

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

Statistical release: Experimental statistics

18 December 2014

© Crown copyright 2014

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 5106

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

Executive summary

This is the seventh 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, GD Plans, Cashback and ECO for the period January 2013 to September 2014, Supply Chain activity up until the end of October 2014, and estimates of the carbon and energy savings achieved through measures installed. Also for the first time this release includes further analysis and geographical breakdowns of the Green Deal Home Improvement Fund (GDHIF).

The most up to date information on the GD (including GDHIF) and ECO can be found in the monthly statistical releases – available <u>here</u>. Details of methods, quality assurance and use of this data can be found in the <u>Methodology note</u>.

<u>Section 2</u> 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 2011-15¹ 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; these have undergone an assessment to be classed as National Statistics by the UK Statistics Authority (UKSA) resulting in some requirements which have been addressed in the methodology note. DECC is awaiting formal confirmation of National statistics status for this statistical series.

This release also includes a section that starts to bring together activity from GD and ECO and other household energy schemes (Feed-In Tariffs, Renewable Heat Premium Payment and Domestic Renewable Heat Incentive) between January 2013 and September 2014 (see Annex C). This is a first step in developing this quarterly report to provide a fuller analysis of the reach and impact of household sector programmes to complement the headline reporting of these programmes. The headline reporting of programmes will continue and will cover both domestic and non-domestic as appropriate.

¹ https://www.gov.uk/government/publications/decc-business-plan-quarterly-data-summary-indicators-and-other-data-sets

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 2014	8
Green Deal Plans, up to 30 th September 2014	12
Pioneer Places	12
Core Cities	12
Cashback measures installed, up to 30 th September 2014 (end of the scheme)	13
Green Deal Home Improvement Fund measures installed, up to 30 th September 20	01413
Measures installed under ECO, up to 30 th September 2014	14
ECO costs	17
ECO Brokerage	18
Estimated carbon and energy savings for measures installed through ECO, Green Plans, GDHIF and Cashback, up to 30 th September 2014	
Measures not captured by administrative data sources	19
The Supply Chain	20
GD and ECO Tables	21
Section 2 - Estimates of Home Insulation Levels in Great Britain: September 2014	34
Sources of increase in insulation levels	37
Remaining potential	
Annex A – Background	41
Green Deal	41
Energy Company Obligation	42
Green Deal Cashback	42
Green Deal Home Improvement Fund	43
ECO delivery costs	43
ECO Brokerage	43
The Supply Chain	44
Pioneer Places	44
Core Cities	44
Annex B – Sources and Methodology	45
Experimental Statistics	45
Green Deal and ECO estimates	45
Insulation statistics	46
Revisions	
Further Information and Feedback	47
Next Release	47

Annex C - Household Energy Efficiency schemes
ECO, Cashback, Green Deal Plans and Green Deal Home Improvement Fund48
Feed-In Tariffs48
Renewable Heat Premium Payment48
Householders' scheme49
Communities scheme49
Domestic RHI50
Smart Meters50
Charts
Chart 1.1 - Percentage of Green Deal Assessments lodged, up to 30 th September 2014, by Energy Efficiency (EE) Band compared with EE Band ratings of all England properties in 2012
Chart 1.2 - Percentage of Green Deal Assessments, and England properties by property type, up to 30 th September 20149
Chart 1.3 – Percentage of Green Deal Assessments and Great Britain properties by tenure, up to 30 th September 2014
Chart 1.4 – Percentage of households where GDHIF vouchers have been paid and England & Wales properties by tenure, up to 30 th September 201414
Chart 2.1: Percentage of properties with insulation in Great Britain, March 2008 to September 201435
Chart 2.2: Homes in Great Britain with cavity wall insulation and loft insulation: March 2008 to September 2014 (Thousands)
Chart 2.3: Homes in Great Britain with solid wall insulation: March 2008 to September 2014 (Thousands)
Chart 2.4: Number of homes in Great Britain with cavity wall insulation and loft insulation by source, September 2014 (Thousands)
Chart 2.5: Number of homes in Great Britain with solid wall insulation by source, September 2014 (Thousands)
Chart 2.6: Remaining potential to insulate the housing stock in Great Britain, September 2014
Maps
Map 1.1 – Number of Green Deal Assessments per 1,000 households lodged by Local Authority up to 30 th September 2014
Map 1.2 – Provisional number of households in receipt of ECO measures by Local Authority per 1,000 households

Key points

Green Deal, ECO and Cashback: January 2013 to September 2014

A provisional 995,000 measures were installed² in around 809,000 properties³ through ECO⁴, Cashback, Green Deal Plans and the GDHIF to the end of September 2014.

Of the 356,514 Green Deal Assessments in Great Britain:

- The majority (88 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 1,107,559 improvements recommended in Green Deal Assessments (around three improvements per assessment). The most common single measure recommended was to install loft insulation. This accounted for 14 per cent of all recommended measures and was recommended in 45 per cent of all GD Assessments.
- Around three quarters of GD Assessments were in owner-occupied properties (272,561), 12 per cent in the private rented sector and 11 per cent are in the social rented sector.

Of the 2,581 'live' Green Deal Plans with measures installed in Great Britain, the majority (65 per cent) of these were for properties in Scotland (1,680 Plans).

A provisional 964,401 measures in 785,394 properties had been installed under ECO:

- Around one fifth (20 per cent) of ECO measures were in the North West (190,200), the highest in any region. 12 per cent of ECO measures were installed in Scotland (112,521) and six per cent were in Wales (54,900).
- In Great Britain, on average, there were around 30 households with ECO measures per 1,000 households, i.e. around three per cent of all households in Great Britain had a measure installed under ECO funding. The North West and North East had the highest amount with 51 and 48 households with ECO measures per 1,000 households respectively. In Scotland there were around 40 households with ECO measures per 1,000 households and 32 per 1,000 households in Wales.

² The number of measures is made up of 964,000 ECO measures, 16,000 Cashback measures, 6,000 Green Deal Plan measures and 9,000 Green Deal Home Improvement Fund measures.

Source: Table 1 - Green Deal and Energy Company Obligation (ECO): monthly statistics (November 2014): https://www.gov.uk/government/statistics/green-deal-and-energy-company-obligation-eco-monthly-statistics-november-2014

³ Annex C, Table C1: Provisional number of individual households that have had measures installed.

⁴ Excludes measures eligible under the ECO amendment order.

Carbon and energy saving

The provisional estimated lifetime carbon savings of measures installed under ECO (excluding Affordable Warmth), Cashback, GDHIF and Green Deal was between 11.1 – 11.7 MtCO2 with provisional estimated lifetime energy savings between 49,600 – 52,900 GWh.

Home insulation levels: September 2014

It is estimated that at the end of September 2014:

- There were 27.3 million homes in Great Britain. Of these 19.3 million had cavity walls with the remaining 8.0 million having solid walls. 23.9 million properties had a loft.
- Compared with September 2013, 220,000 more properties had loft insulation of at least 125mm, 380,000 more had cavity wall insulation and 56,000 more had solid wall insulation.
- 16.5 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 a small number are estimated to have no insulation – around 1 per cent of all properties with a loft.
- 13.9 million homes had cavity wall insulation (72 per cent of homes with cavity walls). Of the 5.0 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.
- 273,000 homes had solid wall insulation (3 per cent of homes with solid walls).

Household Energy schemes

Between January 2013 and September 2014, measures were installed through ECO in 785,400 properties, following the redemption of Cashback vouchers in 14,700 properties, around 2,600 households had funded measures through Green Deal finance Plans, and 6,600 households had funded measures through Green Deal Home Improvement Fund. 166,000 properties benefitted from Feed-in Tariffs installations, 9,000 properties benefitted from a Renewable Heat Premium Payment, and 1,700 properties benefitted from domestic Renewable Heat Incentive. In addition to this, 621,600 electricity and gas Smart Meters have been installed in domestic properties during the foundation stage of the roll-out programme.

In aggregate this is around 986,000 household properties receiving energy efficiency or renewable measures through these schemes, but not unique properties. Currently we are not able to properly assess the overlap where households are part of more than one scheme. We will continue to work to understand the overlap. Our first step in understanding the overlap will be to look at ECO, FiTs, GD and RHPP/RHI which will allow an estimate to be produced for unique properties receiving energy efficiency or renewable measures.

Understanding the overlap with Smart meters will be more complex, as currently these data are not available at property level and as such are excluded from the combined figure given above.

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, Green Deal Home Improvement Fund and ECO as well as estimates of the carbon savings achieved through these measures. Where the report refers to table numbers in brackets, these are included in GD/ECO tables and separately in the accompanying Excel tables here.

Green Deal Assessments, lodged up to 30th September 2014

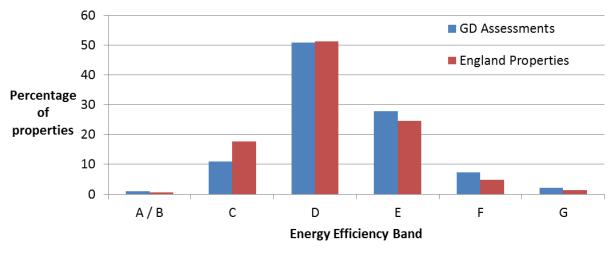
The first step in the Green Deal process involves a Green Deal Assessor coming to the home, talking to the owner/occupier about their energy use and seeing if they can benefit from making energy efficiency improvements to their property. This leads to a Green Deal Advice Report being produced for the 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 (88 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 most from energy efficiency measures. This compares to 82 per cent of the overall domestic building stock in England reported in the English Housing Survey⁵.

Chart 1.1 - Percentage of Green Deal Assessments lodged, up to 30th September 2014, by Energy Efficiency (EE) Band compared with EE Band ratings of all England properties in 2012



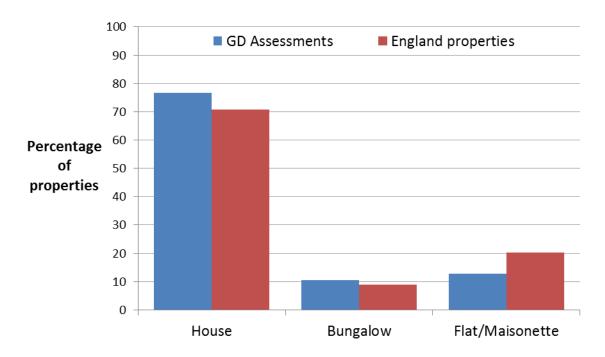
⁵ The equivalent split is not available for Welsh and Scottish properties, which make up around 14 per cent of the housing stock in Great Britain.

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

Property Type (Table 1.2, Chart 1.2)

Chart 1.2 shows that 77 per cent of GD Assessments were in houses (273,502), 11 per cent were in flats (39,392), 11 per cent were in bungalows (37,444), and two per cent were in maisonettes (6,176). The housing stock in England⁶ (as reported in the English Housing Survey 2012-13⁷) 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 properties by property type, up to 30th September 2014



Tenure (Table 1.3, Chart 1.3)

Around three quarters of GD Assessments were in owner-occupied properties (272,561), 12 per cent were in the private rented sector (44,235) and 11 per cent were in the social rented sector (37,828). In comparison, according to dwelling stock figures released by Department for Communities and Local Government⁸ 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. 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.

⁶ The equivalent split is not available for Welsh and Scottish properties on a comparable basis. These make up around 14 per cent of the housing stock in Great Britain.

⁷ 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

⁸ 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 2014



On or off the Mains Gas Grid (Table 1.4)

In 2012, it was estimated 2.8 million households do not have mains-gas supply in Great Britain⁹. This is around 11 per cent of all properties in Great Britain, which is similar (albeit lower) to the 15 per cent of properties which had a GD Assessment and were off the mainsgas grid.

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

There were 1,107,559 improvements recommended in Green Deal Advice Reports, so on average there were around three recommended measures per GD Assessment. In 36 per cent of Assessments (127,414) only one measure was recommended (Table 1.5b).

The most common single measure recommended was to install loft insulation. This accounted for 14 per cent of all recorded measures and was recommended in around 45 per cent of all GD Assessments (Table 1.5a).

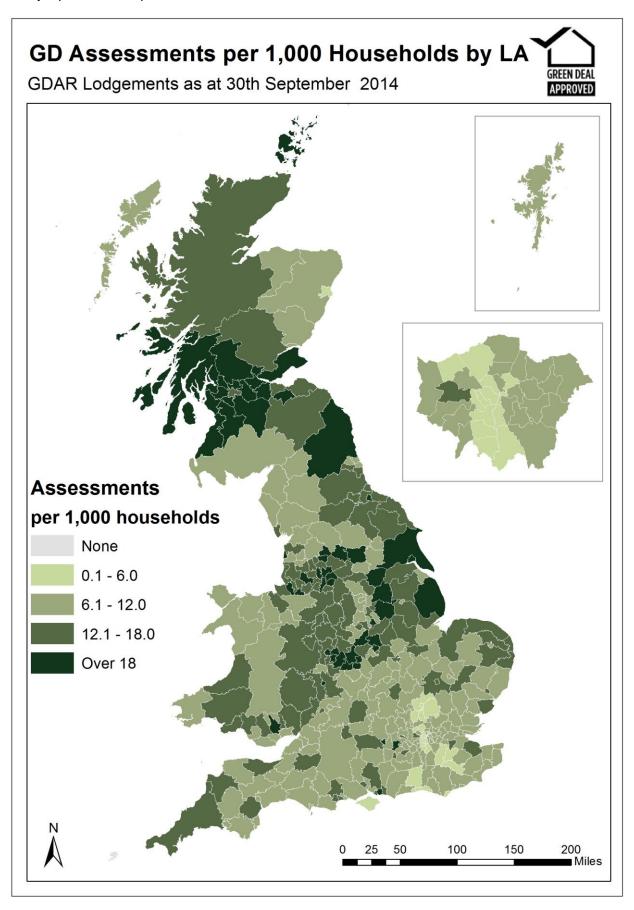
Geographic location (Tables 1.6, 1.6a, 1.6b, Map 1.1)

GD Assessments have been taking place in properties throughout Great Britain with 356,514 GD Assessments lodged in total up to 30th September 2014 (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 14 Green Deal Assessments per 1,000 households in Great Britain. Scotland had the highest number of Green Deal Assessments per 1,000 households with 22. Wales had 12 Green Deal Assessments per 1,000 households (Map 1.1).

⁹ DECC, Sub-national estimates of households not connected to the gas network, 2012 https://www.gov.uk/government/statistics/sub-national-estimates-of-households-not-connected-to-the-gas-network

Map 1.1 – Number of Green Deal Assessments per 1,000 households lodged by Local Authority up to $30^{\rm th}$ September 2014



Within England, Oldham Local Authority had the most GD Assessments per 1,000 households (34). In Scotland, three Local Authorities had more GD Assessments per 1,000 households; North Lanarkshire (35), Midlothian (38) and Clackmannanshire (64).

Map 1.1 shows a difference in the level of Green Deal Assessments per 1,000 households at a regional level. Local Authorities in Southern England (the South East, London, the South West, and the East) have fewer assessments per 1,000 householders compared to Local Authorities in other regions of Great Britain.

Green Deal Plans, up to 30th September 2014

Of the 2,581 Green Deal Plans which were 'live' up to 30th September 2014 (i.e. measures were installed and billing had commenced), 65 per cent of Green Deal Plans with measures installed were for properties in Scotland, 32 per cent were for properties in England and three per cent were for properties in Wales (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.

Estimates based on data returns submitted to DECC by 11th 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). These assessments are included in the data on overall number of 356,514 Green Deal Assessments as reported above. If measures were installed following these assessments these will be captured under other delivery mechanisms reported within the official statistics in this release.

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.

Estimates based on data returns submitted to DECC by 11th 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 3,919¹⁰. Over 1,500 of these measures were external solid wall insulation (see Table 1.9a). Numbers of core city funded measures and household's benefiting from installing energy efficiency measures through Core cities funding are not included in Table 1 and Table 1a of the monthly statistical release as there is a large overlap with other delivery mechanisms (particularly with ECO). As with Pioneer Places, these figures were first published in March 2014.

¹⁰ This includes a number of measures which were also reported as ECO measures.

Cashback measures installed, up to 30th September 2014 (end of the scheme)

The Cashback scheme was available from January 2013 to June 2014 in England and Wales. It was a financial incentive specifically 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. The Cashback scheme closed for applications at the end of June 2014 and all redemptions required measures to be installed before the end of September 2014. Therefore this breakdown is the final summary of the Cashback scheme. There were 14,743 properties¹¹ where measures had been installed following payment from the Cashback scheme up to 30th September 2014 (the end of the scheme).

Geographic location of properties where measures were installed following Cashback payment, up to 30th September 2014 (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 30th September 2014. Tables 1.10a and 1.10b present these breakdowns of Cashback properties by LA and Parliamentary Constituency in England and Wales¹² up to 30th September 2014 (the end of the scheme).

There were 6.2 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 11.1 (accounting for 23 per cent of all Cashback vouchers paid, see Table 1.10). There were 4.7 Cashback payments per 10,000 households in Wales.

The tenure of properties where measures were installed using Cashback (Table 1.10c)

Around 91 per cent of properties that had installed measures using Cashback were owner-occupied. Eight per cent were in the social rented sector and two per cent were in the private rented sector (see Table 1.10c).

Green Deal Home Improvement Fund measures installed, up to 30th September 2014

The Green Deal Home Improvement Fund (GDHIF) is an incentive scheme open to all householders in England and Wales wanting to improve the energy efficiency of their homes. The scheme allows householders to choose one or both of two offers available and they are eligible to claim up to £7,600. The Green Deal Home Improvement Fund (GDHIF) opened in June 2014 and closed to new applicants at 6:30pm on 24 July 2014. GDHIF release 2 commenced on 10 December 2014. Under GDHIF release 1 there were 6,611 GDHIF vouchers paid (to 6,603 individual households) following installation of measures up to 30th September 2014¹³.

¹¹ This includes a small number of properties where the Cashback payment was made in October 2014 but the measures were installed before the end of September 2014.

¹² 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).

¹³ This includes properties where the GDHIF payment was made in October 2014 but the measures were installed before the end of September 2014. More than one voucher can be issued and payment made per household.

Geographic location of properties where measures were installed using GDHIF payment, up to 30th September 2014 (Tables 1.10d, 1.10e and 1.10f)

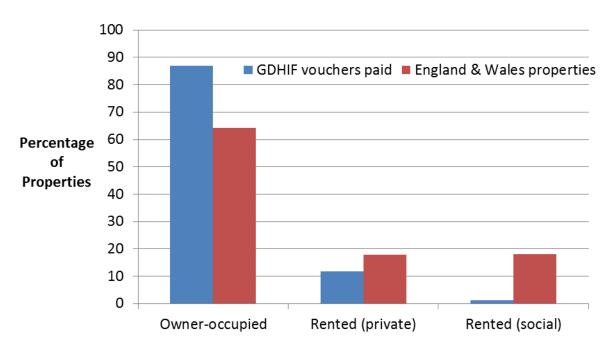
For the first time this release includes geographical breakdowns of GDHIF. Table 1.10d presents the regional breakdown of properties where measures were installed with GDHIF payment up to 30th September 2014. Tables 1.10e and 1.10f present these breakdowns of GDHIF properties by LA and Parliamentary Constituency in England and Wales up to 30th September 2014¹⁴.

There were 2.8 GDHIF payments per 10,000 households in England and Wales. The area with the highest number of GDHIF voucher payments per number of households was Wales with 7.5 (accounting for 15 per cent of all GDHIF vouchers paid, see Table 1.10d).

The tenure of properties where measures were installed using GDHIF (Table 1.10g)

Also for the first time this release includes tenure breakdowns of GDHIF. Around 87 per cent of properties that had installed measures using GDHIF were owner-occupied. 12 per cent were in the private rented sector and one per cent were in the social rented sector (see Table 1.10g).

Chart 1.4 – Percentage of households where GDHIF vouchers have been paid and England & Wales¹⁵ properties by tenure, up to 30th September 2014



Measures installed under ECO, up to 30th September 2014

The <u>Energy Company Obligation</u> (ECO) was introduced in January 2013 to reduce energy consumption and support people living in fuel poverty. All measures installed under ECO are provisional until the end of the obligation period as checks are undertaken by Ofgem.

¹⁴ 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).

¹⁵ DCLG, Live tables on dwelling stock, by tenure, England, Table 104, Wales Table 106 https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants.

Geographic location of provisional measures installed under ECO, up to 30th September 2014 (Tables 1.11, 1.11a and 1.11b)

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 30th September 2014.

Around one fifth (20 per cent) of ECO measures were in the North West (190,200), the highest in any region. 12 per cent of ECO measures were installed in Scotland (112,521) and six per cent were in Wales (54,900).

Geographic location of provisional number of households in receipt of ECO measures, up to 30th September 2014 (Tables 1.11c, 1.11d, 1.11e and Map 1.2)

Up to 30th September 2014, 785,394 unique properties¹⁶ had benefitted from having at least one ECO measure installed (Table 1.11). By ECO obligation, 319,621 unique properties had Carbon Savings Target measures installed, 301,097 properties had Affordable Warmth (HHCRO) measures installed, and 182,384 properties had Carbon Saving Community measures installed, of which 1,466 properties had measures installed under the rural sub-obligation.

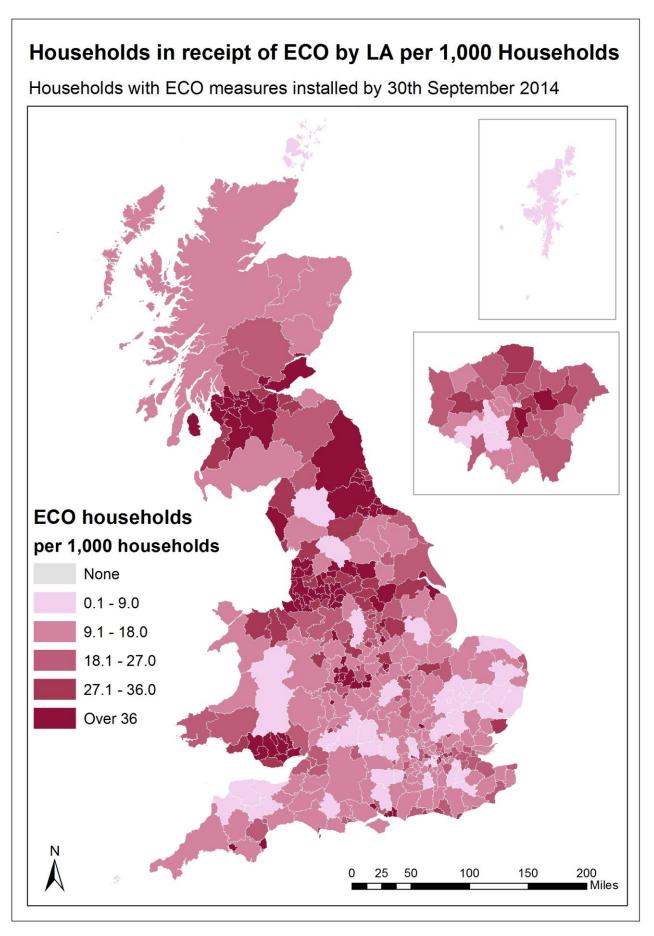
When comparing areas, it is more representative to use the number of households in receipt of ECO measures per 1,000 households. In Great Britain, on average, there were around 30 households in receipt of ECO measures per 1,000 households or, in other words, around three per cent of all households in Great Britain had a measure installed under ECO funding. The North West and North East had the highest amount with 51 and 48 households with ECO measures per 1,000 households respectively. In Scotland there were around 40 ECO measures per 1,000 households and 32 per 1,000 households in Wales. Blackpool had the highest proportion of ECO measures in any Local Authority area in Great Britain, with around 119 households with ECO measures per 1,000 households.

Table 1.11d and Map 1.2 shows the provisional number of households in receipt of ECO measures 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.

15

¹⁶ The number of unique properties by ECO obligation does not tally to the total number of unique properties (785,394) as a property can have a number of different measures installed under different ECO obligations.

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



<u>Further breakdowns of provisional measures installed under ECO, up to 30th September 2014</u> (Tables 1.12, 1.12a, 1.12b, and 1.12c)

Tables 1.12 to 1.12d present further analysis of provisional measures installed under ECO up to 30th September 2014, 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 84 per cent of Carbon Saving Target measures were installed in gas-fuelled properties, compared to 92 per cent of all ECO measures and 84 per cent of all households in England¹⁷. 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 (75 per cent) were installed in houses, with 19 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 (33 per cent), compared with Carbon Saving Communities measures (16 per cent of all measures) and Affordable Warmth measures (five per cent of all measures). There were 54,633 properties with ECO measures installed between July and September 2014 (see Table C1).

Estimated lifetime bill savings for Affordable Warmth measures installed, up to 30th September 2014 (Table 1.12d)

Having installed 379,442 affordable warmth ECO measures, we estimate it will result in around £4.5bn worth of notional lifetime bill savings.

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 September 2014. For more information on ECO costs please see Annex A and full definitions are included in the Methodology note.

The latest aggregate delivery costs (up to the end of September 2014) 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 annual costs are based on scaling information (associated with the ECO targets currently in legislation) from the first 21 months of the scheme and then scaled for the remaining six months up to the end of March 2015. These costs are only indicative of the amount energy suppliers could pass through to customers on their bills to fund their compliance with their share of the obligation. These figures suggest that, if suppliers pass through the reported costs incurred in the year they are reported, then customers currently pay an average of around £55 per annum to fund ECO (this is an illustrative amount which is calculated by dividing the total costs by the 26 million account holders). Projected costs are slightly higher than the central scenario in the 2012 DECC Impact Assessment for ECO but within DECC's estimates of the costs of delivering previous obligations.

The Government announced proposals for a <u>set of changes to ECO</u> in December 2013, which were consulted on in spring 2014. These include: introducing ECO targets for the two year

¹⁷ Table 23, Fuel poverty statistics 2012, https://www.gov.uk/government/statistics/fuel-poverty-detailed-tables-2012

¹⁸ Source: England: DCLG, Household Projections. Wales: Welsh Government, Household estimates. Scotland: General Register Office for Scotland, Estimates of Households in Scotland.

period to the end of March 2017; reducing the March 2015 CERO by 33%; and allowing additional measures (loft and standard cavity wall insulation, and district heating) to be eligible under the CERO target. The Government confirmed its intention to introduce these changes into legislation in its 22 July 2014 response here. The revised regulations were passed by Parliament on 5 December 2014. A number of measures that were installed since 1 April 2014 in anticipation of these changes, will be included once notified to Ofgem.

The Government published its latest assessment of the potential costs to suppliers of delivering the revised ECO targets in the 22 July 2014 DECC Impact Assessment. This assessment reflected the whole package of changes, including the retrospective change of allowing companies to deliver cheaper measures from 1 April 2014. It also reflected updated assumptions on the likely carry-forward to ECO from previous obligation schemes, the estimated impact of the levelisation mechanism (which would provide uplift to CERO carbon scoring) and an assumption that the obligated companies would bring forward some of their 2017 target delivery to the period to 31 March 2015. The total ECO cost estimates in Table 1.13, however, are based on the companies' reported costs and will not reflect all the forthcoming changes to ECO. In particular, they do not include the costs of delivering the additional, likely cheaper, measures companies can deliver retrospectively under CERO (these "interim measures" cannot be verified by Ofgem until the legislation is in force). Further, the scaled up costs reflect the 31 March 2015 target ambition currently in legislation and not, like the 22 July IA, the Department's estimates of the actual ambition the companies might deliver to March 2015. Therefore, assuming that the average/highest/lowest prices to date continue to be paid throughout the obligation period, shown in Table 1.13, is unlikely to be an accurate projection of future costs. The projected costs based on reported costs will be revised once the new ECO legislation is in place and these measures can be notified to Ofgem.

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 September 2014. 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, and suppliers were to deliver their currently legislated ECO targets to 31 March 2015, the overall scheme would cost around £1.6bn per year. Scaling up the lowest prices would bring the overall scheme in at around £1.3bn per year, and the average prices resulting in around £1.5bn per year. This includes cost revisions submitted from some energy companies as previously reported.

ECO Brokerage

The <u>ECO Brokerage</u> 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 end of September 2014 (Table 1.14)

Table 1.14 presents the clearing prices of all lots sold through ECO brokerage from all 44 auctions taking place up to the end of September 2014, with a total value of contracts let worth £418 million. Auctions 25, 32, 33, 34, 36, and 40 saw no contracts let. The levels of brokerage activity in recent months are likely to have been affected by uncertainty around the period, following the announced proposals for a <u>set of changes to ECO</u>. The average price paid for lots has been decreasing for the Carbon Saving Obligation, Carbon Saving Communities (CSCO) and ECO Affordable Warmth. For more detail on the results of each auction, please see <u>ECO Brokerage</u>.

Estimated carbon and energy savings for measures installed through ECO, Green Deal Plans, GDHIF and Cashback, up to 30th September 2014

The <u>Final Stage Impact Assessment</u> 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 ECO, Green Deal Plans, GDHIF and Cashback up to 30th September 2014 (Table 1.15)

Table 1.15 presents the estimated impact of measures installed through Cashback, Green Deal Plans, Green Deal Home Improvement Fund (GDHIF) or under ECO (through the Carbon Saving Obligation and Carbon Saving Communities Obligation) up to the end of September 2014. 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 provisional total estimated carbon savings of these measures (based on savings as set out in the Impact Assessment) is in the range 11.1 – 11.7 MtCO2 with provisional estimated lifetime energy savings between 49,600 – 52,900 GWh.

For Green Deal Plans, GDHIF 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 updated EPC (post installation of measures). For ECO 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.

Estimated carbon and energy savings relating to measures installed through ECO (as well as Cashback and Green Deal Plans) are reduced by 15% to account for behavioural change following the installation of measures. This is consistent with the 2012 Green Deal/ECO final Impact Assessment analysis, and in no way impacts on the progress reported in supplier obligations. Therefore, the carbon estimates for ECO may differ from those published through Ofgem.

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 ECO, with support from Cashback and Green Deal and Local Authority programmes, which make up the majority of measures installed. As first reported in March 2014's quarterly release, 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 finance¹⁹. 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 <u>Methodology note</u>. 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 28th October 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 organisations²⁰ (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 <u>ORB website</u>. There is also information available on <u>contacts in local areas.</u>

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 within²¹. These figures are based on information submitted²² to the ORB consumer search tool by a number of these participating organisations and indicate a good coverage across Great Britain.

¹⁹ This is based on findings from <u>Waves 2 and 3 of the Assessments research</u> and therefore only representative of GD assessments and measures installed up to the end of September 2013.

²⁰ Individual Installers within an installer organisation do not need to register.

²¹ Businesses are flexible and may travel further to other areas as the market develops.

²² 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

Please note, percentages may not add up to totals due to rounding.

Table 1.1: Number of Green Deal Assessments by Energy Efficiency Band, up to 30th September 2014, Great Britain

A B	329 3,095	0
C	38,860	11
D	181,476	51
E	99,315	28
F	25,933	7
G	7,506	2
Total	356,514	100

Table 1.2: Number of Green Deal Assessments by Property Type up to 30th September 2014, Great Britain

Draw and A. T. va a	Green Deal	Percentage of
Property Type	Assessments	Assessments
House	273,502	77
Bungalow	37,444	11
Flat	39,392	11
Maisonette	6,176	2
Total	356,514	100

Table 1.3: Number of Green Deal Assessments by tenure, up to 30th September 2014, Great Britain

Tenure	Green Deal Assessments	Valid Percentage of Assessments ¹
Owner-occupied	272,561	77
Rented (private)	44,235	12
Rented (social)	37,828	11
Unknown	1,890	-
Total	356,514	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 2014, Great Britain

Properties by whether on or off Mains Gas Grid	Green Deal Assessments	Valid Percentage ¹ of Assessments
Off Gas	52,214	15
On Gas	303,791	85
Unknown	509	-
Total	356,514	100

¹ Percentage of Assessments is calculated only for those Assessments where Mains Gas connection is known.

Table 1.5: Number of improvements recommended in Green Deal Assessments¹ by measure type (grouped), up to 30th September 2014, Great Britain

		Percentage of
Measure Types	Number of improvements	improvements
	recommended ²	recommended
Boiler	119,341	10.8
Cavity Wall Insulation	119,362	10.8
Loft Insulation	168,447	15.2
Micro-generation	248,272	22.4
Other Heating	109,886	9.9
Other Insulation	221,854	20.0
Solid Wall Insulation	97,698	8.8
Window Glazing	22,699	2.0
Total	1,107,559	100

¹ Does not include recommended improvements from the Green Deal Improvement Package tool.

Table 1.5a: Number of improvements by measures recommended in Green Deal Assessments¹, up to 30th September 2014, Great Britain

Measure Type by Measures	Number of improvements	Percentage of improvements
	recommended ²	recommended
Boiler	119,341	10.8
Change heating to gas condensing boiler (fuel switch)	4,311	0.4
Change heating to gas condensing boiler (fuel switch), flue gas hea	at recovery 645	0.1
Change heating to gas condensing boiler (no fuel switch)	1,673	0.2
Change heating to gas condensing boiler (no fuel switch), flue gas h	neat recovery 191	0.0
Condensing oil boiler	1,176	0.1
Upgrade boiler, same fuel	99,852	9.0
Upgrade boiler, same fuel, and flue gas heat recovery	11,493	1.0

² More than one improvement can be recommended per Assessment. On average, there are around three improvements recommended per Assessment.

Cavity wall insulation	119,362	10.8
Loft Insulation	168,447	15.2
Loft Insulation	160,195	14.5
Room-in-roof insulation	8,252	0.7
Micro-generation	248,272	22.4
Air source heat pump with radiators	2,666	0.2
Air source heat pump with underfloor heating	232	0.0
Biomass wood logs boiler	3,930	0.4
Biomass wood pellets room heater with boiler	1,965	0.2
Ground source heat pump with radiators	530	0.0
Ground source heat pump with underfloor heating	134	0.0
Micro-CHP	209	0.0
Photovoltaics	129,501	11.7
Solar water heating	96,672	8.7
Wind turbine (on mast)	1,072	0.1
Wind turbine (roof mounted)	11,361	1.0
Other Heating	109,886	9.9
Cylinder thermostat	15,675	1.4
Heating controls for warm air system	692	0.1
Heating controls for wet central heating system	82,080	7.4
New or replacement storage heaters	6,113	0.6
Replacement warm-air unit	381	0.0
Waste water heat recovery	4,945	0.4
Other Insulation	221,854	20.0
Draughtproofing	31,119	2.8
Flat roof insulation	7,058	0.6
Floor insulation	129,463	11.7
Hot water cylinder insulation	28,121	2.5
Insulated doors	26,093	2.4
Solid Wall Insulation	97,698	8.8
External insulation with cavity wall insulation	4,383	0.4
Solid wall insulation (pre 1967 E&W, pre 1965 Scotland)	56,204	5.1
Solid wall insulation (from 1967 E&W, from 1965 Scotland)	37,111	3.4
Window Glazing	22,699	2.0
Double glazing	20,812	1.9
Secondary glazing	1,378	0.1
Triple glazing	509	0.0
Total	1,107,559	100

¹ Does not include recommended improvements from the Green Deal Improvement Package tool.

 $^{^{2}}$ More than one improvement can be recommended per Assessment. On average, there are around three improvements recommended per Assessment.

Table 1.5b: Number of improvements recommended per Green Deal Assessment, up to 30th September 2014, Great Britain

Number of improvements	Number of Green	Percentage of Green
recommended	Deal Assessments	Deal Assessments
1	127,414	36
2	63,518	18
3	34,602	10
4	36,622	10
5	33,432	9
6 or more	60,926	17
Total	356,514	100

Table 1.6: Number of Green Deal Assessments lodged by region, up to 30th September 2014

			Households with at least	Green Deal
	Green Deal	Percentage of	one usual	Assessments per 1,000
Area names	Assessments	Assessments	resident ¹	households
7 (I Ca Harries	710000011101110	710000011101110	resident	110030110103
	356,514			
Great Britain	333,311	100	26,263,269	13.6
England	288,999	81	22,542,903	12.8
North East	16,177	5	1,145,559	14.1
North West	51,658	14	3,046,753	17.0
Yorkshire and The Humber	38,004	11	2,262,423	16.8
East Midlands	30,067	8	1,935,710	15.5
West Midlands	44,047	12	2,332,802	18.9
East	24,657	7	2,484,620	9.9
London	22,857	6	3,383,918	6.8
South East	37,077	10	3,638,436	10.2
South West	24,455	7	2,312,682	10.6
Wales	15,697	4	1,318,569	11.9
Scotland	51,818	15	2,401,797	21.6

¹ Source: England: Department for Communities and Local Government, Household Projections. Wales: Welsh Government, Household estimates.

Scotland: General Register Office for Scotland, Estimates of Households in Scotland.

Table 1.6a: Number of Green Deal Assessments lodged by administrative area, up to 30th September 2014 (Table available in Excel here).

Table 1.6b: Number of Green Deal Assessments lodged by Parliamentary Constituency, up to 30th September 2014 (Table available in Excel here).

Table 1.7: Number of 'live' Green Deal Plans by Region, up to 30th September 2014

Area names	'Live' Green Deal Plans	Percentage of Plans	Households with at least one usual resident ¹	Green Deal Plans per 1,000,000 households
Great Britain	2,581	100	26,263,269	98.3
England	818	32	22,542,903	36.3
North East	140	5	1,145,559	122.2
North West	81	3	3,046,753	26.6
Yorkshire and The Humber	144	6	2,262,423	63.6
East Midlands	98	4	1,935,710	50.6
West Midlands	56	2	2,332,802	24.0
East	27	1	2,484,620	10.9
London	42	2	3,383,918	12.4
South East	83	3	3,638,436	22.8
South West	147	6	2,312,682	63.6
Wales	83	3	1,318,569	62.9
Scotland	1,680	65	2,401,797	699.5

¹ Source: England: Department for Communities and Local Government, Household Projections.

Wales: Welsh Government, Household estimates.

Scotland: General Register Office for Scotland, Estimates of Households in Scotland.

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, by Core City Area (Table available in Excel here).

Table 1.9a: Provisional number of energy efficiency measures installed under Core Cities Project, by measure type (Table available in Excel here).

Table 1.10: Number of Cashback vouchers paid by region, up to 30th September 2014, England and Wales

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
England and Wales	14,743	100	23,861,472	6.2
England	13,914	<i>95.7</i>	22,542,903	6.2
North East	450	3.1	1,145,559	3.9
North West	3,388	23.3	3,046,753	11.1
Yorkshire and The Humber	1,676	11.5	2,262,423	7.4
East Midlands	1,892	13.0	1,935,710	9.8
West Midlands	1,291	8.9	2,332,802	5.5
East	939	6.5	2,484,620	3.8
London	999	6.9	3,383,918	3.0
South East	1,884	13.0	3,638,436	5.2
South West	1,395	9.6	2,312,682	6.0
Wales	626	4.3	1,318,569	4.7
Unknown	203	-		

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

Table 1.10a: Number of Cashback vouchers paid by administrative area, up to 30th September 2014, England and Wales (Table available in Excel here).

Table 1.10b: Number of Cashback vouchers paid by Parliamentary Constituency, up to 30th September 2014, England and Wales (Table available in Excel here).

Table 10c: Number of Cashback vouchers paid by tenure, up to 30th September 2014, England and Wales

Tenure	Green Deal	Valid Percentage
Terrore	Assessments	of Assessments ¹
Owner-occupied	13,192	91
Rented (private)	242	2
Rented (social)	1,103	8
Unknown	206	-
Total	14,743	100

¹ Percentage of Cashback vouchers paid is calculated only for those where tenure 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 2014.

³ Source: England: Department for Communities and Local Government, Household Projections. Wales: Welsh Government, Household estimates.

Table 1.10d: Number of Green Deal Home Improvement Fund vouchers paid by region, up to 30th September 2014, England and Wales

Area names	Total number of GDHIF vouchers paid ¹	Valid percentage of GDHIF vouchers paid ^{2,3}	Households with at least one usual resident ⁴	GDHIF vouchers paid per 10,000 households
England and Wales	6,611	100	23,861,472	2.8
England	5,593	85.1	22,542,903	2.5
North East	432	6.6	1,145,559	3.8
North West	1,317	20.0	3,046,753	4.3
Yorkshire and The Humbe	r 1,091	16.6	2,262,423	4.8
East Midlands	738	11.2	1,935,710	3.8
West Midlands	901	13.7	2,332,802	3.9
East	266	4.0	2,484,620	1.1
London	208	3.2	3,383,918	0.6
South East	254	3.9	3,638,436	0.7
South West	386	5.9	2,312,682	1.7
Wales	983	14.9	1,318,569	7.5
Unknown	35	-		

¹ In a small number of cases more than one voucher was paid per household.

Table 1.10e: Green Deal Home Improvement Fund vouchers paid by administrative area, up to 30th September 2014, England and Wales (Table available in Excel here).

Table 1.10f: Green Deal Home Improvement Fund vouchers paid by Parliamentary Constituency, up to 30th September 2014, England and Wales (Table available in Excel here).

Table 1.10g: Number of Green Deal Home Improvement Fund vouchers paid by tenure, up to 30th September 2014, England and Wales

Tenure	Green Deal	Valid Percentage
	Assessments	of Assessments ¹
Owner-occupied	4,321	87
Rented (private)	589	12
Rented (social)	63	1
Unknown ²	1,638	-
Total	6,611	100

¹ Percentage of GDHIF vouchers paid is calculated only for those where tenure is known.

² Percentage of GDHIF vouchers paid is calculated only for those vouchers where the location is known.

³ Includes any GDHIF vouchers paid to date, where the installation month of the measures GDHIF is being claimed on was no later than end of September 2014.

⁴ Source: England: Department for Communities and Local Government, Household Projections. Wales: Welsh Government, Household estimates.

² The large number of unknown values relate to GDHIF payments which only had an EPC only application. DECC are seeking agreement from DCLG to receive EPC data related to Green Deal Home Improvement Fund where a Green Deal Assessment was not carried out. These figures are therefore subject to revision.

Table 1.11: Provisional number of ECO measures by ECO obligation by region and total number of unique properties benefitting from ECO, up to 30th September 2014 (Table available in Excel here).

Table 1.11a: Provisional number of ECO measures by ECO obligation by administrative area, up to 30th September 2014 (Table available in Excel here).

Table 1.11b: Provisional number of ECO measures by ECO obligation by Parliamentary Constituency, up to 30th September 2014 (Table available in Excel here).

Table 1.11c: Provisional number of households in receipt of ECO measures by region, up to 30th September 2014

	Total			
	number of	Valid		Households in
	household in	percentage of	Households	receipt of ECO
	receipt of	households in	with at least	measures per
_	ECO	receipt of ECO	one usual	1,000
Area names	measures ¹	measures ²	resident ³	households
6 4 B 11 1	-05.00 4	100		
Great Britain	785,394	100	26,263,269	29.9
England	646,150	82.3	22,542,903	28.7
North East	55,132	7.0	1,145,559	48.1
North West	154,399	19.7	3,046,753	50.7
Yorkshire and The Humber	82,639	10.5	2,262,423	36.5
East Midlands	48,594	6.2	1,935,710	25.1
West Midlands	96,887	12.3	2,332,802	41.5
East	37,992	4.8	2,484,620	15.3
London	64,085	8.2	3,383,918	18.9
South East	62,671	8.0	3,638,436	17.2
South West	43,751	5.6	2,312,682	18.9
Wales	42,827	5.5	1,318,569	32.5
Scotland	96,270	12.3	2,401,797	40.1
Unknown	147	-		

¹ Great Britain totals also include unknowns, but percentages are only based on known location totals.

Table 1.11d: Provisional number of households in receipt of ECO measures by administrative area, up to 30th September 2014 (Table available in Excel here).

² Percentage of ECO measures delivered is calculated only for those ECO measures where the location is known.

³ Source: England: Department for Communities and Local Government, Household Projections. Wales: Welsh Government, Household estimates. Scotland: General Register Office for Scotland, Estimates of Households in Scotland.

Table 1.11e: Provisional number of households in receipt of ECO measures by Parliamentary Constituency, up to 30th September 2014 (Table available in Excel here).

Table 1.12: Provisional number of ECO measures by main fuel type of property and ECO obligation, up to 30th September 2014

	Obligation							
Fuel Type		on Saving et (CSO)		n Savings nity (CSCO)		ble Warmth HCRO)		nber of ECO s delivered ¹
Fuel Type	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Gas	318,879	84.1	190,899	92.9	374,885	98.9	884,663	91.8
Electric	50,158	13.2	10,359	5.0	1,903	0.5	62,420	6.5
Other ²	3,787	1.0	490	0.2	1,579	0.4	5,856	0.6
Oil	3,599	0.9	2,815	1.4	638	0.2	7,052	0.7
Coal	1,984	0.5	389	0.2	156	0.0	2,529	0.3
Renewable	877	0.2	625	0.3	0	0.0	1,502	0.2
Unknown	93	-	5	-	281	-	379	-
Total	379,377	100	205,582	100	379,442	100	964,401	100

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

Table 1.12a: Provisional number of households in receipt of ECO measures by property type and ECO obligation, up to 30th September 2014^{1,2}

				Obligation			Total	
Property Type	Carbon Saving Target (CSO)		Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO)		Total number of households in receipt of ECO measures	
. , p =	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
House	193,012	61.3	138,770	79.2	260,775	88.4	592,557	75.5
Bungalow	12,385	3.9	5,735	3.3	18,311	6.2	36,431	4.6
Flat	105,085	33.4	28,414	16.2	14,727	5.0	148,226	18.9
Maisonette	4,422	1.4	2,360	1.3	1,034	0.4	7,816	1.0
Unknown ³	231	-	23	-	110	-	364	-
Total	315,135	100	175,302	100	294,957	100	785,394	100

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

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

² As multiple ECO measures may have been installed in a property, the property type recorded against the first measure installed is used in the above table. The total number of households in receipt of ECO measures is therefore different from totals reported in other tables.

³ Unknown property type includes 133 mobile homes.

Table 1.12b: Provisional number of households in receipt of ECO measures by tenure and ECO obligation, up to 30th September 2014 ¹

				Obligation					
Tenure	Carbon Saving Target (CSO)			Carbon Savings Community (CSCO)		Affordable Warmth (HHCRO) ²		Total number of households in receipt of ECO measures 1	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	
Owner-								_	
occupied	206,033	69.1	112,513	67.4	222,096	76.8	540,642	71.7	
Rented									
(private)	34,546	11.6	21,239	12.7	66,958	23.2	122,743	16.3	
Rented									
(social)	57,466	19.3	33,224	19.9	N/A		90,690	12.0	
,									
Unknown	17,090	-	8,326	-	5,903	-	31,319	-	
	,		,		,		,		
Total ³	315,135	100	175,302	100	294,957	100	785,394	100	

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

Table 1.12c: Provisional number and percentage of ECO measures traded through brokerage by month and ECO obligation, up to 30th September 2014 (Table available in Excel here).

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

³ As multiple ECO measures may have been installed in a property, the tenure recorded against the first measure installed is used in the above table. The total number of households in receipt of ECO measures is therefore different from totals reported in other tables.

Table 1.12d: Estimated lifetime bill savings for Affordable Warmth measures installed by month, up to 30th September 2014^1

Installation Month ²	Total number of Affordable Warmth measures	Estimated lifetime bill saving (£ million)
January 2013 ³	2,704	20.4
February 2013	6,095	32.3
March 2013	7,496	44.4
April 2013	10,295	74.9
May 2013	12,217	126.7
June 2013	16,087	170.5
July 2013	19,668	236.3
August 2013	25,972	307.5
September 2013	28,901	355.2
October 2013	37,854	474.8
November 2013	40,453	499.4
December 2013	33,357	413.6
January 2014	33,384	427.9
February 2014	24,745	302.2
March 2014	21,117	249.6
April 2014	15,552	178.3
May 2014	12,805	157.4
June 2014	10,084	130.1
July 2014	7,938	105.0
August 2014	6,896	84.0
September 2014	5,822	71.7
Total to date	379,442	4,462.2

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. $^{\rm 3}$ Includes some measures installed between October and December 2012

Table 1.13: Estimated ECO delivery costs as reported by energy suppliers, up to end September 2014

Obligation	Average price ¹	Total delivery costs	Scaled annual cost ^{2,3}	Central Impact Assessment ⁴
Affordable Warmth	£0.17	£747,519,396	£316,600,976	£350,000,000
Carbon Saving Communities ⁵	£62.72	£238,440,401	£189,543,331	£190,000,000
Carbon Saving Obligation	£102.63	£945,164,312	£953,337,910	£760,000,000
Total ⁶		£1,931,124,109	£1,459,482,217	£1,300,000,000

¹ 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.

Table 1.13a: Estimated average ECO delivery costs as reported by energy suppliers, up to end September 2014

Obligation	Average price (all suppliers) ¹	Highest price (individual supplier) ²	Lowest price (individual supplier) ²
Affordable Warmth	£0.17	£0.18	£0.15
Carbon Saving Communities ³	£62.72	£91.44	£41.69
Carbon Saving Obligation	£102.63	£129.03	£81.38
Scaled annual cost ^{4,5}	£1.5bn	£1.6bn	£1.3bn
Potential ECO costs passed through (per customer per year)	£55	£65	£50

¹ 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.

² Annual costs have been scaled on the basis that the total obligation (associated with the current legislation) is met and assumes that the average prices to date continue to be paid throughout the obligation period. This doesn't include any delivery costs associated with interim ECO measures.

³ This does not include the £122.5 million of administrative costs reported by suppliers up to the end of September 2014.

⁴ Central Impact Assessment associated with the current legislation, from the Final Stage Impact Assessment for the Green Deal and Energy Company Obligation, July 2012.

⁵ Carbon Saving Communities includes delivery costs incurred through the rural sub-obligation.

⁶ Total estimated ECO delivery costs include cost revisions submitted from some energy companies.

² 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.

³ Carbon Saving Communities includes delivery costs incurred through the rural sub-obligation.

⁴ Annual costs have been scaled on the basis that the total obligation (associated with the current legislation) is met and assumes that the average/highest/lowest prices to date continue to be paid throughout the obligation period. This doesn't include any delivery costs associated with interim ECO measures.

⁵ This does not include the £122.5 million of administrative costs reported by suppliers up to the end of September 2014.

Table 1.14: ECO Brokerage Auction clearing prices by ECO obligation by auction, up to end of September 2014 (Table available in Excel here).

Table 1.15: Estimated carbon and energy savings relating to measures installed through ECO, Cashback, Green Deal Home Improvement Fund and Green Deal Plans, up to 30th September 2014 (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 October 2014 (Table available in Excel here).

Section 2 - Estimates of Home Insulation Levels in Great Britain: September 2014

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 CERT²³, the Community Energy Saving Programme (CESP)²⁴, Warm Front²⁵, Green Deal (including Green Deal finance, Cashback and the Green Deal Home Improvement Fund)²⁶ and the Energy Company Obligation²⁷ (ECO)). This is supplemented with data on house building published by The Department for Communities and Local Government to provide an estimate for the latest quarter. See the Methodology note for full details.

Headline results

There were 27.3 million homes²⁸ in Great Britain, of these 19.3 million had cavity walls with the remaining 8.0 million having solid walls. 23.9 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 2014, 13.9 million had cavity wall insulation (72 per cent of properties with a cavity wall), 16.5 million had loft insulation (69 per cent of properties with a loft) and 273,000 had solid wall insulation (three per cent of properties with solid walls) (Chart 2.1). It should be noted that measures installed as a mitigation action²⁹ 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.

²³https://www.ofgem.gov.uk/environmental-programmes/energy-companies-obligation-eco/previous-energy-efficiency-schemes

²⁴https://www.ofgem.gov.uk/environmental-programmes/energy-companies-obligation-eco/previous-energy-efficiency-schemes

efficiency-schemes

25
https://www.gov.uk/government/policies/helping-households-to-cut-their-energy-bills/supporting-pages/warm-front-scheme

²⁶https://www.gov.uk/green-deal-energy-saving-measures

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

²⁸ This includes both occupied and unoccupied dwellings and therefore differs from household numbers included in Section 1 of this publication which refers to households that are occupied (one or more resident).

²⁹ Following the end of the 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".

Chart 2.1: Percentage of properties with insulation in Great Britain, March 2008 to September 2014

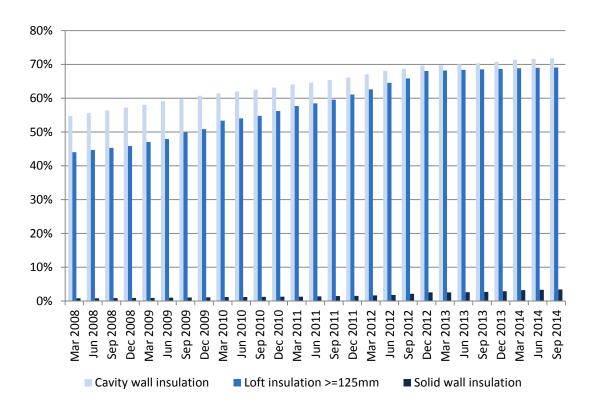


Table 2.1: Insulated homes in Great Britain, March 2008 to September 2014 (Thousands)

		Cavity wall	Loft insulation	Solid wall
		insulation	>=125mm	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	14,770	132
Mar 2013		13,360	16,160	205
Sep 2013		13,510	16,280	217
Dec 2013		13,620	16,340	232
Mar 2014		13,760	16,400	257
Jun 2014		13,840	16,450	265
Sep 2014	р	13,890	16,490	273

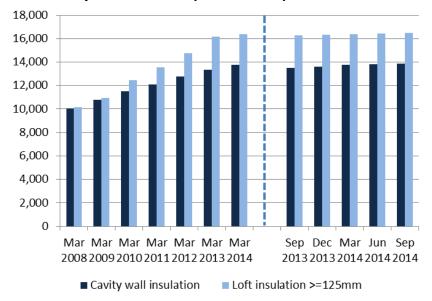
p, provisional figure.

Taking into account retro-fit insulation delivered through Government schemes and new properties³⁰ built with insulation during the last year, in September 2014 there were 220,000 more homes with at least 125mm of loft insulation, 380,000 more homes with cavity wall insulation and 56,000 more homes with solid wall insulation compared with September 2013. The number of retro-fit wall and loft insulations in the first half of 2013 was low compared to delivery in previous quarters. This reflects a transition phase between the end of the CERT

³⁰ 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 CESP schemes in December 2012 and the commencement of ECO. Following the end of the 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". In addition, insulation measures delivered in Scotland exclusively under the Green Homes Cashback scheme are also excluded from the figures. Both will be included when data become available.

Chart 2.2: Homes in Great Britain with cavity wall insulation and loft insulation: March 2008 to September 2014 (Thousands)



- The number of properties with cavity wall insulation increased by three per cent (380,000) between the end of September 2013 and September 2014.
- The number of properties with loft insulation with a depth of at least 125mm increased by one per cent (220,000) between the end of September 2013 and September 2014.

Chart 2.3: Homes in Great Britain with solid wall insulation³¹: March 2008 to September 2014 (Thousands)



The number of properties with solid wall insulation increased by 26 per cent (56,000) between the end of September 2013 and September 2014.

³¹ 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

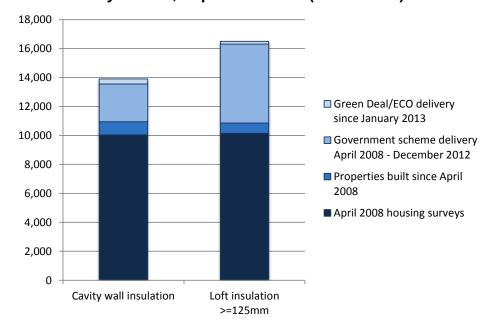
Increases in in the number of properties with insulation result from new properties being built³² and from retro-fit insulation, predominately through Government schemes. Table 2.2 and Charts 2.4 and 2.5 show where the insulation estimates have come from. Delivery of measures through CERT has made the 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 2014 (Thousands)

	Cavity wall insulation	Loft insulation >=125mm	Solid wall insulation
April 2008 housing surveys	10,030	10,150	65
Properties built since April 2008	910	700	
Government scheme delivery April 2008 -			
December 2012	2,600	5,450	139
Green Deal/ECO delivery since January 2013	350	200	69
Total	13,890	16,490	273
Homes in Great Britain [†]	19,350	23,870	7,990
Percentage of homes insulated [‡]	72%	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.

Chart 2.4: Number of homes in Great Britain with cavity wall insulation and loft insulation by source, September 2014 (Thousands)

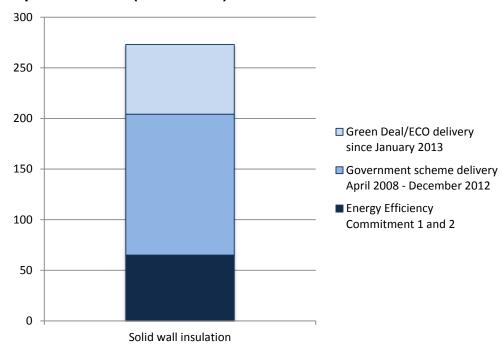


³² Information is not available on the wall construction of new homes. Typically building regulations would be met by insulated cavity walls but other construction types could be used. In this publication it is assumed that all new builds since April 2008 have cavity wall insulation.

[†] 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.

Chart 2.5: Number of homes in Great Britain with solid wall insulation by source, September 2014 (Thousands)³³



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 September 2014, for historical figures and a more detailed breakdown see Tables 2.3 to 2.7 in the Excel tables accompanying this publication.

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, September 2014 (Thousands)

Insulation type	Insulated	Uncertainty*	Remaining potential**	Total properties
Cavity wall	13,890	480	4,970	19,350
insulation	72%	2%	26%	100%
Loft	16,490	110	7,270	23,870
insulation	69%	0.5%	30%	100%
Solid wall	273	126	7,590	7,990
insulation	3%	2%	95%	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.

³³ Estimates of solid wall insulation are based only on delivery of solid wall insulation through Government schemes (including the Energy Efficiency Commitment).

Chart 2.6: Remaining potential to insulate the housing stock in Great Britain, September 2014

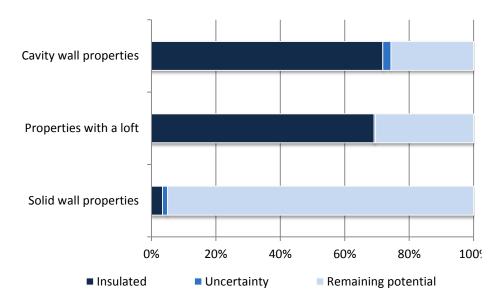


Table 2.3 and Chart 2.6 show that just over two thirds of properties with cavity walls (72 per cent) and properties with a loft (69 per cent) are insulated. In comparison only three per cent of properties with solid walls are insulated. The following section gives further information on the remaining potential to insulate the housing stock in Great Britain, by insulation type.

Cavity wall insulation

It is estimated that at the end of September 2014 there were 5.0 million cavity wall properties which could benefit from some cavity wall insulation (26 per cent of homes with cavity walls).

Of these, 1.4 million are considered to have limited potential³⁴ (0.5 million of this 1.4 million are also considered hard to treat³⁵) and 3.5 million are totally uninsulated (2.9 million of the 3.5 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.

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.

³⁴ 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.

³⁵ 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/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.

At the end of September 2014 it is estimated that there were 7.3 million uninsulated lofts (30 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. Historical figures and a more detailed breakdown is available in Table 2.7 of the accompanying Excel tables.

Solid wall insulation

It is estimated that at the end of September 2014 there were 7.6 million uninsulated solid walls (95 per cent of homes with solid walls) in Great Britain. 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. Historical figures and a more detailed breakdown is available in Table 2.5 of the accompanying Excel tables. Solid wall insulation has been defined throughout this report as internal or external wall insulation installed through Government programmes. In addition, in April 2008 about 133,000 properties are known to have had other forms of non-cavity wall insulation that fall outside this definition.

Annex A – Background

Green Deal

The <u>Green Deal</u> (GD) was launched on 28 January 2013 in England and Wales (and on 25 February in Scotland) with the aim of tackling 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 Plan³⁶, at which stage they enter a cooling-off period³⁷.
- **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.

³⁶ The Plan is a contract between the owner/occupier and the Provider – it sets out the work that will be done and the repayments.

³⁷ 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 <u>Energy Company Obligation</u> (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).

<u>Carbon Saving Obligation</u> - 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.

<u>Carbon Saving Communities Obligation</u> - 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.

<u>Affordable Warmth Obligation</u> - 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 <u>set of changes to ECO</u> in March 2014. 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 <u>these proposals</u> 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 Cashback scheme closed at the end of June 2014. There will be no further applications for the Cashback scheme but vouchers will continued to be redeemed and paid until 30 September 2014.

The Green Deal Cashback Scheme rewarded the first Green Deal customers. It was 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 £1,000. It was available for households in England and Wales.

For more information on the separate scheme that operates in Scotland please see the relevant <u>website</u>.

Green Deal Home Improvement Fund

The Green Deal Home Improvement Fund (GDHIF) is an incentive scheme open to all householders in England and Wales wanting to improve the energy efficiency of their homes. The scheme allows householders to choose one or both of two offers available and they are eligible to claim up to £7,600. Householders could also claim a refund of up to £100 for a Green Deal Advice Report (GDAR). GDHIF Phase I closed to new applicants at 6:30pm on 24 July 2014. GDHIF Phase II commenced on 10 December 2014. For more information please see the GDHIF website. For more information on the separate scheme that operates in Scotland please see the relevant website. Statistics on this scheme can be found here.

DECC published GDHIF application data on the gov.uk <u>website</u> on a weekly basis until the scheme closed, to assist businesses and households. This weekly series reported the number of applications, vouchers issued and maximum value of vouchers issued. This data was provided from the GDHIF administrator and was therefore provisional.

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 2014 show aggregate expenditure of £122.5m. 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 <u>ECO Brokerage</u> 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 <u>here</u>.

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 (ECO) 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 and the <u>Green Deal Home</u> Improvement Fund

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 SAP³⁸ 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

³⁸ Information on the Standard Assessment Procedure can be found here https://www.gov.uk/standard-assessment-procedure

insulate either the internal or external face of the wall. Current building regulations require a 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/domestic-green-deal-and-eco-statistics-methodology-note

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 5106

The statistician responsible for this publication is Peter Antoniades.

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 March 2015** and will contain more detailed information on activity up to the end of December 2014.

Annex C - Household Energy Efficiency schemes

It is intended to gradually widen the scope of this quarterly release to provide more detail on other domestic energy efficiency schemes. This section of the report presents activity levels on ECO, Cashback, Green Deal Plans and Green Deal Home Improvement Fund (GDHIF) between January 2013 and September 2014 (as reported in the monthly Official Statistics release published on 20 November 2014) alongside figures on Feed-In Tariffs installations, Renewable Heat Premium Payment voucher redemptions, and on Smart Electricity and Gas Meter installations that have been previously published in their own statistical releases.

ECO, Cashback, Green Deal Plans and Green Deal Home Improvement Fund

Provisional figures show that around 785,400 households benefitted from ECO between January 2013 and September 2014. Around 14,700 households installed measures and received money from the Cashback scheme, around 2,600 households had funded measures through Green Deal finance Plans, and 6,600 households had funded measures through Green Deal Home Improvement Fund. There is a small amount of double counting between these mechanisms, but the levels between these four schemes and the following energy efficiency schemes is not yet known. More detailed work will be undertaken to better understand how many households are benefitting from a combination of schemes.

For more information on the policy background behind these schemes, please see Annex B.

Feed-In Tariffs

The Feed-in Tariff (FiTs) scheme was launched in April 2010 and is a financial support scheme for eligible low-carbon electricity technologies, aimed at small-scale installations with a capacity of less than 5 Megawatts (MW). FiTs support new anaerobic digestion (AD), solar photovoltaic (PV), small hydro and wind, by requiring electricity suppliers to make payments (generation tariffs) to these generators based on the number of kilowatt hours (kWh) they generate. An additional guaranteed export tariff is paid for electricity generated that is not used on site and exported to the grid. The scheme also supports micro combined heat and power installations with an electrical capacity of 2 kW or less.

The majority of the installations installed under FiTs are in the domestic sector (96 per cent) but as these tend to be smaller in size, the capacity of domestic schemes makes up 63 per cent of the total capacity installed under FiTs. The majority of the domestic schemes are solar PV (97 per cent).

Between January 2013 and the end of September 2014 165,953 domestic installations were confirmed onto the Central FiT Register. The total number of domestic installations confirmed onto the FiT scheme by the end of September 2014 was 511,562.

Renewable Heat Premium Payment

Renewable Heat Premium Payment (RHPP) scheme was introduced as an interim measure in the absence of the domestic Renewable Heat Incentive (RHI). It was designed to support the uptake of domestic renewable heat and maintain the supply chain, to learn about renewable heat technologies and the way consumers use them to better shape the domestic RHI policy and contribute to the renewable energy target. The scheme encompasses three components: the householder's scheme, social landlord competition and community's scheme. These components were designed to give greater coverage across the different parts of the housing market.

Householders' scheme

The RHPP scheme distributed vouchers as a one off grant to eligible applicants installing renewable heating systems to offset some of the cost of installation. The technologies supported were: ground and water source heat pumps, air-to-water heat pumps, solid biomass boilers and solar thermal systems. There were three phases, run over three financial years; Phase 1 ran from the 1 August 2011 to the 31 March 2012, Phase 2 opened on the 1 May 2012 and closed on the 31 March 2013 and Phase 2 Extension opened on the 1 April 2013 and officially closed on the 31 March 2014. The RHPP scheme was succeeded by the domestic RHI scheme which launched on 9 April 2014. Information on homes benefiting from the domestic RHI are included below for the first time.

Between January 2013 and September 2014, 8,991 vouchers were redeemed under phase 2 or phase 2 extension.

A total of 15,364 vouchers had been redeemed under all phases of the Renewable Heat Premium Payment voucher schemes – 5,230 under Phase 1, 5,315 under Phase 2, and a further 4,819 under Phase 2 Extension.

Solar Thermal and Air Source Heat Pumps are the most popular technologies in all phases, accounting for over two thirds of redeemed or claimed vouchers in total. Social landlord competitions

The social landlord competitions were designed to accelerate the deployment of renewable heating technologies in the social housing sector. Registered Providers of social housing were invited to bid for grants to support projects installing eligible renewable heating systems.

Since August 2011, 7 social landlord competitions have been run, of which 5 have concluded with 3,763 renewable heating systems being installed in tenants' homes via £10 million in grants to social landlords across Great Britain.

Communities scheme

DECC launched the Renewable Heat Premium Payments Communities Scheme on 24 July 2012. The scheme was a funding mechanism to assist communities in England, Wales and Scotland to support domestic renewable heat installations in privately owned homes.

Twenty eight community groups, representing 31 projects, received £910,809 in grant funding towards the cost of installing the renewable technology. From this, 365 renewable heating technologies were installed.

Domestic RHI

The domestic Renewable Heat Incentive (RHI) is a financial incentive scheme introduced to encourage a switch to renewable heating systems in the domestic sector. Launched on the 9 April 2014 in Great Britain, participants of the scheme receive tariff payments for the heat generated from an eligible renewable heating system which is heating a single dwelling. The scheme covers single domestic dwellings and is open to owner-occupiers, private landlords, social landlords and self-builders. There are four renewable heating technologies covered by the scheme - Air-source heat pumps; Ground and water-source heat pumps; Biomass-only boilers and biomass pellet stoves with integrated boilers; and Solar thermal panels.

Up until the end of September 2014, 1,703 systems that had been installed after the launch of the domestic RHI scheme on 9 April 2014 had been accredited to the scheme.

Smart Meters

The rollout of smart meters³⁹ is one of the largest and most complex engineering infrastructure Programmes within the EU. The strategic aim of the programme within Great Britain is to rollout over 50 million smart electricity and gas meters to all domestic households by 2020. This will impact approximately 30 million properties.

Smart meters are the next generation of gas and electricity meters and offer a range of intelligent functions. Consumers will have near real time information on their energy consumption to help them control and manage their energy use, save money and reduce emissions. Smart meters will also provide consumers with more accurate information and bring an end to estimated billing.

The Smart Metering Programme is currently in Foundation Stage, which began in March 2011. The Government is working with the energy industry, consumer groups and other stakeholders to put commercial and regulatory frameworks in place to support smart metering, trial and test systems, learn lessons from early installations and enhance the consumer experience. Most householders will then have smart meters installed by their energy company in the period between 2016 and 2020 during the Rollout Phase. Further information can be found on the gov.uk website.

Since the Foundation Stage began, 621,595 Smart gas and electricity meters have been installed in homes.

³⁹ The definition of a 'Smart Meter' is an electricity or gas meter that is compliant with the <u>Smart Meter Equipment Technical Specification (SMETS)</u> and has functionality such as being able to transmit meter readings to suppliers and receive data remotely. Suppliers currently report the number of smart meters they have installed and those they expect to upgrade to become SMETS compliant. Some smart meters currently installed will need to receive updates, which are expected to be delivered remotely, before they are fully SMETS compliant.

Table C1: Provisional number of individual households that have had measures installed through ECO, Cashback, using Green Deal Finance, GDHIF, benefitting from Feed-in Tariffs, Renewable Heat Premium Payment, Domestic Renewable Heat Incentive, by quarter of installation, from January 2013 to September 2014

_	Delivery mechanism							
Installation quarter ¹	ECO ²	Cashback ³	Green Deal Plans	Green Deal Home Improvement Fund ⁴	Feed in Tariffs⁵	Renewable Heat Premium Payment ⁶	Domestic Renewable Heat Incentive ⁷	
January - March 2013	48,985	228	0	0	20,403	958	N/A	
April - June 2013	88,028	3,554	0	0	18,224	3,353	N/A	
July - September 2013	130,066	3,225	57	0	24,874	338	N/A	
October - December								
2013	177,107	1,958	569	0	23,100	333	N/A	
January - March 2014	200,628	2,042	369	0	21,928	1,178	N/A	
April - June 2014	85,947	3,520	592	632	29,127	2,825	328	
July – September 2014	54,633	216	994	5,971	28,297	6	1,375	
Total from January								
2013 to September 2014 ⁸	785,394	14,743	2,581	6,603	165,953	8,991	1,703	

¹ Measures installed in earlier installation months can be notified at a later date under some circumstances; some ECO installations prior to January 2013 are included in the January - March 2013 period.

² Where a household has measures installed in two or more months, the earliest installation month is recorded. Following improved de-duplication processes the number of unique properties in receipt of ECO has been revised in all quarters compared to official statistics published in earlier monthly statistical releases.

³ Cashback figures do not include any households that have had measures installed solely through the Cashback Exception Process.

⁴ Where a household has measures installed in two or more months, the earliest installation month is recorded. This is lower than the number of vouchers issued as it is possible for there to be more than one GDHIF voucher paid per household.

⁵ Feed in Tariff installations classified as domestic on the Central FiT Register and based on their 'date of confirmation'. Further information can be found at: https://www.gov.uk/government/statistical-data-sets/sub-regional-feed-in-tariffs-confirmed-on-the-cfr-statistics.

⁶ Whilst the Renewable Heat Premium Payment consisted of 3 schemes, these quarterly installation figures relate to the redemption of vouchers for Phase 2 and Phase 2 extension only. Further information can be found at: https://www.gov.uk/government/collections/renewable-heat-incentive-renewable-heat-premium-payment-statistics.

⁷ These data refer to systems installed after the launch of the domestic RHI scheme on 9 April 2014 which gained accreditation to the scheme.

⁸ Some households may have had installations through more than one delivery mechanism and there is therefore likely to be some double counting. We aim to evaluate this through future analytical work. In addition to this, 621,595 electricity and gas Smart Meters have been installed during the foundation stage of the roll-out programme.

