

# Green light

**T**his autumn, the Energy Bill will be back on the Parliamentary agenda, together with a clause that was not in the original proposed legislation.

The amendment would stop landlords from renting out homes that have an energy efficiency rating of less than E – that is, the two lowest bands, F and G.

It is estimated that 680,000 private rented homes fall into this category – about one-fifth of the total number. If the Bill gets through, as seems likely, these must either be refurbished or taken off the market by April 2018.

But be aware that this timescale could be accelerated: more than 30 organisations, including Consumer Focus, have called on the Government to bring forward the deadline to 2016 and enact a new law altogether (see story in the news section).

In addition, from 2016, private sector landlords will not be allowed to refuse ‘any reasonable request’ from their tenants, or from local authorities acting on behalf of tenants, to make energy efficiency improvements to their properties.

## Green Deal

Landlords will be able to finance such improvements through loans taken out under the Green Deal scheme, due to come into force in October next year, but it is still not at all clear how well this will work in practice.

While landlords would get an up-front grant for energy efficiency improvements, it would be the user – the tenant – who would pay back the loan through initially higher utility bills.

How happy would a tenant be with that? And would the landlord have to lower the rent to compensate?

So it was a trifle naïve for a spokesperson for the Department for Energy and Climate Change to blithely try to promote the scheme by saying: “This means tenants will get a warmer home and cheaper bills, and the landlord gets the work done.”

However, there is no doubt that pressure on landlords to step up their efforts on energy efficiency is growing.

Campaigners say that the Government is moving far too slowly and that landlords

**Landlords face being banned from renting out energy inefficient homes. Is this a threat or an opportunity? It's both – but buyers should beware**

should not be able to continue renting out energy inefficient homes for six years. We may well hear more of this argument.

Dave Timms, campaigner at Friends of the Earth, points to research by the Chartered Institute for Environmental Health that says ill-health caused by people living in draughty, damp homes is costing the NHS about £145m a year.

He also criticises the Government for not strengthening tenants’ rights to request energy efficiency improvements.

“There is nothing in the Bill to protect people from retaliatory eviction, where landlords force the tenants to leave if they ask for improvements,” he says.

## Initiative

The Association of Residential Letting Agents believes that landlords should be proactive and take the initiative on energy efficiency. ARLA has issued a set of tips for landlords which include installing cavity wall and floor insulation and ensuring that there is effective loft insulation.

It also recommends that lagging should be installed around water pipes and boilers, draught proofing doors and windows, and installing a thermostat on boilers to ensure that when a room reaches its optimum temperature of around 19°C, the heating is automatically switched off.

Ian Potter, operations manager of ARLA, points out: “Landlords can already take advantage of a tax allowance of up to £1,500 for these energy efficiency improvements through the Landlord’s Energy Saving Allowance (LESA). It makes sense therefore for landlords to carry out these improvements straight away.”

Unfortunately, not all of these recommendations are suitable for older properties, which typically have a single-



wall construction, making cavity wall insulation impossible. Alternative solutions involve either internal or external cladding, which are expensive and difficult to install – and could cost a lot more than the £2,535 which is commonly stated as the average cost of upgrading the coldest properties.

## Committee

For this reason, the RLA has established a technical committee to look into the whole issue of raising energy efficiency performance in older properties.

It may be that, for some landlords, certain properties simply aren’t worth improving as the sums will never add up, and they would do better to dispose of them and replace them with newer properties in their portfolios.

If so, an influx of energy inefficient properties on the For Sale market may not have been what the Government had in mind, but at least owner occupiers will not be under the same compulsion as landlords to upgrade their properties.

If landlords do replace hard-to-treat properties with ones that are upgradeable, the likely bill for the basic improvements mentioned by ARLA is likely to be £900 or thereabouts.

And would tenants be appreciative? It's a certainty – gas and electricity are only going to get more expensive, while tenants are only going to become more cost and eco-conscious.

James Davis, founder of the rental listing website uPad and himself a landlord, believes, like ARLA, that landlords should seize the initiative now: "Not because the Government is legislating, but because issues surrounding carbon emissions are important, especially amongst younger people.

"Just look at the ads and you'll see green-things and eco-that in all industries. That trend is bound to keep on developing and we'll see more and more 'eco-lets' and 'green-rents'. Making your letting property environmentally friendly might be the smartest marketing move a landlord can make," he says.

## Growth

If you don't want to stop at basic energy efficient improvements, then you have much to consider – not least, which products and systems are worthwhile, and which suppliers and installers you can trust. The whole 'eco' area is one that has seen a huge explosion in growth, with accompanying warnings of hard-selling and mis-selling.

In its August issue, Which? magazine came out with a list of eco products to be avoided. These included a voltage cutting device which costs £300 and, says Which?, will take a long time to pay for itself. A plug-in device which claimed to cut energy use by 10% did not prove itself in Which? tests, whilst a water-saving device was also not worth buying, according to the magazine.

Which? also investigated solar panels selling this summer, inviting 12 certified installers to a test house.

Its conclusions were interesting. It found that two of the 12 firms practised pressure selling, which is against the accreditation code, while none mentioned the hidden costs of installation, notably the need to replace the inverter every ten years. It also found that most of the firms sent salesmen to submit quotes and not surveyors, which it said was like taking building quotes from salesmen and not builders.

Which brings us neatly to smart meters.

Energy companies will visit every home in Britain over the next eight years to install digital smart meters, which will allow people to see how much their gas and

electricity are costing. They should also put an end to estimated bills.

There is nothing wrong with that in principle. But now several warnings have been sounded that energy companies will use these visits to sell on other products, including solar panels, new boilers or insulation, and the ever-busy Which? has launched a 'No Selling, Just Installing' campaign.

There are similar concerns in the pipeline over Energy Performance Certificates, sparked by the purchase of National Energy Services, an accreditation organisation for Domestic Energy Assessors, by the

Kingfisher Group, which owns B & Q. Concerns have been sounded that whenever a DEA pops in to do an EPC, there will be some kind of selling of B & Q products – for example, a voucher for insulation.

Does this matter? Well, EPCs are meant to be independent assessments, not sales vehicles.

However, there is no doubt that as landlords come under ever more pressure to 'green' up, they will have to do their homework thoroughly.

They should always bear in mind the old adage: Buyer Beware.

## SOLAR SYSTEMS MUST BE INSTALLED PROPERLY

Homes could be severely damaged if roof-mounted renewable technologies are not installed effectively, says the NHBC.

While it acknowledges that the potential energy savings to be made from solar thermal and photovoltaic (PV) systems and microwind turbines could be considerable, there is considerable potential for roof leakages through rain penetration, and structural damage to walls from wind if roof-mounted microgeneration systems are not installed correctly.

The guide to installation of renewable energy systems on roofs of residential buildings explains how, in the absence of specific UK or European standards, there is confusion over best practice in installation – in some cases leading to failures and significant damage.

The guide provides installers, housebuilders and home owners with a number of appropriate methods for installing renewable energy systems safely and effectively.

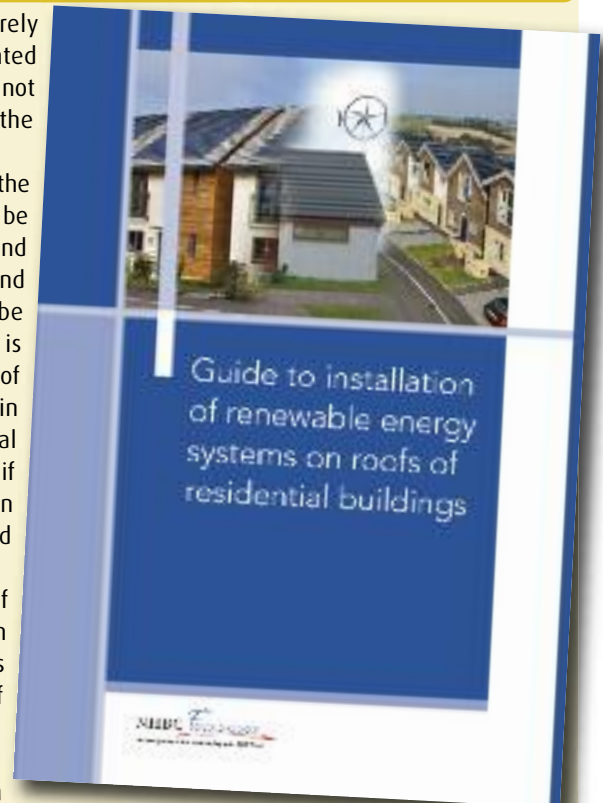
The renewable energy systems detailed in the guide include PV and solar thermal systems and microwind generation.

Graham Perrior at NHBC Foundation says: "Recent Government initiatives, such as Feed-in Tariffs and the Renewable Heat Incentive, are encouraging consumers to embrace renewable technology. However, while there is widespread enthusiasm for these initiatives, there is a gap in knowledge about the best way to install renewable technology on a domestic scale.

"Use of renewable energy technology is much advanced across parts of Europe, so there exists a tendency to follow instructions and examples set elsewhere.

"Unfortunately, the UK's unique weather system requires a specific approach to installation. For example, the potential for prolonged periods of rain in conjunction with high winds is something that must be thoroughly considered to ensure satisfactory installation."

[www.nhbcfoundation.org/renewableinstallation](http://www.nhbcfoundation.org/renewableinstallation)



A recent installation by Havenkaye



# Solar sense?

The offering looks almost too good to be true: a guaranteed return on investment for the next 25 years which even Which? agrees could equate to £25,000 profit on just one property.

This is the government's Feed-in Tariff initiative, which guarantees to pay the owner a generous tariff for the electricity produced by their solar panels.

Small wonder that with such an incentive for home owners, the solar energy industry has been burgeoning: a Google search of 'solar energy suppliers UK' yielded an astonishing 6,490,000 results.

And small wonder that at least one firm, Haven Kayes, makes the point that for landlords, solar energy can provide an additional, and very useful, income.

The tariff is set at a level (currently 43.3p) which is well above the standard rate of grid electricity (current average approx 12p), designed to allow the owner of the solar panels to recoup their costs within a relatively short time.

The feed-in tariffs (FIT) provide an attractive investment opportunity to landlords and home owners alike, as the FIT payments are payable to the owner of the panels, not necessarily the person living in the house.

A key point is that despite being called

**The buzz is all about solar heating and feed-in tariffs. We take a closer look at the attractions for landlords**

the 'feed-in tariff', the 43.3p is payable on every unit of electricity produced by the solar panels, irrespective of whether it's fed back to the grid.

Jessica Ferrow of suppliers Altereco believes that FITs could be more accurately described as a 'Generation Tariff'.

She says: "This is important as it means as a landlord that your payments won't be greatly affected by the energy usage of your tenants: you will be paid the 43.3p tariff whether the solar electricity is used or not.

"Your tenants will have an amount of free electricity during the day, so in order to save money off their bills, it will be in their interest to use their electrical appliances wisely. In addition, anything that is not used and so fed back to the grid is eligible for an additional export tariff of 3p. So for both the landlord and the tenant, it can only be described as a win-win situation."

She is in no doubt that landlords should consider going solar, with energy prices

rocketing and FITs on large installations such as solar farms being slashed.

"This means that the real scope for solar photovoltaic (PV) now lies in the domestic market and small-scale installations on houses, which are eligible for the highest tariff rate of 43.3p," she says.

## Effectiveness

But what about the effectiveness of solar in a country like the UK?

"You'd be forgiven for thinking that solar PV would work better in the Sahara desert than Great Britain," she says, "but in actual fact, solar panels may like the sun but they don't like the heat.

"Once solar panels are at a temperature of 40°C or more, their efficiency begins to decline. Solar PV panels do not need direct sunlight to work – they only require daylight. This means that cooler climates are potentially very well suited to solar; in fact Germany, which has a very similar climate to the UK, is now host to one of the largest and most successful solar markets in the world.

"The German solar success story is an important lesson for the fledgling UK industry. The now booming German solar industry started in the 1990s with the introduction of feed-in tariffs and has gone

from strength to strength. By 2015 the price of solar electricity in Germany is expected to reach grid parity, which means that it will be commercially viable. This means Germany in a now strong position to be able to phase out dangerous and expensive fossil fuels and nuclear power.”

## Appearance

Not everyone likes the look of solar panels, and she accepts this. New solutions include panels which look like ordinary slate roofing.

“It is not currently a cheap solution but is currently the only solar option for listed buildings and still can be financially viable with the feed-in tariffs,” she says.

She adds that landlords should act quickly if they do want to go solar: “The tariffs for new entrants are currently set to decrease in April 2012, but once you have

registered your installation, you are entitled to the tariff you start on for the next 25 years, which is RPI-linked.”

Suppliers BritishEco agree that the time for landlords to act is now.

“When you join the Feed-in Tariff Scheme you will be paid the rate applicable at the time you join for the entire 20 or 25 years, depending on the technology you install. The rates are fixed until April 2012, but anyone joining the scheme after that date will be paid a lower rate. The rates will be dropping by approximately 8% every year for new entrants, so to get the best FIT rate you need to act sooner rather than later,” says the firm.

Another firm, Havenkaye, agrees that there are plenty of incentives for landlords.

For example, it is often through that ‘payback’ or return on investment is ten years, but Havenkaye says most of its

systems achieve a ROI in under seven years.

The firm also says that there are a lot of myths about the type of property that can accept a solar PV system: “We have designed and installed systems from 127KWp to 3.5KWp, on a flat office roof, corrugated sheet barn, village hall and pitched roofs of all types.

“We work with many property owners to specify the best solution for the building or location. We have our design team that not only produce drawings for planning and building regulation approval, but for sensitive locations can also produce detailed photo realistic images to better explain and show the impact of a PV system.”

BritishEco, a nationwide supplier, offers different systems for different roofs. The most common are solar panels, mounted above the existing pitched roof. A more

## RENEWABLE ENERGY AT A GLANCE

### Solar water systems

Roof systems which use sunlight to heat water. BritishEco claims that its solar thermal systems will provide 50–70% of water heating virtually free. Installation takes a day.

### Solar PV

Photovoltaic (PV) panels trap the power of the sun to generate electricity, to run appliances and lighting. They do not need direct sunlight to work, but will generate power in daylight. PV systems offer the ability to sell excess energy back to the national grid. Critics dislike them for aesthetic reasons, but designs are continuing to improve.

### Wind turbines

A source of free electrical energy. Again, excess energy generated can be sold back to the national grid. BritishEco says that new technology is making it feasible to install wind turbines successfully in urban areas.

### Rainwater harvesting

These provide ‘grey’ water – it’s clean and filtered, and is perfect for toilet flushing, washing machines, general cleaning and watering the garden. Not – yet, anyway – recommended for baths, showers, cleaning teeth or drinking.



**A domestic wood pellet stove with boiler is cheaper to run than an oil-fired boiler and is effectively carbon neutral**

### Biomass

Wood pellet or wood chip burners are carbon neutral. BritishEco says a biomass system with an automatic feed is simple to use and can save a standard home over ten tonnes of CO<sub>2</sub> per year when swapping from a traditional oil-fired boiler.

### Heat pumps

Electric appliances with a compressor and two heat exchangers designed to extract energy from the ground, air or water. Uses technology similar to a domestic fridge and are said to be efficient at extracting heat even when temperatures sink to minus 15°C.

### Renewable Heat Incentive

A scheme currently available only to businesses and public sector organisations that install solar thermal, air source heat pump, ground source heat pump and biomass boilers. They can earn payments over a set period of time. The Government has said that it will make the scheme available to households in the autumn of 2012. Meanwhile, there are renewable heat premium payments of

between £300 and £1,250 which you can apply for if you install one of the above systems. The scheme opened to applications on August 1: [www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)

discreet alternative is its in-roof system, which fits flush with the existing tiles: the panels actually replace tiles and are positioned at the same level as the surrounding tiles. There is even a solution for flat roofs, which is a ground-mounted A-frame design, tilted to capture as much sunlight as possible during the year.

Nevertheless, landlords do need to be aware that there are limitations. South-facing roofs work best, but east- and west-facing roofs can work extremely well. It is important that the roof is not significantly overshadowed by trees and/or large buildings.

When buying a solar system, do ask about guarantees and maintenance. BritishEco, for example, guarantees its products for five years against faulty workmanship and its panels have a 25-year performance warranty.

All solar systems will require some maintenance in the form of regular checking to ensure that the panels are clean and that the cabling has not been dislodged. Ask suppliers whether they offer an inspections service.

## And in practice...

In RPI, we have featured landlord Stephen Beech who earlier this year was named winner of the Pioneer Award at the 2011 British Renewable Energy Awards, beating supermarket giant Sainsbury's.

Beech has been developing old terrace houses into eco-friendly, and very popular, student accommodation for the last few years.

Beech reasons that energy saving is not only good for tenants but for business too. To this end, he has renovated some of the 80 Victorian houses that he owns across Manchester, fitting them with solar panels, air source heat pumps and start-of-the-art insulation.

His solar panels generate an income for his business, thanks to the FITs. The level of insulation is so good that some tenants claim the heat from a desktop computer is enough to keep them warm.

Now all Beech's carbon neutral rooms are occupied by students who no longer have to pay electricity bills. Demand from would-be tenants is so fierce that he has a two-year waiting list.

On the back of his success with his own properties, he is now sharing his expertise with other commercial and residential property owners via Beech Solar.

One of Beech's first clients installed 22

## KEEPING TRACK OF SOLAR ENERGY

It is now possible to get systems that track the performance of solar systems.

PassivEnergy is one of these, although it does a lot more in terms of managing energy.

In field trials, it claims to have seen an average household energy reduction of 23%.

It works according to a home's occupancy – the user tells the system when they are in, out, asleep or on holiday, and PassivEnergy takes care of the rest, learning about the thermal properties of a house and the performance capability of its heating system so it can control when heating comes on to reach the desired temperature.

The hot water functionality allows PassivEnergy to learn how much hot water is used, how quickly the tank loses heat and controls how often it is heated. It can even track and compensate for the weather outside, and iPhone users can remotely control the system from wherever they are in the world.

The system also monitors energy generated from solar panels, so that owners and users can keep track of how well it's doing. They will receive an alert if the system is under-performing and the installer can then provide the appropriate maintenance support.

PassivSystems collects data directly from the generation meter instead of the inverter, so the information on solar panel performance can also be used for Feed-in Tariff purposes.

"Landlords will come under increasing pressure to make their properties more energy efficient, whether by adding renewable energy sources or providing a means of managing oil and gas more effectively," says Colin Calder, CEO of PassivSystems.

"The key to doing this is automation. Smart meters and energy monitors only supply information on energy used and any reduction in usage depends entirely on the tenant acting on that information. A system that manages a home's energy automatically is a better option."

Tenants would love this kind of gadget, and landlords would also be able to see how their solar panel investment is doing. However, the £524 cost, which includes installation and VAT, might push up the rent a little. [www.passivsystems.com](http://www.passivsystems.com)



solar panels on the roof of his previously energy-guzzling five-bedroom house in Cheshire. Pharmacist Manu Mistry, 54, has now ordered the installation of a second system of panels, so delighted was he with the first cheque he received from his energy supplier after six months with solar.

Beech says: "Solar power technology is tried and tested, and users can calculate the financial benefits with accuracy. Thanks to the generous government feed-in tariff, I'm now receiving an additional income from my solar panels. For every pound I spend on solar I get £4 back, plus I won't get an electricity bill on these properties for 25 years.

"Solar panels offer us all an opportunity to create our own electricity, and by doing so protect the planet and make money."

**Alterco:**  
[www.altereco.co.uk](http://www.altereco.co.uk)

**Beech Solar:**  
[www.beechsolar.co.uk](http://www.beechsolar.co.uk)

**BritishEco:**  
[www.britisheco.com](http://www.britisheco.com)

**Havenkaye:**  
[www.havenkaye.com](http://www.havenkaye.com)

**PassivSystems:**  
[www.passivsystems.com](http://www.passivsystems.com)

[www.energysavingadvice.co.uk](http://www.energysavingadvice.co.uk)

[www.energysavingtrust.org.uk](http://www.energysavingtrust.org.uk)

