
Performance Certificates (EPCs)

living in or are considering renting.

smart meters could in turn increase interest in the

tenant awareness of energy use and cost through

meters are intended to raise the profile of energy

energy consumption and remote meter reading. Smart

a range of functions such as a real time display of

generation of gas and electricity meters and offer

between 2014 and 2019. Smart meters are the next

roll out smart meters to all domestic properties

The Energy Act 2008 requires energy companies

EPC 24-digit Report Reference Number.

property's EPC, either by entering an address or an

the public, allowing anyone to download a copy of a

EPCs. The register is now open free of charge to

These changes are supported with greater use of

prominent and are made available in promptly to allow

the exact rules, please see Annex A). The changes

potential tenants or buyers of domestic property (for

for their use in tenant and buyer decision making.

Not only must local authorities tackle the worst

remedial measures .

subject to challenge and may help identify appropriate

HHSRS assessment when formal enforcement action is

one such risk assessed under HHSRS is

unacceptable risks to the health and safety of the

occupants. One such risk assessed under HHSRS is

excess cold. Excess cold can be caused by severe

limited success in implementing energy efficiency

£1,250 in 2020 (18%), assuming that there is only

projected that this could increase (in real terms) to

£605 in 2004 to £1,060 in 2010 (75%), and it is

household increased (in nominal terms) from around

The average dual-fuel energy bill for a typical

forms of property component, such as boilers and

report increased tenant interest in particularly visible

Convenient Truth found that double glazed windows

were believed by landlords to attract a better-quality
The Coalition Government is determined to make the UK become a leader in energy efficiency. We have set out our ambitious agenda in a new and comprehensive national strategy which details our policy direction for the coming years, highlights the barriers we face and outlines additional steps we are now taking to stimulate the energy efficiency market.

We’re pushing hard to tackle the major energy and carbon challenges we face. To take just one example, the new Energy Efficiency Strategy, launched recently in November, will change the way power is used in important sectors such as housing, and also across transport and manufacturing.

There’s no doubt that using energy more wisely is absolutely vital in a world of increased pressure on resources and rising prices. Not only can energy efficiency help save money on bills and cut emissions, it can support green jobs, innovation and enterprise. For example, the energy efficiency sector in the UK already accounts for around 136,000 jobs, and had sales of £17.6 billion in 2010/11. Sales in this sector have grown by over 4% per year in the UK since 2007/08, and are projected to grow by around 5% per year between 2010/11 and 2014/15.

The Green Deal will play a major role in delivering our agenda. It is a radical new programme aimed at connecting consumers with finance, allowing energy efficiency home improvements to be paid for through savings in energy bills. We want to empower consumers to make improvements to 14 million homes, which could save 17TWh of energy by 2020, with improvements to an additional 12 million by 2030.

These are ambitious targets and to meet them we need the private rental sector to play its full role. The Green Deal overcomes the ‘split incentive’ barrier in rented property by putting the onus of paying for energy efficiency improvements on the bill payer. Owners benefit long term from home improvements and tenants enjoy a more energy efficient home which is paid for through the savings in their energy bills.

From 2016 we will also be bringing in new measures to ensure private rental homes are improved but with incentives for early uptake, like the Cashback Scheme to coincide with the launch of the Green Deal, so as to ensure private rentals are making energy efficiency savings well in advance of this.

The Green Deal provides a fantastic opportunity to transform the quality and comfort of millions of homes across the UK and we hope you will join us and realise these benefits for yourself and your properties.

I welcome the work the BPF has done with the Government on energy efficiency, and commend this guide as an excellent tool to help landlords take action to improve the energy efficiency of their properties.

Rt Hon Greg Barker
Minister of State, Department of Energy and Climate Change (DECC)
This guide seeks to provide a starting point for landlords when developing energy efficiency improvement plans for their properties. It does this by explaining the direction of policy on energy efficiency standards in the private rented sector, how energy efficiency is calculated through the Energy Performance Certificate (EPC) methodology, and how landlords can plan and fund improvements that increase EPC ratings.

In chapter one, we set out the key drivers causing the government to seek energy efficiency improvements from the housing stock. This provides context on why the government is developing and implementing policies designed to improve energy efficiency in the private rented sector, and the wider housing stock.

In chapter two, we set out the government’s energy efficiency policies relevant to the private rented sector. Some of these policies are in place now and some are due in the future. Each is designed to either incentivise or force private landlords to improve the energy efficiency of their properties. These changes are likely to increase the importance of a property’s EPC rating.

In chapter three, we explain the purpose of the EPC and how it calculates its ratings. This section explains the various roles that the EPC now plays, growing from its original purpose as a tool for gathering and displaying energy efficiency information. The increasing number of functions played by the EPC is likely to increase its value and the importance of ensuring accurate ratings.

In chapter four, we explain how EPC ratings can be improved, with the use of theoretical case studies produced by the Energy Saving Trust. The case studies seek to provide an understanding of the types of works that are likely to be required to progress up through the EPC ratings. Each package of improvements is recommended on the basis of the most cost effective option from the landlord’s perspective, and each package of measures is calculated from a starting point of an F EPC rating.

In chapter five, we set out the funding options for energy efficiency and micro-generation improvements that are currently available. The government has set out a range of funding and incentive schemes to support the take up of improvement measures. The benefits of each vary and some may be more attractive and viable than others, depending on a landlord’s circumstances, type of property, kinds of tenant in situ, and the improvements being sought.

And finally in chapter six, we set out how landlords may like to devise a strategy for improving the energy efficiency of their properties. This is intended to provide landlords with a starting point when assessing their properties, indicating the considerations that ought to be included when devising a forward plan for improvements.

About the British Property Federation
The British Property Federation is the voice of real estate in the UK, representing companies, owning, managing and investing in real estate. This includes a broad range of commercial and residential property companies, institutional investors, fund managers, corporate landlords, housing associations, as well as a number of regional landlord associations. A list of our largest members can be found at http://www.bpf.org.uk/en/members/our_members.php.

Contact
For further information relating to this guide, please contact Tom Younespour, Senior Policy Officer, at tyounespour@bpf.org.uk or 0207 802 0126.

Thanks to contributors and sponsors
We would like to extend our thanks to the following who have kindly contributed to the contents of this guide: Beth Hill (Allsop), Paul Winstanley (Allsop), David Weatherall (Energy Saving Trust and the Intelligent Energy Europe REQUEST project), Sue Highmore (Practical Law Company), Chris Paul (Trowers & Hamlins) and Rhianna Wilsher (Trowers & Hamlins).

We would also like to thank the following sponsors of the guide whose kind assistance has made its publication possible: Allsop, Annington, Grainger, Evenbrook, Genesis, Residential Land and the Residential Landlords Association.

This guide is correct as of January 2013 and is based on our best understanding of existing and future known legislation. Whilst every effort has been made to ensure the accuracy of the information provided in this guide, it is not intended, nor should it be construed as being, a substitute for professional advice. The British Property Federation and the guide’s contributors and sponsors cannot accept liability for any losses, damages, costs and expenses suffered by any person or organisation as a result of any reliance on the material in this publication.

© British Property Federation 2013
1.1 Introduction
There are three key drivers towards energy efficiency in the UK’s built environment: reducing greenhouse gas emissions, ensuring security and reliability of energy supply, and ensuring the affordability of energy bills, particularly for those at risk of fuel poverty. Energy efficiency also holds wider benefits to the economy in that it reduces costs to businesses and households, freeing up money to be spent and invested in other areas, and creates jobs in upgrading properties. This chapter explains each of these drivers in more detail.

1.2 Emissions reduction
A key driver for government action to reduce the UK’s greenhouse gas emissions is the Climate Change Act 2008, which legally binds the UK to reduce the UK’s annual greenhouse gas emissions by 80% by 2050 and 34% by 2020, against a 1990 baseline. The Act also created a carbon budgeting system that caps emissions over five year periods, with three budgets set for 2008-12, 2013-17 and 2018-22.

The government sees improvements to the existing property stock as a key opportunity area to make progress against its emissions saving targets. The government’s December 2011 Carbon Plan1 highlighted that 25% of the UK’s emissions come from domestic property and that reducing demand for energy is the cheapest way of cutting emissions. The Carbon Plan included the following building related improvement targets:

- reducing emissions by 29% by 2017, 35% by 2022, and 50% by 2027 – for buildings this means a reduction between 24% and 39% lower than 2009 levels by 2027
- insulating all cavities and lofts, where practical, by 2020
- achieving between 1 million and 3.7 million additional solid wall insulations and between 1.9 million and 7.2 million other energy efficiency installations by 2030
- achieving between 1.6 million and 8.6 million building level low carbon heat installations, such as heat pumps (government modelling suggests that 21–45% of heat supplies to buildings will need to be low carbon), by 2030
- ensuring emissions from UK buildings are “close to zero” by 2050.

1.3 Affordability and fuel poverty
The UK government and devolved administrations have targets to ensure that, as far as reasonably practicable, no household should be in fuel poverty by 2016 (2018 for Wales). The current definition of fuel poverty is when a household needs to spend more than 10% of its income on fuel to maintain a satisfactory heating regime of 21°C for the main living area and 18°C for other occupied rooms during daytime hours. Improving the energy efficiency of properties occupied by households in or at risk of fuel poverty is a key objective for the government, as energy efficiency reduces the cost of energy bills and improves occupant health.

1.4 Security and reliability of supply
Over the next decade, the UK will need to invest in new generation capacity to replace the coal and nuclear power stations that are set to close by the early 2030s, to maintain the UK’s energy security. By reducing demand for energy through enhanced building energy efficiency, the government will, to a certain extent, be able to mitigate the need for additional capacity and so will be better able to ensure the UK continues to have access to reliable and affordable sources of energy. Furthermore, by helping to deliver security and reliability of energy supply, the UK will be less dependent on imported energy, which is susceptible to geopolitical instability.

1.5 The UK economy
Energy efficiency reduces the proportion of business and household income spent on energy, freeing up resources for investment in other areas. Additionally, the project to retrofit the UK property stock holds potential for the creation of new jobs. The government expects that the Green Deal scheme, which offers a new financing option for energy efficiency improvements, will support around 65,000 jobs by 2015.

“The Government believes that climate change is one of the gravest threats we face, and that urgent action at home and abroad is required. We need to use a wide range of levers to cut carbon emissions, decarbonise the economy and support the creation of new green jobs and technologies. We will implement a full programme of measures to fulfil our joint ambitions for a low carbon and eco-friendly economy.”

The Coalition Agreement, 2010

---

2 This definition in England may be amended from early 2013 following the government’s review of fuel poverty to better assess the extent and depth of fuel poverty.
Energy efficiency and the private rented sector

2.1 Introduction

Given the government’s objectives to achieve energy efficiency savings, policies are being put in place to ensure that, over the coming years, significant improvements are made to the UK’s existing property stock. This chapter sets out the key policies being pursued to achieve the government’s objectives on energy efficiency that are relevant to the private rented sector.

2.2 Private rented sector regulation

According to government statistics, whilst the energy efficiency of properties in the private rented sector has improved over the last few years, the sector still has the largest proportion of properties with the worst energy performance ratings: 13.5% of private rented sector properties are rated F or G on their EPC.5 The government expects that the Green Deal and Energy Company Obligation (ECO) will provide a stimulus for investment in energy efficiency improvements, but considers that the incentive offered may not be sufficient to drive improvements on the scale necessary. It has therefore taken powers in the Energy Act 2011 to allow for the creation of new energy efficiency regulations specifically for the private rented sector. The Act requires the government to:

- introduce a right for tenants to request energy efficiency improvements that a landlord will be unable to unreasonably refuse; this must be in place by 1 April 2016
- make it illegal to let property that falls below a specified minimum EPC rating – this provision must be in place by 1 April 2018, and will also encompass commercial property; the Act does not state what EPC rating the property must reach, but the government has indicated that it is likely to be an E rating.

Secondary legislation will set out the detail of these provisions and the government has indicated that there will be a number of caveats to the requirements. These include that:

- the improvements required must not entail upfront costs to the landlord, which is expected to mean that only improvements that could be funded through the Green Deal and any available ECO funding, would be required
- if consents and permissions for improvements are withheld by third parties a landlord would not be forced to override them
- some types of property will be exempt, and this is likely to include listed property.

However as the regulations have not yet been laid, it is not possible to advise upon the exact form these provisions will take. We are working with the government and industry to consider how the regulations could be devised to drive the right market responses and avoid causing damage to the private rented sector.

2.3 Local authority action

Local authorities have powers under the Housing Act 2004 to inspect properties using the Housing, Health and Safety Rating System (HHSRS) and require improvements to properties where there are unacceptable risks to the health and safety of the occupants. One such risk assessed under HHSRS is excess cold. Excess cold can be caused by severe deficiencies in the thermal performance of a building. A Standard Assessment Procedure (SAP) assessment (which is used for EPC assessments) may provide additional supporting evidence for an HHSRS assessment when formal enforcement action is subject to challenge and may help identify appropriate remedial measures3.

In addition to tackling the worst performing stock, local authorities must also set out plans for delivering improvements to the energy efficiency performance of the whole of the housing stock in their area. This guidance was published by the Department of Energy and Climate Change (DECC) in July 2012, which set out how local authorities should prepare reports on the energy conservation measures that they consider practicable, cost effective and likely to result in significant improvement in the energy efficiency of the housing stock within their boundaries5. Local authorities are required to issue their reports by 31 March 2013.

2.4 Availability and display of EPCs

The government has tightened the requirements concerning when EPCs must be commissioned and provided to potential tenants or buyers of residential property (for the exact rules, please see Annex A). The rules are intended to ensure EPCs are made available promptly to facilitate their use in tenant and buyer decision making. These changes are supported with greater use of the online EPC Register6, which hosts copies of lodged EPCs. The register is now open free of charge to the public, allowing anyone to download a copy of a property’s EPC, either by entering an address or an EPC 24 digit Report Reference Number7.

2.5 Smart meter roll out

The Energy Act 2008 requires energy companies to roll out smart meters to all domestic properties between 2014 and 2019. Smart meters are the next generation of gas and electricity meters, which offer a range of functions such as a real time display of energy consumption and remote meter reading. Smart meters are intended to raise the profile of energy use for occupiers, so they know exactly what they are using and how much it is costing them. Increasing tenant awareness of energy use and cost through smart meters could in turn increase interest in the energy performance of the building that they are living in, or are considering renting.

2.6 Rising energy bills

The average dual fuel energy bill for a typical household increased in nominal terms from around £605 in 2004 to £1,060 in 2010 (a 75% increase). It is projected that this will increase in real terms to £1,250 in 2020 (18%), however such projections assume some success in delivering improvements in energy efficiency8. If such improvements are not delivered, energy bills will rise at an even faster rate. While energy is only one component of overall accommodation costs for tenants, the upward trajectory for energy bills will mean that this component of a tenant’s expenditure is likely to continue to increase. High energy costs mean less money available to tenants for rent payments, which may particularly affect households on a low income. It may also make tenants more likely to factor a property’s energy bill costs into the total cost of occupying a property.

2.7 An emerging business case?

It is possible that enhanced knowledge of energy use and spend amongst property occupiers, which is expected to occur through the roll out of smart meters, combined with an improved profile for EPCs and the likelihood of further increases in energy prices, will result in an increasing awareness amongst tenants and property buyers of the importance of energy efficiency. In addition, as set out above, central and local government will need to take action to deliver significant carbon and energy savings from the existing property stock, whether or not market demand for energy efficient properties materialises, with attention already being paid to the private rented sector as a sector requiring particular improvement.

---

3  http://www.decc.gov.uk/en/content/con1/175470_ANNUAL_GUIDE_TO_2012_ACCESSIBILITY_REPORT.pdf
6  https://www.epcregister.com/
8  http://www.decc.gov.uk/en/content/con1/175470_ANNUAL_GUIDE_TO_2012_ACCESSIBILITY_REPORT.pdf
11  http://www.bpf.org.uk/socialTenantAwareness.pdf
12  http://www.bpf.org.uk/socialTenantAwareness.pdf

Whilst currently there is no clear evidence that investment in energy efficiency improvements will result in improvements to vacancy rates, rental or capital values, it is anticipated that over time a transition in policy, and changes, it is possible that this will change in the future. Indeed some BPF residential landlord members have begun to report increased tenant interest in visible property components, such as boilers and windows.

Given the expectation that energy efficiency will increasingly be an important factor for landlords, due to market demand, government regulation or a mixture of the two, it is important that landlords understand how, and when properties can be improved, and what options there are for funding improvements. This publication aims to provide this guidance.
The role of Energy Performance Certificates

3.1 Introduction
The EPC is the government’s main tool for measuring property energy efficiency standards. This chapter explains how EPCs work and their role as a tool for communication, and increasingly as a tool for wider policy and regulation. There are a number of requirements placed on landlords regarding when and how EPCs must be commissioned and issued, and these are set out in Annex A. The rules on EPCs that are explained in this guide apply only to properties in England and Wales.

3.2 The purpose of EPCs
An EPC gives information about a property’s energy use, typical energy costs and energy efficiency improvement options. EPCs were introduced to help both property owners make energy efficiency improvements to their property, and to allow prospective tenants or property buyers to assess energy efficiency performance when choosing a property to rent or buy. The standard format and appearance of the EPC is set by the Department for Communities and Local Government and was revised in April 2012 to make it easier to understand and to support the Green Deal. Annex B shows a comparison of the first page of a residential EPC in the old and new formats.

Whilst an EPC’s principal purpose is to increase awareness and understanding of building energy efficiency, the UK government has also begun to utilise EPCs as a tool in support of other policies and regulations, for example:

- a property must reach an EPC rating of a D or above to obtain the full solar PV Feed-in Tariff rate applicable to the system size
- EPCs will indicate the existence of any Green Deal plan relating to a property and will be the main conduit for providing key information about such a plan
- it is expected that from April 2018 the government will make it illegal to privately let a property that is F or G EPC rated (subject to a number of criteria explained in chapter two).

3.3 What EPCs measure
EPC assessments use the Standard Assessment Procedure (SAP) that was developed by the Building Research Establishment. SAP assesses the physical conditions of the property – its walls, roof, floor, windows, heating systems and lighting – and then calculates the property’s energy demand assuming a standard household and standard behaviour. EPCs display a number of outputs from the assessment:

- a SAP rating based on how much the home will cost to heat and light, from 1 (least energy efficient) to 120 (most efficient); the EPC headline graph shows the rating banded on a scale from A (the most energy efficient) to G (least energy efficient) – see Figure 1 on page 13 for the rating boundaries
- assumed total primary energy demand – how much energy the home uses in total across the different fuels used to heat and power the home
- assumed CO₂ emissions for the home – based on the total energy demand and the different fuels used
- standard recommendations for energy and carbon saving improvements – these recommended measures are identified on the EPC either as cost effective measures that can be funded under the Green Deal, or as appropriate measures that will save energy but will not pay back their installation cost in their lifetime.

EPC assessments are theoretical and so they will not reflect the way in which the current occupier uses the building (for example, whether they open the windows when the heating is on). So the actual energy efficiency use by the current or prospective occupier may be very different from the assigned rating.

A full SAP assessment can only easily be carried out on a new home where full details of construction techniques and materials are known. For existing homes, the Reduced Data SAP (rdSAP) methodology is used, which makes a series of assumptions about physical characteristics of the home to generate a SAP rating. The underlying methodology is regularly updated to take into account changes to available improvement measures and the evidence base on the in-use performance of energy efficiency measures. This means that the outcome of an EPC assessment on a property may differ depending on when it is undertaken.

In order to provide an accurate EPC for an existing property, the assessor will need to know:

- when the property was built (searches or deeds may provide evidence)
- whether or not the property has been extended and when
- if the property has been double glazed, and if so, whether there are any certificates
- whether the walls have had cavity, internal or external insulation
- when boilers and hot water cylinders were installed and whether there are any manuals
- the location of room thermostats and heating timers
- the location of gas and electricity meters
- the type of heating fuel used.


4.0 Improving Energy Performance Certificate ratings

4.1 Introduction

By making energy efficiency improvements to a building, for example replacing an old boiler or installing loft insulation, the building’s SAP score will increase. The total SAP score is used in the property’s final EPC rating (see Figure 1 for the rating boundaries).

An EPC assessment provides a list of suggested improvement measures specific to the property and outlines the associated improvement in SAP score and EPC rating. To make the SAP assessment more detailed a more detailed report will be provided. The cost of improvement measures will be calculated and an indicative SAP and EPC rating will be provided.

4.2 Factors to consider when making improvements

It is important to note that, whilst the installation of measures is key to improving a property’s energy efficiency and its EPC ratings, there are additional factors that require attention to ensure that a property performs to the standards expected. Here are some examples:

- **Maintaining the property in good repair.** It is essential that damp and damaged building elements are tackled before or alongside energy efficiency improvements. A damp wall will transmit heat out of the building more readily than a dry wall, and could cause structural problems and health issues for tenants. Damaged windows are also a major cause of heat loss.
- **Dealing with draughts and ventilation.** Using draught proofing around windows and doors will help to ensure the property is airtight as possible. Ventilation should be delivered in rooms that need it through fans or other planned ventilation systems, rather than unplanned draughts or open windows. Heavy curtains can help reduce draughts from windows.
- **Helping tenants change their behaviour to save energy.** Explaining how heating controls work when tenants move in, and leaving instructions for them to refer to, is important to help them get the best from an energy efficient home. The Energy Saving Trust website also contains energy savings tips and advice, which could be flagged up to tenants.

4.3 Theoretical EPC improvement case studies

To give landlords an idea of the kinds of works required to improve properties’ EPC ratings, we have set out below four theoretical case studies showing the packages of improvements required to increase a property’s EPC rating. Each of the four theoretical case studies has its own unique characteristics, such as size and building type, but all start with an F EPC rating.

Each property was subjected to a SAP 2009 assessment, as would be the case in real life, and improvement packages were chosen on the basis of the cheapest combinations of improvements (in terms of parts and labour) to progress up the EPC ratings. However it is important to note that:

- costs have been determined using the Energy Saving Trust’s SAP calculation tool and are indicative only
- tax reliefs or incentive schemes have not been applied in the modelling
- higher improvement costs may be preferred if the measures can be installed more quickly, or with tenants in situ; such factors have not been included in the modelling
- the examples provided are intended for illustrative purposes only; a specific building level inspection by a qualified professional such as a building surveyor, an EPC assessor or Green Deal assessor should be undertaken before undertaking energy efficiency improvement works; a property’s EPC or Green Deal Assessment report will highlight recommended measures appropriate for the property, and the impact such improvements will have on the EPC rating
- for older properties, specialist advice may be required; the English Heritage Climate Change Your Home website contains information on upgrading traditional buildings.

4.4 Disruption factors

Landlords will not only need to consider the cost of improvement measures when choosing improvement packages, but also when it would be most appropriate to implement them. To reduce disruption to tenants and to minimise the time required to keep a property empty, it may be sensible to implement improvements when carrying out other non-energy efficiency related works. For example, it may be appropriate to internally insulate solid walls and insulate floors at the same time as refurbishing a bathroom or kitchen, or install solar panels and double glazing when scaffolding is erected for other household improvements.

As part of its European Union funded REQUEST project, the Energy Saving Trust has produced guidance on ways to install energy saving measures on a room by room basis, alongside kitchen, bathroom or living room refits. These guides are available on the Energy Saving Trust website and can be easily found by searching for ‘kitchen’, ‘bathroom’ or ‘living space’.

Following the four case studies, Table 1 explains the level of disruption likely to be endured for key energy efficiency improvement measures. The table is intended to give landlords an idea of when measures would be best undertaken to minimise disruption and void periods.
### 4.5 Example A: 1 bedroom Victorian mid-terrace converted flat (leasehold)

**EPC rating:** F (35)  
**Annual fuel bills:** £1,226  
**Property size:** 5.2m²  
**Annual CO₂ emissions:** 4.4 tonnes

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Improvement impact</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Secondary glazing: £699</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>Made in timber frame automatic controls £1,000</td>
<td>Low energy lighting £33</td>
</tr>
<tr>
<td>-</td>
<td>Insulated hot water tank: £30</td>
<td>Cylinder thermostat: £70</td>
</tr>
<tr>
<td>-</td>
<td>£6,351 C (61)</td>
<td>£602 2.7 tonnes</td>
</tr>
<tr>
<td>-</td>
<td>£1,182 C (77)</td>
<td>£332 1.4 tonnes</td>
</tr>
<tr>
<td>-</td>
<td>£11,182 C (82)</td>
<td>£332 1.4 tonnes</td>
</tr>
</tbody>
</table>

By running single direct acting electric heating to a storage system, the amount of electricity used will go up due to reduced operational and control interfaces. The overall cost of heating fuels during the lower electricity/energy rate tariff used with storage heating. SAW is primarily unproven of heating cost and therefore the measure actually improves the SAP score. While the CO₂ emissions (Yud’s) are calculated on the total amount of electricity used/year.

### 4.6 Example B: 2 bedroom flat within a 1970s purpose built block (leasehold)

**EPC rating:** F (36)  
**Annual fuel bills:** £1,626  
**Property size:** 75m²  
**Annual CO₂ emissions:** 7.3 tonnes

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Improvement impact</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Improved controls: £50</td>
<td>-</td>
</tr>
<tr>
<td>-</td>
<td>Insulated hot water tank: £30</td>
<td>Cylinder thermostat: £70</td>
</tr>
</tbody>
</table>

**Improved heating controls can improve the efficiency of an old storage heater based system.**

| - | £50 | £1,298 6.3 tonnes |
| - | £150 E (51) | £1,298 6.3 tonnes |

| - | £11,987 C (71) | £40 |

| - | £14,927 C (74) | £40 |
| - | £40 | £14,927 C (74) |
| - | £40 | £14,927 C (74) |

| - | £6,351 C (61) | £585 2.5 tonnes |

| - | £11,182 C (77) | £332 1.4 tonnes |

To reach the E standard, the heating control should be improved in conjunction with internal wall insulation and low energy lighting. The gas boiler is sized to be slightly over-sized to ensure that the heating is adequate for the increased insulation.

A ground floor 1970s flat within a low rise system built block. The property has metal single glazed windows and storage heating. As it does not have cavity walls and has electric heating, the measures required to get it to higher bands can be expensive, but the savings achievable are considerable.
4.7 Example C: 2 bedroom end-terrace Victorian house (freehold)

EPC rating: F (34)  Annual fuel bills: £1,777  Property size: 85m²  Annual CO₂ emissions: 6.6 tonnes

A solid walled Victorian end-terrace property with an old gas central heating system, few heating controls, and no loft insulation. The property has single glazed windows and external doors, with a suspended timber floor. The property has a roof that is broadly south facing.

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Improvement impact</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>Windows / external doors</td>
<td>Flooring / roof type</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Internal wall insulation: £3,356

- Double glazing: £2,940
- Loft insulation to 270mm: £1,555
- Gas combi-condensing boiler and new heating controls: £2,341
- Low energy lighting £40

As well as improving the EPC rating, the addition of new loft insulation and proper draught proofing would help to improve the property feel warmer and could help reduce inter nal problems associated with damp.

4.8 Example D: 3 bedroom mid-century semi-detached house (freehold)

EPC rating: F (37)  Annual fuel bills: £2,200  Property size: 130m²  Annual CO₂ emissions: 8.6 tonnes

A mid-century semi-detached gas heated three bedroom home with un insulated cavity walls and a very low level of loft insulation, wood single glazing and an old gas boiler. The property has a garden at the front and rear of the property. Despite large fuel bills and poor energy performance, there are a number of very simple and affordable measures that can be installed to radically improve the property.

<table>
<thead>
<tr>
<th>Improvements</th>
<th>Improvement impact</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>Windows / external doors</td>
<td>Flooring / roof type</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Cavity wall insulation: £480

- Draught proofing for doors: £22
- Loft top-up insulation £155
- Thermostatic radiator valves/ additional heating controls: £50
- Low energy lighting £50

Cavity wall insulation is one of the cheapest, least disruptive and most cost effective energy saving measures. Many homes have been fitted with low levels of loft insulation in the past and would benefit from insulation top-ups.

Cavity wall insulation: £480

- Secondary glazing £1,647
- Draught proofing for doors: £22
- Loft top-up insulation £155
- Solid floor insulation: £1,279
- Gas combi-condensing boiler and new heating controls: £2,341
- Low energy lighting £40

Adding floor insulation to solid concrete floor is likely to cause significant disruption as it will mean shifting objects from the floor and possibly adjusting skirting boards and kitchen fittings. This should preferably be done during vacant possession. It could also be done on a room by room basis.

Cavity wall insulation: £480

- Secondary glazing £1,647
- Draught proofing for doors: £22
- Loft top-up insulation £155
- Solid floor insulation: £1,279
- Gas combi-condensing boiler and new heating controls: £2,341
- Low energy lighting £50
- 2kW solar photo voltaic system £7,200

Fitting thermostatic radiator valves and low energy lighting can be done easily on a DIY basis or by a non-specialist installer.

With a south facing roof, this property is able to benefit from electricity generating solar PV panels. Renewable energy systems should only be installed on well insulated properties.
## Table 1: Measure disruption factors

<table>
<thead>
<tr>
<th>Measure category</th>
<th>Measure</th>
<th>Can be installed room by room?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation</td>
<td>Insulated external doors</td>
<td>Yes</td>
<td>Building regulations in England state that installing new doors requires approval from the relevant buildings control body, and new external doors generally require an insulation solution to reduce heat loss and comply with the regulations. A properly fitted new external door should include an effective draught proofing system. Existing external doors can be improved by fitting draught proofing strips around the door edge and the letterbox. Fitting draught proofing to the doors and windows will save the typical household around £30 a year.</td>
</tr>
<tr>
<td>Window glazing</td>
<td>Secondary, double and triple glazing</td>
<td>No</td>
<td>Whilst double or triple glazing help improve a property’s energy efficiency and can be attractive to tenants, installation will require consent of any freeholder. Although not as effective, secondary glazing does not require freeholder consent as it is fitted inside the existing window frame. Low emissivity glass will improve the performance of secondary glazing.</td>
</tr>
<tr>
<td>Insulation</td>
<td>Hot water cylinder</td>
<td>Yes</td>
<td>Insulating the hot water cylinder is one of the easiest ways to save energy. If the tank already has a jacket fitted, it should not cost more than £10 to fit this, if it needs one. By fitting a thermal insulation layer, the typical household can expect to save around £4 a year over a traditional bulb. Installation of lightbulbs requires very minor inconvenience to tenants.</td>
</tr>
<tr>
<td>Heating system replacement</td>
<td>Boiler replacement</td>
<td>No</td>
<td>It is important that boilers are sized correctly, taking account of the reduced heat demand from a more insulated property. The most energy efficient solution is a combi-condensing boiler. Heating controls are required to be fitted alongside a new boiler by a trained engineer. You can reduce the costs of running gas central heating systems by fitting a room thermostat, timer and thermostatic radiator valves (TRVs). This gives tenants better control of when and where in the home heating is required. They can be installed without much inconvenience for tenants.</td>
</tr>
<tr>
<td>Heating and hot water</td>
<td>Micro-CHP</td>
<td>No</td>
<td>Micro-CHP generates heat and electricity simultaneously from the same energy source in individual homes or buildings. The most energy efficient solution is a combi-condensing boiler. Heating controls are required to be fitted alongside a new boiler by a trained engineer. You can reduce the costs of running gas central heating systems by fitting a room thermostat, timer and thermostatic radiator valves (TRVs). This gives tenants better control of when and where in the home heating is required. They can be installed without much inconvenience for tenants.</td>
</tr>
<tr>
<td>Lighting</td>
<td>Fixtures</td>
<td>High</td>
<td>Changing all light bulbs to energy efficient lighting plays a small but still important part in improving a property’s overall energy efficiency. If the bulbs need replacing, it should not cost more than £10 to fit this, if it needs one. By fitting a thermal insulation layer, the typical household can expect to save around £4 a year over a traditional bulb. Installation of lightbulbs requires very minor inconvenience to tenants.</td>
</tr>
<tr>
<td>Underfloor heating</td>
<td>Heating replacement</td>
<td>Medium</td>
<td>Installing the heating system can be a disruptive process and would require work in nearly every room of the property to fit pipes and radiators.</td>
</tr>
</tbody>
</table>

### Table 2: Measure disruption factors

<table>
<thead>
<tr>
<th>Measure category</th>
<th>Measure</th>
<th>Level of disruption to tenants</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulation</td>
<td>Insulation around doors</td>
<td>High</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Window glazing</td>
<td>Insulation around windows</td>
<td>Medium</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Insulation</td>
<td>Insulation around hot water systems</td>
<td>Medium</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Heating system replacement</td>
<td>Heating replacement</td>
<td>High</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Heating and hot water</td>
<td>Heating replacement</td>
<td>Medium</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Lighting</td>
<td>Lighting replacement</td>
<td>High</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Underfloor heating</td>
<td>Heating replacement</td>
<td>Medium</td>
<td>Fitting the heating system can be a disruptive process. Radiators need to be fixed to the walls and the related pipework needs to be installed.</td>
</tr>
<tr>
<td>Measure category</td>
<td>Measure</td>
<td>Level of disruption to tenants</td>
<td>Can be installed room-by-room</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>-------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Renewable heating</td>
<td>Solar heating</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Ground source heat pump</td>
<td>Medium / high</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Air source heat pump</td>
<td>Medium</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Biomass boiler</td>
<td>Medium / high</td>
<td>Yes, for individual room stoves</td>
</tr>
<tr>
<td>Renewable electricity</td>
<td>Solar photo-voltaics (PV)</td>
<td>Low</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Wind turbine</td>
<td>Low</td>
<td>No</td>
</tr>
</tbody>
</table>
Funding energy efficiency improvements

5.0

5.1 Introduction

Landlords who wish to improve the energy efficiency of their property may be able to access funding support from a variety of sources. Some of these are offered UK-wide, whilst others are offered by devolved administrations or local authorities. This chapter looks at the most significant schemes in terms of size and geographical spread.

Information about all sources of funding can be obtained from the Energy Savings Trust website, which has a searchable funding database.16

How does it work?

All Green Deals commence with an impartial assessment of the fabric of the property and an occupancy assessment, which takes into account the way the current occupier uses the property. This assessment must be carried out by an accredited Green Deal Assessor, and the resulting Green Deal Advice Report will identify a package of energy efficiency improvements with estimates of likely energy savings. The party initiating the Green Deal, which could be the landlord or the tenant, will then be able to seek quotations for the measures from authorised Green Deal Providers, who will offer a financing package to implement an agreed package of measures under a Green Deal Plan. A Green Deal Plan can spread the cost of the improvements over time by adding a standing charge to the property’s electricity bill. Green Deal Providers will arrange for the installation of improvements agreed under a Green Deal Plan using accredited Green Deal Installers to ensure that the works are carried out to a high standard.

Unlike a commercial loan, Green Deal debt stays with the property and obliges whoever is the current payer of the electricity bill to pay the Green Deal charge. Should an energy bill payer stop paying their bill including Green Deal charges, the resulting debts stay with that bill payer and do not transfer to subsequent bill payers.

There are a number of key requirements for a Green Deal.

Satisfaction of the ‘Golden Rule’

The Golden Rule is a fundamental principle of the Green Deal, which limits the total cost of the improvement measures, plus the finance charged by Green Deal Providers, to the estimated savings expected to be generated as a result of the improvements. So for example, if a property’s annual energy bill is £800, then the total cost of the energy bill after the measures are installed and the Green Deal charge is added, must be £800 or less. The savings could be in the form of reduced gas bills, electricity bills or both, but the charge is always added to the electricity bill. The assessment of the Golden Rule will be based on a number of standard assumptions about energy use, with reference to the property type and performance of the measures. An accompanying occupational assessment will indicate what the implications of a Green Deal will be on the energy bill for the current occupier of the property.

Obtaining consents

There may be multiple parties who need to provide consent to a Green Deal depending on the property, tenure and type of measures being installed. The improved property (i.e. the person seeking to undertake a Green Deal), which could be a landlord or tenant, is responsible for gathering all the consents and permissions that may be necessary, including consent from the property’s energy bill payer (i.e. the person registered as the bill payer with an energy company), the property owner, and any other relevant third party such as a lender.

In rented property, the energy bill payer will often be the tenant and, as such, a landlord would need to obtain their consent to a Green Deal. However there may be situations where the landlord, and not the tenant, is the energy bill payer and therefore tenant consent would not be required. This includes void periods when the landlord is the bill payer at the point of signing up for a Green Deal (as long as a tenant has not yet agreed to rent the property), and where a landlord pays a property’s energy bill and incorporates the cost in the rent or service charge. In the latter scenario, the landlord may however still need to gain agreement from tenants to pass through the Green Deal charge, depending on the wording of the lease or service charge agreement.

During any period where the property is unlet, the obligation to pay the ongoing Green Deal charge reverts to the landlord. Green Deal charges are made regardless of whether any energy is being used.

Disclosure

Landlords must disclose information about the existence of a Green Deal on a property to any potential buyer or incoming tenant, so that they are aware that they will be liable for the Green Deal charge and bound by the terms of the Green Deal Plan. Written acknowledgement will need to be obtained from the energy bill payer at the point the measures have been met. If a landlord does not adequately disclose a Green Deal and gain written acknowledgement from an incoming tenant or property buyer, such tenants or buyers could have the Green Deal Plan removed. This would result in the Green Deal Provider seeking compensation from the landlord for losses. Detailed rules on these requirements are to be provided by the Department of Energy and Climate Change (DECC).

What measures does it cover?

The Green Deal can fund lighting, space heating and cooling, building fabric, water heating and micro-generation improvements, provided that the Golden Rule is satisfied.

What are the advantages?

- It provides access to funding for energy efficient measures with no upfront costs to the landlord or tenant. Where there is a tenant in situ, it is the tenant who makes the Green Deal repayments through their electricity bill.
- If a tenant stops paying an energy bill that includes a Green Deal charge, both the energy bill debt and the Green Deal debt built up by the tenant stay with the tenant.
- Green Deal Providers must provide warranties and guarantees for the work and must resolve any defects that arise.
- Larger landlords could become Green Deal Providers and obtain an income stream from Green Deal finance, possibly delivering improvements beyond their own stock.

What are the disadvantages?

- The Green Deal charge is a standing charge on the electricity bill and is payable no matter how much energy is used in the property. During void periods the landlord is responsible for the repayments.
- The Green Deal loan will have to be repaid if the property is redeveloped or demolished whilst Green Deal debt remains on the electricity bill.
- Consent is needed from both the energy bill payer and the property owner for the Green Deal to be taken out. This could add extra time.
- Unless the landlord exerts control through the Green Deal process, the installation of different measures and materials could complicate property management and maintenance.
- When the energy bill payer changes, for example through a change of tenant, the landlord is obliged to disclose details of the Green Deal to a new tenant, who has to acknowledge responsibility for the repayments in writing (which can be done through the tenancy agreement).
- It is not yet known what impact on property values Green Deal debt will have.

Where can I find further information?

DECC has a Green Deal section of its website19 and has produced a number of quick guides.30 The Green Deal Oversight Body also lists all those organisations registered as Green Deal Assessors, Installers and Providers on its website.31

16 http://www.energysavingtrust.org.uk/funding/search
17 Assuming the tenant and not the landlord is the named bill payer registered with an energy supply company.
18 http://www.decc.gov.uk/en/content/cms/building/green_deal/green_deal.html
20 http://www.greendealorb.co.uk
5.3 The Green Deal Cashback Scheme

What is it?
Where landlords commission a Green Deal Assessment and have work arranged through a Green Deal Provider, whether paid for upfront or with Green Deal finance, they may be eligible for a government funded cashback. The government has allocated £4 million for the scheme to support take up of improvements delivered through the Green Deal in the early stages of roll out in 2013. The Green Deal Cashback Scheme is available for England and Wales. Scotland has a separate ‘Green Homes’ incentive scheme, details of which are available on the Energy Saving Trust website.

How does it work?
Cashback is awarded for each qualifying measure recommended by a Green Deal Assessment that is installed through a Green Deal Provider. Landlords are eligible for the cashback where they pay for improvements upfront, or take out Green Deal funding whilst they are the electricity bill payer, such as during void periods or where they recharge tenants for energy costs. If the package of improvements is undertaken when there is an electricity bill paying tenant in situ, it will be the tenant that receives the cashback. Where improvements are funded in part by a landlord upfront and in part through Green Deal Finance, if there is a bill paying tenant in situ, the cashback will go to the tenant if the majority of the costs are met through Green Deal finance, and the landlord if the majority are met by the landlord upfront.

To qualify for the cashback, households must:
- have a Green Deal Assessment carried out on the property
- get and agree quotes from a Green Deal Provider (this could be directly with a national brand or through a local tradesperson linked with a provider)
- apply for a cashback voucher online or by phone – to make things easier, some providers will be able to apply on behalf of their customers
- receive a voucher confirming the cashback
- complete the works within the specified period
- redeem the voucher, along with evidence of works completed, for cashback.

There are a number of other eligibility requirements, including:
- where a Green Deal Assessment recommends loft and cavity wall insulation, cashback will be contingent on such measures being included in the improvement package
- cashback will be capped at 50% of the applicant’s installation costs
- landlords will have to certify that receiving cashback would not result in them breaching State Aid rules, which limit the amount of public money they can receive over a rolling three year period (currently around £160,000)
- work must be done within a specified period – six months for solid wall insulation, three months for other improvements, and in all cases before 31 March 2014 to claim the cashback.

What does measures it cover?
Most key Green Deal measures are eligible for cashback, including loft and cavity wall insulation and boiler replacement (where not already required under building regulations). Each qualifying measure has a unique cashback value. To view the list of qualifying measures and amount of cashback, please see DECC’s quick guide.

What are the advantages?
- Cashback could be used to part fund the improvement works, reducing the overall cost and the size of any Green Deal debts placed on the electricity bill
- Cashback could be used to help convince existing tenants to agree to a Green Deal Plan.

What are the disadvantages?
- Cashback received by landlords must be treated as taxable income, reducing its value
- Landlords must undertake a Green Deal Assessment and go through a Green Deal Provider to be eligible. Landlords would not be able to use any preferred contractors operating outside the Green Deal.

5.4 The Energy Company Obligation

What is it?
The Energy Company Obligation (ECO) works in tandem with the Green Deal to make certain expensive improvement measures affordable, and deliver measures for low income and vulnerable households and communities. The ECO is divided into three pots as follows:
- the Carbon Emissions Reduction Obligation (around £760m per year) – to focus on solid wall insulation and hard to treat cavity wall insulation where Green Deal finance alone is insufficient
- the Carbon Saving Community Obligation (around £190m per year) – to provide energy and carbon savings measures to households in the most deprived areas (i.e. the bottom 15% measured on the English, Welsh and Scottish indices of multiple deprivation)
- the Home Heating Cost Reduction Obligation (around £350m per year) – to pay for measures that reduce the cost of heating for low income, vulnerable households at risk of fuel poverty (e.g. heating systems and basic insulation) for owner occupiers and those in the private rented sector; to receive assistance under this obligation the household must be in receipt of a qualifying means tested benefit.

The ECO is available in England, Scotland and Wales.

How does it work?
Energy companies may target households directly or in partnership with others in delivering their obligations. Where a property or household is eligible for ECO funding, Green Deal Providers may include such funding in their Green Deal offers to property owners.

What are the advantages?
- Energy companies will be seeking to meet their obligations at the lowest cost. Landlords with large portfolios may be able to negotiate multiple packages of improvements.

What are the disadvantages?
- The Home Heating Cost Reduction subsidy is provided on the basis of the tenant’s circumstances, which the landlord is unlikely to know and may find difficult to determine
- Internal wall insulation is likely to require vacant possession to install.

Where can I find further information?
To explore eligibility in more detail, landlords can speak with a Green Deal Provider, local authority or the independent Energy Savings Advice Line on 0330 123 1234.
Funding energy efficiency improvements

5.5 The Landlord Energy Savings Allowance

What is it?
The Landlord Energy Savings Allowance (LESA) allows up to £1,500 to be claimed against tax every year for the costs of buying and installing certain energy saving products for rented properties where Green Deal Finance is not used. LESA is claimable for each demise so if a landlord rents out a property containing four flats, it is possible to claim up to £1,500 for each flat. LESA is due to expire on 6 April 2015 and it is not yet known whether it will be extended. LESA is available across the UK.

How does it work?
Once the work is complete, corporate landlords can claim the allowance under allowable business expenses on their corporation tax return form, and individual landlords can claim it on their self assessment income tax return. Landlords can only claim for the expenditure that benefits the residential property that they let, so expenditure may need to be apportioned where a landlord installs energy saving items benefitting other areas of the property. It is possible to split a package of improvements so that some are paid for upfront by the landlord with LESA relief, and some paid for using Green Deal Finance.

What measures does it cover?
The following measures are eligible for LESA: loft insulation, cavity wall insulation, solid wall insulation, draught proofing, hot water system insulation, floor insulation.

What are the advantages?

- LESA is currently limited to £1,500 per demise, which will not cover significant works
- Awareness of LESA amongst landlord accountants is low. Landlords may need to inform their accountants of their intention to use LESA in their tax returns.

Where can I find further information?
HMRC has produced a guidance document detailing the full requirements and benefits of LESA (reference: PIM2072), which is available on its website.

5.6 Reduced VAT for energy efficiency improvements

What is it?
Some energy efficiency improvements and micro-generation measures are eligible for a reduced rate of VAT (currently 5%). The lower rate applies to the cost of installation, the materials themselves and any additional work that needs to be done as part of the installation, for example creating a new hatch to access the loft. However, the lower rate does not apply where only the materials are purchased, such as where landlords intend to do the work themselves, or where the energy efficiency measures are installed as part of a larger project, such as building a new roof or an extension. The reduced rate of VAT is available across the UK.

How does it work?
The installer should automatically apply the reduced rate of VAT to the bill for the work.

What measures does it cover?
Installation of any of the following: controls for central heating, dry-heat water systems, draught insulation (e.g. around windows and doors), insulation on walls, floors, ceilings, lofts, etc; solar panels, wind turbines, water turbines, ground source heat pumps, air source heat pumps, micro combined heat and power units, and wood fuelled boilers. The reduced rate does not apply to boilers or glazing.

What are the disadvantages?

- LESA only provides a tax relief and still requires upfront financing of works, which may be a barrier for some landlords.
- LESA is currently limited to £1,500 per demise, which will not cover significant works
- Awareness of LESA amongst landlord accountants is low. Landlords may need to inform their accountants of their intention to use LESA in their tax returns.

Where can I find further information?
HMRC has produced a guidance document detailing the full requirements and benefits of LESA (reference: Notice 708/6) which is available on its website.

5.7 The Feed-in Tariff scheme

What is it?
The Feed-in Tariff (FIT) scheme enables owners of small scale renewable energy installations to earn an income from the energy they generate. FITs are paid for both the energy generated and the energy exported to the electricity grid. FIT rates are index linked and are paid for a set period, depending on the nature of the installation. FITs are available in England, Scotland and Wales.

How does it work?
Once a Microgeneration Certification Scheme (MCS) accredited generating technology is installed, landlords must ask the MCS installer to register the property and the property owner on the central MCS database so a certificate confirming MCS compliance can be issued. Landlords must then inform their chosen FIT supplier that they wish to register and send them a completed application form along with the MCS certificate and, for solar PV, the Energy Performance Certificate for the property. Once the relevant paperwork has been submitted and cross referenced, the FIT income will be paid to the owner of the system or a nominated recipient, on a quarterly basis. In the case of solar PV, the property’s EPC must be at a D rating or above to obtain the full rate applicable to the size of the system.

What are the advantages?

- Reduced VAT is available for qualifying products whether paid for upfront or with Green Deal finance
- No paper work is required as the reduction should be applied before payment.

What are the disadvantages?

- The reduced rate does not apply to DIY sales, so landlords doing works themselves cannot benefit
- Boilers and glazing are excluded
- Landlords may need to check that a reduced rate has been applied to the bill.

Where can I find further information?
HMRC has produced a guidance document detailing the full requirements and benefits of reduced rate of VAT (reference: Notice 708/6) which is available on its website.

The Landlord Energy Savings Allowance (LESA) allows up to £1,500 to be claimed against tax every year for the costs of buying and installing certain energy saving products for rented properties where Green Deal Finance is not used. LESA is claimable for each demise so if a landlord rents out a property containing four flats, it is possible to claim up to £1,500 for each flat. LESA is due to expire on 6 April 2015 and it is not yet known whether it will be extended. LESA is available across the UK.
Funding energy efficiency improvements

In the private rented sector, the most common type of installation is an array of solar PV panels on the roof of the property. They are usually funded in one of two ways.

- The landlord pays for the solar panels and their installation and permits the tenants of the property to draw on the electricity generated (for free or at a low cost). The landlord enters into an agreement with an electricity supplier to accept into the grid all the surplus electricity generated and the electricity supplier pays the FIT to the landlord. The landlord may do this for one particular property, or for a group of properties, with one agreement between the landlord and the electricity supplier in relation to all properties. Typically, social housing landlords will use this group approach.
- The landlord cannot afford the capital investment required to purchase the solar panels so they grant a lease of the roof and the airspace above it to a third party which installs the panels on the roof at its own expense. The landlord (or its occupation tenant of the property) is entitled, under the lease, to draw electricity that is generated by the solar panels, free or at a very low cost. The third party installer takes the FIT, both for the full amount of electricity generated and for whatever is left to export to the grid.

What measures does it cover?

The eligible technologies for FITs are anaerobic digestion, hydro, micro combined heat and power, solar PV, wind.

What are the advantages?

- FIT income that applies to landlords will be subject to income tax or corporation tax (depending on whether it is an individual or a company).
- There will be ongoing maintenance costs to offset against the income. Solar PV panels for example will require replacement of an inverter (current cost around £1,000) and cleaning during their lifetime.
- The income stream is adversely affected if the amount of energy generated drops. This can occur due to atmospheric conditions (for example for solar PV a lack of sunshine, or shading caused by buildings or trees).
- Consent needs to be sought from insurers and mortgage companies before the technology is installed.

How does it work?

The RHI provides grant funding to go towards the cost of certain MCS accredited renewable heat measures that were commissioned for the first time on or after 21 July 2011. The grant values are as follows:

- air source heat pumps: £850 (available for any property)
- biomass boilers: £950 (available for properties off the gas grid)
- ground source heat pumps: £1,250 (available for any property)
- solar water heating: £300 (available for any property).

Vouchers are allocated following an application process, which is managed by the Energy Saving Trust. The vouchers are then surrendered following the successful commissioning of an eligible system in return for the RHI grant. On condition of receiving the vouchers, landlords must provide feedback on the system as required, involving online surveys and the use of a heat meter, which provides data directly to DECC. All successful applicants need to meet certain criteria involving existing levels of loft and cavity wall insulation. In theory, tenants as well as landlords could apply for vouchers under the scheme, although tenants would need to obtain their landlord’s consent first.

Most installations are classed as permitted development, which means planning permission is not needed, but this will depend on the technology and the location of the property. Before proceeding, landlords should check they have all the required permissions and that they satisfy building regulations.

The RHI, when launched in summer 2013, will provide an income stream for renewable heat produced and used within a property, and any heat exported to a heat network. The scheme will be similar to the FIT scheme for renewable electricity. The government has issued a consultation on the detail of the scheme and has proposed that, in order to be eligible for the RHI, properties will have to reach certain basic energy efficiency standards.

What measures does it cover?

The eligible technologies for the RHI scheme are: ground source heat pumps, air to water heat pumps, biomass boilers, biomass pellet stoves with back boilers, and solar thermal panels. The final list of technologies eligible for the RHI will not be known until the government has issued its response to its consultation, however it is expected that all those systems eligible through the RHPP will also be eligible for the RHI.

What are the advantages?

- RHPP vouchers could significantly reduce the upfront cost of installing renewable heat improvements
- Renewable heat could reduce tenant energy bills, providing a unique selling point when advertising a property for let
- By installing renewable heat technology now with RHI assistance, the property will be in a good position to apply for the RHI when it goes live in summer 2013

What are the disadvantages?

- RHPP grant funding is limited and eligibility for vouchers is not guaranteed
- Before receiving the RHPP, landlords must agree to respond to online surveys and allow data from heat meters to be provided to DECC for monitoring purposes
- Renewable heat technologies are not as well tested as renewable electricity ones. Part of the reason for the RHPP scheme is to allow the government to learn from case studies ahead of the introduction of RHI for domestic properties.

Where can I find further information?

Please see DECC’s RHPP and the RHI webpage for the latest information on the two schemes. To begin an application for the RHPP in England, Wales or Scotland, go to the Energy Saving Trust website. For information on the Northern Irish RHI and RHPP, visit the Northern Irish government’s website.

5.8 The Renewable Heat Premium Payment and Renewable Heat Incentive

What is it?

Similar to the FIT, the Renewable Heat Incentive (RHI) provides a tariff based income for all renewable heat generated and used within a property, and any heat exported to a heat network, should there be one available. It is currently available only for non-domestic properties or district heating networks, but is due to be available for single domestic properties in the summer of 2013.

Until the RHI is launched for single domestic properties, landlords are able to access the Renewable Heat Premium Payment (RHPP) scheme, which provides vouchers to help with the capital cost of renewable heat technologies. The RHPP will end on 31 March 2013, but may finish earlier depending on how much of the £7 million available has been taken up. The RHPP and RHI are available across the UK, but operate differently in Northern Ireland.
### 6.1 Summary

As set out in chapter two, the importance of energy efficiency in the private rented sector is likely to grow over the next few years. New regulation, in particular plans to provide tenants with a right to request energy efficiency improvements from April 2016 and to make it illegal to let energy inefficient property as determined by the EPC from April 2018 (details still to be announced), are likely to have a significant impact on the sector. However energy efficiency is not just about getting ready for legislation – there are clear opportunities to fund energy efficiency improvements at no upfront cost to landlords, as outlined in chapter five.

### 6.2 What should landlords do now?

Landlords who are interested in making energy efficiency improvements would be well advised to develop a plan for evaluating their portfolio and identifying what measures should be installed, when and how they should:

#### Survey properties

In order to know the extent to which energy efficiency improvements could be made, it is advisable to first commission property surveys, carried out either by a Green Deal Assessor (who will produce a Green Deal Advisory Report) or a Domestic Energy Assessor (who will produce an EPC). Some existing EPCs were conducted without a thorough investigation of all the aspects of a property, with default values included. This may mean that, should the property ever require reassessment, the rating could be significantly different. If landlords consider that they have EPCs that may not have been conducted thoroughly, it may be beneficial to obtain new ones, or obtain a Green Deal Advisory Report, before implementing any improvements.

#### Develop plans

Having identified appropriate improvement measures following a property survey, landlords will need to consider:

- what level of disruption each measure will involve
- what, when each measure, or package of measures, would best be implemented.

Developing a long term plan for a property will allow landlords to identify the points at which energy efficiency works would be most suitable. For example, works could be programmed into a void management regime, helping to capitalise on periods when the property is likely to be empty, thus avoiding disruption to tenants and the need to obtain their consent to works and any Green Deal charges. Works could also be planned whilst undertaking other property upgrades, such as fitting a new kitchen or bathroom. Alternatively, landlords could decide to plan incremental changes that minimise the time in the property and the need to secure access.

#### Secure funding

Each funding option will have its own requirements in terms of eligibility criteria and administration. Once a landlord has decided to fund a package of works, they will need to ensure they follow the relevant process. For the Green Deal, landlords need to factor in the need to obtain the bill payer’s consent to the Green Deal charges, and the obligation to pay such charges during void periods.

#### Manage expectations

Landlords could easily find themselves on the back foot, with tenants seeking early consent for Green Deal and Energy Company Obligation (ECO) works. Landlords may wish to set ground rules for energy efficiency improvements, for example, ensuring consistency across the stock and recognising the landlord’s ongoing maintenance obligations. Alternatively, landlords may wish to control the works directly and manage tenant expectation by clarifying their own plans for energy efficiency improvements.

#### Develop procedures

Some funding schemes and improvement measures will require landlords to develop procedures to follow. For example, if a Green Deal is entered into, then the landlord will be obliged to disclose its existence to new tenants. They will also need to ensure that any sale contract, tenancy agreement or lease includes an acknowledgement that the incoming buyer/tenant will pay the Green Deal charges and be bound by the Green Deal Plan. Similarly, solar panels may need periodic maintenance, such as the replacement of the inverter during their lifetime, and any Feed-in Tariff transfer will need to be taken into account when selling a property.
Annex A – When Energy Performance Certificates are required (England and Wales)

Responsibility for providing EPCs
The obligation to commission an EPC, where a valid one does not already exist, lies with the person who proposes to sell or rent out a property, which in the private rented sector will be the landlord. Where the landlord has to commission the EPC, there must not be a charge to the prospective tenant for any of the costs (even once the tenancy is taken). Once issued, EPCs are lodged and made available on the EPC Register34 which is open to the public, allowing anyone to download a copy of a property’s EPC, either by entering the property’s address or the EPC’s 24-digit Reference Number. Landlords can however request that their EPC is not made publicly available on the EPC register.

Duties involving EPCs are also imposed on people who ‘act on behalf’ of the landlord, for example the letting agent or sales agent, to ensure that the EPC is obtained and made available to the prospective tenant. This guide does not address these responsibilities.

Please note that where a property has a Green Deal, additional disclosure and acknowledgement requirements are required which are not covered within this section. Detailed guidance on these requirements can be found on the DECC website.

When an EPC must be commissioned
An EPC should be commissioned before a property is put on the market, and the landlord must use reasonable efforts to obtain the EPC within seven days of the start of marketing. A property is put on the market when it is first made public that the property is, or may become, available for sale or rent (by whatever means – it does not have to be formal advertising). It is enough that a section of the public becomes aware of this fact, not the general public. The landlord has commissioned the EPC if they have requested an accredited domestic energy assessor to produce the EPC, have provided all the necessary information and either paid for the EPC or agreed to pay for it. If, despite commissioning the EPC, it is still not available after seven days, then marketing can continue, but the EPC must be obtained within a further 21 days. If the EPC has not been obtained by 28 days from the start of marketing, the landlord will be guilty of an offence.

When the EPC rating must appear in adverts
As of 9 January 2013 there is no longer a requirement to attach the first page of an EPC to any written particulars about a property designed for persons who may be interested in buying or renting it. Instead, where a valid EPC exists, the EPC rating must be stated in any advertisement of the proposed sale or rental of the property which appears in commercial media. The full A-G graph should be used where there is adequate space.

There is no definition of commercial media in the EPC Regulations, however government guidance35 describes it as newspapers, magazines, the internet and any written material produced by the landlord/seller/agent that describes the building being offered for sale or rent. However this may not be an exhaustive definition.

When a full copy of an EPC is required
A copy of a valid EPC must be made available to a serious prospective buyer or tenant, free of charge, at the earliest opportunity. The very latest it can be provided is either the point:

- at which the landlord gives any written information about the property to that prospective buyer or tenant in response to their request for it, or if earlier,
- that the prospective buyer or tenant views the building in person.

Even if the prospective buyer or tenant does not ask for information or to view the property, the landlord must still make a copy of the EPC available to them at the earliest opportunity. Landlords cannot delay doing so until just before exchange of contracts. Regulation 6(5) says that a valid EPC must be given to the person who ultimately becomes the buyer or the tenant.

If the prospective buyer or tenant agrees to it, a copy of the EPC can be made available electronically (via a link which the landlord supplies). Government guidance suggests that the landlord keeps an audit trail recording such an agreement36. Alternatively a hard copy of the EPC can be given to the prospective buyer or tenant or made available for inspection at some reasonably convenient place (for example, the letting agent). It can be reproduced in a reduced size as long as it is legible and can be in colour or black and white.

A landlord is not required to provide a copy of the EPC in accordance with this timetable, if:

- the landlord has commissioned the EPC but it has not yet been issued by the assessor, despite the landlord’s reasonable efforts and enquiries (and the 28 day period from the start of marketing has not yet elapsed) or,
- it was an emergency letting and there was not time to get the EPC before the lease was completed, but it was supplied as soon as reasonably practicable after that.

When EPCs are not required
The EPC regulations and accompanying guidance give a number of examples where the duties above do not apply. Common ones include where:

- there is already a valid EPC and therefore there is no need to commission a new one,
- the building is not yet fully constructed (an EPC is not required for purchases off plan),
- the building has no space heating or ventilation system (the EPC regime only applies to buildings that use energy to condition the internal climate),
- only part of the property is being let,
- if the property is used for holiday lets and is let out for less than four months a year,
- a licence only (not a lease) is to be granted for the property,
- the property was let to the current tenant before 1 October 2008 and they have remained in occupation ever since,
- the lease is renewed to the same tenant.

The lease is for no value, whether in monetary terms or any other consideration as of 9 January 2013, listed buildings may no longer be required to have an EPC for sale or rent.

Penalties for non-compliance
Trading Standards Officers are responsible for enforcement. The penalty charge is £200 but this cannot be imposed more than six months after the date of the breach.

For further information
The latest EPC Regulations (in force from 9 January 2013) are The Energy Performance of Buildings (England and Wales) Regulations 2012 (SI 2012 No 3118). The Department for Communities and Local Government (DCLG) has published extensive guidance on the requirements of the latest set of regulations on its website37.

34 https://www.epcregister.com/
Annex B – Old and new Energy Performance Certificate front page comparison (England and Wales)

**Energy Performance Certificate front page before April 2012**

- **Property Address:** Detached House
- **Date of assessment:** 02 Feb 2007
- **Date of certificate:** [DD MMMM YYYY]
- **Reference number:** 00000 0000 0000 0000
- **Total floor area:** 186 m²

*This home’s performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO₂) emissions.*

**Energy Efficiency Rating**

<table>
<thead>
<tr>
<th>Energy Efficiency Rating</th>
<th>Current</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>73</td>
<td>60</td>
</tr>
<tr>
<td>B</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>C</td>
<td>59</td>
<td>50</td>
</tr>
<tr>
<td>D</td>
<td>91</td>
<td>80</td>
</tr>
<tr>
<td>E</td>
<td>106</td>
<td>94</td>
</tr>
<tr>
<td>F</td>
<td>119</td>
<td>113</td>
</tr>
<tr>
<td>G</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

**Environmental Impact (CO₂) Rating**

<table>
<thead>
<tr>
<th>Environmental Impact (CO₂) Rating</th>
<th>Current</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>73</td>
<td>60</td>
</tr>
<tr>
<td>B</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>C</td>
<td>59</td>
<td>50</td>
</tr>
<tr>
<td>D</td>
<td>91</td>
<td>80</td>
</tr>
<tr>
<td>E</td>
<td>106</td>
<td>94</td>
</tr>
<tr>
<td>F</td>
<td>119</td>
<td>113</td>
</tr>
<tr>
<td>G</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

**Energy & Wales**

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating, the more energy efficient the home is and the lower the fuel bills will be.

**Estimated energy use, carbon dioxide (CO₂) emissions and fuel costs of this home**

<table>
<thead>
<tr>
<th>Current</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Use 453 kWh/m² per year</td>
<td>178 kWh/m² per year</td>
</tr>
<tr>
<td>Carbon dioxide emissions 13 tonnes per year</td>
<td>4.9 tonnes per year</td>
</tr>
<tr>
<td>Lighting £81 per year</td>
<td>£35 per year</td>
</tr>
<tr>
<td>Heating £1,723 per year</td>
<td>£457 per year</td>
</tr>
<tr>
<td>Hot water £219 per year</td>
<td>£104 per year</td>
</tr>
</tbody>
</table>

**Energy Performance Certificate front page after April 2012**

- **17 Any Street, District, Any Town, BS SXX**
- **Dwelling type:** Detached house
- **Reference number:** 09100-9320-8431-7856
- **Date of assessment:** 13 March 2012
- **Type of assessment:** RCoSAP, existing dwelling
- **Total floor area:** 105 m²

*Use this document to:*
- Compare current ratings of properties to see which properties are more energy efficient.
- Find out how you can save energy and money by installing improvement measures.

**Estimated energy costs of dwelling for 3 years**

- **Over 3 years you could save:** £2,845

<table>
<thead>
<tr>
<th>Current costs</th>
<th>Potential costs</th>
<th>Potential future savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting £375 over 3 years</td>
<td>£207 over 3 years</td>
<td></td>
</tr>
<tr>
<td>Heating £4,463 over 3 years</td>
<td>£2,673 over 3 years</td>
<td></td>
</tr>
<tr>
<td>Hot water £549 over 3 years</td>
<td>£232 over 3 years</td>
<td></td>
</tr>
</tbody>
</table>

**Total:** £5,397

*These figures show how much the average household would spend in this property for lighting, heating and hot water. This excludes energy use for running appliances like TVs, computers and cookers, and any electricity generated by microgenerators.*

**Energy Efficiency Rating**

<table>
<thead>
<tr>
<th>Energy Efficiency Rating</th>
<th>Current</th>
<th>Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>73</td>
<td>60</td>
</tr>
<tr>
<td>B</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>C</td>
<td>59</td>
<td>50</td>
</tr>
<tr>
<td>D</td>
<td>91</td>
<td>80</td>
</tr>
<tr>
<td>E</td>
<td>106</td>
<td>94</td>
</tr>
<tr>
<td>F</td>
<td>119</td>
<td>113</td>
</tr>
<tr>
<td>G</td>
<td>125</td>
<td>125</td>
</tr>
</tbody>
</table>

**Top actions you can take to save money and make your home more efficient**

- **Recommended measures**
  - Indicative cost
  - Typical savings over 3 years
  - Available with Green Deal

<table>
<thead>
<tr>
<th>Measure</th>
<th>Indicative cost</th>
<th>Typical savings over 3 years</th>
<th>Available with Green Deal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>£100 - £350</td>
<td>£141</td>
<td>✓</td>
</tr>
<tr>
<td>2</td>
<td>£500 - £1,800</td>
<td>£537</td>
<td>✓</td>
</tr>
<tr>
<td>3</td>
<td>£80 - £120</td>
<td>£75</td>
<td>✓</td>
</tr>
</tbody>
</table>

*See page 3 for a full list of recommendations for this property.*

*Remember to look for the energy saving recommended top when buying energy efficient products.*

*This is a quick and easy way to identify the most energy-efficient products on the market.*

*For advice on how to take action and to find out about offers available to make your home more energy efficient, call 0800 012 012 or visit www.energysavingtrust.org.uk/myhome.*

*Note:* We do not make all the recommendations in this document. The actions you could take to save money, visit www.direct.gov.uk/energysaving or call 0800 123 123 (standard national rate). When the Green Deal launches, they may allow you to make your home warmer and cheaper to run at no up-front cost.