



Department
of Energy &
Climate Change

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

Statistical release: Experimental statistics

19 December 2013

© Crown copyright 2013

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Any enquiries or comments in relation to this statistical release should be sent to DECC's Green Deal Statistics Team at the following email address: EnergyEfficiency.Stats@decc.gsi.gov.uk

Contact telephone: 0300 068 5202

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 third 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 September 2013 and estimates of the carbon and energy savings achieved through measures installed. This release now includes new information on activity in the Core Cities and Pioneer Places areas and ECO delivery costs as reported by energy suppliers.

The most up to date information on the GD and ECO can be found in the monthly statistical releases – available [here](#). Future quarterly releases will also provide more detailed breakdowns on GD Plans.

Following the plans consulted upon in the previous insulation statistics release, this release (pages 32 to 39) now also includes the previously separately published estimates of home insulation levels in Great Britain. This change reflects the fact that one of the main uses of the home insulation levels estimates is to understand, monitor and develop the Green Deal and ECO. The majority of retrofit insulations will be supplied through GD and ECO and the two publications already had largely the same group of users. The estimates will continue to be produced on the same basis as previous quarters and it is intended they will continue to be produced on a quarterly basis. DECC set out in its Departmental Business Plan 2011-15¹ that these data for cavity wall and loft insulations would be used as one of the department's key impact indicators. [Section 2](#) on home insulation levels tracks progress with this indicator.

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.

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/47961/decc-business-plan-2011-2015.pdf

Contents

Executive summary	3
Charts	5
Maps	5
Key points	6
Section 1 - Green Deal and ECO statistics	8
Green Deal Assessments, lodged up to 30 th September 2013	8
Pioneer Places	14
Core Cities	14
Cashback measures installed, up to 30 th September 2013	14
Measures installed under ECO, up to 30 th September 2013	15
ECO delivery costs	17
ECO Brokerage	18
Estimated carbon and energy savings for measures installed through Cashback and ECO, up to 30 th September	18
The Supply Chain	19
GD and ECO Tables	22
Section 2 - Estimates of Home Insulation Levels in Great Britain: September 2013	32
Sources and methodology	32
Headline results	32
Sources of increase in insulation levels	35
Remaining potential	36
Annex A – Background	40
Green Deal	40
Energy Company Obligation	41
Green Deal Cashback	41
ECO delivery costs	42
ECO Brokerage	42
The Supply Chain	42
Pioneer Places	42
Core Cities	43
Annex B – Sources and Methodology	44
Experimental Statistics	44
Green Deal and ECO estimates	44

Insulation statistics.....	45
Revisions	46
Further Information and Feedback.....	46
Next Release	46

Charts

Chart 1.1 - Percentage of Green Deal Assessments lodged, up to 30th September 2013, by Energy Efficiency Band compared with Energy Efficiency Band ratings of all England properties in 2011	9
Chart 1.2 - Percentage of Green Deal Assessments and England and Wales properties by property type, up to 30th September 2013.....	10
Chart 1.3 – Percentage of Green Deal Assessments and Great Britain properties by tenure, up to 30 th September 2013	11
Chart 2.1: Percentage of properties with insulation in Great Britain.....	33
Chart 2.2: Homes in Great Britain with cavity wall insulation and loft insulation: March 2008 to September 2013 (Thousands)	34
Chart 2.3. Homes in Great Britain with solid wall insulation: March 2008 to September 2013 (Thousands).....	34
Chart 2.4: Number of homes in Great Britain with cavity wall insulation and loft insulation by source, September 2013 (Thousands).....	36
Chart 2.5: Number of homes in Great Britain with solid wall insulation by source, September 2013 (Thousands).....	36
Chart 2.6: Remaining potential to insulate the housing stock in Great Britain, September 2013	37

Maps

Map 1.1 – Number of Green Deal Assessments per 1,000 households lodged by Local Authority up to 30th September 2013.....	13
Map 1.2 – Provisional number of ECO measures installed by Local Authority per 1,000 households.....	16
Map 1.3 – Number of Assessor organisations operating per Local Authority.....	20
Map 1.4 – Number of Installers operating per Local Authority	21

Key points

[Green Deal, ECO and Cashback: January to September 2013](#)

Of the 85,178 Green Deal Assessments in Great Britain completed:

- The majority (89 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 85 per cent of the overall domestic building stock in England (Chart 1.1).
- There were 225,512 improvements recommended in Green Deal Assessments (around 2.6 improvements per assessment). The most common measure recommended was to install loft insulation, which accounted for 14 per cent of all measures and was recommended in over a third of all GD Assessments. Cavity wall insulation accounted for 13 per cent of all recommended measures, upgrading boiler with the same fuel was 12 per cent, all solid wall insulation types was 11 per cent and Photovoltaics (solar PV) was 9 per cent of all recommended measures.
- Around three quarters (76 per cent) of GD Assessments were in owner-occupied properties (64,635), with the remainder split equally between the private rented sector and the social rented sector. This compares to 65 per cent of the housing stock in Great Britain being owner occupied (Chart 1.3).

Of the provisional 303,795 measures installed under ECO:

- Around a fifth (20 per cent) of ECO measures were in the North West (60,402), the highest in any region. 11 per cent of ECO measures were installed in Scotland (32,470) and six per cent were in Wales (17,180).
- In Great Britain there were nearly 12 ECO measures installed per 1,000 households or, in other words, around 1% of all households in Great Britain had a measure installed under ECO funding. The North East had the highest amount with 21 ECO measures per 1,000 households, followed by the North West with 20. In Scotland there were around 14 ECO measures per 1,000 households and 13 per 1,000 households in Wales.

Carbon and energy saving

- The estimated lifetime carbon savings of measures installed under ECO (excluding Affordable Warmth) and Cashback was 3.03 MtCO₂ with estimated lifetime energy savings of 14,175 GWh.

[Home insulation levels: September 2013](#)

It is estimated that at the end of September 2013:

- 16.3 million homes had loft insulation of at least 125mm (69 per cent of homes with lofts). Of the 7.4 million homes with lofts without at least 125mm of insulation, only around 1 per cent are estimated to have no loft insulation.

- 13.5 million homes had cavity wall insulation (70 per cent of homes with cavity walls). Of the 5.2 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.
- 217,000 homes had solid wall insulation (3 per cent of homes with solid walls).
- Compared with September 2012, 700,000 more properties had loft insulation of at least 125mm, 400,000 more had cavity wall insulation and 46,000 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. With the addition of new data on Core Cities, Pioneer Places and ECO delivery costs, 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 30th September 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](#).

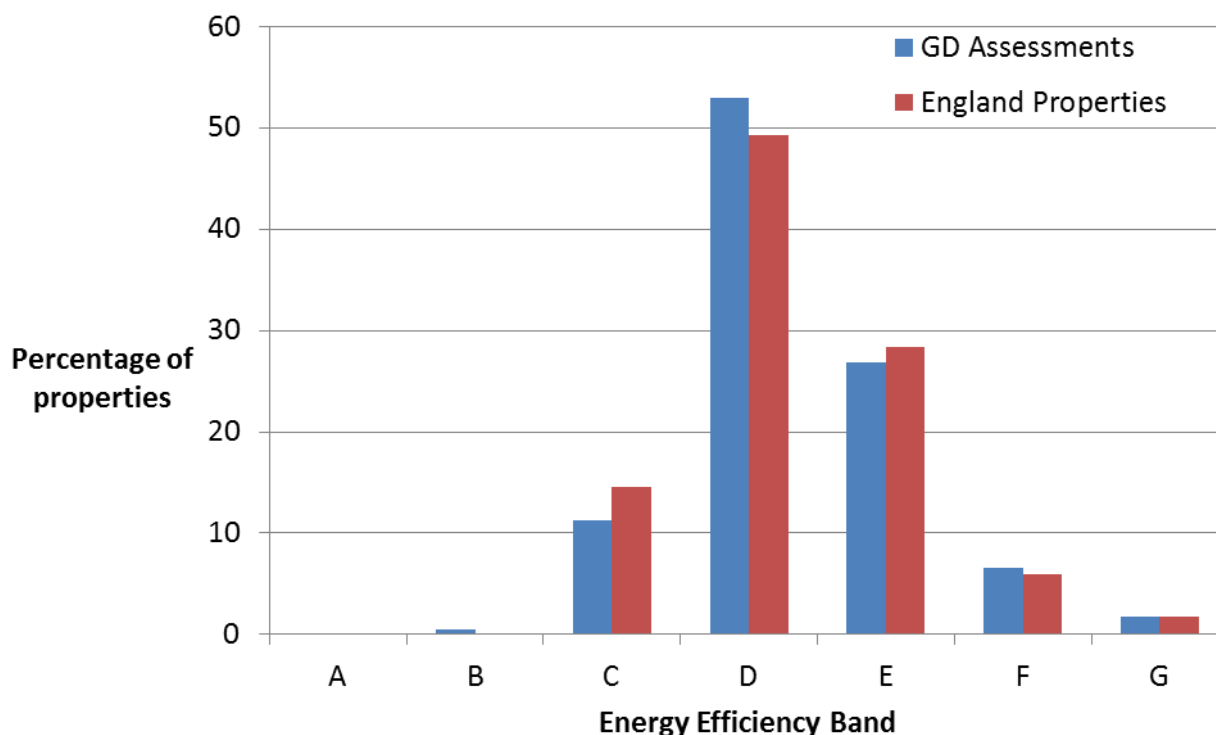
Energy Efficiency Rating (EER) Bands (Table 1.1, Chart 1.1)

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). [Chart 1.1](#) compares properties that have had Green Deal assessments against the energy efficiency rating bands of properties in England in 2011 reported in the English Housing Survey².

A slightly higher proportion of Green Deal assessed properties were in the lower energy efficiency bands compared to all properties in England, with 89 per cent of properties getting a GD Assessment had an energy efficiency band rating of D or lower, compared with 85 per cent of all properties in England.

² English Housing Survey, Headline Report 2011-12, Annex Table 16
<https://www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-statistics>

Chart 1.1 - Percentage of Green Deal Assessments lodged, up to 30th September 2013, by Energy Efficiency Band compared with Energy Efficiency Band ratings of all England properties in 2011



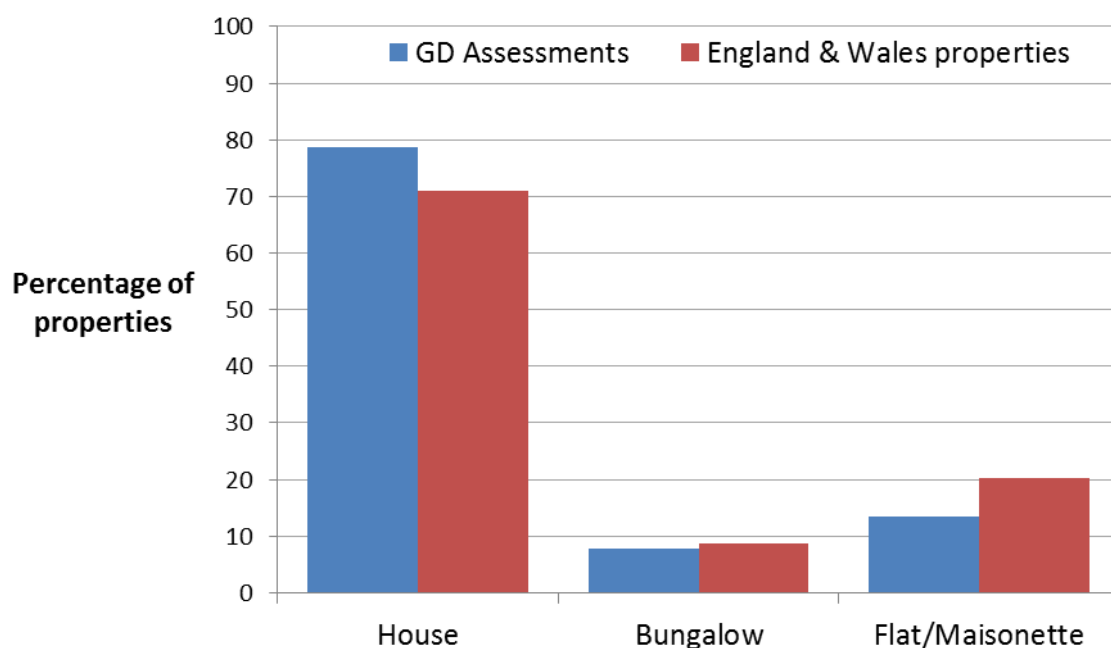
Property Type (Table 1.2, Chart 1.2)

Chart 1.2 shows that 79 per cent of GD Assessments were in houses (67,054), 12 per cent were in flats (9,799), eight per cent were in bungalows (6,678) and two per cent were in maisonettes (1,647). The housing stock in England³ (as reported in the English Housing Survey 2011-12⁴) 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.

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

⁴ DCLG, English Housing Survey, Headline Report 2011-12, Annex Table 1.4
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211224/Chapter_1_Tables_Figures_and_Annex_Tables.xls

Chart 1.2 - Percentage of Green Deal Assessments and England and Wales properties by property type, up to 30th September 2013

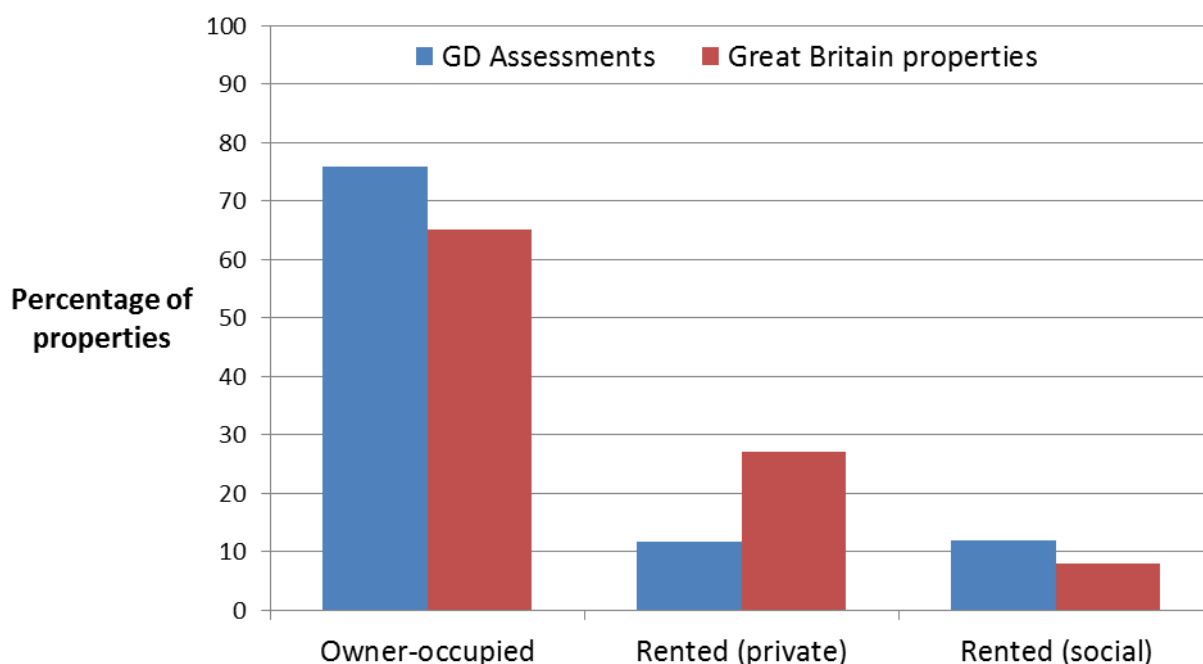


Tenure (Table 1.3, Chart 1.3)

Around three quarters (76 per cent) of GD Assessments were in owner-occupied properties (64,635), 12 per cent were in the social rented sector (10,042) and the remaining 12 per cent were in the private rented sector (9,976). In comparison, according to dwelling stock figures released by Department for Communities and Local Government⁵ for Great Britain there were 65 per cent owner-occupied, 8 per cent social rented sector and 27 per cent private rented sector properties. 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.

⁵ 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>

Chart 1.3 – Percentage of Green Deal Assessments and Great Britain properties by tenure, up to 30th September 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 Britain⁶. This is around 13 per cent of all properties in Great Britain, and this is similar to the 12 per cent 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 225,512 improvements recommended in Green Deal Advice Reports, on average around 2.6 recommended measures per GD Assessment. In 40 per cent of Assessments (34,215) one measure was recommended, in 22 per cent of Assessments (18,414) a package of two measures were recommended, in 11 per cent of Assessments (9,522) a package of three measures were recommended, in 9 per cent of Assessments (7,890) a package of four measures were recommended and in 18 per cent of Assessments (15,137), packages of five or more measures were recommended (Table 1.5b).

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

Cavity wall insulation was the second most common recommendation (13 per cent of all measures recommended) and to upgrade boiler with the same fuel the third most common (12 per cent of all recommended measures). Photovoltaics (solar PV) were the most recommended micro-generation measure, accounting for 9 per cent of recommendations and recommended in around a quarter of all GD assessments. Floor insulation (8 per cent of all measures recommended) and heating controls for wet central heating systems (8 per cent) were other

⁶ 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

commonly recommended measures. All solid wall insulation types accounted for 11 per cent of all measures recommended.

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

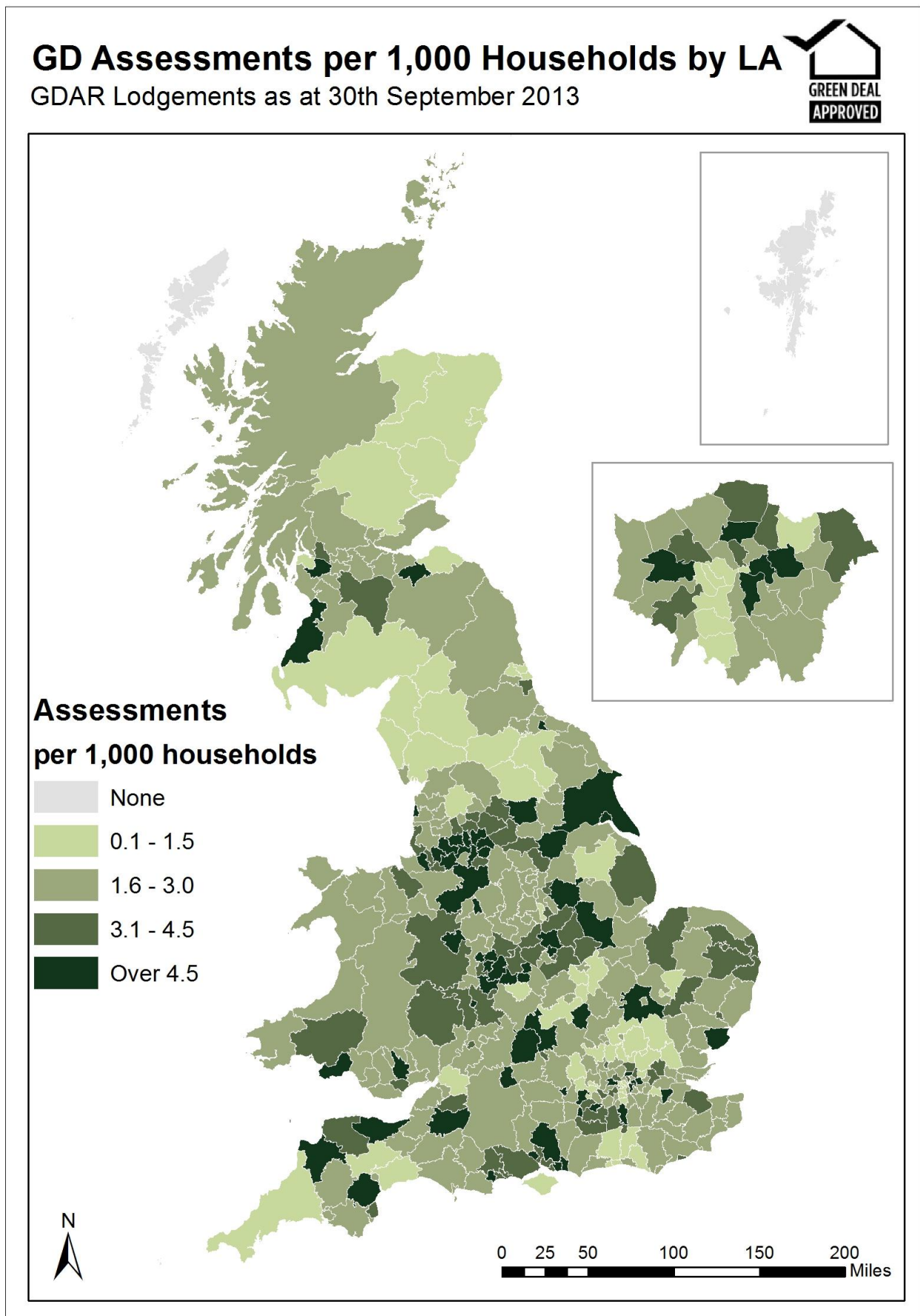
GD Assessments have been taking place in properties throughout Great Britain with 85,178 GD Assessments lodged in total up to 30th September (see Table 1.6 for the regional breakdown). Tables 1.6a and 1.6b present the number of GD Assessments that took place in each Local Authority (LA) (Table 1.6a) and Parliamentary Constituency (Table 1.6b). Table 1.6a shows that the large majority of Local Authorities had at least 25 GD Assessments, showing that GD Assessments were spread across the country.

In this release we have been able to report the number of GD Assessments per 1,000 households which 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 3.3 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 5.3; this was followed by Yorkshire and the Humber with 4.1, and The North West with 4. Wales had 3.2 and Scotland had 2.2 Green Deal Assessments per 1,000 households.

Map 1.1 shows the number of Green Deal Assessments lodged by Local Authority in Great Britain per 1,000 households.

Map 1.1 – Number of Green Deal Assessments per 1,000 households lodged by Local Authority up to 30th September 2013



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.

From data returns received by DECC by 14th November 2013, it is estimated that 8,334 Domestic Green Deal Assessments were lodged having been funded through the Green Deal Pioneer Places (see Table 1.7).

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.

Provisional estimates based on data returns submitted to DECC by 14th November 2013 indicate that around 2,106 properties had installed energy efficiency measures which had been funded through the Core Cities projects. The provisional number of measures installed in these properties was 3,005⁷. Over 1,000 of these measures were external solid wall insulation.

Cashback measures installed, up to 30th September 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 6,994 properties⁸ where measures had been installed following payment from the Cashback scheme up to 30th September 2013.

Geographic location of properties where measures were installed following Cashback payment, up to 30th September (Tables 1.9, 1.9a and 1.9b)

Table 1.9 presents the regional breakdown of properties where measures were installed following Cashback payment up to 30th September. Tables 1.9a and 1.9b present these breakdowns of Cashback properties by LA and Parliamentary Constituency in England and Wales up to 30th September⁹.

There were 3 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

⁷ This includes a number of measures which were also reported as ECO measures.

⁸ This includes a small number of properties where the Cashback payment was made in October 2013 but the measures were installed before the end of September 2013.

⁹ These figures only present breakdowns for England and Wales. A separate Cashback scheme operates in Scotland (see [website](#)).

5.3 (accounting for around a quarter of all cashback vouchers paid, see Table 1.9). There were 2.9 Cashback payments per 10,000 households in Wales.

Measures installed under ECO, up to 30th September 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 September 2013.

All measures installed under ECO are provisional until the end of the obligation period as checks are undertaken. Initial validation checks are undertaken by Ofgem in the month following receipt of data and longer-term audits are done over the obligation period (e.g. to verify the installation of the measures and the quality of installations and to ensure compliance with the ECO guidelines). Users should note that, in order to produce the most timely data possible, estimates in this report include a month of data that has yet to be through initial Ofgem validation checks (i.e. as reported by energy suppliers to Ofgem). Revisions to data are routinely included in releases and will be explained if they are large.

Geographic location of provisional measures installed under ECO, up to 30th September (Tables 1.10, 1.10a and 1.10b, Map 1.2)

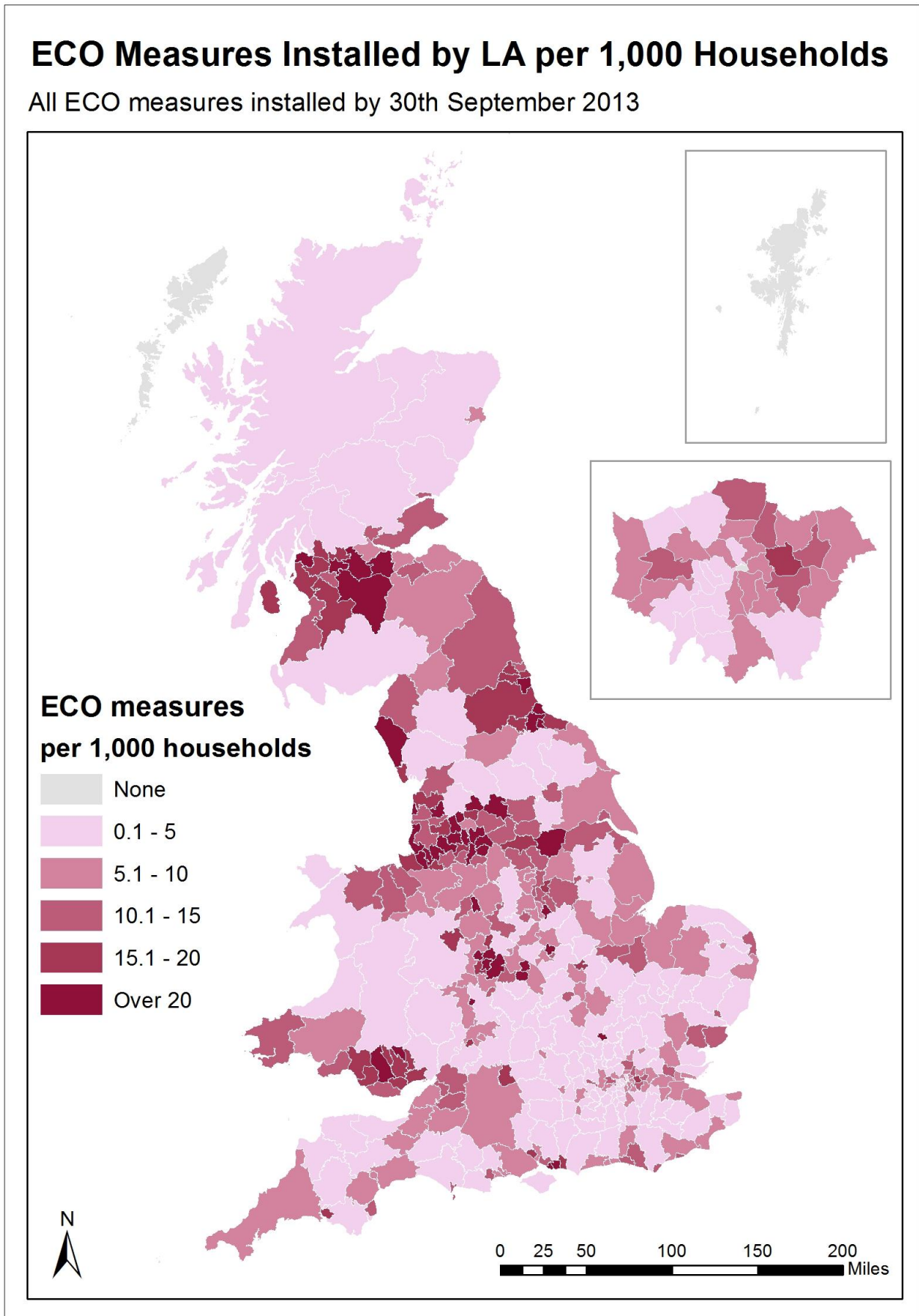
Tables 1.10, 1.10a and 1.10b present the number of provisional measures installed under ECO, broken down by obligation, in each region (Table 1.10), LA (Table 1.10a) and Parliamentary Constituency (Table 1.10b) up to 30th September.

Around a fifth (20 per cent) of ECO measures were in the North West (60,402), the highest in any region. The regions with the next highest proportions were the West Midlands (13 per cent) and Yorkshire and the Humber (10 per cent) 11 per cent of ECO measures were installed in Scotland (32,470) and six per cent were in Wales (17,180).

However, when comparing areas, it is more representative to use the number of ECO measures per 1,000 households. In Great Britain there were 12 ECO measures installed per 1,000 households or, in other words, around 1% of all households in Great Britain had a measure installed under ECO funding. The North East had the highest amount with 21 ECO measures per 1,000 households, followed by the North West with 20. In Scotland there were around 14 ECO measures per 1,000 households and 13 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.

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



Up to 30th September 2013, 266,016 unique properties¹⁰ had benefitted from having at least one ECO measure installed (Table 1.10). By ECO obligation, 114,155 properties had Affordable Warmth (HHCRO) measures installed, 83,181 properties had Carbon Saving Community measures installed, and 69,685 unique properties had Carbon Savings Target measures installed.

Fuel type of property of provisional measures installed under ECO, up to 30th September (Table 1.11)

Table 1.11 presents the number of provisional measures installed under ECO up to 30th September, broken down by the main fuel type of the property and obligation. This shows that 95 per cent of all ECO measures were installed in gas-fuelled properties, with 4 per cent installed in those fuelled by electricity and 1 per cent installed in those fuelled by other fuels. This varies slightly by obligation, with more electricity-fuelled properties benefitting from measures installed under the Carbon Saving Obligation (10 per cent) than under Affordable Warmth (1 per cent).

Gas is the main source of heating in 84 per cent of households in England¹¹. This suggests that a higher proportion of measures installed under ECO were in gas-fuelled properties that would be expected from the housing stock.

This release also includes new information on the property type (1.11a) and tenure (1.11b) of measures installed under ECO. The percentage of ECO measures installed traded through brokerage (1.11c) and the estimated bill savings for Affordable Warmth measures (1.11d) are also presented for the first time in the [GD/ECO tables](#).

ECO delivery 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 September 2013. For more information on ECO costs please see [Annex B](#) and full definitions are included [here](#).

The latest aggregate delivery costs (up to the end of September 2013) are included in Table 1.12. 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 nine months 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 roughly in line with the central scenario in the [DECC Impact Assessment](#) for ECO and with DECC's estimates of the costs of delivering previous obligations.

Table 1.12a shows the average price by obligation and the highest and lowest prices reported by suppliers for each obligation as at the end of September 2013. The suppliers have not been identified to protect commercial confidentiality. This shows that some energy suppliers are

¹⁰ The number of unique properties by ECO obligation does not tally to the total number of unique properties (266,016) as a property can have a number of different measures installed under different ECO obligations.

¹¹ Table 23, Fuel poverty statistics 2011, <https://www.gov.uk/government/publications/fuel-poverty-2011-detailed-tables>

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 £1.9bn 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.

ECO Brokerage clearing prices by ECO obligation by auction, up to 31st October (Table 1.13)

Table 1.13 presents the clearing prices of all lots sold through ECO brokerage from all 21 auctions taking place up to the end of October, with a total value of contracts let worth £288.2 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 30th September

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 30th September (Table 1.14)

Table 1.14 presents the estimated impact of measures installed through Cashback or under ECO (through the Carbon Saving Obligation and Carbon Saving Communities Obligation) up to the end of September 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-weighting any increase in non-traded sector emissions.

The estimated lifetime carbon savings of these measures is 3.03 MtCO₂ with estimated lifetime energy savings of 14,175 GWh.

For 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.

This table will, in the future, try to account for the estimated carbon and energy savings through GD or combinations of GD and other delivery mechanisms.

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

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 28th October (Table 1.15, Maps 1.3 and 1.4)

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 organisations¹² (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 1.15 and Maps 1.3 and 1.4 show the self-reported operational coverage of Green Deal Providers, Assessor organisations and Installers by Local Authority. These figures are based on information submitted¹³ onto the ORB consumer search tool by a number of these participating organisations. 36 of the 112 (32 per cent) Green Deal Providers, 182 of the 339 (54 per cent) Assessor organisations and 935 of the 2,233 (42 per cent) Installers had submitted their information as at 28th October 2013¹⁴.

These figures and maps provide an indication of where these organisations are expecting to operate. However, businesses are flexible and may travel further to other areas as the market develops. Table 1.15 and Maps 1.3 and 1.4 indicate that there is good coverage of where these organisations are expecting to operate across all Local Authorities in Great Britain.

There is some variation in the level of coverage in different administrative areas, with generally fewer Green Deal Providers, Assessor Organisations and installers in Scotland and Wales compared to England. LAs in the North West have the most complete coverage of the GD supply chain out of all regions in Great Britain.

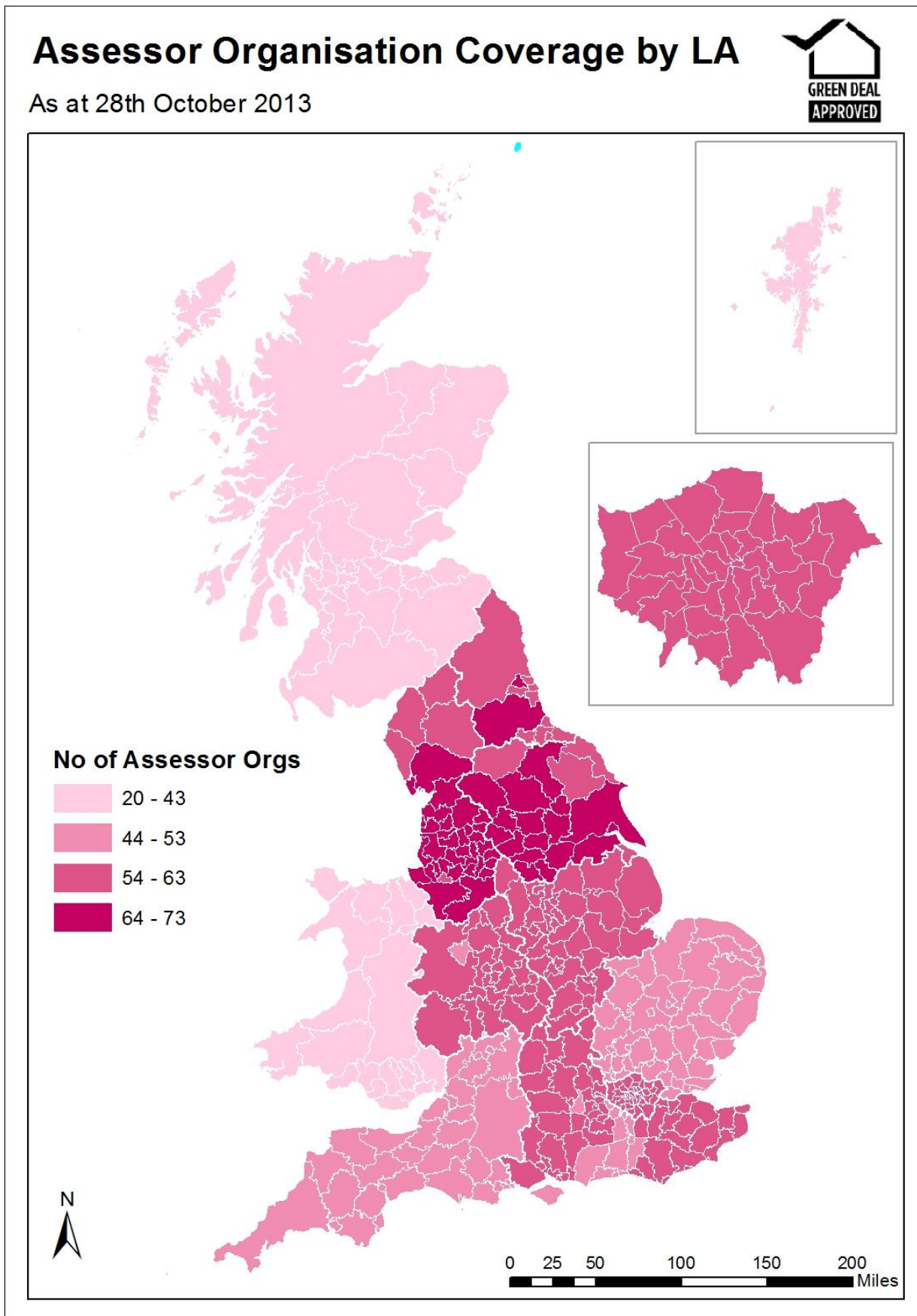
Overall, all LAs are covered by at least nine Green Deal Providers, 20 Assessor Organisations and 74 installers.

¹² Individual Installers within an installer organisation do not need to register.

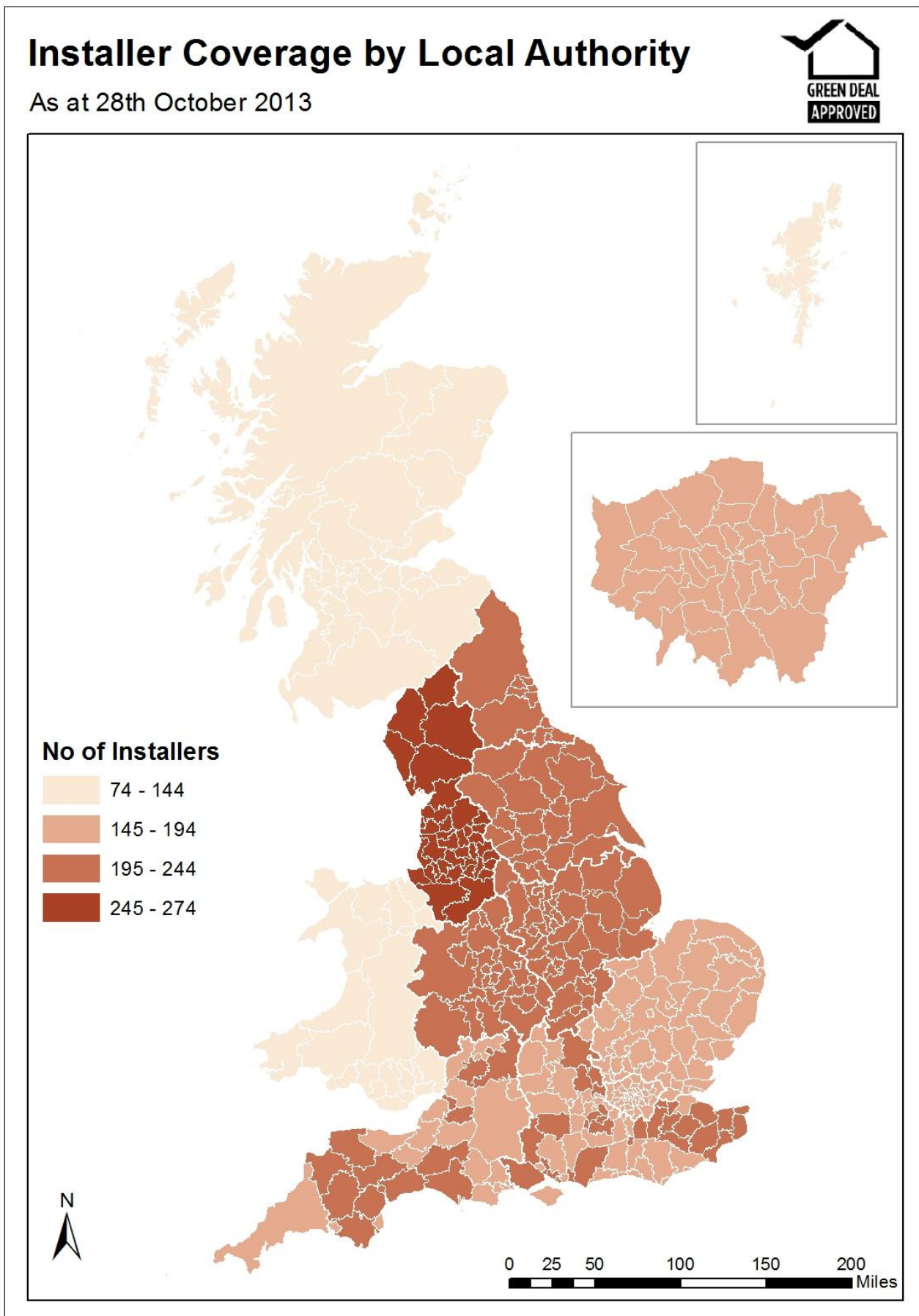
¹³ GD accredited organisations are able to provide their operational coverage information onto the ORB consumer search tool on a voluntary basis. Some organisations have waited until they are ready to delivery GD services before providing their details. Separate entries have been submitted for each individual sub-division of an organisation which has its own certification ID.

¹⁴ This information is taken from the 28th October 2013 as there are lags resulting from the time it takes for organisations to provide their information. Earlier information provided may not be representative of delivery of services in the first half of 2013.

Map 1.3 – Number of Assessor organisations operating per Local Authority



Map 1.4 – Number of Installers operating per Local Authority



GD and ECO Tables

Table 1.1: Number of Green Deal Assessments by Energy Efficiency Band, up to 30th September 2013, Great Britain

Energy Efficiency Band	Green Deal Assessments	Percentage of Assessments
A	35	0
B	453	1
C	9,600	11
D	45,094	53
E	22,861	27
F	5,615	7
G	1,520	2
Total	85,178	100

Table 1.2: Number of Green Deal Assessments by Property Type up to 30th September 2013, Great Britain

Property Type	Green Deal Assessments	Percentage of Assessments
House	67,054	79
Bungalow	6,678	8
Flat	9,799	12
Maisonette	1,647	2
Total	85,178	100

Table 1.3: Number of Green Deal Assessments by tenure, up to 30th September 2013, Great Britain

Tenure	Green Deal Assessments	Valid Percentage of Assessments ¹
Owner-occupied	64,635	76
Rented (private)	9,976	12
Rented (social)	10,042	12
Unknown	525	-
Total	85,178	100

¹ 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 30th September 2013, Great Britain

Properties by whether on or off Mains Gas Grid	Green Deal Assessments	Percentage of Assessments
Off Gas	9,878	12
On Gas	75,300	88
Total	85,178	100

Table 1.5: Number of improvements recommended in Green Deal Assessments by measure type (grouped), up to 30th September 2013, Great Britain

Measure Types	Number of improvements recommended ¹	Percentage of improvements recommended
Boiler	30,822	13.7
Cavity Wall Insulation	29,356	13.0
Loft Insulation	34,352	15.2
Micro-generation	34,074	15.1
Other Heating	22,287	9.9
Other Insulation	42,800	19.0
Solid Wall Insulation	23,960	10.6
Window Glazing	7,861	3.5
Total	225,512	100

¹ 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 30th September 2013, Great Britain

Measure Type by Measures	Number of improvements recommended ¹	Percentage of improvements recommended
Boiler	30,822	13.7
Change heating to gas condensing boiler (fuel switch)	1,333	0.6
Change heating to gas condensing boiler (fuel switch), and flue gas heat recovery	67	0.0
Change heating to gas condensing boiler (no fuel switch)	518	0.2
Change heating to gas condensing boiler (no fuel switch), and flue gas heat recovery	17	0.0
Condensing oil boiler	444	0.2
Upgrade boiler, same fuel	27,571	12.2
Upgrade boiler, same fuel, and flue gas heat recovery	872	0.4

Cavity wall insulation	29,356	13.0
Loft Insulation	34,352	15.2
Loft Insulation	32,681	14.5
Room-in-roof insulation	1,671	0.7
Micro-generation	34,074	15.1
Air source heat pump with radiators	591	0.3
Air source heat pump with underfloor heating	69	0.0
Biomass wood logs boiler	369	0.2
Biomass wood pellets room heater with boiler	223	0.1
Ground source heat pump with radiators	158	0.1
Ground source heat pump with underfloor heating	44	0.0
Micro-CHP	61	0.0
Photovoltaics	19,704	8.7
Solar water heating	11,645	5.2
Wind turbine (on mast)	154	0.1
Wind turbine (roof mounted)	1,056	0.5
Other Heating	22,287	9.9
Cylinder thermostat	3,032	1.3
Heating controls for warm air system	282	0.1
Heating controls for wet central heating system	17,155	7.6
New or replacement storage heaters	1,155	0.5
Replacement warm-air unit	110	0.0
Waste water heat recovery	553	0.2
Other Insulation	42,800	19.0
Draughtproofing	9,072	4.0
Flat roof insulation	1,992	0.9
Floor insulation	18,572	8.2
Hot water cylinder insulation	6,094	2.7
Insulated doors	7,070	3.1
Solid Wall Insulation	23,960	10.6
External insulation with cavity wall insulation	1,091	0.5
Solid wall insulation (pre 1967 England & Wales, pre 1965 Scotland)	15,305	6.8
Solid wall insulation (from 1967 E&W, from 1965 Scotland)	7,564	3.4
Window Glazing	7,861	3.5
Double glazing	7,059	3.1
Secondary glazing	607	0.3
Triple glazing	195	0.1
Total	225,512	100

¹ 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 30th September 2013, Great Britain

Number of improvements recommended ¹	Number of Green Deal Assessments	Percentage of Green Deal Assessments
1	34,215	40
2	18,414	22
3	9,522	11
4	7,890	9
5 or more	15,137	18
Total	85,178	100

Table 1.6: Number of Green Deal Assessments lodged by region, up to 30th September 2013

Area Codes	Area names	Green Deal Assessments	Percentage of Assessments	Households with at least one usual resident ¹	Green Deal Assessments per 1,000 households
K03000001	Great Britain	85,178	100	25,738,820	3.3
E92000001	England	75,873	89	22,063,368	3.4
E12000001	North East	2,594	3	1,129,935	2.3
E12000002	North West	11,986	14	3,009,549	4.0
E12000003	Yorkshire and The Humber	9,069	11	2,224,059	4.1
E12000004	East Midlands	6,436	8	1,895,604	3.4
E12000005	West Midlands	12,087	14	2,294,909	5.3
E12000006	East	5,970	7	2,423,035	2.5
E12000007	London	9,371	11	3,266,173	2.9
E12000008	South East	11,897	14	3,555,463	3.3
E12000009	South West	6,463	8	2,264,641	2.9
W92000004	Wales	4,202	5	1,302,676	3.2
S92000003	Scotland	5,103	6	2,372,780	2.2

Table 1.6a: Number of Green Deal Assessments lodged by administrative area, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.6b: Number of Green Deal Assessments lodged by Parliamentary Constituency, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.7: Number of Green Deal Assessments delivered under the Pioneer Places Project, by Pioneer Place Area (Table available in Excel [here](#)).

Table 1.8: Provisional number of properties with energy efficiency work delivered under Core Cities Project¹, by Core City Area

Core City Area	Number of properties with energy efficiency measures funded by Core Cities ²	Number of measures installed ³
Birmingham ⁴	506	528
Bristol	93	93
Leeds	535	621
Liverpool	93	120
Manchester	578	1,083
Newcastle	137	312
Nottingham	97	131
Sheffield	67	117
Total	2,106	3,005

¹ Based on returns received up to 14th November 2013.

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

³ This includes a number of measures which were also reported as ECO measures.

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

Table 1.8a: Provisional number of energy efficiency measures installed under Core Cities Project¹, by measure type

Measure type	Number of measures installed ²	Percentage of measures
Air Source Heat Pump	16	0.5
Boiler	484	16.1
Cavity Wall Insulation	30	1.0
Cellar Insulation	23	0.8
Draughtproofing	41	1.4
ECO Pod ³	426	14.2
External Wall Insulation	1,086	36.1
Heating controls	12	0.4
High Performance External Doors	182	6.1
Internal Wall Insulation	95	3.2
Loft Insulation	230	7.7
Mechanical Ventilation Heat Recovery	9	0.3
VPhase voltage optimisation	16	0.5
Window Glazing	329	10.9
Unknown	26	0.9
Total	3,005	100

¹ Based on returns received up to 14th November 2013.

² This includes a number of measures which were also reported as ECO measures.

³ This number of Eco Pod installations is measured by the number of individual addresses that are connected to the ECO Pod installation.

Table 1.9: Number of Cashback vouchers paid by region, up to 30th September 2013, England and Wales

Area Codes	Area names	Total number of Cashback vouchers paid	Valid percentage of Cashback vouchers paid ^{1 2}	Households with at least one usual resident ³	Cashback vouchers paid per 10,000 households
K04000001	England and Wales	6,994	100	23,366,044	3.0
E92000001	England	6,383	94	22,063,368	2.9
E12000001	North East	197	3	1,129,935	1.7
E12000002	North West	1,607	24	3,009,549	5.3
E12000003	Yorkshire and The Humber	703	10	2,224,059	3.2
E12000004	East Midlands	656	10	1,895,604	3.5
E12000005	West Midlands	687	10	2,294,909	3.0
E12000006	East	302	4	2,423,035	1.2
E12000007	London	529	8	3,266,173	1.6
E12000008	South East	1,030	15	3,555,463	2.9
E12000009	South West	672	10	2,264,641	3.0
W92000004	Wales	382	6	1,302,676	2.9
	Unknown	229	-		

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

² 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 September.

Table 1.9a: Number of Cashback vouchers paid by administrative area, up to 30th September 2013, England and Wales (Table available in Excel [here](#)).

Table 1.9b: Number of Cashback vouchers paid by Parliamentary Constituency, up to 30th September 2013, England and Wales (Table available in Excel [here](#)).

Table 1.10: Provisional number of ECO measures by ECO obligation by region and total number of unique properties benefitting from ECO, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.10a: Provisional number of ECO measures by ECO obligation by administrative area, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.10b: Provisional number of ECO measures by ECO obligation by Parliamentary Constituency, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.11: Provisional number of ECO measures by main fuel type of property and ECO obligation, up to 30th September 2013

Fuel Type	Obligation						Total number of ECO measures delivered ¹	
	Carbon Saving Target (CSO)		Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO)			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Gas	87,506	88.3	73,888	96.9	126,050	98.4	287,444	94.7
Electric	10,012	10.1	1,774	2.3	1,063	0.8	12,849	4.2
Other ²	456	0.5	449	0.6	343	0.3	1,248	0.4
Oil	765	0.8	80	0.1	527	0.4	1,372	0.5
Coal	356	0.4	90	0.1	66	0.1	512	0.2
Unknown	84	-	5	-	281	-	370	-
Total	99,179	100	76,286	100	128,330	100	303,795	100

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

² "Other" fuel type includes District Heating Systems, Liquefied Petroleum Gas and renewables.

Table 1.11a: Provisional number of households in receipt of ECO measures by property type and ECO obligation, up to 30th September 2013¹

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	56,935	68.8	61,747	89.0	102,688	90.3	221,370	83.3
Bungalow	2,435	2.9	2,044	2.9	5,700	5.0	10,179	3.8
Flat	22,722	27.5	5,351	7.7	5,095	4.5	33,168	12.5
Maisonette	643	0.8	233	0.3	174	0.2	1,050	0.4
Unknown ²	140	-	23	-	86	-	249	-
Total	82,875	100	69,398	100	113,743	100	266,016	100

¹ Percentage of ECO measures is calculated only for those ECO measures where the property type is known

² Unknown property type includes 19 mobile homes

Table 1.11b: Provisional number of households in receipt of ECO measures by tenure and ECO obligation, up to 30th September 2013 ¹

Tenure	Obligation						Total number of ECO measures delivered ¹	
	Carbon Saving Target (CSO)		Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO) ²			
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Owner-occupied	55,687	74.8	53,086	83.7	89,359	82	198,132	80.2
Rented (private)	7,820	10.5	4,819	7.6	19,904	18	32,543	13.2
Rented (social)	10,932	14.7	5,538	8.7	N/A	-	16,470	6.7
Unknown	8,436	-	5,955	-	4,480	-	18,871	-
Total	82,875	100	69,398	100	113,743	100	266,016	100

¹ Percentage of ECO measures is calculated only for those ECO measures where the tenure is known

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

Table 1.11c: Provisional number and percentage of ECO measures traded through brokerage by month and ECO obligation, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.11d: Estimated bill savings for Affordable Warmth measures installed by month, up to 30th September 2013¹

Installation Month ²	Total number of Affordable Warmth measures	Estimated bill saving (£)
January 2013 ¹	2,705	20,345,191
February 2013	6,087	32,152,979
March 2013	7,404	43,846,146
April 2013	9,868	71,422,166
May 2013	12,189	126,136,508
June 2013	16,040	169,733,224
July 2013	19,437	232,885,124
August 2013	25,864	305,585,096
September 2013	28,736	353,000,523
Total to date	128,330	1,355,106,957

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

² 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.

Table 1.12: Estimated ECO delivery costs as reported by energy suppliers, up to end September 2013

Obligation	Average price ¹	Total delivery costs	Scaled-up annual cost ²	Central Impact Assessment
Affordable Warmth	£0.17	£224,374,175	£310,435,446	£350,000,000
Carbon Saving Communities	£58.98	£69,812,392	£178,254,802	£190,000,000
Carbon Saving Obligation	£97.72	£252,498,451	£907,675,549	£760,000,000
Total		£546,685,018	£1,396,365,797	£1,300,000,000

¹Average 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.

²Annual 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.

Table 1.12a: Estimated average ECO delivery costs as reported by energy suppliers, up to end September 2013

Obligation	Average price ¹ (all suppliers)	Highest price (individual supplier) ²	Lowest price (individual supplier) ²
Affordable Warmth	£0.17	£0.21	£0.13
Carbon Saving Communities	£58.98	£119.65	£38.02
Carbon Saving Obligation	£97.72	£128.30	£83.09
Scaled up annual cost ³	£1.4bn	£1.9bn	£1.2bn
Potential ECO costs passed through (per customer per year)	£55	£70	£45

¹Average 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.

²Suppliers 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.

³Annual 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.

Table 1.13: ECO Brokerage Auction clearing prices¹ by ECO obligation by auction, up to end of October 2013

Auction	Clearing price for Carbon Saving Obligations (CSO) £ per tonne	Clearing price for Carbon Saving Communities (CSCO) £ per tonne	Clearing price for Affordable Warmth (HHCRO) £ per £ notional bill saving
Auction 1	£100.40	Nothing sold	£0.22
Auction 2	£103.13	Nothing sold	£0.21 - £0.24
Auction 3	£120.00	£60.00	£0.23 - £0.24
Auction 4	£120.00	£35.57 - £65.37	£0.22 - £0.24
Auction 5	£115.10 - £125.10	Nothing sold	£0.20 - £0.24
Auction 6	£122.83	Nothing sold	£0.23 - £0.24
Auction 7	£102.60 - £120.00	£42.00 - £55.00	£0.22 - £0.24
Auction 8	£119.00 - £120.00	£50.00 - £55.00	Nothing sold
Auction 9	£100.00 - £120.10	£50.00 - £52.00	£0.21
Auction 10	£112.00	£50.00 - £52.00	£0.19 - £0.21
Auction 11	£99.00 - £104.00	£50.00	£0.17 - £0.19
Auction 12	£96.00 - £99.00	£45.00	£0.15 - £0.16
Auction 13	£94.56	no lots submitted	£0.12 - £0.15
Auction 14	Nothing sold	£45.00 - £50.00	£0.14
Auction 15	£85.00	£44.00 - £50.00	£0.13 - £0.15
Auction 16	£58.00 - £95.00	£50.00	£0.13 - £0.15
Auction 17	£95.00	Nothing sold	Nothing sold
Auction 18	£94.66 - £102.00	£47.10 - £50.20	£0.13
Auction 19	£100.00 - £105.00	£50.00 - £59.00	£0.12 - £0.14
Auction 20	£99.00 - £100.00	£50.10 - £99.00	£0.12 - £0.14
Auction 21	£90.10 - £105.00	Nothing sold	Nothing sold

¹ Clearing prices are either presented as a single figure (where only one trade has taken place or where multiple trades have taken place at the same price) or as a range (where two or more trades have taken place at different prices).

Table 1.14: Estimated carbon and energy savings relating to measures installed through Cashback and ECO, up to 30th September 2013 (Table available in Excel [here](#)).

Table 1.15: Number of accredited Assessor organisations, Green Deal Providers, and Installer organisations reporting where they would operate, by Lower Tier Local Authority, as of 28th October 2013 (Table available in Excel [here](#)).

Table 1.16: The number of Energy Savings Advice Service (ESAS) Calls answered and the number of Green Deal Webpage views on Gov.uk, by month (Table available in Excel [here](#)).

Section 2 - Estimates of Home Insulation Levels in Great Britain: September 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 CERT¹⁵, the Community Energy Saving Programme (CESP)¹⁶, Warm Front¹⁷, Green Deal (including Cashback)¹⁸ and the Energy Company Obligation¹⁹ (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 September 2013, 13.5 million had cavity wall insulation (70 per cent of properties with a cavity wall), 16.3 million had loft insulation (69 per cent of properties with a loft) and 217,000 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 34) after the end of CERT and CESP are not currently included in these figures, and therefore actual delivery during the first half of 2013 is likely to be higher than reported in this document.

¹⁵<http://www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/CU/Pages/CU.aspx>

¹⁶<http://www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/cesp/Pages/cesp.aspx>

¹⁷<https://www.gov.uk/government/policies/helping-households-to-cut-their-energy-bills/supporting-pages/warm-front-scheme>

¹⁸<https://www.gov.uk/green-deal-energy-saving-measures>

¹⁹<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

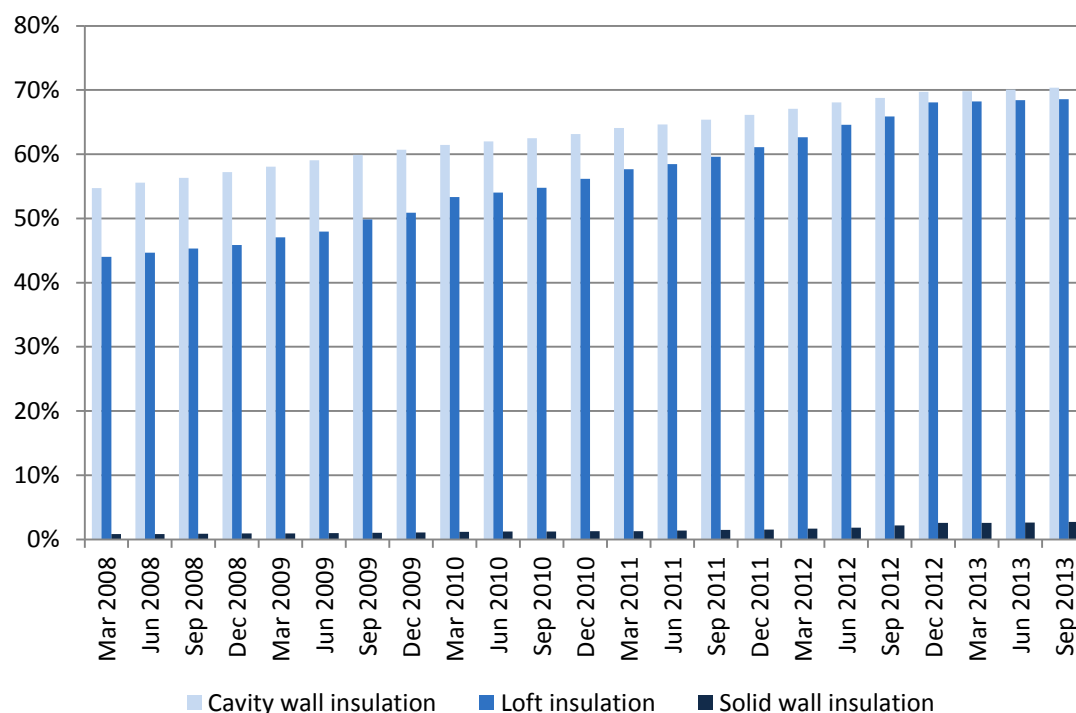


Table 2.1: Insulated homes in Great Britain, March 2008 to September 2013 (Thousands)

	Cavity wall insulation	Loft insulation $\geq 125\text{mm}$	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	12,750	14,780	132
Sep 2012	13,110	15,590	171
Dec 2012	13,320	16,120	204
Mar 2013	13,360	16,170	205
Jun 2013	13,430	16,230	209
Sep 2013 p	13,510	16,290	217

p, provisional figure.

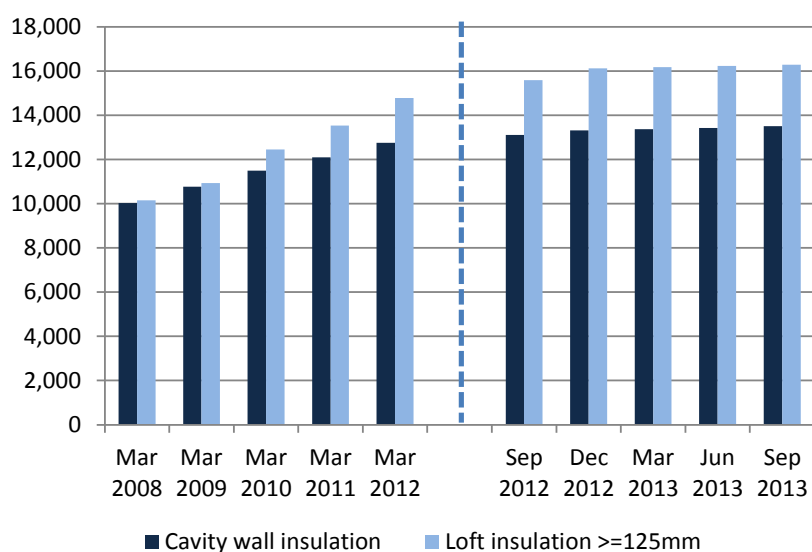
Taking into account retro-fit insulation delivered through Government schemes and new properties²⁰ built with insulation during the last year, there were 700,000 more homes with at least 125mm of loft insulation, 400,000 more homes with cavity wall insulation and 46,000 more homes with solid wall insulation compared with September 2012.

The number of retrofit wall and loft insulations in the first half of 2013 is low compared to delivery in previous quarters. This partially reflects the high delivery at the end of the CERT and

²⁰ 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.

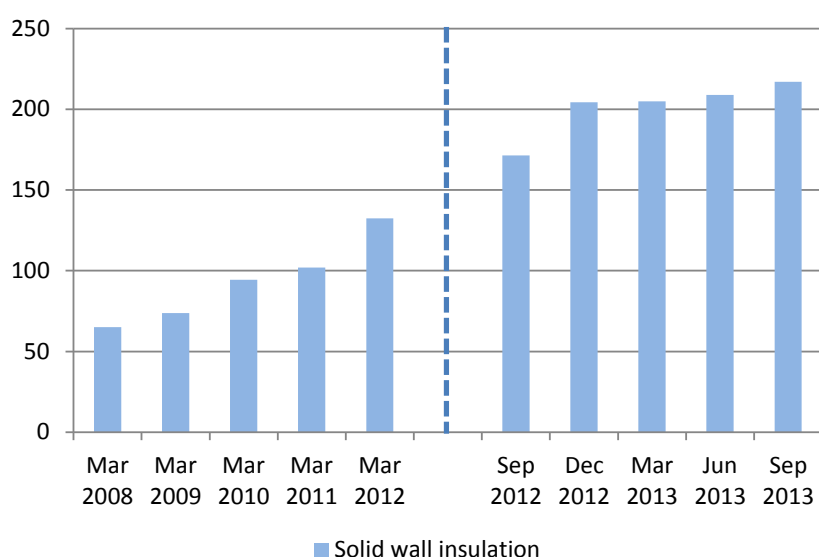
CESP schemes in 2012, but the data for the first half of 2013 are also likely to be an underestimate of measures installed. This is due to mitigation action relating to CERT and CESP not being included in current figures. In September 2012 Ofgem published an open letter²¹ and stated that ‘energy suppliers and generators may choose to continue to deliver measures after the deadline of 31 December 2012 as a ‘mitigation action’ to address the consumer harm associated with failure to meet their targets’. There are currently no estimates available on the level of this activity. In addition insulation measures delivered in Scotland under the Green Homes Cashback scheme are not currently included in these estimates.

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



- The number of properties with cavity wall insulation increased by 3 per cent (400,000) between the end of September 2012 and September 2013.
- The number of properties with loft insulation with a depth of at least 125mm increased by 5 per cent (700,000) between the end of September 2012 and September 2013.

Chart 2.3. Homes in Great Britain with solid wall insulation²²: March 2008 to September 2013 (Thousands)



- The number of properties with solid wall insulation increased by 27 per cent (46,000) between the end of September 2012 and September 2013.

²¹ <https://www.ofgem.gov.uk/ofgem-publications/58765/open-letter-cert-cesp-210912.pdf>

²² Solid wall insulation has been defined throughout this report as internal or external wall insulation installed through Government schemes.

Sources of increase in insulation levels

Increases in the number of properties with insulation result from new properties being built²³ and from retro-fit insulation, predominately through Government schemes. Table 2.1 and Charts 2.4 and 2.5 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, September 2013 (Thousands)

	Cavity wall insulation	Loft insulation >=125mm	Solid wall insulation
April 2008 housing surveys	10,030	10,150	65
Properties built since April 2008	770	600	..
Government scheme delivery April 2008 - December 2012	2,600	5,450	139
Green Deal/ECO delivery since January 2013	100	90	13
Total	13,510	16,290	217
Homes in Great Britain	19,170	23,730	7,990
Percentage of homes insulated	70%	69%	3%

[^] 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.

[†] The number of homes in Great Britain with cavity walls, lofts and solid walls respectively.

[‡] 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.

²³ 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.

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

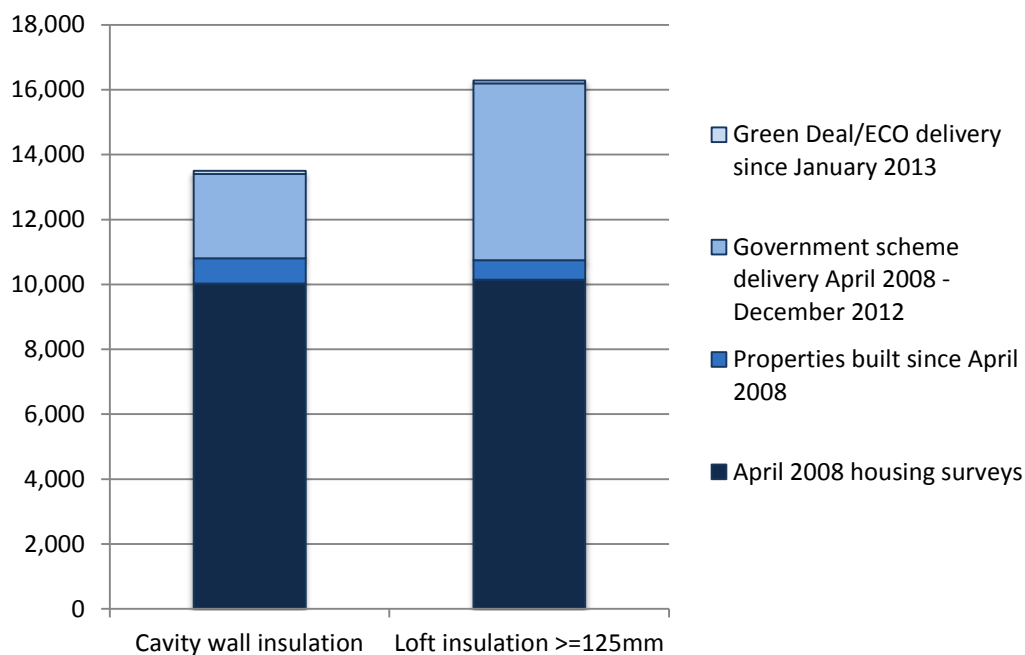
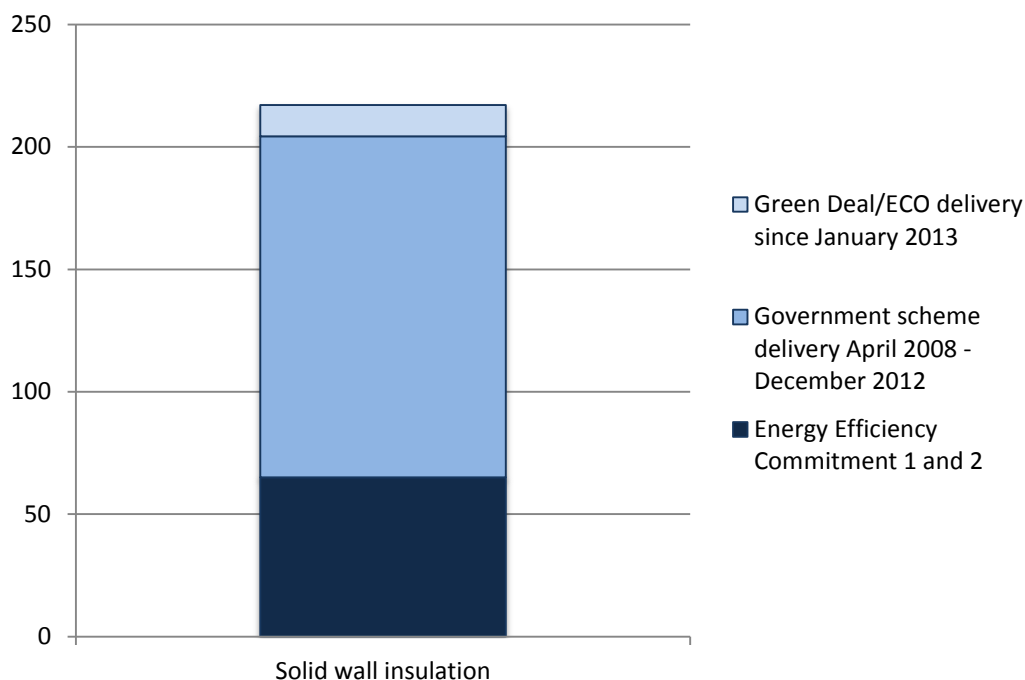


Chart 2.5: Number of homes in Great Britain with solid wall insulation by source, September 2013 (Thousands)²⁴



Remaining potential

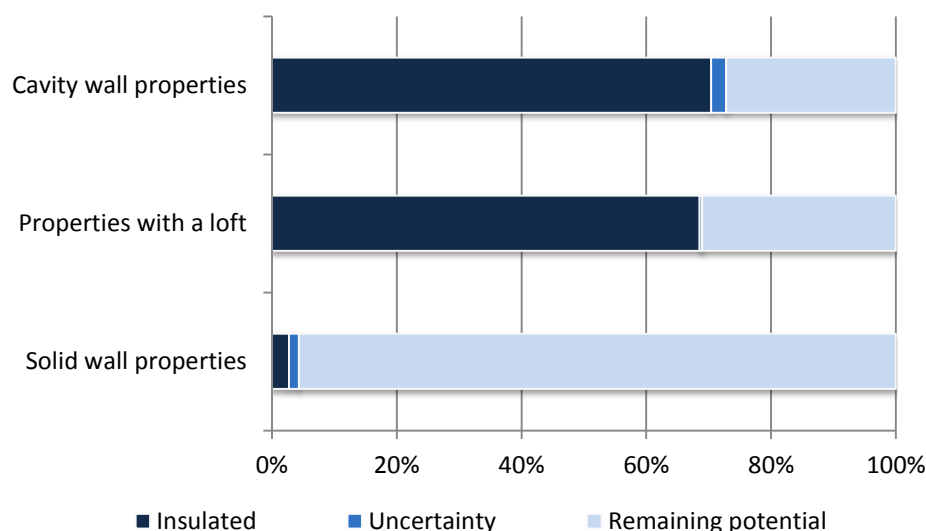
A key use of these estimates for DECC is to identify homes that have the potential to receive cavity wall, loft and solid wall insulation in the future. The section below outlines remaining

²⁴ Estimates of solid wall insulation are based only on delivery of solid wall insulation through Government schemes (including the Energy Efficiency Commitment).

potential figures as at the end of September 2013, for historical figures and a more detailed breakdown see Tables 2.3 to 2.7 in the [Excel tables](#) accompanying this publication²⁵.

Chart 2.6 gives a summary of the remaining potential for insulating the housing stock of Great Britain.

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



Cavity wall insulation

Table 2.3 gives a breakdown of the remaining potential to insulate cavity wall properties in the Great Britain housing stock. It is estimated that at the end of September 2013 there were 5.2 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 potential²⁶ (0.5 million of this 1.4 million are also considered hard to treat²⁷) and 3.8 million are totally uninsulated (3.1 million of the 3.8 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](#).

²⁵ <https://www.gov.uk/government/collections/green-deal-and-energy-company-obligation-eco-statistics>

²⁶ 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.

²⁷ 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), 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.

Table 2.3: Cavity wall insulation, September 2013 (Thousands)

Insulation type	Insulated	Uncertainty*	Remaining potential**	Cavity wall properties
Cavity wall insulation	13,510 70%	470 2%	5,200 27%	19,200 100%

* Properties which may or may not have cavity wall insulation.

** 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 having unfillable cavities.

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.

Table 2.4 below gives a breakdown of the remaining potential to insulate properties with a loft in the Great Britain housing stock. At the end of September 2013 it is estimated that there were 7.4 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.

Table 2.4: Loft insulation, September 2013 (Thousands)

Insulation type	Insulated	Uncertainty*	Remaining potential**	Properties with a loft
Loft insulation	16,290 69%	100 0.4%	7,370 31%	23,760 100%

* Properties which may or may not have loft insulation.

** Not all remaining potential properties could be insulated and some which could be insulated would not be cost effective to insulate, due to lofts either being hard to treat or unfillable.

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 September 2013 there were 7.7 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.

Table 2.5: Solid wall insulation, September 2013 (Thousands)

Insulation type	Insulated	Uncertainty	Remaining potential	Solid wall properties
Solid wall insulation	217 3%	126 2%	7,650 96%	7,990 100%

* Properties which may or may not have solid wall insulation.

** Not all remaining potential properties would be insulated as it is likely that some of these would be too costly to treat or be within conservation areas.

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 Plan²⁸, at which stage they enter a cooling-off period²⁹.

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.

²⁸ The Plan is a contract between the owner/occupier and the Provider – it sets out the work that will be done and the repayments.

²⁹ 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 has recently announced proposals for a [set of changes to ECO](#). These include: extending through to 2017, with new targets; reducing the ambition of the Carbon Saving Obligation element; and allowing new measures (loft and standard cavity wall insulation, and district heating) to be eligible under that element. The Government plans to consult on these proposals early in 2014, and intends that changes should take 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 September 2013 show aggregate expenditure of £57m. 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 SAP³⁰ 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/m².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

³⁰ Information on the Standard Assessment Procedure can be found here
<https://www.gov.uk/standard-assessment-procedure>

target U-value of 0.35 W/m².K to be reached if this modification to the wall is made. It is likely that 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

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 **20 March 2013** and will contain more detailed information on activity up to the end of December, including geographic breakdowns of Green Deal Assessments and ECO measures. We will look to include estimates of measures installed through alternative finance mechanisms if we have sufficiently robust evidence. We are also currently investigating whether it would be suitable to publish sub-Local Authority data as part of this quarterly release series.

© Crown copyright 2013
Department of Energy & Climate Change
3 Whitehall Place
London SW1A 2AW
www.gov.uk/decc