

The front cover of this edition of Which? Magazine asks "Are you being greenwashed?" If so, who is being greenwashed? Video: <http://www.solartwin.com/news-3-may-2010-video-slams-which-solar-heating-cowboys-expose-for-not-going-far-enough>

Congratulations to Which? for exposing serious false SAVINGS claims and the long-standing problems of unsupervised selling. But why does Which? ignore serious false ENVIRONMENTAL claims that solar thermal is "truly zero carbon" when in fact typical solar heating systems needs to be plugged into the mains in order to work? This fact negates around 20% of their energy savings at the electricity power station. In particular, why does Which? ignore the fact that this false zero carbon claim is being made by the Managing Director of Southern Solar, the only company which it endorses? And why does Which?'s highly qualified solar expert condemn ALL phone quotations when this condemnation is incorrect? Why do they ignore the maintenance costs in their table? And why does Which publish a solar plumbing diagram which is out of compliance with HSE SAFETY guidance on Legionella, a bacterium which can cause a lethal form of pneumonia?

Note: 4 May 2010. We've notified Which? that these three pages will be reproduced under under copyright rules of "fair dealing" for criticism or review. While we support Which?'s aim of cleaning up the solar industry, it seems that Which have pulled their punches from the Solar Trade Association. Which? have refused us a right of reply. So Solar Twin Ltd now address the article's main errors and omissions.

MYSTERIES OF THE SOLAR SYSTEM

Misleading claims and dodgy sales tactics – no, not estate agents, but solar panel firms

Even the savings calculated by Which? at the end seem inflated, appearing to ignore maintenance costs.

Ten out of 14 solar panel companies in an undercover Which? investigation made misleading claims about the savings you can make by installing a solar thermal system. Household name Everest potentially broke the law and has admitted that its representative made claims that they knew to be false during the sales pitch.

We went undercover after seeing a rise in complaints about the industry. In the last three years, the Office of Fair Trading (OFT) has demanded that three particularly notorious companies – Smart Energy (UK) Ltd, Solar

Technik Ltd*, which have both gone bust, and Ultimate Energy which has been dissolved – should stop misleading their customers.

Solar thermal panels offer a tempting promise of free hot water from the sun – after you've forked out between £3,000 and £5,000. The hot water feeds only your taps, not your heating.

The industry is dominated by small local firms, but larger companies such as British Gas are joining in, as more consumers become interested in generating their own power. Key issues to consider when deciding whether to buy are the suitability of your home and the pay-back time.

MOUNTAIN OF PROBLEMS

Our highly qualified expert calculated that a typical solar thermal system would cut hot water costs in our household by up to 40% over a year – a saving on the total gas bill of around 10% (about £55 a year). That's a pay-back time of 100 years based on current gas prices and the average quote we received of around £5,500.

But double glazing giant Everest quoted a 43% cut in the total gas bill and claimed a saving of £35,000 over 20 years. This is about six times what you would actually save. Even if gas prices went up 500% (unlikely) over 20 years, the saving would be less than £5,000 in a property using more gas than ours. It's an offence for a company to make misleading or false statements that cause you to buy a product.

We showed trading standards officer Neil McLoughlin footage of visits by salespeople. He said the precise nature of Everest's figure made the claim even more misleading as it appeared to have been carefully calculated and would cause consumers to place undue reliance

OUR RESEARCH

Early in 2010 we asked 14 companies to quote for the installation of a solar thermal system at a property we rented in south-east England. We filmed all visits and recorded all calls, then asked a heating engineer with solar thermal technology

expertise to assess them against a checklist of key aspects of industry codes of practice. We also asked Surrey County Council senior trading standards officer Neil McLoughlin to check for misleading claims and hard sell tactics.

*Not to be confused with an unconnected company of the same name, formed on 23 March 2010.

PHOTOGRAPH BY SHUTTERSTOCK, JASON INGRAM

This excellent exposé of individual sales people who who lie in an unsupervised sales situation begs the question: "why do Which? not demand that all solar selling is now done with SUPERVISION?" www.which.co.uk

A Which? exposé of the Solar Trade Association, who issue false environmental (zero carbon) and safety (Legionella) claims on behalf of "the industry" is noted to be conspicuously missing from this article.

Regarding phone quotes, simple solar installations (which don't involve mains electricity, high pressure plumbing, antifreeze chemicals, new hot water cylinders) can, in fact be surveyed / quoted by phone with aerial roof photos.

50%

HIGHEST CLAIMED CUT
IN TOTAL HEATING
BILL FROM INSTALLING
SOLAR THERMAL SYSTEM

10%

REAL SAVING IN TOTAL
HEATING BILL AS
CALCULATED BY OUR
SOLAR EXPERT

90%

INSTALLERS DIDN'T
ASK ABOUT OUR
CURRENT ENERGY
CONSUMPTION

28%

THE BIGGEST
DISCOUNT WE WERE
OFFERED FOR SIGNING
UP ON THE SPOT

on its accuracy. Mr McLoughlin said that Everest also potentially broke the law by offering us a discount to sign up 'on the spot'. It slashed an already high quote of over £11,500 (about three times the lowest quote) to a still-high £8,500 if we signed up there and then.

'This deprives people of the time needed to make an informed choice,' he told Which?

In response to our findings, Everest says: 'We're disappointed that our representative failed to use the sales support documentation provided and made claims he knew to be false. We offer top-quality products and support this with a price promise and a seven day cooling-off period and deposit refund for customers who change their mind.'

FAR FROM IDEAL

Apparently unfair sales tactics were also used by Ideal Solar Energy. It dropped its price from £8,690 to £6,520. We then got a pushy call the next day with a new price of £5,860 if we paid a £400 deposit (coming down to £250) the same

Solartwin have phone quoted quoted successfully for simple jobs for 10 years.

In fact, companies using unsupervised ON-site salespeople are doomed to false claiming, which supervised tele-sales surveyors are a good solution.

day. Ideal potentially committed another offence when its salesman claimed it would halve our total gas bill. He also misquoted energy regulator Ofgem to talk up savings, claiming that 70% of a home's gas costs go on hot water and 30% on heating – Ofgem says that it's actually the other way round.

Ideal says: 'Like all retailers, we offer limited promotions on a selective basis.' Ideal maintain that they tell their agents that no specific details should be given in relation to the reduction in any household energy bills and that they recently introduced a calculation based on a government formula to estimate the performance of a solar thermal system.

AND THE REST

While these two companies concerned us the most, we received poor service and exaggerated claims of performance from nearly all 14 firms. One suggested we'd make our money back in 'six to eight years' on a system costing £5,200. Even with income from the proposed Renewable Heat Incentive (RHI) (see p24), pay-back times are likely to be double this in reality.

Our solar expert says: 'Not one company identified all the important technical challenges before issuing a quotation.'

Not all of the companies visited the property either – five **quoted over the phone** with two sending written quotes on that basis (a practice **'doomed to failure,'** our expert says) – and one visiting salesperson was more interested in selling us a solar photovoltaic (PV) system to generate electricity.

Just one company – Southern Solar (www.southernsolar.co.uk, 0845 456 9474) – was worthy of mention for its helpful and sensible manner.

WHICH? SAYS

Although we've had plenty of good reports from Which? members about their solar systems, there are clearly some problems in the industry. The OFT received around 1,000 complaints about the sector last year – far too high for an industry with under 100,000 installations in UK homes.

Renewable energy will only contribute to the government's 2020 target of a 29% carbon emission reduction if consumers have confidence in companies installing this technology. To help drive improvements, we'll be sending our research to the solar trade bodies and the Department of Energy and Climate Change (DECC).

SOLAR SELLING INVESTIGATION

MEMBERS' VIEWS

SOLAR HEAT:
SUNSHINE &
CLOUDS



Chris Barrington's experience with one company epitomises the worst of the solar thermal industry. 'Over-priced, underperforming and badly installed,' is Chris's

verdict. The company has since gone bust.

'We were promised constant hot water without any additional heating from the boiler, even in dull conditions, but we've found this to be nowhere near true,' Chris tells us. 'The salesperson also pressured us to sign up on the spot with a discount of £3,000, bringing the price down to £6,100,' he adds.

Chris rejected the system two days after it was fitted in December 2008 on the grounds that it was mis-sold and not fit for purpose.

'I've refused to pay the £5,850 owed and have been in dispute ever since,' he says.

CHRIS BARRINGTON,
HAVERFORDWEST, PEMBROKESHIRE
61, RETIRED



'We used to rely on an oil-fired boiler for heating and hot water,' Mike Beale tells us. 'We installed solar thermal on a west-facing roof in 2004 and have been really pleased.'

'In the first two years, we used 750 litres less oil than before the system was installed – that's a considerable saving of £275 a year,' Mike says. 'We rarely use the boiler between the end of March and mid-October.'

The suppliers, Imagination Solar (www.imaginationsolar.com, 0117 941 1663), and installer Eco-Exmoor (www.eco-exmoor.co.uk, 0844 412992) were 'extremely ethical, reliable and genuine,' says Mike. 'Some companies were like the worst of the double-glazing industry – knocking off thousands for a quick sale but still quoting double what I ended up paying.'

MIKE BEALE,
BRIDGWATER, SOMERSET
69, RETIRED

On Legionella noncompliance (overleaf) We quote Solar Trade Association's Chief Executive, David Matthews:

1/ STA "supports and recognises DHCG, Legionella best practice."

2/ STA "current advice is closely based on L8."

3/ "Barry, just be very careful."

4/ "The legionella issue is best left alone"

5/ "...brings customer concerns out that are unjustified..."

Tepid solar water inside the red box below is not being heated to 60C daily.

So it is OUT of compliance with HSE Guidance L8 para 158 on Legionella safety. (Which? won't tell you this.)

HOW SOLAR THERMAL WORKS AND HOW TO BUY IT

Despite our findings, now is still a good time to invest in solar thermal. Grants for solar PV panels (which generate electricity) are no longer available, but you can still apply for government grants of up to £400 towards solar thermal until the end of February 2011.

This April saw the introduction of the Feed-in Tariff (FIT) – paying those who generate their own electricity for any that they don't use. In April next year there will be an equivalent FIT for heating technologies. Under this incentive (RHI) it's proposed that solar thermal users will get 18p for every kilowatt hour (kWh) of heat they generate. This could net a typical household with a solar thermal system around £200 a year at current prices for the next 20 years, according to the Energy Saving Trust. In addition, you'll save on the energy you don't use from other fuels. Those switching from electricity and LPG (liquefied petroleum gas) stand to save the most as these cost more than gas and oil – see our table below for more information.

Our illustration (right) shows a typical 'indirect' solar thermal system – the panels heat a fluid that flows through a coil in your hot water cylinder and heats the water in it.

As well as the satisfaction of heating your own water, a well-installed system, usually costing between £3,000 and £5,000, should provide between 40% and 70% of your annual hot water needs. Generally, a saving of around 10% on your total gas bill (40% on hot water) can be expected on a typical property. Solar thermal is cheaper to install than PV – which costs between £8,000 and £14,000 – so thermal will be a more attractive option for many. See our online guide (below) for the longer-term benefits of PV.

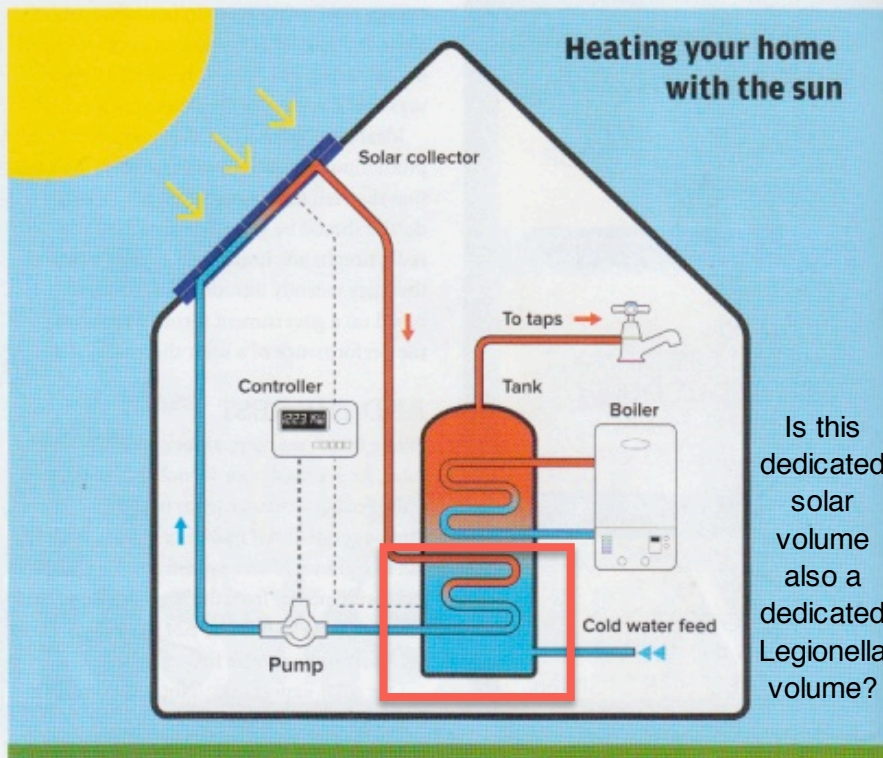
Naturally, most of these savings will happen during the warmer, brighter months – some Which? members with solar thermal told us they don't use their boilers at all from April to October. Maintenance costs are relatively low too – around £160 for a five-yearly service.

If you're considering solar thermal then make sure – as always – that you get at least three

Why is maintenance (£32 pa) ignored in the pay-back table?



INTERESTED IN GENERATING YOUR OWN HEAT? The Low Carbon Buildings Programme gives people access to grants. Go to www.lowcarbonbuildings.org.uk/ or call 0800 915 0990.



Is this dedicated solar volume also a dedicated Legionella volume?

The Which? solar thermal system five-step guide

- 1** Solar collector converts light energy from the sun into heat energy.
- 2** Heat energy is then transferred to a heat transfer fluid and this is circulated through the solar collector using a small electrically powered pump.
- 3** Heat transfer fluid flows through the heat exchange coil at the bottom of

your hot water cylinder. The heat is then transferred through the coil into the water.

- 4** Heated water rises to the top of the cylinder and is available at taps. Fluid is pumped to the roof again for reheating.
- 5** The boiler provides back-up heat or operates when solar energy is not available.

quotes as we found they varied wildly, from under £4,000 to over £11,500. We have 20 recommended installers on Which? Local (www.which-local.co.uk). As with most budding industries, companies tend to come and go, sometimes reopening with a different name, so make sure you pay with a credit card for your protection under the Consumer Credit Act.

SAVINGS/YEAR (£)	PAY-BACK TIME			
	CO2 SAVING/YEAR (KG)	RHI INCOME/YEAR (£)	PAY-BACK TIME (CUR. RENT GAS PRICES)	
GAS	50	290	200	16
ELECTRIC	100	300	200	13
OIL	50	330	200	16
LPG	100	300	200	13

Costs based on a three-bed detached house, built 1930-49, with cavity walls, a loft and primary pipework insulated. Solar thermal system cost: £4,000 installed.

www.which.co.uk

Is Which? Magazine: 1/ overlooking false ENVIRONMENTAL claims made by Howard Johns as Chairman of the Solar Trade Association (STA)? 2/ ignoring false SAFETY claims being made by the STA, of which Howard Johns, MD of Which? winner, "helpful and sensible" Southern Solar, is Chairman.

Are Southern Solar really "worthy of being mentioned" despite being intimately involved in making false claims in association with the Solar Trade Association? Are we being greenwashed? Video: <http://www.solartwin.com/news-3-may-2010-video-slams-which-solar-heating-cowboys-expose-for-not-going-far-enough>

Seems too low at £32 pa!