



Solar Water Heating

LOWERING YOUR FUEL BILL & CARBON FOOTPRINT

- Q 20 Year Warranty
- Q Save tonnes of CO₂
- Q Generating up to 70% of your Hot Water **FREE**
- Q Reduced carbon footprint
- Q 35 Year Life expectancy

Tel. **01243 815 770**
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Savings of between 60% and 80% on your energy bill

Turn the page and learn how ATAG can lower your home, pool or commercial heating bill & carbon footprint.

ATAG

Solar Water Heating

LOWERING YOUR FUEL BILL & CARBON FOOTPRINT



How does ATAG solar heating work?

ATAG solar thermal technology actually creates energy. ATAG Solar Systems convert light into heat and, having captured the heat, thermal solar technology deploys the energy in water heating.

ATAG solar systems produce hot water without creating carbon dioxide or any other greenhouse gas and creates no pollution. They produce energy without using scarce fossil fuels and are cost effective.

ATAG systems work all year round, so that in all forms of daylight there will be some contribution from a well designed thermal solar system.

Direct sunlight is not needed although ATAG Solar Systems work more quickly in very strong light.

What's involved in the installation?

A typical home in the UK will require 2 to 3 panels, ideally fitted onto a south facing roof. A replacement hot water cylinder, which will be larger and more heavily insulated than your existing cylinder may be needed to take full advantage of the heating capabilities of your solar panels.

All necessary pipework will be installed with your ATAG system, properly insulated to solar standards. A pumping station and digital controller complete your system and allow you to monitor and control output of the panels.

An environmentally friendly anti-freeze is also pumped through the solar heating system.

A highly insulated copper pipe connects the panels to the lower heat coil in a sealed circuit; the upper coil connects to your boiler in the usual way as back-up. We install sensors in the panels and sensors in the new cylinder. The sensors communicate with the digital controller and this turns on the pump when heat is needed and solar energy is available, to direct heat from the panel to the cylinder. When the water is hot enough the pump is turned off.

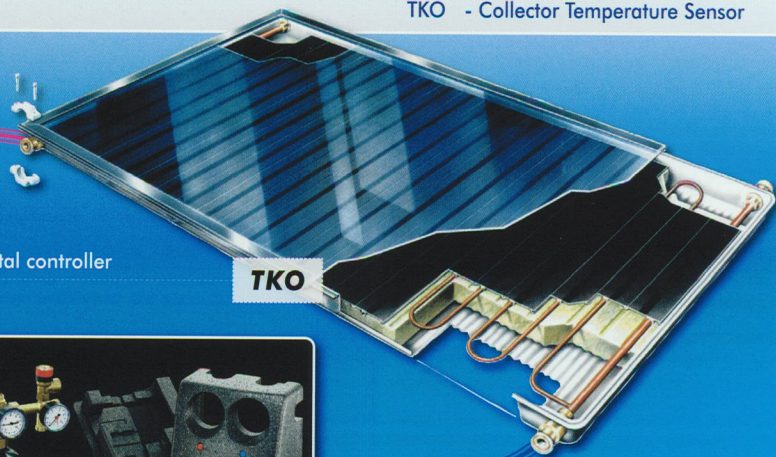
If there is not enough solar energy to power the ATAG Solar System the fossil fuel system acts as back up.

Below: The key components of your ATAG solar heating system

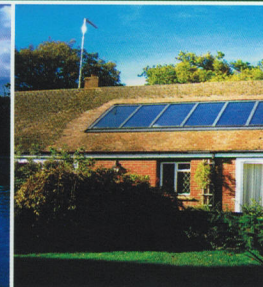
KEY: TBU - Hot Water Temperature Sensor
TKO - Collector Temperature Sensor



Left: The digital controller



Above: The double pump station



**Saving up to
1 tonne of
CO₂ per year**

**Generating
up to 70%
Hot Water
FREE**

How Much Does Domestic Water Heating Cost?

Every home spends on average 25% of its combined energy bills on water heating. If you live in a newer home or one that has good quality roof insulation, cavity wall insulation or double glazing, the percentage of your bills paying for water heating will be higher.

At ATAG we aim to provide around 70% of your water heating FREE each year. In summer an ATAG Solar System should provide virtually ALL your hot water and in deep winter, because of the short daylight hours available, it will still make a useful contribution of above 25% of your water heating energy.

Solar energy is a free source of energy, unlike fossil fuels. You only pay once for the system which provides you energy, not for the energy you use.

Payback

Our research suggests that the payback of an ATAG Solar System for a conventional three bedroomed house with a south facing roof is around eight years. ATAG systems should provide 35 years of trouble-free use with minimal maintenance. There is no payback for a fossil fuel water heater which will usually need to be replaced every ten to fifteen years and to be carefully and expensively serviced every year.

ATAG Solar Systems are also widely used to heat Swimming Pools where the savings are much larger and payback periods much shorter.

Assumptions:

Fuel Inflation:	15%
General Inflation:	2%
Performance:	70%
Water Heating as Percentage of Fuel Bill:	25%

Boiler Replacement Saving

It is estimated that the boiler will last 20% longer due to less use, amortised at 1.5% over 15 years on a fitted price of £2500 on a new boiler.

Carbon Saving Payback: 2 years.

Current Cost Elements	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Gas, electricity & other fossil fuel costs:	1200	1380	1587	1825	2099	2414	2776	3192
Boiler Servicing:	120	122	125	127	130	132	135	138
Total Annual Cost:	1320	1502	1712	1952	2229	2546	2911	3330
Cumulative Cost:	1320	2822	4534	6487	8715	11261	14712	17502
ATAG System Cost Savings								
Fossil Fuel Saving:	210	242	278	319	367	422	486	559
Boiler Servicing: (Saved due to reduced usage)	20	23	26	30	35	40	46	53
Boiler Replacement Saving:	45	45	45	45	45	45	45	45
Total Annual Saving:	275	310	349	395	447	508	577	657
Cumulative Saving:	275	585	934	1328	1776	2283	2860	3517
Carbon Saving in Tonnes	0.82	1.64	2.46	3.28	4.10	4.92	5.74	6.56



What about the Quality?

Quality is the foundation of our philosophy. We build and install to last and that is how it should be with all environmental products. The systems are independently tested and certified as fully complying with BSEN 12975 Parts 1 & 2.

Our systems come with installer's guarantees and we support all properly installed systems with our own:

- 20 year anti-corrosion guarantee.
- 20 year panel performance guarantee.
- 2 year guarantee on all other parts.



Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
3671	4221	4855	5583	6420	7383	8419	9764	11229	12914	14851	17078
141	143	146	149	152	155	158	162	165	168	171	175
3811	4365	5001	5732	6572	7539	8649	9926	11394	13082	15022	17253
21314	25678	30679	36411	42984	50523	59172	69098	80492	93573	108595	125848
642	739	850	977	1124	1292	1486	1709	1965	2260	2599	2989
61	70	81	93	107	123	142	163	187	215	248	285
45	45	45	45	45	45	45	45	45	45	45	45
749	854	975	1115	1276	1460	1672	1917	2197	2520	2891	3318
4266	5120	6095	7210	8486	9946	11618	13535	15732	18252	21144	24462
7.38	8.20	9.02	9.84	10.66	11.48	12.30	13.12	13.94	14.76	15.58	16.40



Sub zero performance -ATAG solar panels perform in even the most extreme conditions. (Above) ATAG solar panels performing temperatures below freezing. ATAG solar panels are specially coated and are certified to work in hailstone, rain and even snowy climates.

What about the Environment?

Households create 29% of all carbon dioxide emitted in this country and use 29% of the energy required in the United Kingdom. An ATAG Solar System will save at least three quarters of a tonne of carbon dioxide. If you reduced that to solid carbon (soot is almost pure carbon), it would fill a sack roughly the size of an old coal sack. Our systems are probably the most benign way of generating energy available in the industry today. They do not cause pollution and do not contribute to climate change.

ATAG Solar Systems are currently helping the environment in over 50 countries in the world, bringing massive carbon savings.

How Long and How Much?

ATAG Solar Systems have a life expectancy of over 35 years and require very little maintenance.

In most homes the engineer will be able to fit an ATAG Solar System in less than three days and sometimes in less than two days. We will need access to your roof and your existing cylinder, which will be replaced by a larger one. Installation will not be unduly disruptive.

Prices for installations vary according to the part of the country that you live in and your existing water heating system.



Who are ATAG?

ATAG Heating Group is constant in its ambition to be the leading innovator in technology, performance and design. Under the umbrella of its holding group, ATAG Heating UK Ltd specialise in high-efficiency technology for central heating and hot water.

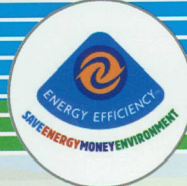
ATAG has created a warm and pleasant environment for its customers, suppliers and employees alike, by becoming the leading specialist innovator in its core enterprises; high efficient heating boilers.

Occupying a leading position in the development, production and marketing of high value heating products and services, ATAG promotes and delivers the key product characteristics of A-brand quality. durability, reliability, safety, optimum control, environmental friendliness, energy conservation and first class design.

More information on our full range of products, services and job opportunities can be found online at:

<http://www.atagheating.co.uk>

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Certified and independently tested to comply with **BS EN 12975 Parts 1 & 2** and comply with all applicable official standards in the USA and Canada.

ATAG
Heating



**20
YEAR
WARRANTY**

Why choose ATAG solar water heating?

With a life expectancy of over 35 years, ATAG solar panel systems make an attractive investment opportunity -by using solar energy instead of expensive fossil fuel or electricity, ATAG solar can pay for itself in around just 4-8 years in the UK, and in much quicker periods when used for pool heating.

Designed to work in the colder climates of Europe, our solar panels perform in the rain, hailstone and even snowy conditions! Backed by an industry leading 20 Year Warranty, quality and your peace of mind can be assured with an ATAG system.

Our solar panels not only offer a rewarding financial incentive but also deliver substantial environmental benefits. By minimising the carbon footprint of the manufacturing process we have maximised the carbon payback efficiency to just 2 years. ATAG solar could save the typical UK home in over 1 tonne of CO₂ a year when used to heat hot water.

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