



Department  
of Energy &  
Climate Change

# Domestic Green Deal, Energy Company Obligation and Insulation Levels in Great Britain, Quarterly report

Statistical release: Experimental statistics

20 March 2014

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This document is also available from our website at <https://www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-statistics>

# Executive summary

This is the fourth detailed Green Deal (GD) and Energy Company Obligation (ECO) statistical release. [Section 1](#) provides a range of further analysis and geographical breakdowns showing the latest picture of GD Assessments, Cashback, ECO and Supply Chain activity for the period January to December 2013 and estimates of the carbon and energy savings achieved through measures installed. This release now, for the first time, includes regional breakdowns on Green Deal Plans, estimates on measures installed outside of the GD framework and updated estimates on activity in the Core Cities and Pioneer Places areas.

The most up to date information on the GD and ECO can be found in the monthly statistical releases – available [here](#).

[Section 2](#) provides estimates of home insulation levels in Great Britain. These estimates will continue to be produced on the same basis as previous releases on a quarterly basis. DECC set out in its Departmental Business Plan 2011-15<sup>1</sup> that these data for cavity wall and loft insulations would be used as one of the department's key impact indicators.

All of these estimates are released as Experimental Statistics, they are currently undergoing assessment by the UK Statistics Authority (UKSA) and it is hoped this will lead to these statistics being awarded National Statistics accreditation.

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/47961/decc-business-plan-2011-2015.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47961/decc-business-plan-2011-2015.pdf)

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# Key points

## Green Deal, ECO and Cashback: January to December 2013

As the latest monthly release reports, a provisional 541,000 measures were installed in around 458,000 properties through ECO, Cashback and Green Deal to the end of December 2013

Of the 129,842 Green Deal Assessments in Great Britain completed:

- The majority (87 per cent) of properties getting a GD Assessment had an energy efficiency band rating of D or lower. This compares to 82 per cent of the overall domestic building stock in England.
- There were 342,315 improvements recommended in Green Deal Assessments (around 2.6 improvements per assessment). The most common measure recommended was to install loft insulation. This accounted for 14 per cent of all measures and was recommended in over a third of all GD assessments
- Three quarters of GD Assessments were in owner-occupied properties (96,553), 13 per cent are in the social rented sector and 12 per cent in the private rented sector

Of the 626 'live' Green Deal Plans with measures installed in Great Britain:

- More than half of Green Deal Plans with measures installed were for properties in Scotland (348 Plans)

A provisional 528,886 measures had been installed under ECO:

- Around a fifth (20 per cent) of ECO measures were in the North West (105,619), the highest in any region. 11 per cent of ECO measures were installed in Scotland (58,058) and six per cent were in Wales (31,809).
- In Great Britain, on average, there were over 20 ECO measures installed per 1,000 households, i.e. over 2% of all households in Great Britain had a measure installed under ECO funding. The North West and North East had the highest amount with 35 ECO measures per 1,000 households. In Scotland there were around 25 ECO measures per 1,000 households and 24 per 1,000 households in Wales.

Carbon and energy saving

- The estimated lifetime carbon savings of measures installed under ECO (excluding Affordable Warmth), Cashback and Green Deal was between 5.16 – 5.21 MtCO<sub>2</sub> with estimated lifetime energy savings between 23,705 – 23,902 GWh.

## [Home insulation levels: December 2013](#)

It is estimated that at the end of December 2013:

- There were 27.2 million homes in Great Britain. Of these 19.2 million had cavity walls with the remaining 8.0 million having solid walls. 23.8 million properties had a loft.
- 16.3 million homes had loft insulation of at least 125mm (69 per cent of homes with lofts). Of the 7.3 million homes with lofts without at least 125mm of insulation, only around 1 per cent are estimated to have no loft insulation.
- 13.6 million homes had cavity wall insulation (71 per cent of homes with cavity walls). Of the 5.1 million homes without cavity wall insulation, most are hard to treat, with only 0.7 million of them being uninsulated easy to treat standard cavities.
- 232,000 homes had solid wall insulation (3 per cent of homes with solid walls).
- Compared with December 2012, 220,000 more properties had loft insulation of at least 125mm, 300,000 more had cavity wall insulation and 28,000 more had solid wall insulation.

# Section 1 - Green Deal and ECO statistics

This section of the report provides detailed information on different elements of the Green Deal, including a geographic breakdown of where GD Assessments took place and the characteristics of these properties. This report also provides geographic breakdowns on measures installed through Cashback and ECO as well as estimates of the carbon savings achieved through these measures. Table numbers have changed since the previous quarterly release.

Where the report refers to table numbers in brackets, these are included in [GD/ECO tables](#) and separately in Excel [here](#).

## Green Deal Assessments, lodged up to 31st December 2013

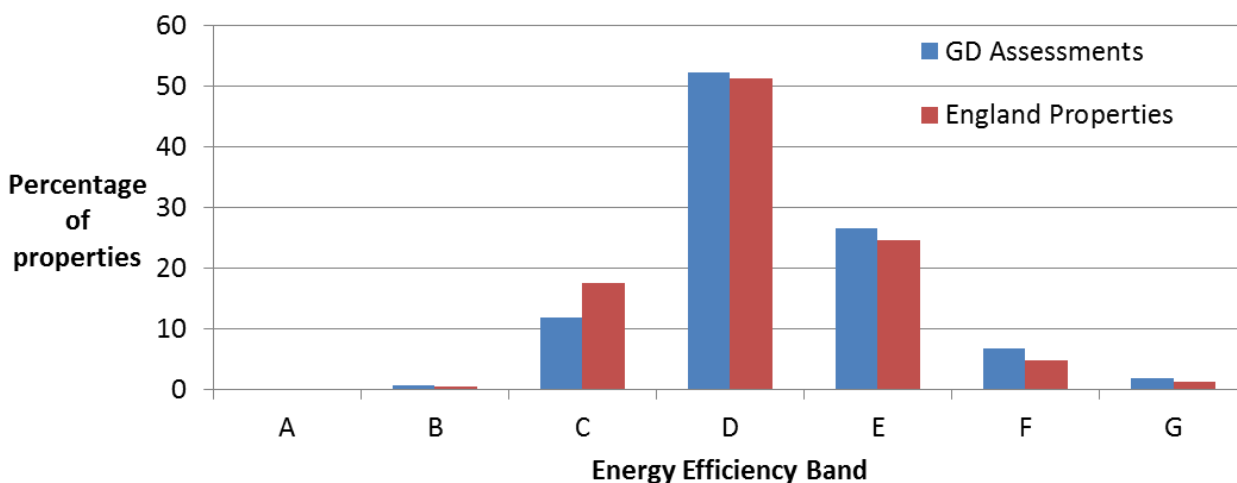
The first step in the Green Deal process involves a Green Deal Assessor coming to the home, talking to the owner/occupier about their energy use and seeing if they can benefit from making energy efficiency improvements to their property. This leads to a Green Deal Advice Report being produced for the householder and lodged on a national register. The customer is then able to view the energy efficiency measures which have been recommended and understand the potential costs and savings.

For more information on the [GD assessment process see here](#).

### Energy Efficiency Rating (EER) Bands (Table 1.1, Chart 1.1)

The energy efficiency rating is presented in an A-G banding system for an Energy Performance Certificate, where Band A rating represents low energy costs (i.e. the most efficient band) and Band G rating represents high energy costs (i.e. the least efficient band). The majority (87 per cent) of properties getting a GD Assessment had an energy efficiency band rating of D or lower, suggesting that GD Assessments are generally happening in properties which could benefit from energy efficiency measures. This compares to 82 per cent of the overall domestic building stock in England reported in the English Housing Survey<sup>2</sup>. (Chart 1.1)

Chart 1.1 - Percentage of Green Deal Assessments lodged, up to 31st December 2013, by Energy Efficiency Band compared with Energy Efficiency Band ratings of all England properties in 2012



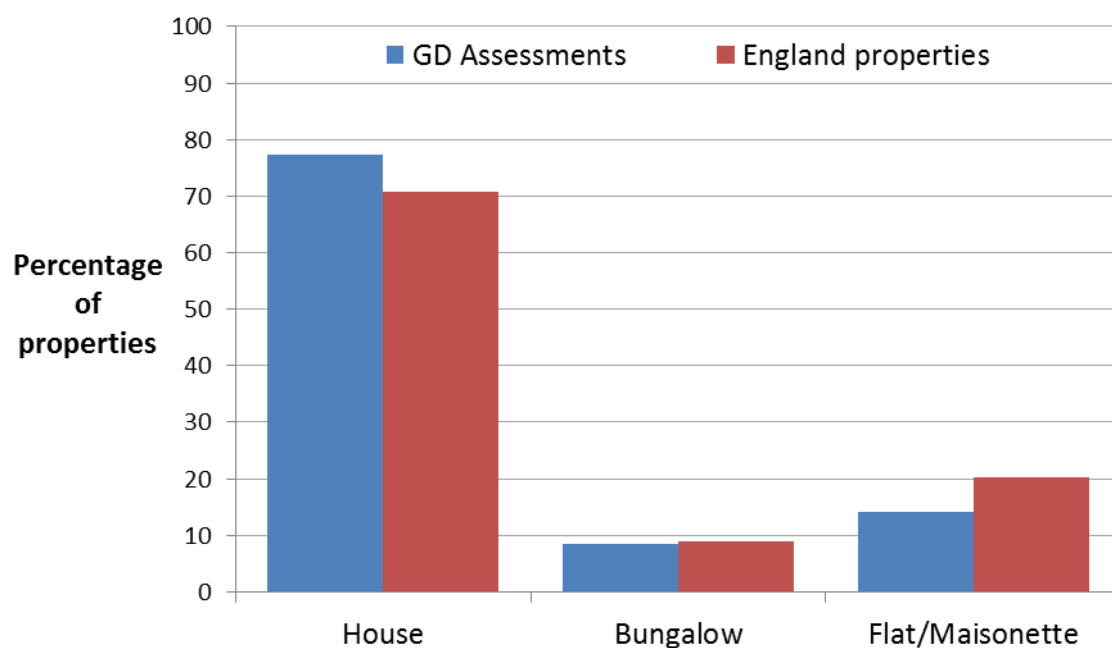
<sup>2</sup> DCLG, English Housing Survey, Headline Report 2012-13, Annex Table 20, Energy Efficiency rating bands, 2012, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/284648/English\\_Housing\\_Survey\\_Headline\\_Report\\_2012-13.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284648/English_Housing_Survey_Headline_Report_2012-13.pdf)



### Property Type (Table 1.2, Chart 1.2)

Chart 1.2 shows that 77 per cent of GD Assessments were in houses (100,487), 12 per cent were in flats (15,992), eight per cent were in bungalows (10,907) and two per cent were in maisonettes (2,456). The housing stock in England<sup>3</sup> (as reported in the English Housing Survey 2012-13<sup>4</sup>) shows that 71 per cent of property types were houses, 20 per cent were flats and/or maisonettes (purpose built flat or converted flat), and nine per cent were bungalows.

Chart 1.2 - Percentage of Green Deal Assessments and England and Wales properties by property type, up to 31st December 2013



### Tenure (Table 1.3, Chart 1.3)

Three quarters of GD Assessments were in owner-occupied properties (96,553), 13 per cent were in the social rented sector (16,656) and 12 per cent were in the private rented sector (15,891). In comparison, according to dwelling stock figures released by Department for Communities and Local Government<sup>5</sup> for Great Britain there were 64 per cent owner-occupied and 18 per cent were for social rented sector and the private rented sector respectively<sup>6</sup>. This suggests that a higher proportion of GD Assessments were in owner-occupied properties than would be expected from the distribution of the housing stock.

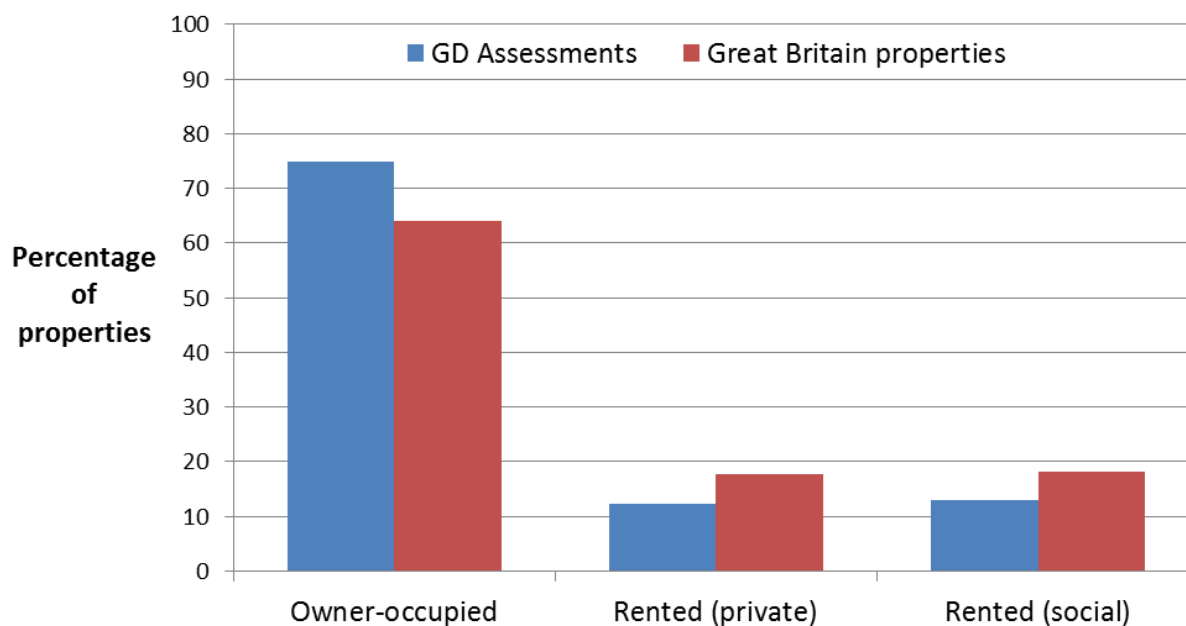
<sup>3</sup> The equivalent split is not available for Welsh properties, which make up around 6 per cent of the housing stock in England and Wales

<sup>4</sup> DCLG, English Housing Survey (EHS), Headline Report 2012-13, Table 11, Stock Profile, 2012, [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/284648/English\\_Housing\\_Survey\\_Headline\\_Report\\_2012-13.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284648/English_Housing_Survey_Headline_Report_2012-13.pdf)

<sup>5</sup> DCLG, Live tables on dwelling stock, by tenure, Great Britain Table 102 <https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants>

<sup>6</sup> These figures have been revised to take into account the latest available figures from the EHS and amend the figures used in the quarterly release published on 19 December 2013.

Chart 1.3 – Percentage of Green Deal Assessments and Great Britain properties by tenure, up to 31st December 2013



#### On or off the Mains Gas Grid (Table 1.4)

In 2011, it was estimated 3.4 million households do not have mains-gas supply in Great Britain<sup>7</sup>. This is around 13 per cent of all properties in Great Britain, which is the same proportion of properties, which had a GD assessment and were off the mains-gas grid.

#### Recommended measures (Tables 1.5, 1.5a, 1.5b)

There were 342,315 improvements recommended in Green Deal Advice Reports, on average around 2.6 recommended measures per GD Assessment. In 40 per cent of Assessments (51,594) only one measure was recommended (Table 1.5b).

The most common measure recommended was to install loft insulation. This accounted for 14 per cent of all measures and was recommended in over a third of all GD assessments (Table 1.5a).

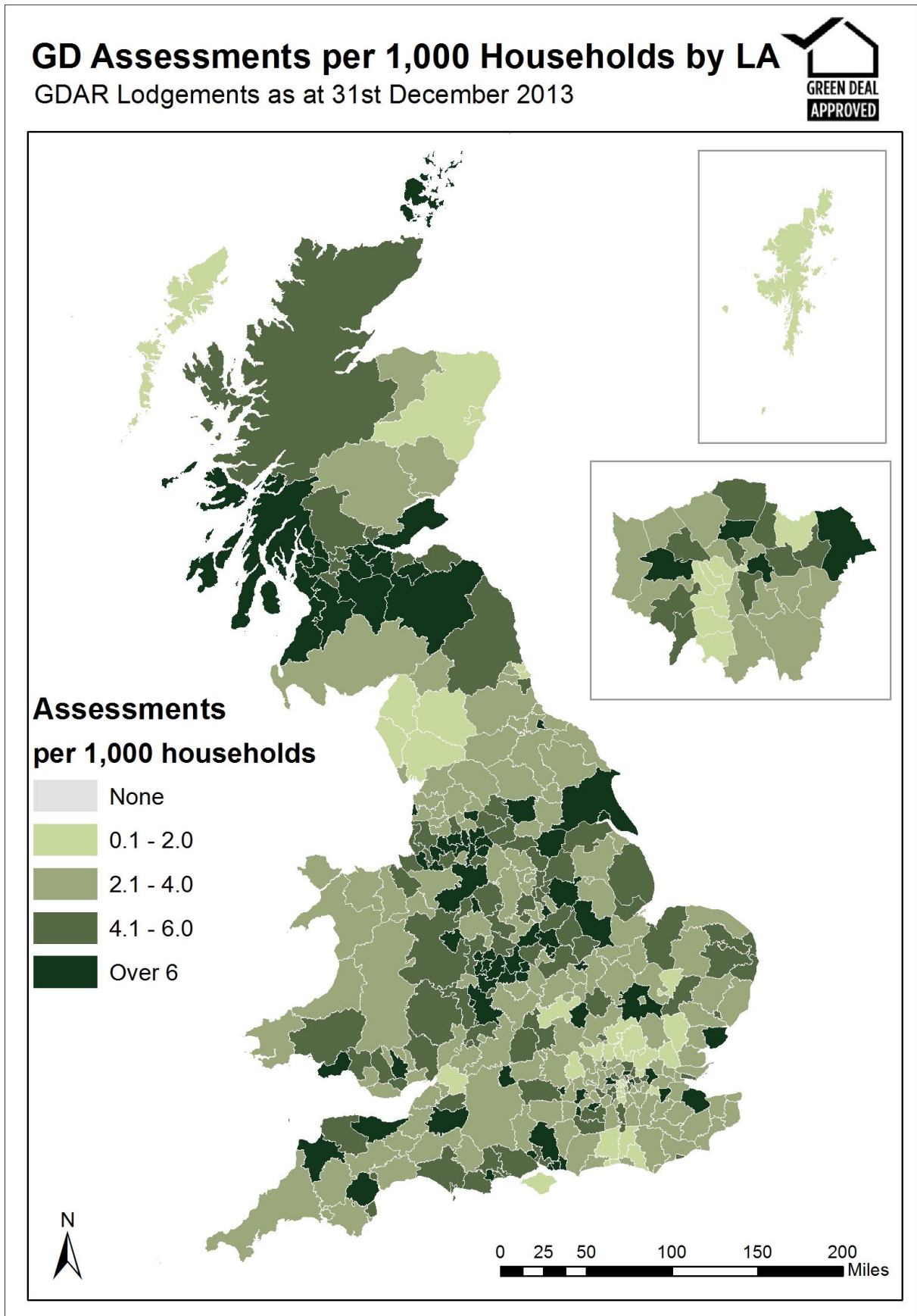
#### Geographic location (Tables 1.6, 1.6a, 1.6b, Map 1.1)

GD Assessments have been taking place in properties throughout Great Britain with 129,842 GD Assessments lodged in total up to 31st December (see Table 1.6 for the regional breakdown). Tables 1.6a and 1.6b present the number of GD Assessments that took place in each Local Authority (LA) (Table 1.6a) and Parliamentary Constituency (Table 1.6b).

The number of GD Assessments per 1,000 households gives a better indication of the areas which have had the most assessments in relation to the number of properties in that area. There were on average five Green Deal Assessments per 1,000 households in Great Britain. The region with the highest number of Green Deal Assessments per 1,000 households was the West Midlands with 7.9. Scotland had six and Wales had 4.5 Green Deal Assessments per 1,000 households (Map 1.1).

<sup>7</sup> Off-Grid Energy, An OFT market study, October 2011, Off-grid populations by nation, Table 3.1 [http://www.ofg.gov.uk/shared\\_ofg/market-studies/off-grid/OFT1380.pdf](http://www.ofg.gov.uk/shared_ofg/market-studies/off-grid/OFT1380.pdf)

Map 1.1 – Number of Green Deal Assessments per 1,000 households lodged by Local Authority up to 31st December 2013



## Green Deal Plans, up to 31st December 2013

This is the first time geographic breakdowns of Green Deal Plans have been published. Of the 626 Green Deal Plans which were 'live' up to 31st December 2013 (i.e. measures were installed and billing had commenced), more than half of Green Deal Plans with measures installed were for properties in Scotland (348 Plans). 43 per cent were for properties in England (270 Plans) and 1 per cent were for properties in Wales (eight Plans) (see Table 1.7).

## Pioneer Places

The Green Deal Pioneer Places Fund of £10m was allocated to Local Authorities and/or consortia of Local Authorities in England to demonstrate ambitious approaches to kick starting local Green Deal activity in both the domestic and non-domestic sectors. Among a range of outcomes from these projects was funding for GD Assessments.

Revised estimates based on data returns submitted to DECC by 11<sup>th</sup> February 2014 estimate that 9,543 Domestic Green Deal Assessments were lodged having been funded through the Green Deal Pioneer Places (see Table 1.8).

## Core Cities

Eight cities across England received funding of £10.8m in total to trial early aspects of the Green Deal process and support them to help kick-start the Green Deal. The projects included conducting energy efficiency assessments as well as retrofitting properties across whole communities.

Revised estimates based on data returns submitted to DECC by 11<sup>th</sup> February 2014 estimate that around 2,817 properties had installed energy efficiency measures which had been funded through the Core Cities projects (see Table 1.9). The provisional number of measures installed in these properties was 3,919<sup>8</sup>. Over 1,500 of these measures were external solid wall insulation (see Table 1.9a).

## Cashback measures installed, up to 31st December 2013

The Cashback scheme in England and Wales has been available since January 2013. It is a financial incentive aimed to encourage domestic customers to get measures installed through the Green Deal process, although it is the customers' choice whether they decide to take out Green Deal finance or other sources of finance to fund the installation of the measures. Cashback vouchers can only be paid after the installation of measures. There were 8,924 properties<sup>9</sup> where measures had been installed following payment from the Cashback scheme up to 31<sup>st</sup> December 2013.

### Geographic location of properties where measures were installed following Cashback payment, up to 31<sup>st</sup> December (Tables 1.10, 1.10a and 1.10b)

Table 1.10 presents the regional breakdown of properties where measures were installed following Cashback payment up to 31st December. Tables 1.10a and 1.10b present these

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<sup>8</sup> This includes a number of measures which were also reported as ECO measures.

<sup>9</sup> This includes a small number of properties where the Cashback payment was made in January 2014 but the measures were installed before the end of December 2013.

breakdowns of Cashback properties by LA and Parliamentary Constituency in England and Wales up to 31st December<sup>10</sup>.

There were 3.8 Cashback payments per 10,000 households in England and Wales. The region with the highest number of Cashbacks paid per number of households was the North West with 6.8 (accounting for around a quarter of all cashback vouchers paid, see Table 1.10). There were 3.4 Cashback payments per 10,000 households in Wales.

### Measures installed under ECO, up to 31st December 2013

The [Energy Company Obligation](#) (ECO) was introduced in January 2013 to reduce energy consumption and support people living in fuel poverty. Information on measures installed under ECO is at a lag of a month compared to other figures presented in this release due to the time taken for information to be reported and verified. Hence, this release includes measures installed under ECO until the end of December 2013. All measures installed under ECO are provisional until the end of the obligation period as checks are undertaken by Ofgem.

#### Geographic location of provisional measures installed under ECO, up to 31<sup>st</sup> December (Tables 1.11, 1.11a and 1.11b, Map 1.2)

Tables 1.11, 1.11a and 1.11b present the number of provisional measures installed under ECO, broken down by obligation, in each region (Table 1.11), LA (Table 1.11a) and Parliamentary Constituency (Table 1.11b) up to 31st December.

Around a fifth (20 per cent) of ECO measures were in the North West (105,619), the highest in any region. 11 per cent of ECO measures were installed in Scotland (58,058) and six per cent were in Wales (31,809).

However, when comparing areas, it is more representative to use the number of ECO measures per 1,000 households. In Great Britain, on average, there were over 20 ECO measures installed per 1,000 households or, in other words, over 2% of all households in Great Britain had a measure installed under ECO funding. The North West and North East had the highest amount with 35 ECO measures per 1,000 households. In Scotland there were around 25 ECO measures per 1,000 households and 24 per 1,000 households in Wales.

Map 1.2 shows the provisional number of ECO measures installed by Local Authority per 1,000 households. This shows the concentration of ECO measures in the North West and North East of England as well as South Wales and parts of Scotland.

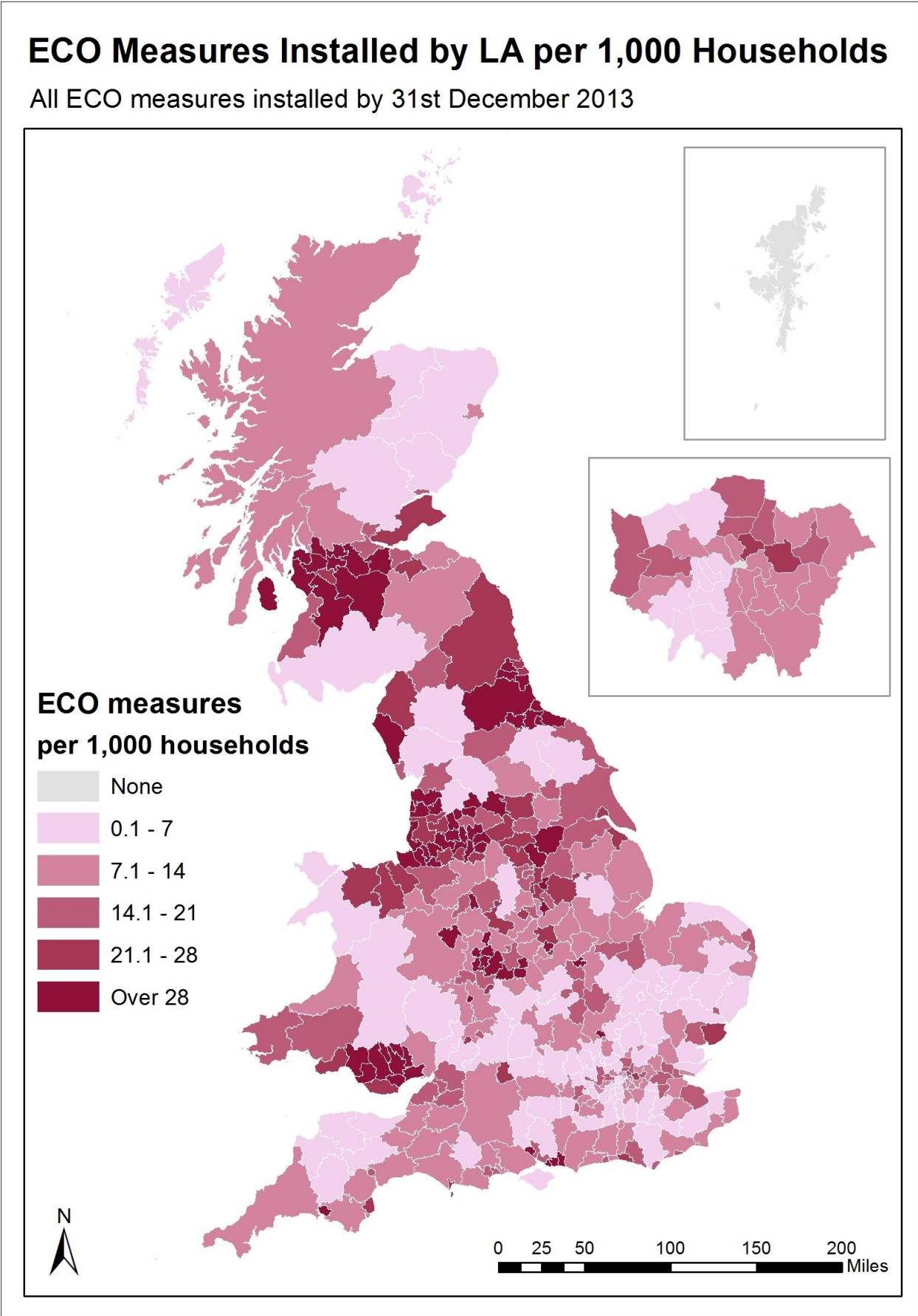
Up to 31st December 2013, 447,583 unique properties<sup>11</sup> had benefitted from having at least one ECO measure installed (Table 1.11). By ECO obligation, 202,348 properties had Affordable Warmth (HHCRO) measures installed, 160,862 unique properties had Carbon Savings Target measures installed, and 87,609 properties had Carbon Saving Community measures installed.

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<sup>10</sup> These figures only present breakdowns for England and Wales. A separate Cashback scheme operates in Scotland (see [website](#) and latest [Scotland Green Homes Cashback scheme statistics](#)).

<sup>11</sup> The number of unique properties by ECO obligation does not tally to the total number of unique properties (447,583) as a property can have a number of different measures installed under different ECO obligations.

Map 1.2 – Provisional number of ECO measures installed by Local Authority per 1,000 households



## Further breakdowns of provisional measures installed under ECO, up to 31st December (Tables 1.12, 1.12a, 1.12b, 1.12c and 1.12d)

Tables 1.12 to 1.12d present further analysis of provisional measures installed under ECO up to 31st December, including breakdowns by fuel type, property type and tenure, the percentage of measures traded through brokerage and estimated bill savings for Affordable Warmth measures. Findings of note include that 86 per cent of Carbon Saving Target measures were installed in gas-fuelled properties, compared to 94 per cent of all ECO measures and 84 per cent of all households in England<sup>12</sup>. This suggests that a higher proportion of measures installed under ECO were in gas-fuelled properties that would be expected from the housing stock.

The large majority of ECO measures (81 per cent) were installed in houses, with 14 per cent installed in flats and the remainder in bungalows and maisonettes. However, this varies by obligation, with a greater proportion of Carbon Saving Target measures installed in flats (29 per cent), compared with Carbon Saving Communities measures (9 per cent of all measures) and Affordable Warmth measures (5 per cent of all measures)

### ECO costs

DECC receives monthly summary information from the seven obligated energy suppliers on their costs associated with delivering ECO. It is important to note that these figures relate to all costs as reported by suppliers as at the end of December 2013. For more information on ECO costs please see [Annex A](#) and full definitions are included [here](#).

The latest aggregate delivery costs (up to the end of December 2013) are included in Table 1.13. These are historic costs and future costs may go up or down depending on a range of factors. Projected costs are based on scaling up information from the first year of the scheme up to March 2015. These are only indicative of the amount energy suppliers are likely to pass through to customers on their bills to fund their compliance with their share of the obligation. These figures suggest that customers currently pay an average of around £55 per annum to fund ECO. Projected costs are slightly higher than the central scenario in the [DECC Impact Assessment](#) for ECO and with DECC's estimates of the costs of delivering previous obligations.

Table 1.13a shows the average price by obligation and the highest and lowest prices reported by suppliers for each obligation as at the end of December 2013. The suppliers have not been identified to protect commercial confidentiality. This shows that some energy suppliers are discharging their obligation more cost effectively than others. If the highest prices for each ECO obligation are scaled up, the overall scheme would cost around £1.7bn per year. Scaling up the lowest prices would bring the overall scheme in at around £1.2bn per year.

### ECO Brokerage

The [ECO Brokerage](#) system operates as a fortnightly anonymous auction where providers can sell 'lots' of future measures of ECO Carbon Saving Obligation, ECO Carbon Saving Communities and ECO Affordable Warmth, to energy companies in return for ECO subsidy.

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<sup>12</sup> Table 23, Fuel poverty statistics 2011, <https://www.gov.uk/government/publications/fuel-poverty-2011-detailed-tables>

## ECO Brokerage clearing prices by ECO obligation by auction, up to end of December 2013 (Table 1.14)

Table 1.14 presents the clearing prices of all lots sold through ECO brokerage from all 25 auctions taking place up to the end of December, with a total value of contracts let worth £347 million. This shows that the average price paid for lots is decreasing for the Carbon Saving Obligation and ECO Affordable Warmth.

For more detail on the results of each auction, please see [ECO Brokerage](#)

## **Estimated carbon and energy savings for measures installed through Cashback and ECO, up to 31st December**

The [Final Stage Impact Assessment](#) for the Green Deal and Energy Company Obligation reported that both policies would lead to significant carbon and energy savings. This section estimates the carbon and energy savings derived from measures installed through these policy areas.

## Estimated carbon and energy savings relating to measures installed through Cashback and ECO, up to 31st December (Table 1.15)

Table 1.15 presents the estimated impact of measures installed through Cashback, Green Deal Plans or under ECO (through the Carbon Saving Obligation and Carbon Saving Communities Obligation) up to the end of December 2013. Affordable Warmth is excluded because carbon reductions are not the stated aim of this policy and difficulties in accurately estimating their carbon impact. This obligation of ECO is anticipated to lead to a net reduction in carbon. However, this depends on reductions in the traded sector emissions out-weighing any increase in non-traded sector emissions.

The estimated lifetime carbon savings of these measures is in the range 5.16 – 5.21 MtCO<sub>2</sub> with estimated lifetime energy savings in the range 23,705 – 23,902 GWh.

For Green Deal Plan and Cashback measures, the net estimated carbon savings has been calculated from the difference between that in the original EPC (pre-installation of measures) and the new EPC (post installation of measures). For ECO only measures, the estimated lifetime carbon savings has been revised to account for estimated levels of comfort taking, which better represent our understanding of the assumed net impact of the installed measures.

More information on the methodology used is included [here](#).

## **Measures not captured by administrative data sources**

This report provides detail on measures installed in properties through the Energy Company Obligation, with support from Cashback and Green Deal and Local Authority programmes, which make up the majority of measures installed. We have successfully matched these datasets and determined that, of the 75,884 households who had a GD Assessment between April and September 2013, around 46,000 measures had been installed in around 40,000 households with support from any of these schemes.

Additionally, there are a small number of measures installed, but not captured by our administrative data sources (i.e. measures which followed a Green Deal Assessment but were not financed or part financed through a delivery route already reported). Using findings from Waves 2 and 3 of the [GD Assessments research](#), we have been able to match the large majority of measures reported by those interviewed to our mainstream data collections. Through this, we estimate that for every seven to nine measures installed through one of our reported routes with an accompanying Green Deal Assessment (ECO, Cashback, Green Deal finance, Core Cities, other DECC policies), that one additional measure is installed entirely using



alternative finance<sup>13</sup>. These measures may have been paid for through a number of alternative finance packages including savings, payment from a landlord, housing association or Local Authority or other type of loan or credit, but would not have received funding from any of our reported routes.

Applying these estimates to the total number of measures installed with an accompanying Green Deal Assessment equates to an additional 3,000 to 4,000 households installing between 5,000 and 7,000 measures over six months. This results in an estimated 1,000 measures being installed per month. In the context of all measures installed – as many ECO measures will not have an accompanying Green Deal Assessment – this equates to an additional two per cent of all measures being installed over the six month period, but not being captured by our administrative data sources.

For more detail on the analysis behind these estimates please see the [Methodology note](#). We will continue to review these calculations.

## The Supply Chain

To understand more about the organisations and infrastructure underpinning the Green Deal, this report also includes a section on geographical coverage of the number of Assessor organisations and Green Deal Installer organisations.

### Supply chain operational coverage, as at 28<sup>th</sup> January 2014 (Table 1.16)

The supply chain to support the Green Deal has been developing since October 2012. This includes individual Advisors (who carry out and produce Green Deal Advice Reports) and Assessor organisations (who employ authorised Green Deal Advisors), Green Deal Providers (who quote for and arrange Green Deal Plans with customers), and Installer organisations<sup>14</sup> (who install energy efficiency improvements under the GD finance mechanism).

The Green Deal Oversight and Regulation Body (ORB) produces publically available information on the supply chain, and the latest figures are available by using the search tool on the [ORB website](#). There is also information available on [contacts in local areas](#).

These organisations operate in different geographical locations and provide a wide variety of offers to consumers. Table 1.16 shows the self-reported operational coverage of Green Deal Providers, Assessor organisations and Installers by Local Authority that they are expecting to operate within<sup>15</sup>. These figures are based on information submitted<sup>16</sup> to the ORB consumer search tool by a number of these participating organisations and indicate a good coverage across Great Britain.

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<sup>13</sup> This is based on findings from [Waves 2 and 3 of the Assessments research](#) and therefore only representative of GD assessments and measures installed up to the end of September 2013.

<sup>14</sup> Individual Installers within an installer organisation do not need to register.

<sup>15</sup> Businesses are flexible and may travel further to other areas as the market develops.

<sup>16</sup> GD accredited organisations are able to provide their operational coverage information onto the ORB consumer search tool on a voluntary basis. Some organisations have waited until they are ready to delivery GD services before providing their details. Separate entries have been submitted for each individual sub-division of an organisation which has its own certification ID.

# GD and ECO Tables

**Table 1.1: Number of Green Deal Assessments by Energy Efficiency Band, up to 31st December 2013, Great Britain**

Energy Efficiency Band	Green Deal Assessments	Percentage of Assessments
A	85	0
B	819	1
C	15,411	12
D	67,866	52
E	34,380	26
F	8,735	7
G	2,546	2
<b>Total</b>	<b>129,842</b>	<b>100</b>

**Table 1.2: Number of Green Deal Assessments by Property Type up to 31st December 2013, Great Britain**

Property Type	Green Deal Assessments	Percentage of Assessments
House	100,487	77
Bungalow	10,907	8
Flat	15,992	12
Maisonette	2,456	2
<b>Total</b>	<b>129,842</b>	<b>100</b>

**Table 1.3: Number of Green Deal Assessments by tenure, up to 31st December 2013, Great Britain**

Tenure	Green Deal Assessments	Valid Percentage of Assessments <sup>1</sup>
Owner-occupied	96,553	75
Rented (private)	15,891	12
Rented (social)	16,656	13
Unknown	742	-
<b>Total</b>	<b>129,842</b>	<b>100</b>

<sup>1</sup> Percentage of Assessments is calculated only for those Assessments where tenure is known.

**Table 1.4: Number of Green Deal Assessments by whether property is on or off the Mains Gas Grid, up to 31st December 2013, Great Britain**

Properties by whether on or off Mains Gas Grid	Green Deal Assessments	Percentage of Assessments
Off Gas	16,465	13
On Gas	113,377	87
<b>Total</b>	<b>129,842</b>	<b>100</b>

**Table 1.5: Number of improvements recommended in Green Deal Assessments by measure type (grouped), up to 31st December 2013, Great Britain**

Measure Types	Number of improvements recommended <sup>1</sup>	Percentage of improvements recommended
Boiler	45,247	13.2
Cavity Wall Insulation	45,102	13.2
Loft Insulation	51,349	15.0
Micro-generation	55,538	16.2
Other Heating	34,060	9.9
Other Insulation	64,650	18.9
Solid Wall Insulation	36,231	10.6
Window Glazing	10,138	3.0
<b>Total</b>	<b>342,315</b>	<b>100</b>

<sup>1</sup> More than one improvement can be recommended per Assessment. On average, there are around two to three improvements recommended per Assessment.

**Table 1.5a: Number of improvements by measures recommended in Green Deal Assessments, up to 31st December 2013, Great Britain**

Measure Type by Measures	Number of improvements recommended <sup>1</sup>	Percentage of improvements recommended
<b>Boiler</b>	<b>45,247</b>	<b>13.2</b>
Change heating to gas condensing boiler (fuel switch)	1,850	0.5
Change heating to gas condensing boiler (fuel switch), and flue gas heat recovery	105	0.0
Change heating to gas condensing boiler (no fuel switch)	699	0.2
Change heating to gas condensing boiler (no fuel switch), and flue gas heat recovery	19	0.0
Condensing oil boiler	544	0.2
Upgrade boiler, same fuel	40,722	11.9
Upgrade boiler, same fuel, and flue gas heat recovery	1,308	0.4

<b>Cavity wall insulation</b>	<b>45,102</b>	<b>13.2</b>
<b>Loft Insulation</b>	<b>51,349</b>	<b>15.0</b>
Loft Insulation	48,899	14.3
Room-in-roof insulation	2,450	0.7
<b>Micro-generation</b>	<b>55,538</b>	<b>16.2</b>
Air source heat pump with radiators	1,037	0.3
Air source heat pump with underfloor heating	116	0.0
Biomass wood logs boiler	808	0.2
Biomass wood pellets room heater with boiler	504	0.1
Ground source heat pump with radiators	238	0.1
Ground source heat pump with underfloor heating	65	0.0
Micro-CHP	91	0.0
Photovoltaics	31,086	9.1
Solar water heating	19,415	5.7
Wind turbine (on mast)	295	0.1
Wind turbine (roof mounted)	1,883	0.6
<b>Other Heating</b>	<b>34,060</b>	<b>9.9</b>
Cylinder thermostat	4,547	1.3
Heating controls for warm air system	394	0.1
Heating controls for wet central heating system	26,222	7.7
New or replacement storage heaters	1,855	0.5
Replacement warm-air unit	141	0.0
Waste water heat recovery	901	0.3
<b>Other Insulation</b>	<b>64,650</b>	<b>18.9</b>
Draughtproofing	12,282	3.6
Flat roof insulation	2,775	0.8
Floor insulation	30,885	9.0
Hot water cylinder insulation	9,198	2.7
Insulated doors	9,510	2.8
<b>Solid Wall Insulation</b>	<b>36,231</b>	<b>10.6</b>
External insulation with cavity wall insulation	1,558	0.5
Solid wall insulation (pre 1967 England & Wales, pre 1965 Scotland)	21,472	6.3
Solid wall insulation (from 1967 E&W, from 1965 Scotland)	13,201	3.9
<b>Window Glazing</b>	<b>10,138</b>	<b>3.0</b>
Double glazing	9,138	2.7
Secondary glazing	746	0.2
Triple glazing	254	0.1
<b>Total</b>	<b>342,315</b>	<b>100</b>

<sup>1</sup> More than one measure can be recommended per Assessment. On average, there are around two to three recommendations per Assessment.

**Table 1.5b: Number of improvements recommended per Green Deal Assessment, up to 31st December 2013, Great Britain**

Number of improvements recommended <sup>1</sup>	Number of Green Deal Assessments	Percentage of Green Deal Assessments
1	51,594	40
2	29,169	22
3	14,372	11
4	12,023	9
5 or more	22,684	17
<b>Total</b>	<b>129,842</b>	<b>100</b>

**Table 1.6: Number of Green Deal Assessments lodged by region, up to 31st December 2013**

Area names	Green Deal Assessments	Percentage of Assessments	Households with at least one usual resident <sup>1</sup>	Green Deal Assessments per 1,000 households
<b>Great Britain</b>	<b>129,842</b>	<b>100</b>	<b>25,738,820</b>	<b>5.0</b>
<b>England</b>	<b>109,685</b>	<b>85</b>	<b>22,063,368</b>	<b>5.0</b>
North East	3,976	3	1,129,935	3.5
North West	17,997	14	3,009,549	6.0
Yorkshire and The Humber	12,739	10	2,224,059	5.7
East Midlands	11,538	9	1,895,604	6.1
West Midlands	18,063	14	2,294,909	7.9
East	8,474	7	2,423,035	3.5
London	12,090	9	3,266,173	3.7
South East	15,855	12	3,555,463	4.5
South West	8,953	7	2,264,641	4.0
<b>Wales</b>	<b>5,875</b>	<b>5</b>	<b>1,302,676</b>	<b>4.5</b>
<b>Scotland</b>	<b>14,282</b>	<b>11</b>	<b>2,372,780</b>	<b>6.0</b>

**Table 1.6a: Number of Green Deal Assessments lodged by administrative area, up to 31st December 2013** (Table available in Excel [here](#)).

**Table 1.6b: Number of Green Deal Assessments lodged by Parliamentary Constituency, up to 31st December 2013** (Table available in Excel [here](#)).

**Table 1.7: Number of 'live' Green Deal Plans by Region, up to 31st December 2013**

Area names	'Live' Green Deal Plans	Percentage of Plans	Households with at least one usual resident <sup>1</sup>	Green Deal Plans per 1,000,000 households
<b>Great Britain</b>	<b>626</b>	<b>100</b>	<b>25,738,820</b>	<b>24.3</b>
<b>England</b>	<b>270</b>	<b>43</b>	<b>22,063,368</b>	<b>12.2</b>
North East	10	2	1,129,935	8.9
North West	23	4	3,009,549	7.6
Yorkshire and The Humber	26	4	2,224,059	11.7
East Midlands	33	5	1,895,604	17.4
West Midlands	33	5	2,294,909	14.4
East	13	2	2,423,035	5.4
London	30	5	3,266,173	9.2
South East	58	9	3,555,463	16.3
South West	44	7	2,264,641	19.4
<b>Wales</b>	<b>8</b>	<b>1</b>	<b>1,302,676</b>	<b>6.1</b>
<b>Scotland</b>	<b>348</b>	<b>56</b>	<b>2,372,780</b>	<b>146.7</b>

**Table 1.8: Number of Green Deal Assessments delivered under the Pioneer Places Project, by Pioneer Place Area (Table available in Excel [here](#)).****Table 1.9: Provisional number of properties with energy efficiency work delivered under Core Cities Project<sup>1</sup>, by Core City Area**

Core City Area	Number of properties with energy efficiency measures funded by Core Cities <sup>2</sup>	Number of measures installed <sup>3</sup>
Birmingham <sup>4</sup>	506	528
Bristol	155	155
Leeds	1,169	1,432
Liverpool	93	120
Manchester	587	1,114
Newcastle	137	312
Nottingham	97	131
Sheffield	73	127
<b>Total</b>	<b>2,817</b>	<b>3,919</b>

<sup>1</sup> Based on returns received up to 11th February 2014.

<sup>2</sup> This excludes any properties that had an assessment but where no reported measures were installed.

<sup>3</sup> This includes a number of measures which were also reported as ECO measures.

<sup>4</sup> Includes number of individual address in tower blocks that have benefitted from a communal Eco Pod installation.

**Table 1.9a: Provisional number of energy efficiency measures installed under Core Cities Project<sup>1</sup>, by measure type**

Measure type	Number of measures installed <sup>2</sup>	Percentage of measures
Air Source Heat Pump	16	0.4
Boiler <sup>3</sup>	670	17.1
Cavity Wall Insulation	103	2.6
Cellar Insulation	24	0.6
Draughtproofing	48	1.2
ECO Pod <sup>4</sup>	426	10.9
External Wall Insulation	1,519	38.8
Floor Insulation	6	0.2
Heating controls	14	0.4
High Performance External Doors	215	5.5
Internal Wall Insulation	99	2.5
Loft Insulation	364	9.3
Mechanical Ventilation Heat Recovery	9	0.2
Other	2	0.1
VPhase voltage optimisation	16	0.4
Window Glazing	375	9.6
Unknown	13	0.3
<b>Total</b>	<b>3,919</b>	<b>100</b>

<sup>1</sup> Based on returns received up to 11th February 2014.

<sup>2</sup> This includes a number of measures which were also reported as ECO measures.

<sup>3</sup> Some boilers also include the installation of central wet heating systems.

<sup>4</sup> This number of Eco Pod installations is measured by the number of individual addresses that are connected to the ECO Pod installation.

**Table 1.10: Number of Cashback vouchers paid by region, up to 31st December 2013, England and Wales**

Area names	Total number of Cashback vouchers paid	Valid percentage of Cashback vouchers paid <sup>1 2</sup>	Households with at least one usual resident <sup>3</sup>	Cashback vouchers paid per 10,000 households
<b>England and Wales</b>	<b>8,924</b>	<b>100</b>	<b>23,366,044</b>	<b>3.8</b>
<b>England</b>	<b>8,239</b>	<b>95</b>	<b>22,063,368</b>	<b>3.7</b>
North East	248	3	1,129,935	2.2
North West	2,059	24	3,009,549	6.8
Yorkshire and The Humber	969	11	2,224,059	4.4
East Midlands	846	10	1,895,604	4.5
West Midlands	802	9	2,294,909	3.5
East	384	4	2,423,035	1.6
London	658	8	3,266,173	2.0
South East	1,306	15	3,555,463	3.7
South West	967	11	2,264,641	4.3
<b>Wales</b>	<b>448</b>	<b>5</b>	<b>1,302,676</b>	<b>3.4</b>
Unknown	237	-		

<sup>1</sup> Percentage of Cashback vouchers paid is calculated only for those vouchers where the location is known.

<sup>2</sup> Includes any Cashback vouchers paid to date, where the installation month of the measures Cashback is being claimed on was no later than end of December.

<sup>3</sup> Source: ONS 2011 Census Table H01UK: Households with at least one usual resident, household size and average household size, local authorities in the United Kingdom

**Table 1.10a: Number of Cashback vouchers paid by administrative area, up to 31st December 2013, England and Wales** (Table available in Excel [here](#)).

**Table 1.10b: Number of Cashback vouchers paid by Parliamentary Constituency, up to 31st December 2013, England and Wales** (Table available in Excel [here](#)).

**Table 1.11: Provisional number of ECO measures by ECO obligation by region and total number of unique properties benefitting from ECO, up to 31st December 2013** (Table available in Excel [here](#)).

**Table 1.11a: Provisional number of ECO measures by ECO obligation by administrative area, up to 31st December 2013** (Table available in Excel [here](#)).

**Table 1.11b: Provisional number of ECO measures by ECO obligation by Parliamentary Constituency, up to 31st December 2013** (Table available in Excel [here](#)).



**Table 1.12: Provisional number of ECO measures by main fuel type of property and ECO obligation, up to 31st December 2013**

Fuel Type	Obligation						Total number of ECO measures delivered <sup>1</sup>	
	Carbon Saving Target (CSO)		Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO)			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Gas	166,431	86.1	92,334	96.1	236,359	98.7	495,124	93.6
Electric	22,500	11.6	2,537	2.6	1,376	0.6	26,413	5.0
Other <sup>2</sup>	1,700	0.9	301	0.3	897	0.4	2,898	0.5
Oil	1,187	0.6	795	0.8	452	0.2	2,434	0.5
Coal	979	0.5	120	0.1	90	0.0	1,189	0.2
Renewable	447	0.2	2	0.0	0	0.0	449	0.1
Unknown	93	-	5	-	281	-	379	-
<b>Total</b>	<b>193,337</b>	<b>100</b>	<b>96,094</b>	<b>100</b>	<b>239,455</b>	<b>100</b>	<b>528,886</b>	<b>100</b>

<sup>1</sup> Percentage of ECO measures delivered is calculated only for those ECO measures where the fuel type is known.

<sup>2</sup> "Other" fuel type includes District Heating Systems and Liquefied Petroleum Gas.

**Table 1.12a: Provisional number of households in receipt of ECO measures by property type and ECO obligation, up to 31st December 2013<sup>1</sup>**

Property Type	Obligation						Total number of ECO measures delivered	
	Carbon Saving Target (CSO)		Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO)			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
House	106,430	66.7	75,506	87.0	180,094	89.7	362,030	80.9
Bungalow	5,651	3.5	2,683	3.1	10,774	5.4	19,108	4.3
Flat	46,220	29.0	8,117	9.3	9,490	4.7	63,827	14.3
Maisonette	1,310	0.8	528	0.6	516	0.3	2,354	0.5
Unknown <sup>2</sup>	143	-	23	-	98	-	264	-
<b>Total</b>	<b>159,754</b>	<b>100</b>	<b>86,857</b>	<b>100</b>	<b>200,972</b>	<b>100</b>	<b>447,583</b>	<b>100</b>

<sup>1</sup> Percentage of ECO measures is calculated only for those ECO measures where the property type is known

<sup>2</sup> Unknown property type includes 34 mobile homes

**Table 1.12b: Provisional number of households in receipt of ECO measures by tenure and ECO obligation, up to 31st December 2013 <sup>1</sup>**

Tenure	Obligation						Total number of ECO measures delivered <sup>1</sup>	
	Carbon Saving Target (CSO)		Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO) <sup>2</sup>			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Owner-occupied	109,202	73.5	63,602	78.8	152,766	78	325,570	76.6
Rented (private)	15,464	10.4	7,103	8.8	43,062	22	65,629	15.4
Rented (social)	23,820	16.0	10,023	12.4	N/A	-	33,843	8.0
Unknown	11,268	-	6,129	-	5,144	-	22,541	-
<b>Total</b>	<b>159,754</b>	<b>100</b>	<b>86,857</b>	<b>100</b>	<b>200,972</b>	<b>100</b>	<b>447,583</b>	<b>100</b>

<sup>1</sup> Percentage of ECO measures is calculated only for those ECO measures where the tenure is known

<sup>2</sup> It is not possible for socially-rented properties to benefit from measures delivered under Affordable Warmth

**Table 1.12c: Provisional number and percentage of ECO measures traded through brokerage by month and ECO obligation, up to 31st December 2013** (Table available in Excel [here](#)).

**Table 1.12d: Estimated lifetime bill savings for Affordable Warmth measures installed by month, up to 31st December 2013<sup>1</sup>**

Installation Month <sup>2</sup>	Total number of Affordable Warmth measures	Estimated lifetime bill saving (£)
January 2013 <sup>3</sup>	2,705	20,345,191
February 2013	6,091	32,211,706
March 2013	7,418	44,074,126
April 2013	10,041	74,018,323
May 2013	12,201	126,288,728
June 2013	16,040	169,733,224
July 2013	19,439	232,912,141
August 2013	25,945	307,000,509
September 2013	28,736	353,000,497
October 2013	37,778	473,733,892
November 2013	40,317	497,530,877
December 2013	32,745	406,441,356
<b>Total to date</b>	<b>239,456</b>	<b>2,737,290,570</b>

<sup>1</sup> Estimated bill savings as reported by energy suppliers to Ofgem and following initial validation.

<sup>2</sup> ECO measures installed in earlier installation months can be notified at a later date under some circumstances. Some notified measures can be reallocated to different ECO sub-obligations and so are subject to change.

<sup>3</sup> Includes some measures installed between October and December 2012

**Table 1.13: Estimated ECO delivery costs as reported by energy suppliers, up to end December 2013**

Obligation	Average price <sup>1</sup>	Total delivery costs	Scaled-up annual cost <sup>2 3</sup>	Central Impact Assessment
Affordable Warmth	£0.17	£464,900,152	£319,406,066	£350,000,000
Carbon Saving Communities	£57.80	£87,551,889	£174,688,969	£190,000,000
Carbon Saving Obligation	£100.30	£495,300,164	£931,707,337	£760,000,000
<b>Total</b>		<b>£1,047,752,206</b>	<b>£1,425,802,372</b>	<b>£1,300,000,000</b>

<sup>1</sup>Average price refers to per £ saved on energy bills for Affordable Warmth and per lifetime tonne of CO2 saved for Carbon Saving Communities and Carbon Saving Obligation.

<sup>2</sup>Annual costs have been scaled up on the basis that the total obligation is met and assumes that the average prices to date continue to be paid throughout the obligation period to March 2015.

<sup>3</sup>This does not include £80 million of administrative costs reported by suppliers up to end December 2013.

**Table 1.13a: Estimated average ECO delivery costs as reported by energy suppliers, up to end December 2013**

Obligation	Average price <sup>1</sup> (all suppliers)	Highest price (individual supplier) <sup>2</sup>	Lowest price (individual supplier) <sup>2</sup>
Affordable Warmth	£0.17	£0.21	£0.16
Carbon Saving Communities	£57.80	£86.39	£38.34
Carbon Saving Obligation	£100.30	£124.61	£80.64
Scaled up annual cost <sup>3 4</sup>	£1.4bn	£1.7bn	£1.2bn
Potential ECO costs passed through (per customer per year)	£55	£65	£45

<sup>1</sup> Average price refers to per £ saved on energy bills for Affordable Warmth and per lifetime tonne of CO2 saved for Carbon Saving Communities and Carbon Saving Obligation.

<sup>2</sup> Suppliers have delivered different amounts against each obligation. 'Highest' and 'lowest' average prices for individual suppliers should therefore be treated with caution as they may relate to relatively low levels of delivery, different measures installed and different routes of meeting the obligation.

<sup>3</sup> Annual costs have been scaled up on the basis that the total obligation is met and assumes that the average/highest/lowest prices to date continue to be paid throughout the obligation period to March 2015.

<sup>4</sup> This does not include £80 million of administrative costs reported by suppliers up to end December 2013.

**Table 1.14: ECO Brokerage Auction clearing prices by ECO obligation by auction, up to end of December 2013** (Table available in Excel [here](#)).

**Table 1.15: Estimated carbon and energy savings relating to measures installed through Cashback and ECO, up to 31st December 2013** (Table available in Excel [here](#)).

**Table 1.16: Number of accredited Assessor organisations, Green Deal Providers, and Installer organisations reporting where they would operate, by Lower Tier Local Authority, as of 28th January 2014** (Table available in Excel [here](#)).

# Section 2 - Estimates of Home Insulation Levels in Great Britain: December 2013

This section presents estimates of the number of homes in Great Britain with loft, cavity wall and solid wall insulation. It gives headline estimates for the number of insulated homes and a summary of the different data sources these are derived from. It also sets out the remaining potential for insulation in dwellings in Great Britain.

## Sources and methodology

The estimates in this Statistical Release use 2008 housing survey data, which coincides with the start of the Carbon Emissions Reduction Target (CERT), and adds known measures delivered through Government schemes (these include CERT<sup>17</sup>, the Community Energy Saving Programme (CESP)<sup>18</sup>, Warm Front<sup>19</sup>, Green Deal (including Cashback)<sup>20</sup> and the Energy Company Obligation<sup>21</sup> (ECO)). This is supplemented with data on house building published by Communities & Local Government to provide an estimate for the latest quarter.

## Headline results

There were 27.2 million homes in Great Britain. Of these 19.2 million had cavity walls with the remaining 8.0 million having solid walls. 23.8 million properties had a loft.

Table 2.1 shows the number of properties in Great Britain with cavity wall, loft or solid wall insulation (see [Annex B](#) for an explanation of measures).

At the end of December 2013, 13.6 million had cavity wall insulation (71 per cent of properties with a cavity wall), 16.3 million had loft insulation (69 per cent of properties with a loft) and 232,000 had solid wall insulation (3 per cent of properties with solid walls) (Chart 2.1). It should be noted that measures installed as a mitigation action (see page 29) after the end of CERT and CESP are not currently included in these figures, and therefore actual delivery during 2013 is likely to be higher than reported in this document.

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<sup>17</sup> <https://www.ofgem.gov.uk/environmental-programmes/energy-companies-obligation-eco/previous-energy-efficiency-schemes>

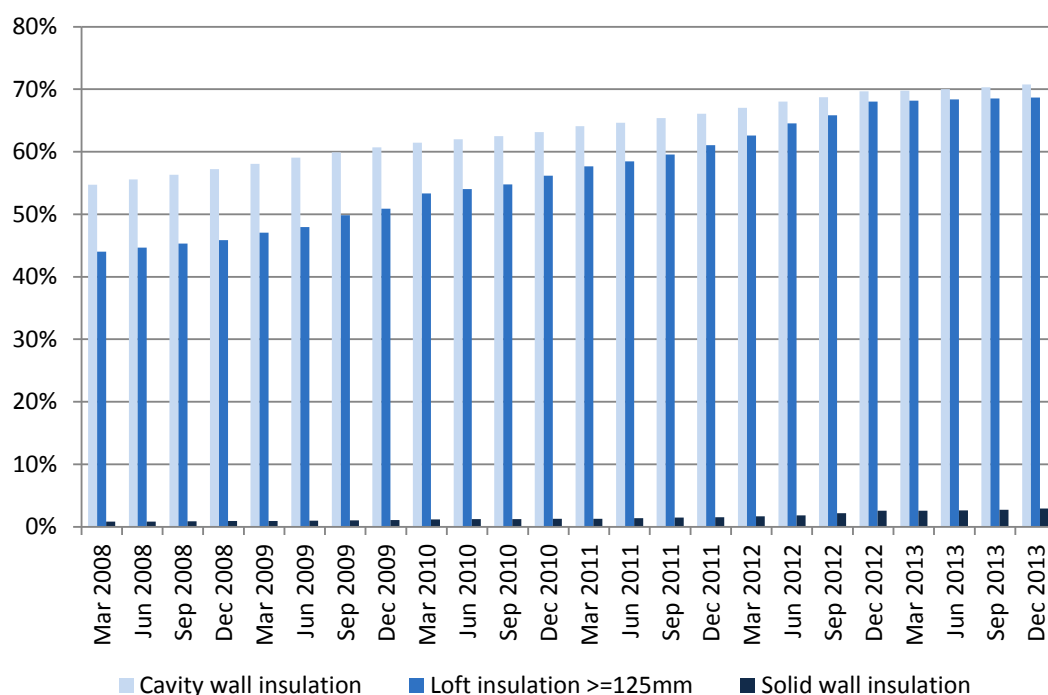
<sup>18</sup> <https://www.ofgem.gov.uk/environmental-programmes/energy-companies-obligation-eco/previous-energy-efficiency-schemes>

<sup>19</sup> <https://www.gov.uk/government/policies/helping-households-to-cut-their-energy-bills/supporting-pages/warm-front-scheme>

<sup>20</sup> <https://www.gov.uk/green-deal-energy-saving-measures>

<sup>21</sup> <https://www.gov.uk/government/policies/helping-households-to-cut-their-energy-bills/supporting-pages/energy-companies-obligation-eco>

**Chart 2.1: Percentage of properties with insulation in Great Britain**



**Table 2.1: Insulated homes in Great Britain, March 2008 to December 2013 (Thousands)**

	Cavity wall insulation	Loft insulation >=125mm	Solid wall insulation
Mar 2008	10,030	10,150	65
Mar 2009	10,760	10,930	74
Mar 2010	11,490	12,450	94
Mar 2011	12,090	13,540	102
Mar 2012 r	12,750	14,770	132
Dec 2012 r	13,320	16,110	204
Mar 2013 r	13,360	16,160	205
Jun 2013 r	13,430	16,220	209
Sep 2013 r	13,510	16,270	217
Dec 2013 p	13,620	16,330	232

p, provisional figure.

r, revised figure.

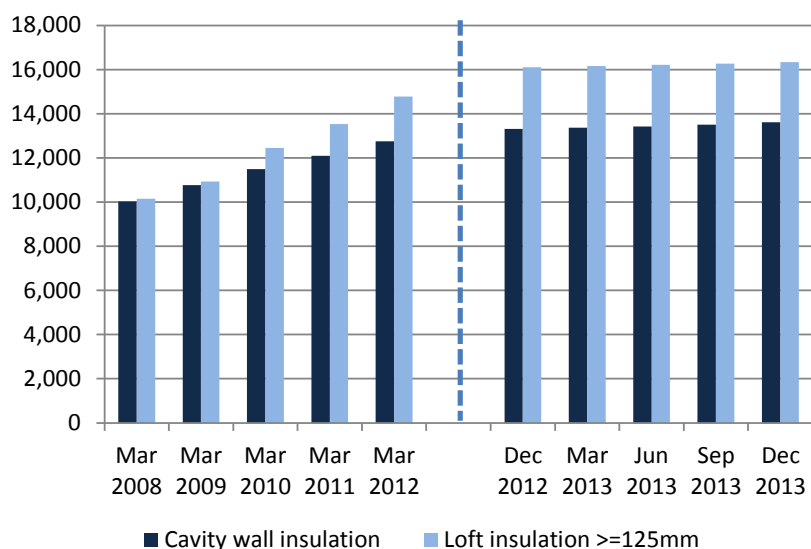
Taking into account retro-fit insulation delivered through Government schemes and new properties<sup>22</sup> built with insulation during the last year, there were 220,000 more homes with at least 125mm of loft insulation, 300,000 more homes with cavity wall insulation and 28,000 more homes with solid wall insulation compared with December 2012.

The number of retrofit wall and loft insulations in the first half of 2013 is low compared to delivery in previous quarters. This reflects a transition phase between the end of the CERT and CESP schemes in December 2012 and the commencement of ECO. Following the end of the

<sup>22</sup> Information is not available on the wall construction of new homes. Typically building regulations would be met by insulated cavity walls but other construction types could be used. In this publication it is assumed that all new builds since April 2008 have cavity wall insulation.

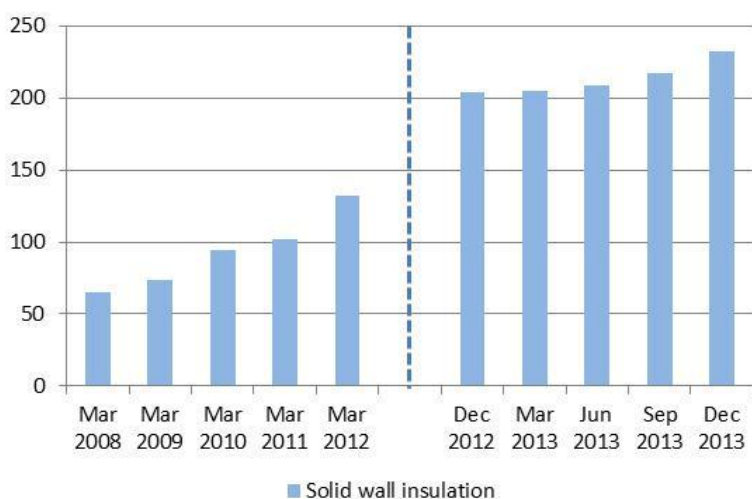
CERT and CESP schemes, energy suppliers and generators who had not achieved their targets by 31st December 2012 were able to deliver energy efficiency measures as “mitigation action”. This “mitigation action” is referred to in Ofgem’s open letter<sup>23</sup> dated 21st September 2012 and is not included in available estimates. In addition, insulation measures delivered in Scotland under the Green Homes Cashback scheme are also excluded from the figures.

**Chart 2.2: Homes in Great Britain with cavity wall insulation and loft insulation: March 2008 to December 2013 (Thousands)**



- The number of properties with cavity wall insulation increased by 2 per cent (300,000) between the end of December 2012 and December 2013.
- The number of properties with loft insulation with a depth of at least 125mm increased by 1 per cent (220,000) between the end of December 2012 and December 2013.

**Chart 2.3: Homes in Great Britain with solid wall insulation<sup>24</sup>: March 2008 to December 2013 (Thousands)**



- The number of properties with solid wall insulation increased by 14 per cent (28,000) between the end of December 2012 and December 2013.

### Sources of increase in insulation levels

Increases in the number of properties with insulation result from new properties being built<sup>25</sup> and from retro-fit insulation, predominately through Government schemes. Table 2.2 and Charts 2.3

<sup>23</sup> <https://www.ofgem.gov.uk/ofgem-publications/58765/open-letter-cert-cesp-210912.pdf>

<sup>24</sup> Solid wall insulation has been defined throughout this report as internal or external wall insulation installed through Government schemes.

<sup>25</sup> Information is not available on the wall construction of new homes. Typically building regulations would be met by insulated cavity walls but other construction types could be used. In this publication it is assumed that all new builds since April 2008 have cavity wall insulation.

and 2.4 show where the insulation estimates have come from. Delivery of measures through CERT has made the largest contribution since April 2008, for lofts and cavities. CESP has accounted for the largest contribution of solid wall insulation.

**Table 2.2: Insulated homes in Great Britain by source, December 2013 (Thousands)**

	Cavity wall insulation	Loft insulation $\geq 125\text{mm}$	Solid wall insulation
April 2008 housing surveys <sup>^</sup>	10,030	10,150	65
Properties built since April 2008	810	620	..
Government scheme delivery April 2008 - December 2012	2,600	5,450	139
Green Deal/ECO delivery since January 2013	170	120	28
<b>Total</b>	<b>13,620</b>	<b>16,330</b>	<b>232</b>
Homes in Great Britain <sup>†</sup>	19,250	23,790	7,990
Percentage of homes insulated <sup>‡</sup>	71%	69%	3%

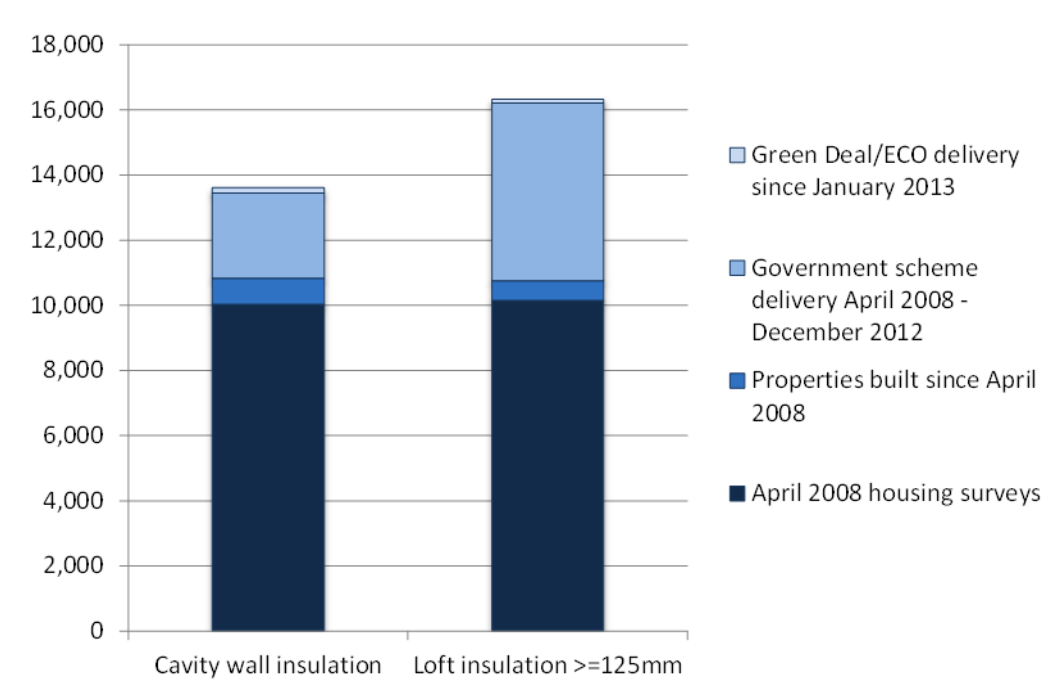
<sup>^</sup> 2008 estimates for solid wall insulation are taken from the Government's Energy Efficiency Commitment (EEC) 1 and 2 reported activity rather than housing surveys.

<sup>†</sup> The number of homes in Great Britain with cavity walls, lofts and solid walls respectively.

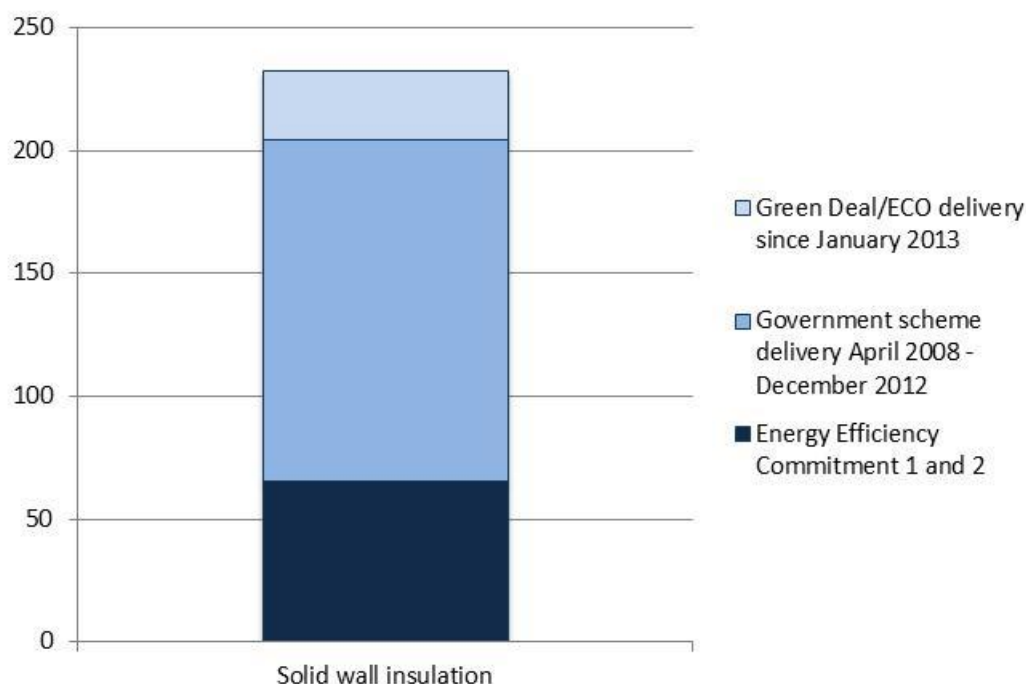
<sup>‡</sup> The solid wall insulation (SWI) percentage is calculated based on the number of homes with SWI delivered through Government schemes divided by the number of homes with non-cavity walls, this is likely to be an overestimate of the total number of properties with solid wall insulation as it may include a small number of hard to treat cavity wall properties.

.. not applicable.

**Chart 2.4: Number of homes in Great Britain with cavity wall insulation and loft insulation by source, December 2013 (Thousands)**



**Chart 2.5: Number of homes in Great Britain with solid wall insulation by source, December 2013 (Thousands)<sup>26</sup>**



### Remaining potential

A key use of these estimates for DECC is to identify homes that have the potential to receive cavity wall, loft and solid wall insulation in the future. The section below outlines remaining potential figures as at the end of December 2013, for historical figures and a more detailed breakdown see Tables 2.3 to 2.7 in the [Excel tables](#) accompanying this publication<sup>27</sup>.

Table 2.3 and Chart 2.6 give a summary of the remaining potential for insulating the housing stock in Great Britain.

**Table 2.3: Remaining potential to insulate the housing stock in Great Britain, December 2013**

Insulation type	Insulated	Uncertainty*	Remaining potential**	Total properties
Cavity wall insulation	13,620 71%	480 3%	5,100 27%	19,250 100%
Loft insulation	16,330 69%	110 0.5%	7,340 31%	23,790 100%
Solid wall insulation	232 3%	126 2%	7,630 96%	7,990 100%

\* Properties which may or may not be insulated.

\*\* Not all remaining potential properties could be insulated and some which could be insulated would not be cost effective to insulate. This could be due to properties being hard to treat, having limited potential to save energy or being unfillable.

<sup>26</sup> Estimates of solid wall insulation are based only on delivery of solid wall insulation through Government schemes (including the Energy Efficiency Commitment).

<sup>27</sup> <https://www.gov.uk/government/publications/green-deal-energy-company-obligation-eco-and-insulation-levels-in-great-britain-quarterly-report-to-december-2013>



**Chart 2.6: Remaining potential to insulate the housing stock in Great Britain, December 2013**

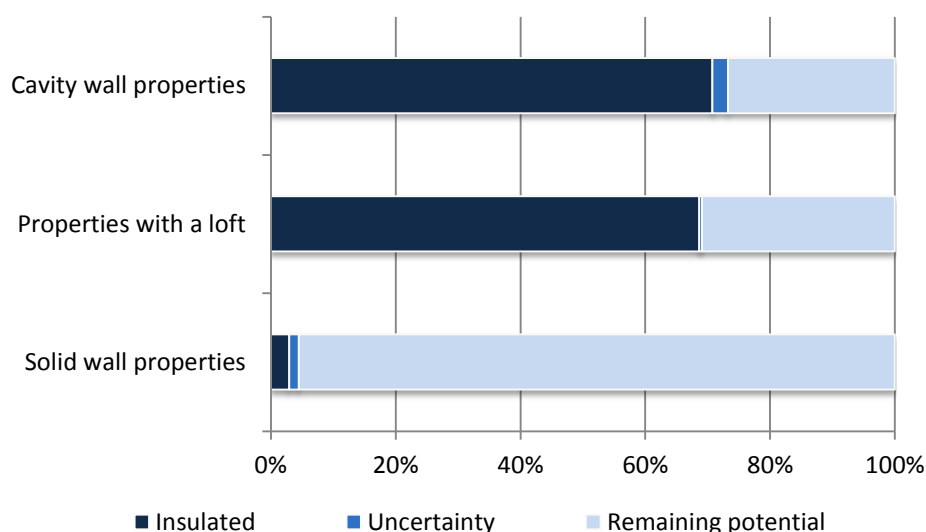


Table 2.3 and Chart 2.5 show that just over two thirds of properties with cavity walls and properties with a loft are insulated. In comparison only 3 per cent of properties with solid walls are insulated. The following section gives further information on the remaining potential to insulate the housing stock in Great Britain, by insulation type.

### Cavity wall insulation

It is estimated that at the end of December 2013 there were 5.1 million cavity wall properties which could benefit from some cavity wall insulation (27 per cent of homes with cavity walls).

Of these 1.4 million are considered to have limited potential<sup>28</sup> (0.5 million of this 1.4 million are also considered hard to treat<sup>29</sup>) and 3.7 million are totally uninsulated (3.0 million of the 3.7 million uninsulated properties are considered hard to treat). There are therefore 0.7 million easy to treat, standard cavities remaining. Historical figures and a more detailed breakdown is available in Table 2.6 of the accompanying [Excel tables](#).

<sup>28</sup> Although these properties are not fully insulated it is likely that they already have a relatively good thermal performance which means savings from having cavity wall insulation installed would be lower than for older properties. Limited potential properties are those built between 1983 and 1995 for England and Wales, and between 1984 and 1991 for Scotland.

<sup>29</sup> Hard to treat cavities are ones that are more difficult or more expensive to fill than standard cavities. This can include properties with a narrow cavity, and properties of either concrete or metal frame construction. The definition of hard to treat used in this publication is based on a report commissioned by DECC using the 2008 Housing Surveys ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/48433/5620-review-of-the-number-of-cavity-walls-in-great-brit.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48433/5620-review-of-the-number-of-cavity-walls-in-great-brit.pdf)), the ECO definition of hard treat differs from this definition slightly as it also includes partial fill cavities and cavity wall dwellings over three storeys (compared to over four in the Inbuilt definition) and excludes some cavities which assessors would not be able to identify as hard to treat, such as dwellings with high exposure to wind and rain.

### Loft insulation

In this publication lofts are defined as insulated if they have 125mm or more of insulation. Lofts with less than 125mm of insulation are defined as uninsulated as they would benefit most from top up insulation.

At the end of December 2013 it is estimated that there were 7.3 million uninsulated lofts (31 per cent of homes with lofts). Of these 1.7 million are considered to be hard to treat or unfillable which means the loft would be hard/costly to insulate or could not be insulated – this can occur in properties with a flat roof or in properties where the roof has a very shallow pitch which makes the loft space inaccessible.

### Solid wall insulation

Table 2.5 gives a breakdown of the remaining potential to insulate solid wall properties in the Great Britain housing stock. It is estimated that at the end of December 2013 there were 7.6 million uninsulated solid walls (96 per cent of homes with solid walls). Previously Government schemes have focused on insulating homes with cavity walls due to the costs involved with insulating solid wall properties; however the launch of the Green Deal and ECO in January 2013 has switched the focus to harder or more expensive to treat properties, including solid wall properties. Of the remaining potential it may not be possible to insulate all uninsulated solid wall properties, it is likely that some of these will be too costly to treat or be within conservation areas and will therefore never be insulated, work is planned to assess the extent of this issue.

# Annex A – Background

## Green Deal

The [Green Deal](#) (GD) was launched on 28 January 2013 in England and Wales (and on 25 February in Scotland) and will tackle a number of the key barriers to the take-up of energy efficiency measures.

Customers having Green Deal Assessments undertaken have the choice of how they proceed. They might take the view that their home is sufficiently energy efficient, or that they want to finance work through a Green Deal Plan or that they want to use alternative funding arrangements (e.g. use of savings).

The Green Deal process for households is briefly described below:

**Step 1 – Assessment** – A Green Deal assessor will come to the home, talk to the owner/occupier about their energy use and see if they can benefit from making energy efficiency improvements to their property.

**Step 2 – Recommendations** – The assessor will recommend improvements that are appropriate for the property and indicate whether they are expected to pay for themselves through reduced energy bills.

**Step 3 – Quotes** – Green Deal Providers will discuss with the owner/occupier whether a Green Deal Plan is right for them and quote for the recommended improvements, including the savings estimates, savings period, first year instalments and payment period for each improvement. A number of quotes can be obtained.

**Step 4 – Signing a Plan** – The customer chooses to proceed with a given provider and package of measures. The owner/occupier needs to obtain the necessary consent to make improvements to the property before they can agree terms with the GD Provider of a Green Deal Plan<sup>30</sup>, at which stage they enter a cooling-off period<sup>31</sup>.

**Step 5 – Installation** – Once a Green Deal Plan has been agreed, the Provider will arrange for the improvements to be made by a Green Deal Installer. Once the installation has been completed a letter is sent to the Bill Payer and, at this stage, the Green Deal Plan goes 'live'.

Repayments will be no more than what a typical household should save in energy costs.

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<sup>30</sup> The Plan is a contract between the owner/occupier and the Provider – it sets out the work that will be done and the repayments.

<sup>31</sup> For example, in the case of a Green Deal Plan that is regulated by the Consumer Credit Act 1974, the consumer will have 14 days to withdraw from the part of the Green Deal Plan which provides credit.

## Energy Company Obligation

The [Energy Company Obligation](#) (ECO) started on 1 January 2013 (although energy companies have been able to count against their targets measures delivered since 1 October 2012) and runs to 31 March 2015. It broadly takes over from two previous schemes (Carbon Emissions Reduction Target - CERT - and Community Energy Saving Programme - CESP) and focuses on providing energy efficiency measures to low income and vulnerable consumers and those living in 'hard-to-treat' properties.

There are three main ECO obligations – The Carbon Saving Obligation (CSO); Carbon Saving Communities (CSCO) and Affordable Warmth (HHCRO).

Carbon Saving Obligation - This covers the installation of measures like solid wall and hard-to-treat cavity wall insulation, which ordinarily can't be financed solely through the Green Deal.

Carbon Saving Communities Obligation - This provides insulation measures to households in specified areas of low income. It also makes sure that 15 per cent of each supplier's obligation is used to upgrade more hard-to-reach low-income households in rural areas.

Affordable Warmth Obligation - This provides heating and insulation measures to consumers living in private tenure properties who receive particular means-tested benefits. This obligation supports low-income consumers who are vulnerable to the impact of living in cold homes, including the elderly, disabled and families.

The Government announced proposals for a [set of changes to ECO](#) in December 2013. These include: extending through to 2017, with new targets; reducing the ambition of the Carbon Saving Target element; and allowing new measures (loft and standard cavity wall insulation, and district heating) to be eligible under that element. The Government published a consultation on [these proposals](#) in March 2014, and intends subject to consultation that revised regulations will come into force later this year, but with many changes taking effect as from 1 April 2014.

### How do the Green Deal and ECO interact?

Following a GD Assessment there will be a range of measures which could improve the energy efficiency of the property. Some of these could be paid for through GD finance, up to the point where the expected annual cost will not exceed what a typical household should save in energy costs. However, depending on the measure or the property, other sources of finance may also be required. ECO funding could be one of these sources, for example for measures such as Solid Wall Insulation and hard-to-treat Cavity Wall insulation.

## Green Deal Cashback

The Green Deal Cashback Scheme rewards the first Green Deal customers. It is a first-come, first served offer where householders can claim cash back from Government on energy saving improvements like insulation, front doors, windows and boilers with packages worth over £1000. It is available for households in England and Wales. For more information on Cashback please see the [Cashback website](#). For more information on the separate scheme that operates in Scotland please see the relevant [website](#).

## ECO delivery costs

ECO delivery costs are reported by obligated energy suppliers at the end of the month following each reporting month.

**ECO delivery costs** are defined as the cost of installing an ECO measure in a property. This includes the costs of technical monitoring, cost of assessment, costs involved with searching for ECO properties, installation costs and marketing costs by delivery partners involved with promoting the ECO obligations. Administrative costs are not included in delivery costs.

In addition, **administrative costs** are collected every quarter from suppliers and include: reporting and compliance, own marketing and direct administrative costs. Figures up to the end of December 2013 show aggregate expenditure of £80m. However, overall administrative costs reported are likely to be relatively small compared to delivery costs and, in addition, they may be front-loaded as suppliers will invest significantly in the development of IT / reporting systems to support delivery of the scheme. Suppliers make returns on administrative costs at the end of the month following each reporting quarter.

Full definitions on ECO costs are included [here](#)

## ECO Brokerage

The [ECO Brokerage](#) system operates as a fortnightly anonymous auction where GD Providers can sell 'lots' of future measures of ECO Carbon Saving Obligation, ECO Carbon Saving Communities and ECO Affordable Warmth, to energy companies in return for ECO subsidy.

This market-based mechanism has been introduced to support an open and competitive market for the delivery of the ECO. Brokerage allows a range of Green Deal providers to fairly compete on price to attract ECO support and enables energy suppliers to deliver their obligations at the lowest possible cost, thereby reducing the impact on customer energy bills.

Sellers (GD Providers) can make a competitive offer on brokerage by leveraging additional sources of finance, such as part funding measures through Green Deal Finance, partnerships with local authorities, or driving down costs by economies of scale.

## The Supply Chain

To understand more about the organisations and infrastructure underpinning the Green Deal, this report also includes a section summarising the trends in the number of Green Deal Advisors (and Assessor organisations), the number of Green Deal Providers and the number of Green Deal Installer organisations.

## Pioneer Places

The Green Deal Pioneer Places Fund of £10m was allocated to Local Authorities and/or consortia of Local Authorities in England to demonstrate ambitious approaches to kick starting local Green Deal activity in both the domestic and non-domestic sectors. Activities that were supported by the DECC funding included:

- funding the Green Deal Assessment by Authorised Assessors;
- piloting local marketing approaches, including a street by street approach to roll out;
- establishing a network of local Green Deal show homes;
- area wide events to publicise the Green Deal;
- working with local partners such as the local NHS to drive demand for the Green Deal;
- working with community and other civil society groups to deliver demand for the Green Deal.

The accompanying [Methodology note](#) contains a table of the full list of lead Local Authorities and/or consortia of Local Authorities which form part of these projects

### Core Cities

Eight cities across England received funding of £10.8m in total to trial early aspects of the Green Deal process and support them to help kick-start the Green Deal. The projects included retrofitting properties across whole communities.

The cities were:

- Birmingham
- Bristol
- Leeds
- Liverpool
- Manchester
- Newcastle
- Nottingham
- Sheffield

The projects provided feedback and data on the elements of the Green Deal framework such as assessment and installation.

The cities' projects also generated match funding. This work is supporting future Green Deal activity in these cities, including raised awareness of the Green Deal through community engagement and show homes, and a stimulus to local supply chains such as trained Green Deal advisors and registered installers.

Further information on Core Cities and Pioneer Place can be found at <https://www.gov.uk/local-authorities-and-the-green-deal>

# Annex B – Sources and Methodology

## Experimental Statistics

These estimates are released as Experimental Statistics which means they are official statistics undergoing an evaluation process prior to being assessed as National Statistics. They are published in order to involve users and stakeholders in their development, and as a means to build in quality assurance during development.

More information on the methodology is included [here](#).

As with any new data collection, there are likely to be some data quality issues to resolve as the process beds in. Therefore data in the monthly Green Deal and Energy Company Obligation (ECO) releases should be treated as provisional and subject to revision.

## Green Deal and ECO estimates

The estimates relating to the Green Deal and ECO in this and future Statistical Releases use administrative data generated as part of the Green Deal and ECO processes.

There are seven main sources of information:

- Landmark – who manage the national lodgement of Green Deal Assessments in England and Wales
- Energy Savings Trust (EST) – who manage the national lodgement of Green Deal Assessments in Scotland
- Green Deal Central Charge Database – which manages the recording and administration of Green Deal Plans
- Ofgem – who administer the Energy Company Obligation and collect information from energy companies on measures installed under ECO.
- The Green Deal Oversight and Regulation Body (ORB) – who administer the certification of GD organisations (including assessors, installers and providers)
- Data on ECO brokerage is publically available following each auction.
- Capita – who administer the [Green Deal Cashback Scheme](#)

This report uses data from Landmark and the Energy Savings Trust for numbers of lodged Assessments and on measures installed using Green Deal finance, data from the Central Charge Database on Green Deal Plans, data from the Cashback Scheme Administrator on Cashback vouchers issued and measures installed, data from Ofgem on ECO measures, data from the ORB for the supply chain and the published data on ECO brokerage.

## Property Characteristics

Information relating to the characteristics of properties getting GD Assessments is taken from the Energy Performance Certificate relating to the GD Assessment. Properties can be built in a large variety of configurations. A basic division is between free-standing or single-family houses and various types of attached or multi-user dwellings. Both sorts may vary greatly in scale and

amount of accommodation provided. Many variations are purely matters of style rather than spatial arrangement or scale.

### Energy Efficiency Rating

The Energy Efficiency Rating (EER) is presented in an A-G banding system for an Energy Performance Certificate, where Band A rating represents low energy costs (i.e. the most efficient band) and Band G rating represents high energy costs (the least efficient band).

The EER bands based on SAP<sup>32</sup> are:

- Band A (92 plus)
- Band B (81-91)
- Band C (69-90)
- Band D (55-68)
- Band E (39-54)
- Band F (21-38)
- Band G (1-20)

### **Insulation statistics**

The following types of insulation which are included in the estimates of home insulation levels in Great Britain.

#### Cavity wall insulation

Many homes built in Great Britain have external walls made up of an inner and outer wall with a small cavity in between. These have been typical since the 1930s, but some older properties will also have them. Cavity walls were used initially because they were cheaper (as the inner leaf could use non-decorative brick) and had a greater resistance to moisture moving from outside to inside. The presence of a cavity also improves the thermal performance of the wall, especially if the cavity is insulated. Since the mid-1980s, homes have been increasingly built with pre-insulated cavity walls, though the type of blockwork used for the inner leaf has also contributed to the improved thermal performance required by Building Regulations.

#### Loft insulation

Some loft insulation has been installed in new homes since 1965. Current building regulations for new homes require a roof to have a thermal transmittance (U-value) of at least as low as 0.13 W/m<sup>2</sup>.K, which would typically be achieved with 300mm of loft insulation. There is a strong 'diminishing returns' effect with savings from increasing the depth of loft insulation, so the first inch gives about half the savings from full insulation. Therefore, a threshold of 125mm is used in these statistics since homes with less than this would expect to see significant improvements in energy efficiency from a top-up.

#### Solid wall insulation

It is possible to improve the thermal performance of solid walls by adding insulation either internally or externally. There is a wide variety of technical solutions that can be used to insulate either the internal or external face of the wall. Current building regulations require a target U-value of 0.35 W/m<sup>2</sup>.K to be reached if this modification to the wall is made. It is likely that

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<sup>32</sup> Information on the Standard Assessment Procedure can be found here <https://www.gov.uk/standard-assessment-procedure>



installations of solid wall insulation before 2002 (i.e. before the first phase of the Energy Efficiency Commitment) may not achieve this level of thermal performance, so these are recorded separately in the statistics.

A methodology note setting out how estimates of home insulation levels in Great Britain are produced is available at: <https://www.gov.uk/government/publications/home-insulation-levels-in-gb-methodology-note-for-statistical-releases>

## Revisions

On occasions, previously published data will need to be revised due to changes to source data, methodology or correcting of errors. Provisional data will be marked with a “p” in the tables and revisions will be denoted with “r” in the data tables. Explanation will be provided for any significant revisions.

## Further Information and Feedback

Any enquiries or comments in relation to this statistical release should be sent to DECC Statisticians at the following email address: [EnergyEfficiency.Stats@decc.gsi.gov.uk](mailto:EnergyEfficiency.Stats@decc.gsi.gov.uk)

Contact telephone: 0300 068 5202

The statistician responsible for this publication is Matt Walker.

Further information on energy statistics is available at <https://www.gov.uk/government/organisations/department-of-energy-climate-change/about/statistics>

## Next Release

The next quarterly publication is planned for publication at 9.30am on **19 June 2014** and will contain more detailed information on activity up to the end of March 2014 including geographic breakdowns of Green Deal Assessments, Green Deal Plans and ECO measures. We are also currently investigating whether it would be suitable to publish sub-Local Authority data as part of this quarterly release series.

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