

Understanding an Energy Performance Certificate (EPC)

Scope

- This training module is aimed at **HomeWorks** registered tradespeople who are acting as Low Carbon Ambassadors (LCAs) to provide basic energy efficiency advice to homeowners
- It is one in a series of training modules aimed at LCAs:
 - Introduction to domestic retrofit
 - What is **HomeWorks**?
 - **Understanding an EPC**
 - Energy efficiency measures (EEMs):
 - Low/no cost measures
 - Loft insulation
 - Draught-proofing
 - Cavity wall insulation
 - Solid wall insulation
 - Replacement windows
 - Boiler replacement



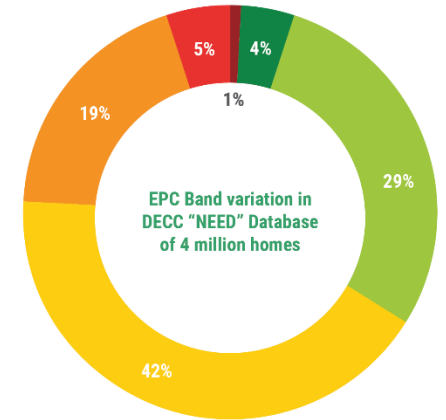
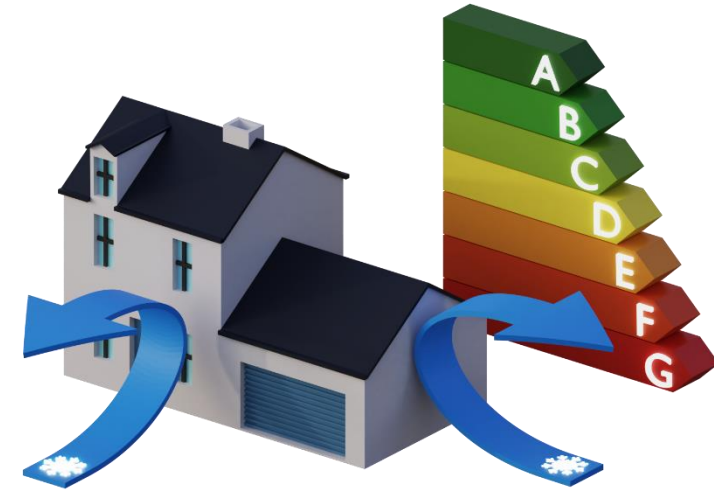
Understanding an EPC - Learning outcomes

- The learning outcomes of this training module are:
 - State what an EPC is and why it is needed
 - Describe how to:
 - use the EPC Register to extract a property's EPC
 - interpret the information on the EPC
 - undertake a simple survey of a home



EPC: How energy efficient is your home?

- EPC shows how efficient home is and what can be done to improve it
- Only small proportion (5%) dwellings are high performing, i.e. with A or B rating
- The average UK dwelling is Band C/D

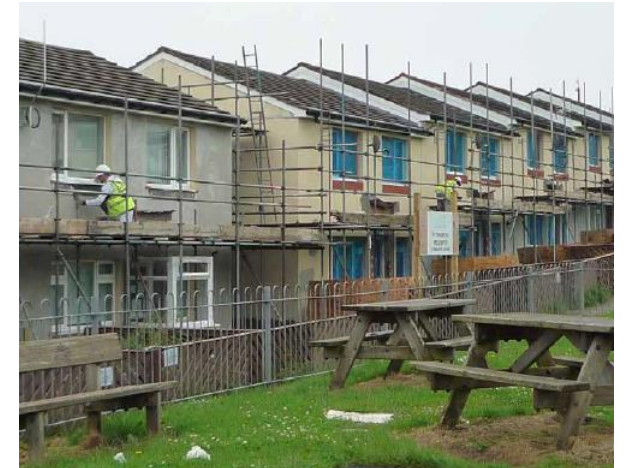
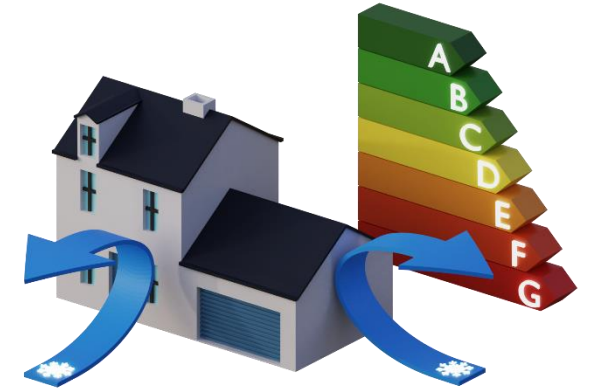


EPC Band / Number of homes

A or B	150,742	E	795,884
C	1,166,080	F	203,805
D	1,721,652	G	48,279

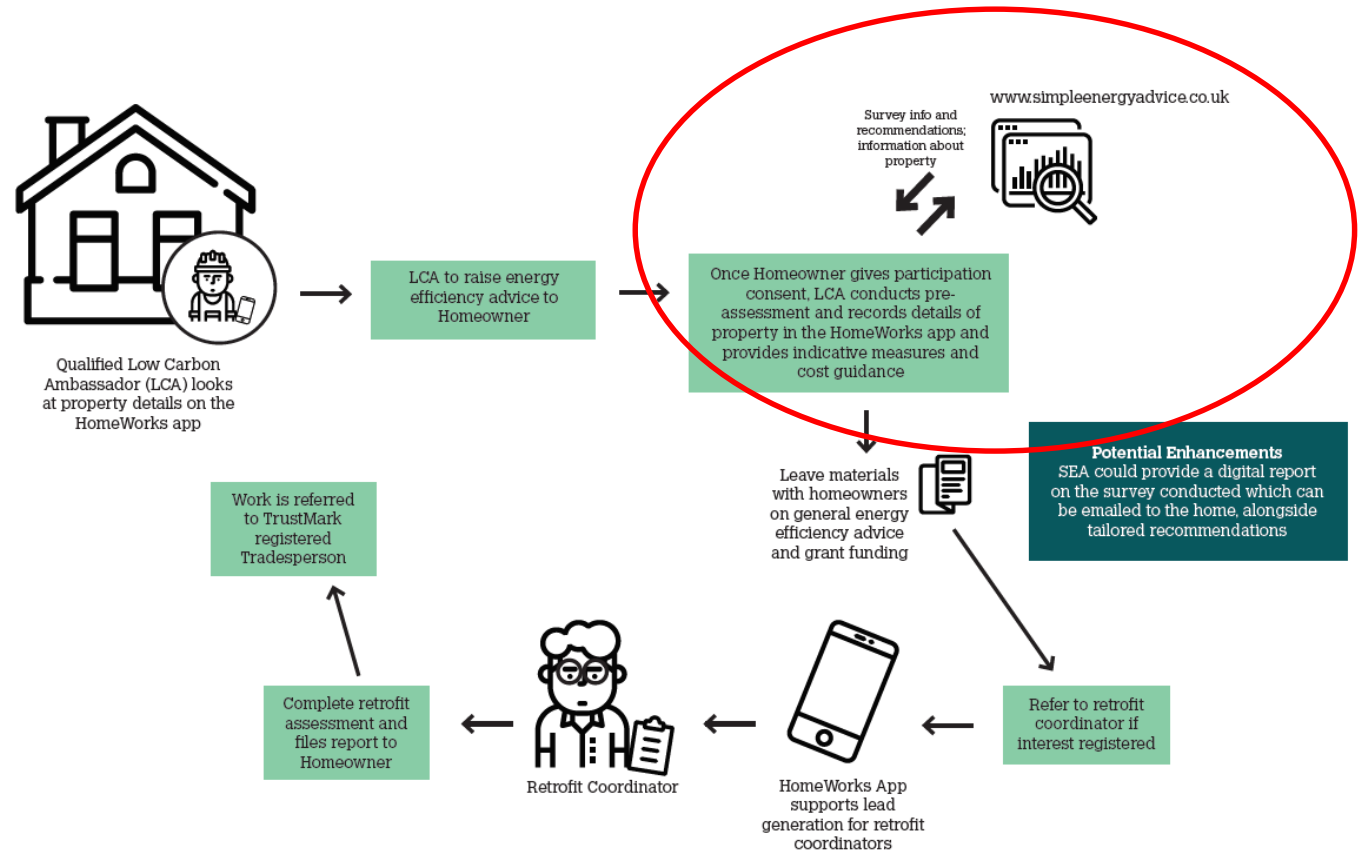
Why do you need an EPC?

- New houses and properties at sale or rent require EPC less than 10 years old
- To secure Renewable Heat Incentive (RHI) payment when installing heat pump etc.
- From April 2018 landlords have to ensure that property is Band E or better before renting it out



Context

- Reviewing EPC for property forms key part of **HomeWorks** process as it shows possible improvement measures and can guide surveys
- Further detail on process in **What is Homeworks?** training module



EPC Register

- Many properties already have EPC which is on EPC Register
- Can be accessed through Simple Energy Advice website (<https://www.simpleenergyadvice.org.uk/>) or directly from Register: <https://www.epcregister.com/home.html>
- Retrieve report using property's address: enter homeowner's postcode and then select home from list if EPC is available



Ministry of Housing, Communities & Local Government

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Welcome to the Domestic Energy Performance Certificate Register

The legislation governing Home Information Packs has now been abolished and there is no longer a requirement to produce and to lodge Home Condition Reports on the Energy Performance Certificate Register. However, Home Condition Reports that have already been lodged may still be retrieved from the Register if required.

An Energy Performance Certificate is required for properties when constructed, sold or let. The Energy Performance Certificate provides details on the energy performance of the property and what you can do to improve it.

This website will allow you to:

- [Find a Domestic Energy Assessor.](#)
[Click here](#) to find an accredited person to undertake an Energy Performance Certificate or to check that an individual is accredited.
- [Retrieve an Energy Performance Certificate](#)
[Click here](#) to retrieve an Energy Performance Certificate.

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The Domestic Energy Performance Certificate Register is operated by Landmark on behalf of the Government

Landmark
INFORMATION

Information on EPC

- Key data on Page 1:

- Date of assessment – *How old is EPC? Additional energy efficiency measures could have been installed*
- Estimated current energy costs and potential savings
- Current and potential Energy Efficiency Rating (A to G)
- Recommended top actions

Energy Performance Certificate

Dwelling type: Detached house **Reference number:** 0058-3028-7227-1584-8900
Date of assessment: 05 March 2014 **Type of assessment:** RdSAP, existing dwelling
Date of certificate: 09 March 2014 **Total floor area:** 158 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:	£ 5,400
Over 3 years you could save	£ 2,124

Estimated energy costs of this home

	Current costs	Potential costs	Potential future savings
Lighting	£ 441 over 3 years	£ 225 over 3 years	<div style="background-color: #00728f; color: white; padding: 10px; border-radius: 50%; width: 50px; margin: 0 auto;"> You could save £ 2,124 over 3 years </div>
Heating	£ 4,605 over 3 years	£ 2,739 over 3 years	
Hot Water	£ 354 over 3 years	£ 312 over 3 years	
Totals	£ 5,400	£ 3,276	

These figures show how much the average household would spend in this property for heating, lighting and hot water and is not based on energy used by individual households. This excludes energy use for running appliances like TVs, computers and cookers, and electricity generated by microgeneration.

Energy Efficiency Rating

<p style="font-size: x-small; margin: 0;">Very energy efficient - lower running costs</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p style="font-size: x-small; margin: 0;">(92 plus) A</p> <p style="font-size: x-small; margin: 0;">(81-91) B</p> <p style="font-size: x-small; margin: 0;">(69-80) C</p> <p style="font-size: x-small; margin: 0;">(55-68) D</p> <p style="font-size: x-small; margin: 0;">(39-54) E</p> <p style="font-size: x-small; margin: 0;">(21-38) F</p> <p style="font-size: x-small; margin: 0;">(1-20) G</p> <p style="font-size: x-small; margin: 0;">Not energy efficient - higher running costs</p> </div> <div style="width: 35%; text-align: center;"> <table border="1" style="margin: 0 auto;"> <tr> <td style="border: none;">Current</td> <td style="border: none;">Potential</td> </tr> <tr> <td style="border: none; text-align: center; font-size: 2em;">50</td> <td style="border: none; text-align: center; font-size: 2em;">76</td> </tr> </table> </div> </div>	Current	Potential	50	76	<p style="font-size: x-small; margin: 0;">The graph shows the current energy efficiency of your home.</p> <p style="font-size: x-small; margin: 0;">The higher the rating the lower your fuel bills are likely to be.</p> <p style="font-size: x-small; margin: 0;">The potential rating shows the effect of undertaking the recommendations on page 3.</p> <p style="font-size: x-small; margin: 0;">The average energy efficiency rating for a dwelling in England and Wales is band D (rating 60).</p> <p style="font-size: x-small; margin: 0;">The EPC rating shown here is based on standard assumptions about occupancy and energy use and may not reflect how energy is consumed by individual occupants.</p>
Current	Potential				
50	76				

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

Recommended measures	Indicative cost	Typical savings over 3 years
1 Increase loft insulation to 270 mm	£100 - £350	£ 214
2 Internal or external wall insulation	£4,000 - £14,000	£ 1,210
3 Floor Insulation	£800 - £1,200	£ 290

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

To receive advice on what measures you can take to reduce your energy bills, visit www.simpleenergyadvice.org.uk or call freephone 0800 444202. The Green Deal may enable you to make your home warmer and cheaper to run.

- Key data on Page 2:

- Energy efficiency description of each element (walls, roof, floor etc.)
- Energy efficiency rating of each element (1★ to 5★)
- Likely impact of insulating home

09 March 2014 RRN: 0058-3028-7227-1584-8900 **Energy Performance Certificate**

Summary of this home's energy performance related features

Element	Description	Energy Efficiency
Walls	Solid brick, as built, no insulation (assumed)	★☆☆☆☆
	Cavity wall, as built, insulated (assumed)	★★★★☆
Roof	Pitched, 75 mm loft insulation	★★★★☆
Floor	Suspended, no insulation (assumed)	—
	Solid, limited insulation (assumed)	—
Windows	Fully double glazed	★★★★☆
Main heating	Boiler and radiators, mains gas	★★★★☆
Main heating controls	Programmer, room thermostat and TRVs	★★★★☆
Secondary heating	Room heaters, mains gas	—
Hot water	From main system	★★★★☆
Lighting	Low energy lighting in 5% of fixed outlets	★☆☆☆☆

Current primary energy use per square metre of floor area: 278 kWh/m² per year

The assessment does not take into consideration the physical condition of any element. 'Assumed' means that the insulation could not be inspected and an assumption has been made in the methodology based on age and type of construction.

Low and zero carbon energy sources

Low and zero carbon energy sources are sources of energy that release either very little or no carbon dioxide into the atmosphere when they are used. Installing these sources may help reduce energy bills as well as cutting carbon. There are none provided for this home.

Your home's heat demand

For most homes, the vast majority of energy costs derive from heating the home. Where applicable, this table shows the energy that could be saved in this property by insulating the loft and walls, based on typical energy use (shown within brackets as it is a reduction in energy use).

Heat demand	Existing dwelling	Impact of loft insulation	Impact of cavity wall insulation	Impact of solid wall insulation
Space heating (kWh per year)	22,274	(1,141)	N/A	(6,451)
Water heating (kWh per year)	2,328			

You could receive Renewable Heat Incentive (RHI) payments and help reduce carbon emissions by replacing your existing heating system with one that generates renewable heat, subject to meeting minimum energy efficiency requirements. The estimated energy required for space and water heating will form the basis of the payments. For more information, search for the domestic RHI on the www.gov.uk website.

Information on EPC

- Key data on Page 3:
 - Recommended energy efficiency measures
 - Indicative costs
 - Typical savings
 - Energy efficiency rating after improvement

09 March 2014 RRN: 0058-3028-7227-1584-8900 **Energy Performance Certificate**

Recommendations

The measures below will improve the energy performance of your dwelling. The performance ratings after improvements listed below are cumulative; that is, they assume the improvements have been installed in the order that they appear in the table. To receive advice on what measures you can take to reduce your energy bills, visit www.simpleenergyadvice.org.uk or call freephone 0800 444202. Before installing measures, you should make sure you have secured the appropriate permissions, where necessary. Such permissions might include permission from your landlord (if you are a tenant) or approval under Building Regulations for certain types of work.

Recommended measures	Indicative cost	Typical savings per year	Rating after improvement
Increase loft insulation to 270 mm	£100 - £350	£ 71	E52
Internal or external wall insulation	£4,000 - £14,000	£ 404	D63
Floor Insulation	£800 - £1,200	£ 97	D66
Low energy lighting for all fixed outlets	£95	£ 58	D67
Replace boiler with new condensing boiler	£2,200 - £3,000	£ 80	C69
Solar photovoltaic panels, 2.5 kWp	£9,000 - £14,000	£ 250	C76

Alternative measures

There are alternative measures below which you could also consider for your home.

- Air or ground source heat pump
- Micro CHP

Financial Support and the Green Deal

Green Deal Finance allows you to pay for some of the cost of your improvements in instalments under a Green Deal Plan (note that this is a credit agreement, but with instalments being added to the electricity bill for the property). The availability of a Green Deal Plan will depend upon your financial circumstances. There is a limit to how much Green Deal Finance can be used, which is determined by how much energy the improvements are estimated to save for a 'typical household'.

You may also be able to obtain support towards repairs or replacements of heating systems and/or basic insulation measures under the ECO scheme, provided that you are in receipt of qualifying benefits or tax credits. To learn more about this scheme and the rules about eligibility, visit www.simpleenergyadvice.org.uk or call freephone 0800 444202 for England and Wales.

Simple survey

Review energy efficiency options with homeowner

- If there is EPC, is homeowner aware of it and, if so, have recommendations been acted on?
- Do recommended measures meet current and future needs?
- Are there any planning or heritage limitations on property?
- What are capital costs?
- What are savings and other benefits?
- What are the possible adverse effects?
- What future works are under consideration and could they be affected by current proposals?
- What are likely levels of disruption?

- With householder's permission, take photographs and make notes relevant to proposed energy efficiency measures (EEMs)

- See **HomeWorks** modules for each EEM, e.g. **Loft insulation**, **Cavity wall insulation** etc.