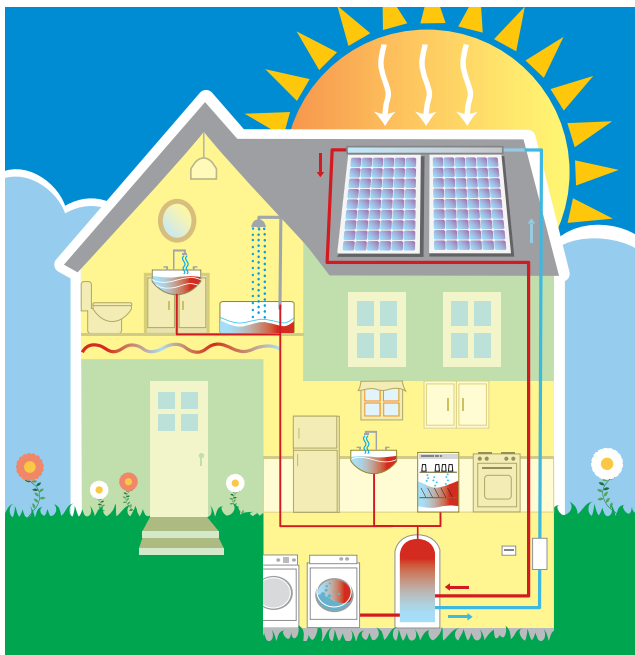
## Solar Thermal (hot water systems)

*“Solar thermal systems. They are amongst the most cost-effective renewable energy systems for existing dwellings. During the summer months, a typical system can supply between 80 and 100 per cent of hot water demand”*

(source: Energy Saving Trust - Energy efficient refurbishment of existing houses)

### How does solar water heating work?

Solar panels are fitted ideally to a south facing roof at a 40 degree pitch, but the panels will still work at varying angles and orientations. The panels collect the sun's radiation and transfer the heat to a closed loop connected to a hot water store. From here the hot water collected from the sun travels to your taps via your



existing system. Each solar system can be easily modified to work in conjunction with the three main types of hot water systems i.e. vented, un-vented and combination. Solar thermal can be fitted on average in 2/3 days into a 4 bedroom house with minimum disruption.



### Planning assistance

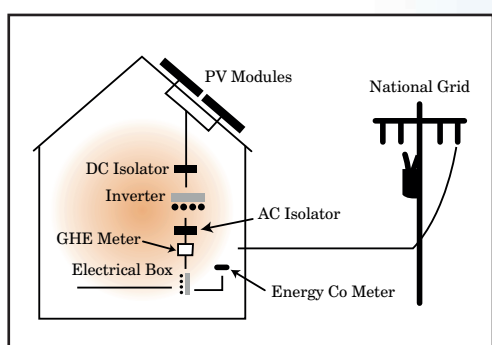
Planning is not normally required for domestic installations. In cases where this is necessary, GHE Solar have extensive experience and can work closely with you advising on your needs.



## Solar Photovoltaic (PV) (Solar Electricity)

### What are photovoltaic modules and how do they produce electricity?

Photovoltaic is the direct conversion of light into electricity. Some materials exhibit a property known as the photoelectric effect that causes them to absorb photons of light and release electrons. When these free electrons are captured, an electric current results that can be used as electricity.



Sun rays hit the earth at different angles and it depends on where you are on the planet as to exactly how much electricity you can produce from PV. As an example a 4 kWp system installed on a roof in Berkshire will generate 3334 kWh per year saving 1.80 tonnes of carbon.

**With the introduction of the feed-in tariff PV is a very attractive recession proof investment.**

### How does the feed-in tariff work?

For every kWh of electricity generated from the PV array your energy supplier will pay you between 29.3p and 41.3p. This payment is guaranteed for a period of 25 years by the government. In addition to this, the electricity generated can also be used for your own consumption free of charge, even though you have been paid for it. To qualify for the payment, all installations must be carried out by an MCS certified installer. GHE Solar are MCS certified.

**A 4 kWp PV array installed in Berkshire will provide a cash payment of £1,376.00 each year, index-linked – so your cash payments are likely to rise. As well as being paid for what is generated the 4 kWp array produces 3334 kWh which is available for your own use or to sell. For domestic installations this payment will be entirely tax-free. IT MAY BE BETTER TO FORGET THE ISA and buy PV!!**



**By installing solar thermal and photovoltaic systems you can be confident that your business or charity is doing its part and your customers or tenants will appreciate that you care about the environment.**

### Housing associations

Solar solutions is an attractive option for housing associations, thanks partly to the government grants which can cover half the installation cost of a solar thermal installation and the feed-in tariff which provides an income from electricity generation.

### Businesses

If you are running a business, large or small, installing either solar thermal and/or a photovoltaic electric system is the perfect way to help you achieve your green energy goal, reduce your energy bills and generate an extra income. There are generous tax incentives for solar installations – 100% 1st year tax write off (PV max £100,000). With the Climate Change Levy likely to increase, investing in solar energy now, could be a very cost effective exercise.

### Hotels, B and B's, Caravan Parks

The cost of providing the hot water required by en-suite bathrooms and shower blocks can put a strain on the business making solar thermal the ideal solution. A low-maintenance solar thermal collector can supply hot water throughout the summer season. Add PV and reduce your energy bills whilst providing an extra income.

### Health clubs

Solar thermal designed and installed correctly can provide 70% of the hot water demands of health clubs. Add PV to reduce electricity bills and generate an extra income and you will never regret making a solar energy investment.

### Landlords

Solar is an attractive proposition for landlords. Installed at your tenant's home you can benefit from the feed-in tariff and your tenant gets free electricity.

A well sited 9.99 kWp array needing 74 square metres of space can produce a cash income of £3002.00 per annum and make a saving of up to £997.80 on your electricity bills. (Assumes all generated electricity is used and costs 12p per kWh).

**Not enough roof space?** Why not consider our standard designed carports, pergola's or canopies to house your PV system, or commission one of our expert designers to create a bespoke system.



# Energy Costs are Guaranteed to Rise



## Domestic

A small “well-sited” GHE Solar domestic solar array can provide a return on investment of between 8 and 10%. The investment will also be index-linked and guaranteed by the government for 25 years. Absolutely best of all, income received from domestic installations will be entirely tax-free. **IT MAY BE BETTER TO FORGET THE ISA and buy PV!!**

## Commercial

A large “well-sited” GHE Solar commercial solar array can provide a return on investment of 14% plus.

The investment will also be index-linked and guaranteed by the government for 25 years.

With a 1st year business tax write off you can be sure that photovoltaic electricity is an opportunity too good to miss!!!



## What our customers say about us...

*“I knew how well solar hot water systems worked as my father has one, but it was really the price that did it for me. Finally there is a company offering solar systems at a realistic price.”*

Tim Collins – Barnet, London

*“Very professional and honest service, every detail along the way was clearly explained and as for the solar system itself, absolutely amazing. Free energy produced from the sun!!”*

Ms A Lisby – Berkshire

*“Thank you so much for installing the brilliant solar water heating system. It has been performing very well for months now. Your installation service was very friendly, helpful and efficient.”*

Mr R. Cox – Burbage, Wiltshire

### Contacts:-

**Sales/Admin**

Ryan Davis BA (Hons)

M: 0791 7633327

**Technical**

Howard Davis

M: 0791 7654658

**Operations Manager**

Daniel Fletcher (BEng)

T: 01635 529090

**Financial Director**

Scott Davis GradDipCom, MSc(finance) AFA

T: 01635 529090

**Sales/Marketing**

Linda Davis

T: 01635 202612

ALL MAJOR CREDIT CARDS ACCEPTED

Grange Farm · Long Lane · Newbury · Berkshire · RG14 2TF

T: 01635 202612 · E: [enquires@GHESolar.co.uk](mailto:enquires@GHESolar.co.uk) · [www.GHESolar.co.uk](http://www.GHESolar.co.uk)

