Department for Energy Security & Net Zero

Household Energy Efficiency

Great Britain, Quarter 4 (October to December) 2022

About this release

The latest quarterly statistics (to quarter 4 (Oct to Dec) 2022) on the operation of the Energy Company Obligation (ECO) and the Green Deal (GD) in Great Britain.

In this release

Scheme Information

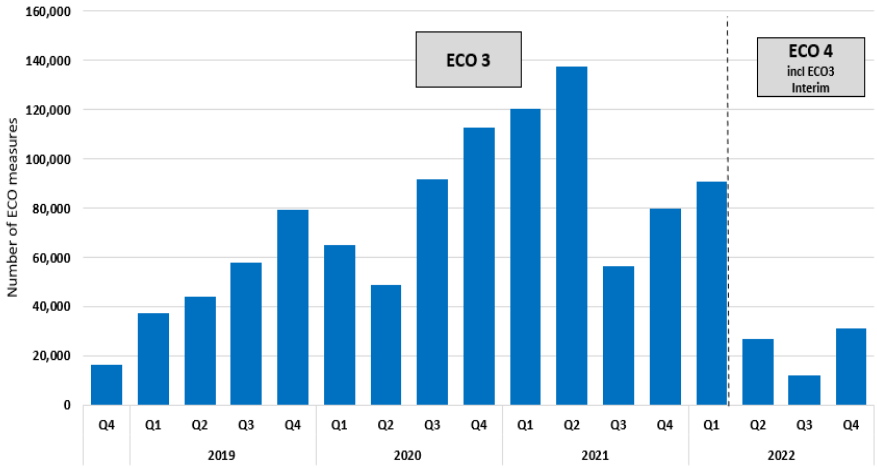
For information on the schemes please see the Technical Information and for other statistical publications see Further Information.

Data tables

The underlying tables are available in Excel format at HEE Statistics.

This publication is based on data from the scheme administrators. New data are incorporated in line with the DESNZ statistical revisions policy developed in accordance with the UK Statistics Authority Code of Practice for Statistics.

ECO3 and ECO4 measures installed by quarter, to end of December 2022



Key headlines

- Around 3.6 million measures were installed in 2.5 million properties through the Energy Company Obligation (ECO) and the Green Deal (GD).
- Since ECO3 closed on 31st March 2022, it is provisionally estimated that 69,200 measures were installed (including 25,600 ECO3 interim and around 43,600 ECO4 measures).
- For ECO4 (including ECO3 Interim) to the end of quarter 4 2022, other heating measures represented 40 per cent of measures installed (of which 94 per cent were heating controls), followed by cavity wall insulation at 19 per cent.

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1. Benefits Monitoring

Tables 1.1 to 1.4

The combined number of measures installed across the schemes, plus the estimated carbon and energy savings from those measures.

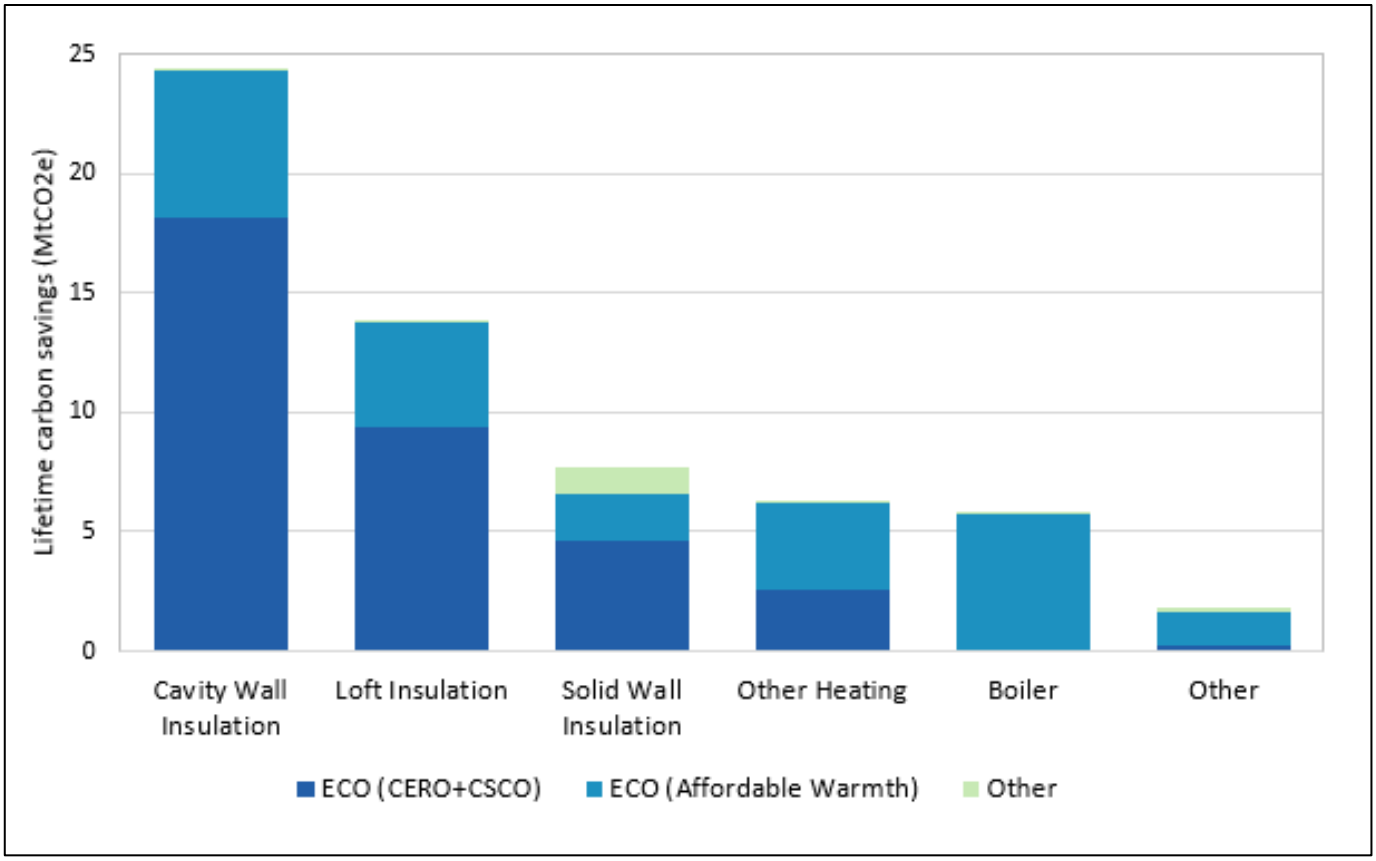
The carbon and bill savings in this section have not been updated with data on ECO4. The Ofgem ECO4 register is still undergoing development, limiting the variety of data currently available. ECO4 benefits monitoring information will be available in a subsequent quarterly release.

Key Headlines

- Since quarter 1 (Jan to Mar) 2013 to the end of quarter 4 (Oct to Dec) 2022, around 3.6 million measures were installed in 2.5 million households across ECO and GD schemes.
- Under ECO, 3.5 million measures were installed in around 2.4 million properties.
- The estimated lifetime carbon savings from these schemes is up to 60 MtCO2.
- The associated estimated energy savings of these measures was up to 224,400 GWh.

ECO and Green Deal Framework [1] Estimated Lifetime Carbon and Energy Savings

Chart 1: Carbon Savings by Measure Type from January 2013 to end of March 2022



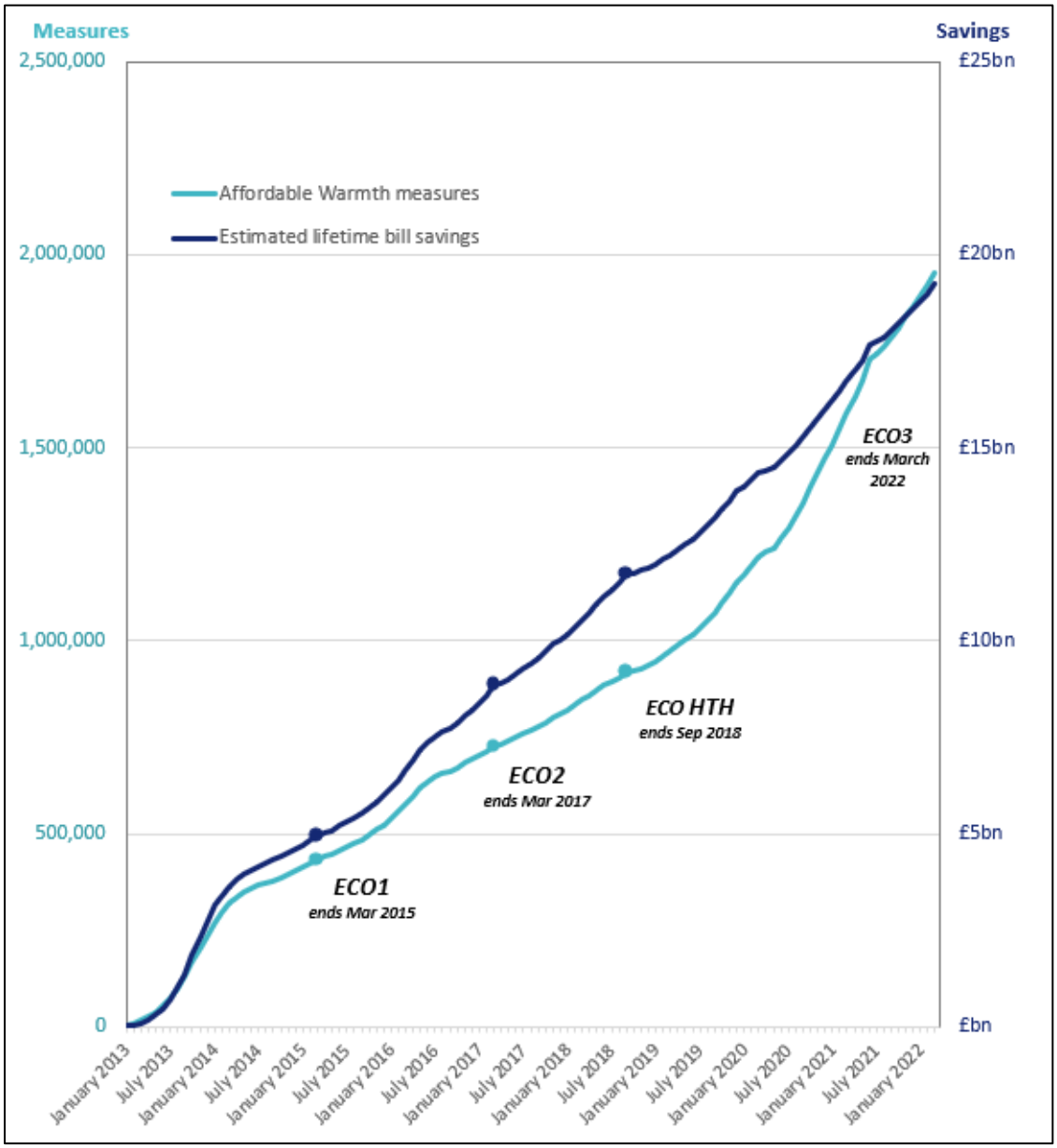
Across both ECO and GD schemes, from quarter 1 2013 to the end of quarter 1 2022, the provisional estimated lifetime carbon saving was 60 MtCO2. Cavity Wall Insulation contributed significantly to these savings, accounting for around 41 per cent of the provisional estimated savings (Table 1.4; Chart 1). As illustrated in Chart 1, the majority of the estimated lifetime carbon savings from boilers occurred through the ECO Affordable Warmth obligation, which is the only ECO sub-obligation to include boilers.

[1] The estimated carbon and energy savings relate to measures installed through the following schemes: ECO, Cashback, GDHIF and Green Deal Plans.

The estimated lifetime energy savings across the schemes was 224,400 GWh to the end of quarter 1 2022. Similar to the carbon savings, Cavity Wall Insulation accounted for most of these savings at 43 per cent.

ECO Affordable Warmth Lifetime Bill Savings

Chart 2: Cumulative Affordable Warmth measures and associated estimated lifetime bill savings, to end of quarter 1 2022



Under ECO Affordable Warmth, each measure is given an associated score which is used to calculate these lifetime bill savings. Therefore, the lifetime bill savings are dependent on the number and type of measures installed. Around 1.96 million Affordable Warmth ECO measures were installed up to the end of quarter 1 2022, which are estimated to deliver £19.3 billion worth of notional lifetime bill savings (Table 2.1; Chart 2).

In quarter 1 2022, Affordable Warmth delivered around 90,500 measures, resulting in an estimated £660 million of lifetime bill savings. In quarter 1 2022, measure delivery increased by 14 per cent relative to quarter 4 2021, while the estimated lifetime bill savings increased by 16 per cent. In quarter 1, the average saving per measure installed was £7,286 compared to £7,138 in quarter 4 2021, representing a 2 per cent increase. This reflects that the share of measures by measure group stayed fairly constant between the two quarters.

2. ECO Trends

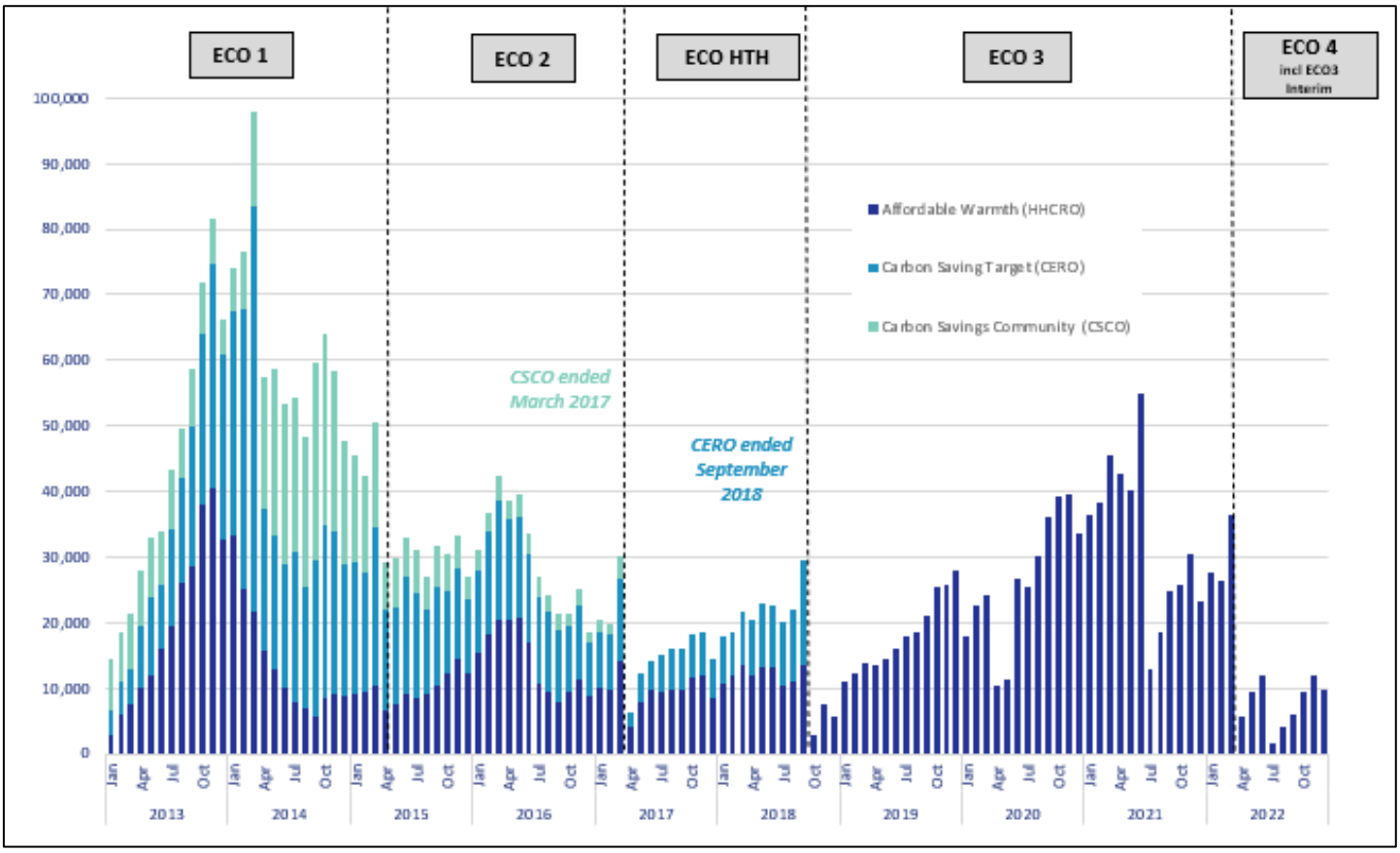
Tables 2.1 to 2.8 and 4.1 to 4.5

The number of measures installed for each phase of ECO, and the number of households receiving ECO measures.

Key Headlines

- 3.5 million measures installed in 2.4 million households under ECO.
- Since April 2022, 69,200 ECO3 Interim and ECO4 measures have been installed.
- In quarter 4 (Oct to Dec) 2022, 30,900 measures installed in an additional 6,200 first-time households.

Chart 3: ECO measures installed by obligation, by month, to end quarter 4 2022



March 2022 represented the highest level of delivery since June 2021, as it was the last month that suppliers had to fulfil their ECO3 obligations. Ofgem published[2] the progress of these obligations. Measures in quarter 2 2022 were delivered under either ECO3 Interim or ECO4 and were at a lower level than ECO3. There was a small increase in measures delivered in June as suppliers completed their paperwork on ECO3 Interim. Since then, ECO4 delivery has been low, picking up slightly across the year. Delivery in December dropped slightly from November, reflecting the usual seasonal pattern. In quarter 4 (Oct to Dec) 2022, 30,900 measures were delivered in an additional 6,200 first-time households.

[2] https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco/contacts-guidance-and-resources/eco-public-reports-and-data

3. ECO Measures by Type

Tables 2.1 to 2.8 and 3.1 to 4.6

The number of measures installed for each phase of ECO, for monthly and quarterly time series.

Key Headlines

- In quarter 4 (October to December) 2022, the most popular measure group was 'other heating', with 15,200 measures installed, the majority of which were heating controls.
- The second most popular group was loft insulation, with 4,700 measures installed.

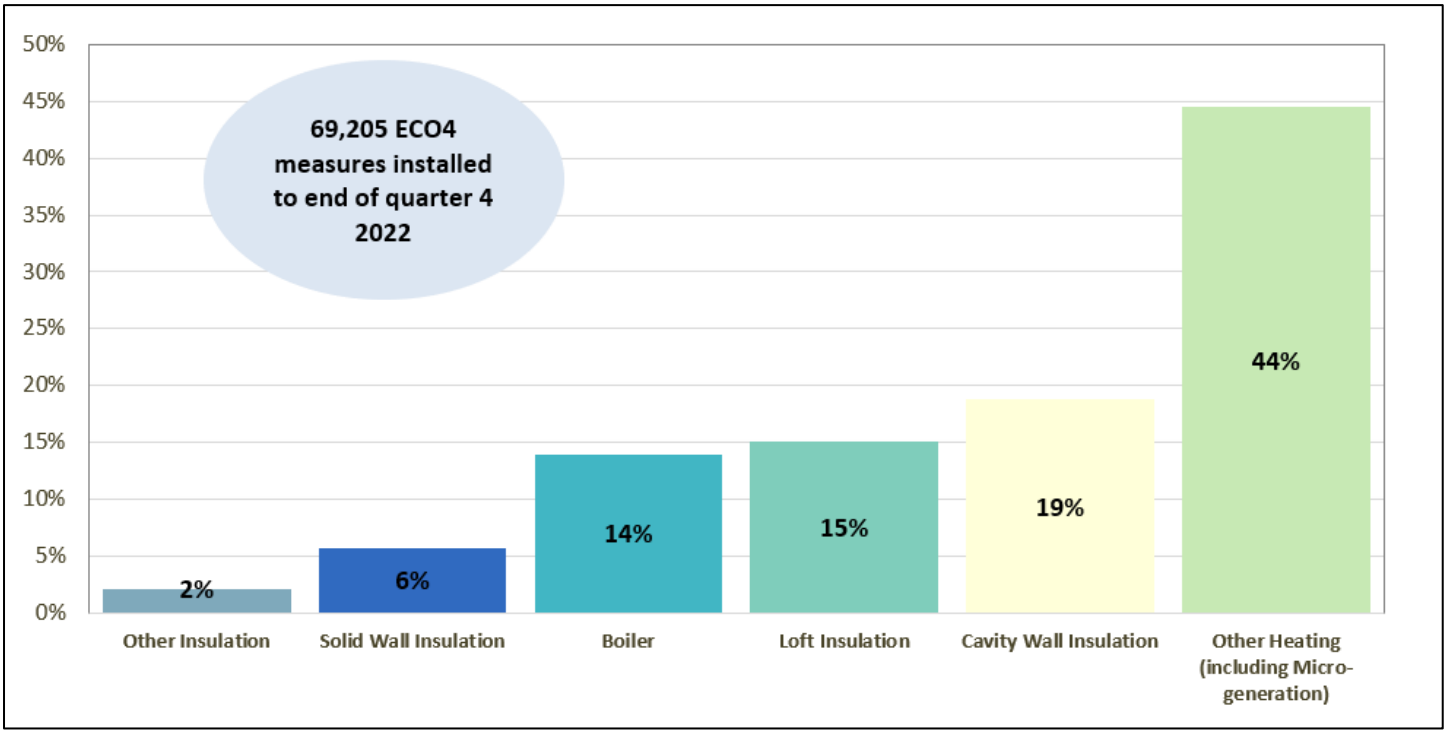
Measures by Type

Of all notified ECO measures installed to the end of quarter 4 2022, around 59 per cent were insulation measures and 41 per cent were heating measures. (Tables 2.6, 2.7, 2.8 and 2.8b).

ECO4 adopts a whole-house approach to energy efficiency improvement whereby multiple measures are installed in a property following a full assessment of the home's needs. Many homes eligible for the scheme must have an insulation measure installed before heating measures can be installed. More information can be found in the ECO4 delivery guidance published by Ofgem[3].

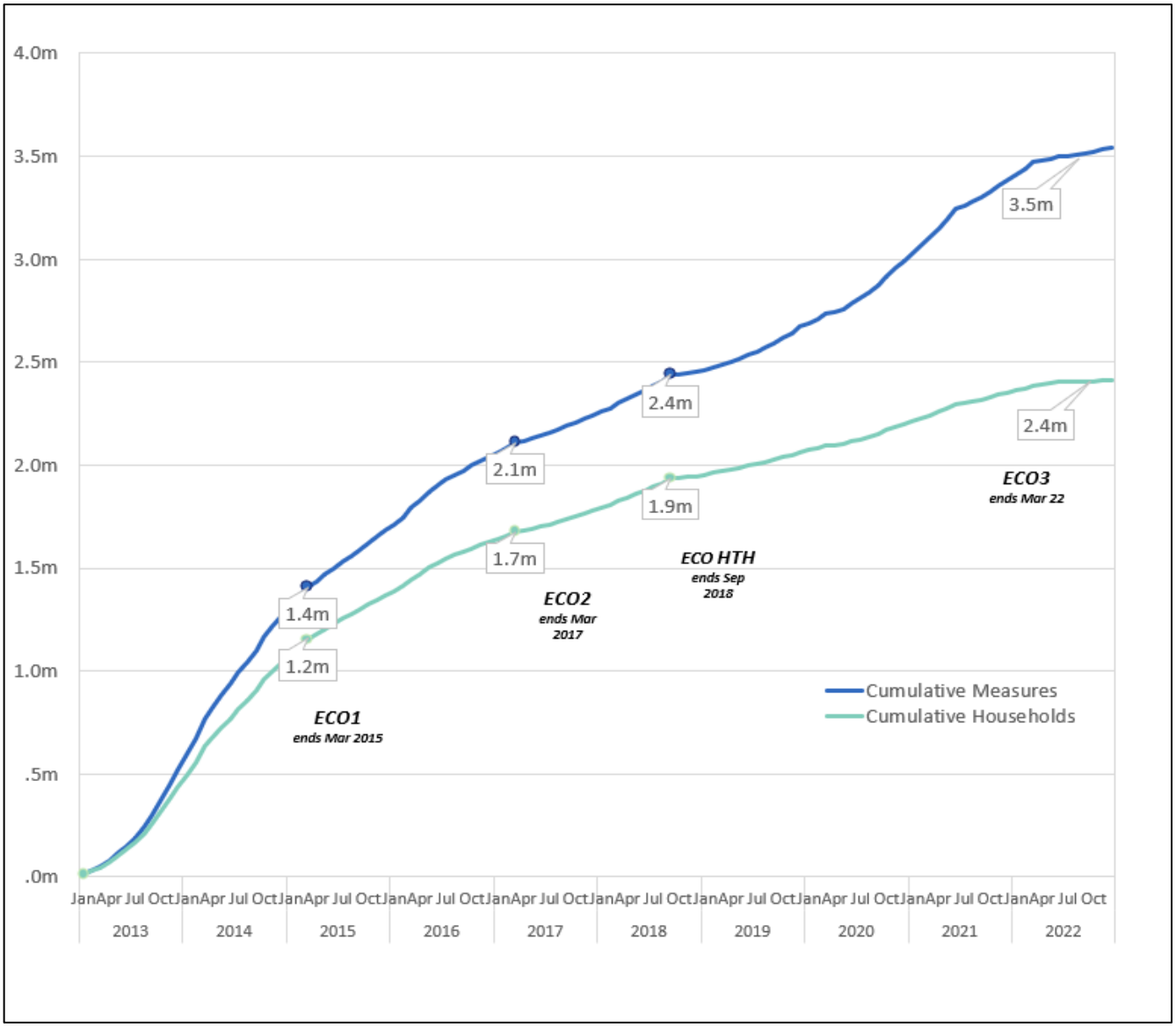
Under ECO4 (including ECO3 Interim), the share of heating measures has increased slightly, with 58 per cent of ECO4 measures being heating, compared to around 56 per cent for ECO3. For ECO4 to the end of quarter 4 2022, boilers represented 14 per cent of measures installed with a further 44 per cent from other heating measures (of which 94 per cent were heating controls) and micro-generation measures. Heating control measures make up 37 per cent of total ECO4 measures installed to the end of quarter 4. (Table 2.8b).

Chart 4: Measures installed by measure type as proportions of total ECO4 (including ECO3 Interim) measures installed, to end quarter 4 2022



[3] https://www.ofgem.gov.uk/publications/energy-company-obligation-eco4-guidance-delivery

Chart 5: Cumulative number of ECO measures installed and unique households receiving measures by month, to end of quarter 4 2022



4. ECO Household Characteristics

Tables 3.2 and 4.2 to 4.3

The number of measures installed and households receiving an ECO measure by household characteristics, including heating source, property type and tenure.

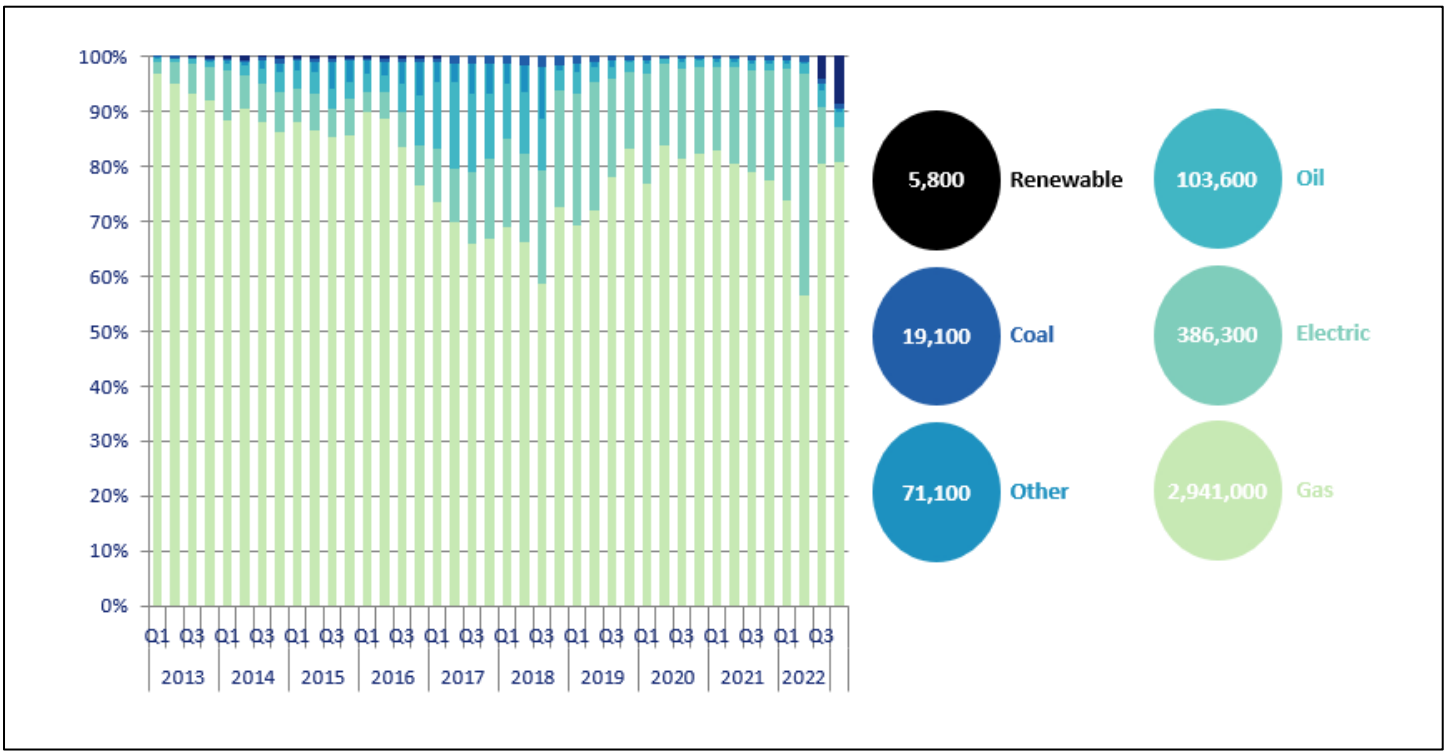
Key Headlines

- Under ECO, around 83 per cent of measures were installed in properties using gas.
- The majority (around 71 per cent) of measures were installed in houses.
- The most common tenure was owner-occupied, accounting for 70 per cent of households.

ECO measures by property main fuel type

In total, to the end of quarter 4 (October to December) 2022, 2.94 million measures (83 per cent) were installed in properties that used gas as their main fuel type. The proportion of gas properties has decreased over the course of the scheme, from 97 per cent in the first quarter of ECO (Jan to Mar 2013) to 59 per cent in the final quarter of ECO Help-to-Heat (quarter 3, Jul to Sep 2018), before generally rising over subsequent quarters to between 70 to 80 per cent in quarters during ECO3. In quarters 3 and 4 of 2022, gas properties accounted for 81 per cent of properties receiving an ECO measure, excluding those properties with an unknown main fuel type. (Table 3.2, Chart 7).

Chart 6: ECO Measures by main fuel type of property, by quarter, to quarter 4 2022



Household receiving measure – property type and tenure

Over the whole of ECO, around 2.4 million households have received a measure through the scheme. Of these households, 1.7 million properties (71 per cent) were the house property type, with a further 18 per cent of properties being flats. In the latest quarter, (October to December 2022) 82 per cent of properties receiving a measure were houses, with five per cent being flats. Properties with an unknown property type made up 13 percent of properties receiving measures. (Table 4.2).

For the whole of ECO, the most common tenure is owner-occupied with around 1.6 million households (70 per cent). The remainder of households were rented, with socially rented households accounting for 16 per cent, private rented households 14 per cent. (Table 4.3).

5. ECO Regional

Tables 3.3 to 3.6, 4.1 and 4.4 to 4.5

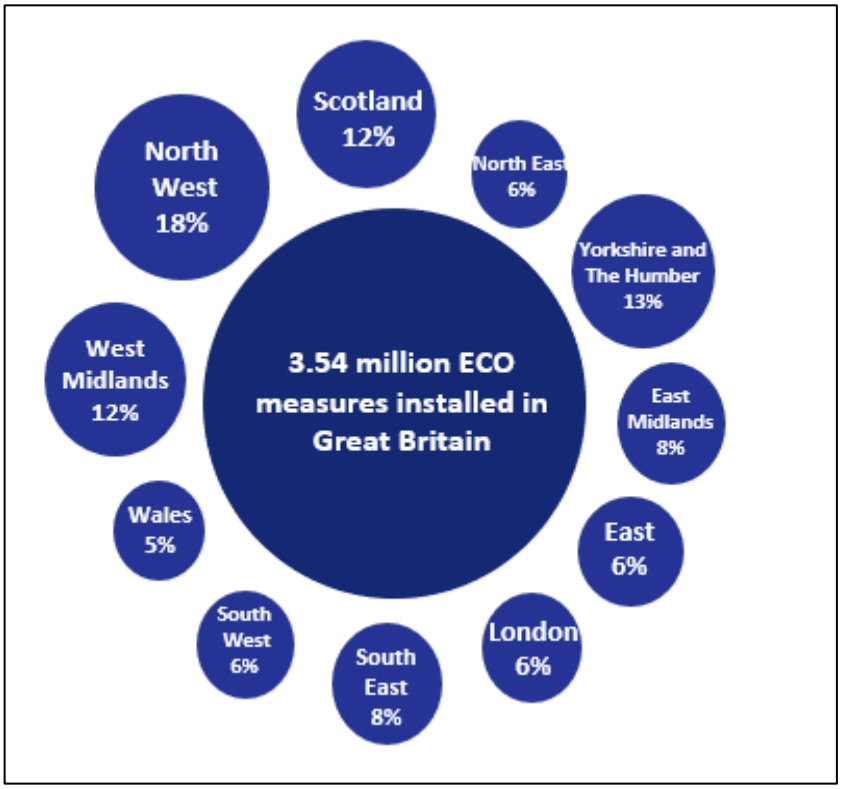
The number of measures installed and households receiving an ECO measure by region, local authority, and parliamentary constituency on a quarterly basis.

Key Headlines

- Across ECO, nearly one fifth of ECO measures were installed in the North West of England.
- To date, around nine per cent of households in Great Britain had an ECO measure installed.
- Under the Flexible Eligibility (Flex) mechanism, 86 local authorities had more than 500 measures installed; with Scotland accounting for around 19 per cent of Flex measures.

Regional Trends

Chart 7: ECO measures by region, up to the end of quarter 4 2022

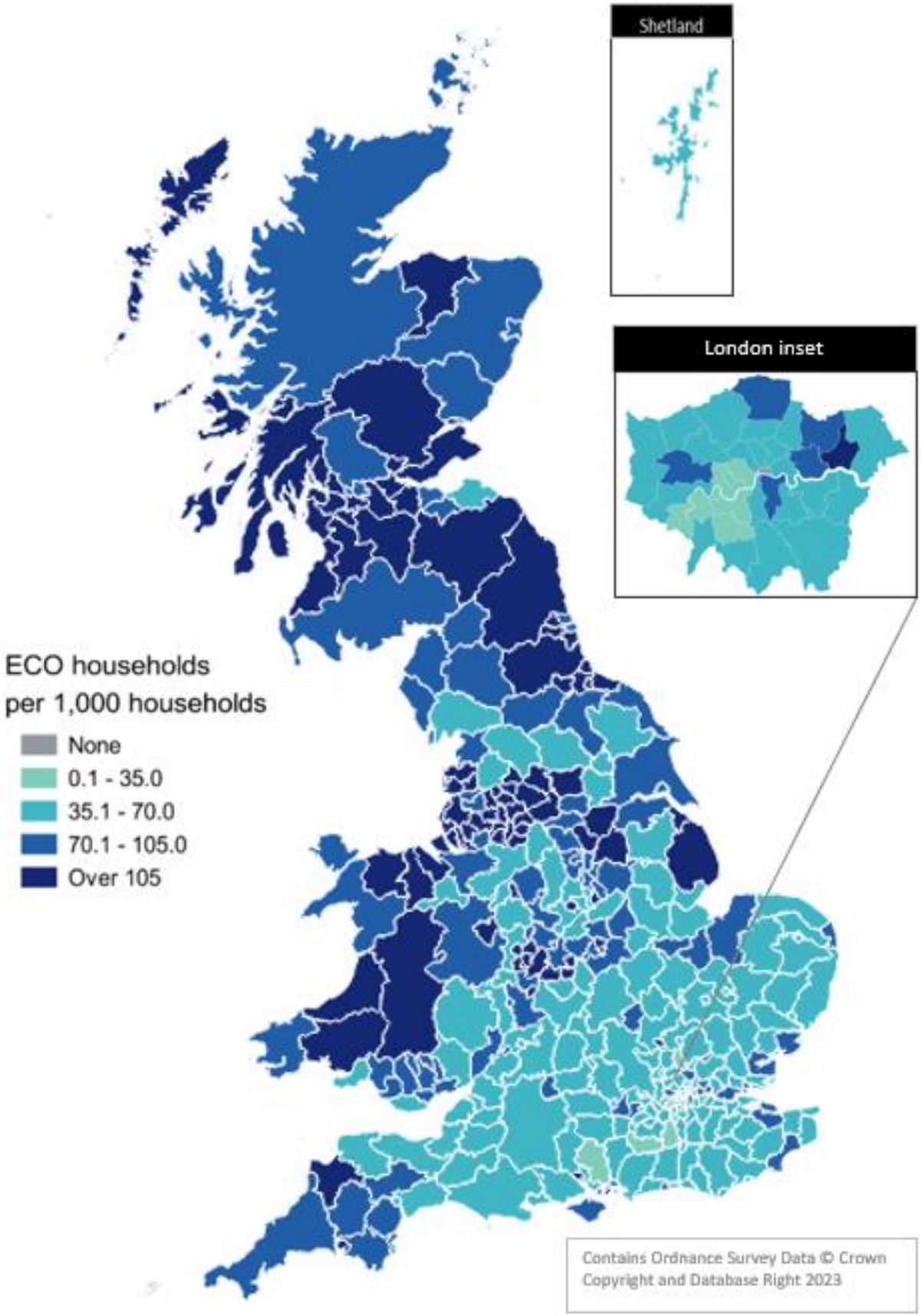


For the fourth quarter of 2022, ECO4 measure delivery by nation or region was:

- 25,600 measures in England, equivalent to 83 per cent of all measures.
- 1,800 measures in Scotland, equivalent to six per cent of all measures.
- 3,600 measures in Wales, equivalent to 11 per cent of all measures.
- The West Midlands had the highest regional delivery in England, with 6,000 measures installed equivalent to around 19 per cent of all measures. (Table 3.3)

Around nine per cent of all households in Great Britain had a measure installed under ECO. This is equivalent to around 90 per 1,000 households, up to the end of quarter 4 2022. For England, there were around 86 measures per 1,000 households, with five regions (North West, North East, West Midlands, Yorkshire and the Humber, East Midlands), each having a rate above the England average. The North West and North East regions had the highest rates in England, with 132 and 123 households with ECO measures per 1,000 households, respectively. There were around 128 measures per 1,000 households in Scotland and 90 per 1,000 households in Wales (Map 1, Table 4.1, and Table 4.4).

Map 1: Households in receipt of ECO measures by Local Authority per 1,000 households, to end of quarter 4 2022



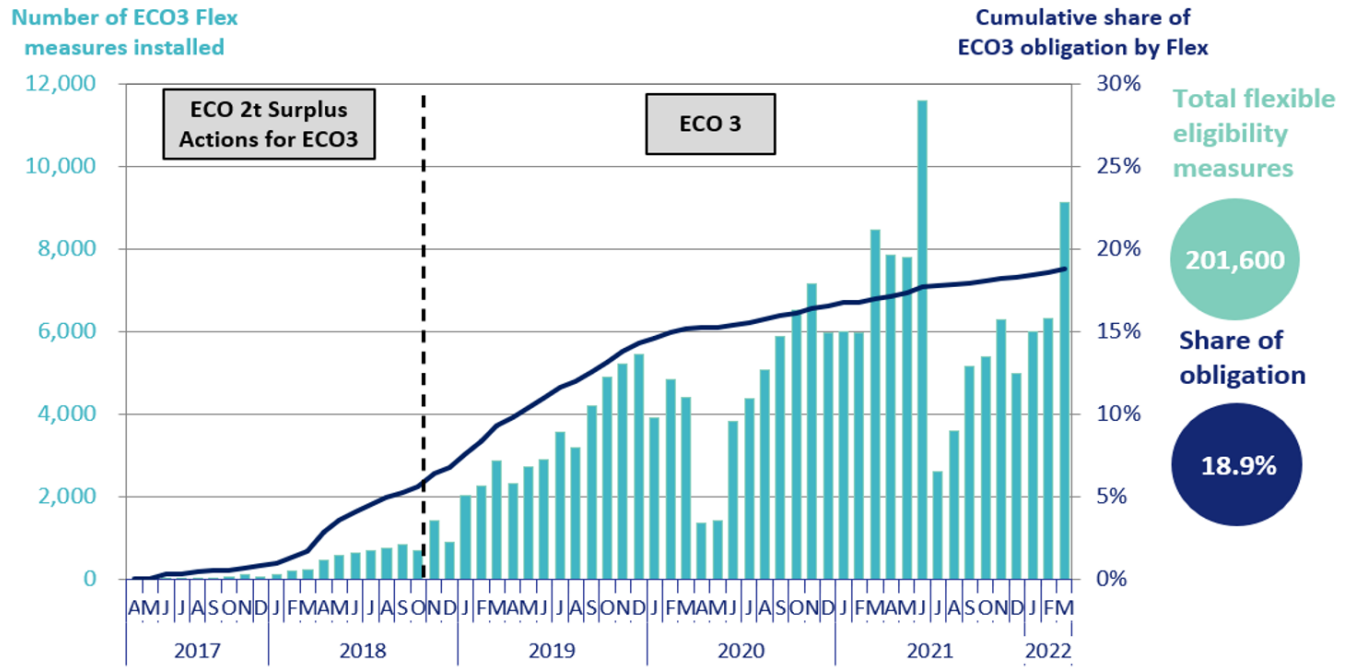
Flexible Eligibility

Local Authorities can determine eligible homes under the 'Flexible Eligibility' mechanism (Flex). The Affordable Warmth Obligation is measured through lifetime savings and up to 25 per cent of the ECO3 lifetime bill savings could be delivered through 'Flexible Eligibility'. The 'Flexible Eligibility' rules for ECO4 have changed and suppliers can now deliver up to 50 per cent of their obligation through this mechanism. This next section details information on measures delivery through ECO3 Flex. Information on measures delivered through ECO4 Flex will be published in a subsequent next quarterly release.

Since the introduction of Flexible Eligibility, 212,600 measures have been delivered through this aspect of the scheme up to the end of March 2022 (Tables 2.7 & 2.8).

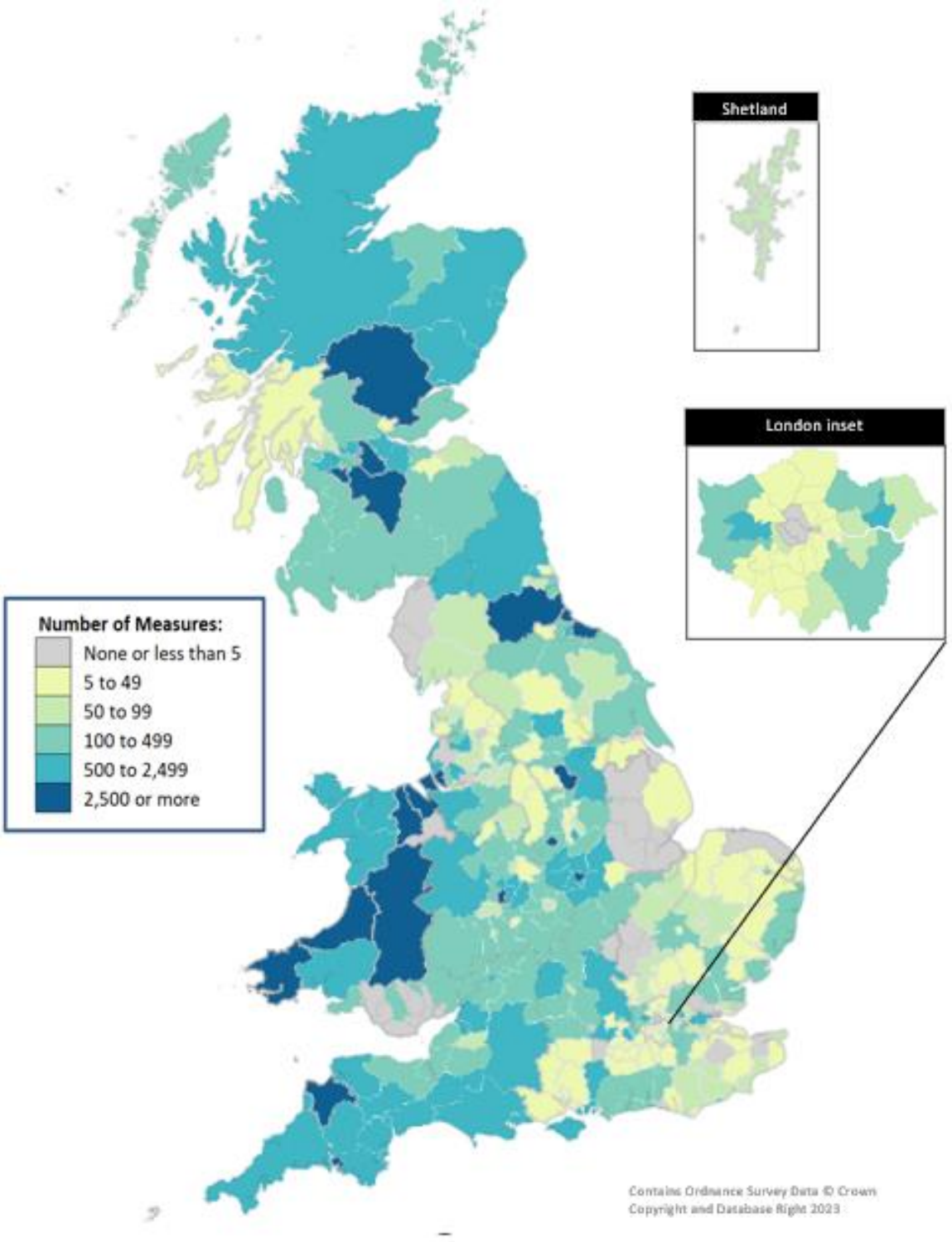
Under ECO3, up to 25 per cent of the obligation, in terms of lifetime bill savings, could be delivered through Flex, with around 19 per cent of this obligation delivered through Flex up to the end of March 2022 (Table 2.2; Chart 9). Across ECO3 to end of March 2022, including re-elected ECO HTH surplus actions, 201,600 measures have been delivered through Flex with estimated lifetime bill savings of £1.6 billion.

Chart 8: ECO3 Flexibility Eligibility Measures by installation month and share of ECO3 obligation delivered through Flex, to end of quarter 1 2022



To the end of quarter 1 2022, 239 local authorities had 50 or more measures installed through Flexible Eligibility, of which 86 local authorities had over 500 measures installed. Scotland had the highest number of Flex measures installed of any region, with around 19 per cent of the Flex measures in Great Britain, whereas Wales had around 10 per cent. The East Midlands had the highest share amongst regions in England, having around 18 per cent of all Flex measures installed in Great Britain (Map 2, Table 3.5).

Map 2: ECO Measures installed through Flexible Eligibility, by Local Authority from quarter 2 2017 to quarter 1 2022



Local Authorities are shown only if they have at least five flexible eligibility measures. In total, 335 Local Authorities had at least one flex measure up to March 2022.

6. ECO Costs

Tables 6.1 to 6.6

The costs of delivering and administering the ECO scheme as reported by energy suppliers.

ECO costs are updated in the monthly headline release following a quarterly publication. The figures below are from the June 2022 headline release and will be updated in due course, subject to data availability and quality on ECO measures post-ECO3.

Key Headlines

- The total ECO costs reported by suppliers (delivery and administrative) to the end of quarter 1 (Jan to Mar) 2022 were £6.1 billion.
- The average cost of delivery under ECO3 was 24 pence per pound of lifetime bill savings, up to the end of quarter 1 2022.

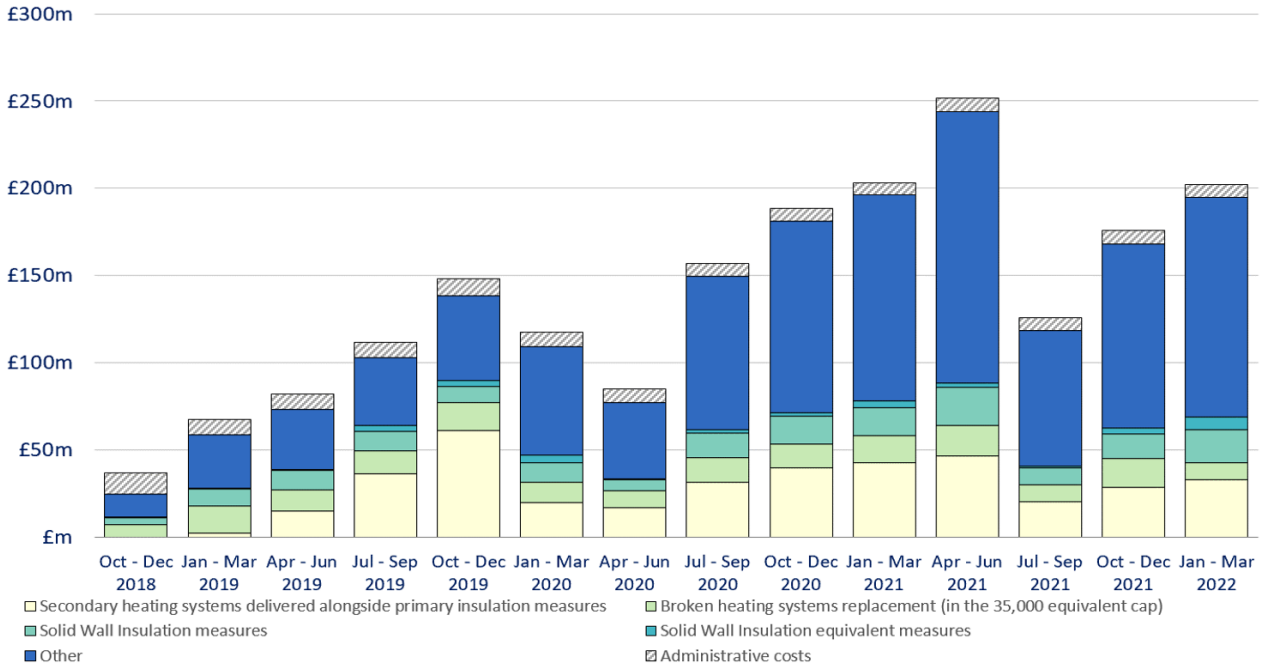
ECO Costs

The total ECO delivery costs up to the end of quarter 1 2022 were around £5.6 billion, with an additional £514 million in administrative costs. Therefore, the total cost of ECO was £6.1 billion. (Table 6.1). The delivery costs for ECO3 up to the end of quarter 1 2022 were £1.8 billion, with 31 per cent of these costs funding boiler and other heating systems. (Table 6.6)

As the measure delivery profile and volumes have varied over the course of ECO3, so have the associated costs, as illustrated in Chart . From the start of ECO3 (Oct to Dec 2018) to the start of 2020, costs rose each quarter, but in the first half of 2020, changing PAS standards and COVID-19 lockdown affected measure delivery and so costs. During the second half of 2020 and through to quarter 2 2021, measure delivery significantly increased, and this was reflected with the increase in costs. In quarter 3 2021, measure delivery, and so costs, decreased significantly due to PAS standard changes. When quarter 3 2021 is compared with quarter 2 2021, total costs decreased by around 50 per cent, while measure delivery decreased by around 60 per cent. These large decreases are also a reflection of the significantly high delivery in quarter 2 2021. Costs increased again in quarter 4 2021 and again in quarter 1 2022, reflecting an increase in measure delivery (Table 6.6 and Chart 10).

Up to the end of quarter 1 2022, the average cost of delivering the ECO3 Affordable Warmth obligation was 24 pence per pound of lifetime bill savings, up from 15 pence per £ in ECO Help-To-Heat (Tables 6.3 & 6.4).

Chart 9: ECO3 costs, by cost type, by quarter, to end of quarter 1 2022



7. Green Deal

Tables 7.1 to 7.4

The number of Green Deal Plans and measures installed. Table 7.1 contains monthly data up to January 2023, but in Chart 11 only complete quarters are shown.

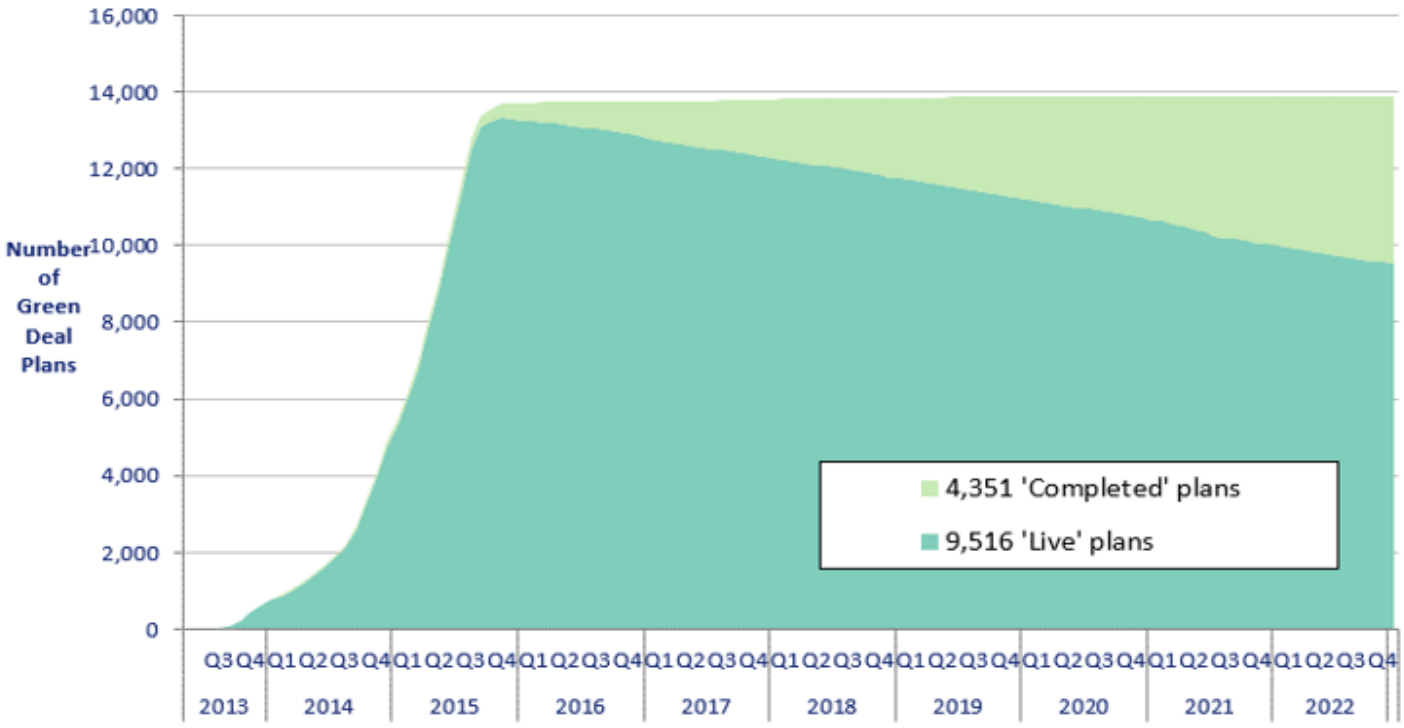
Key Headlines

- A total of 13,867 Green Deal Plans.
- Around 32 per cent of plans classified as ‘Completed’.
- In the last three months (November 2022 - January 2023) 109 plans were completed.

Under the Green Deal scheme, a total of 13,867 Plans were classified as either ‘live’ or ‘completed’ at the end of January 2023. Of these, 9,489 were ‘Live’ (all measures installed) and 4,378 were 'Completed' (all measures installed and paid off). At the end of January 2023, around 68 per cent of all plans were 'Live'.

Over the last three months (November 2022 - January 2023) 109 plans were ‘Completed’, compared to 113 completions in the previous three months (August 2022 - October 2022) (Table 7.1).

Chart 10: Domestic Green Deal Plans, by ‘Live’ or ‘Completed’ status, by quarter, to end of quarter 4 2022



8. Technical Information

Data in this release

Data are collected by DESNZ from a range of administrative sources. For these quarterly statistics, the main sources of data on the schemes are:

- Ofgem for ECO data – scheme administrator collects data from energy companies on ECO delivery
- Green Deal Central Charge Database – administer and manage Green Deal Plans
- NEC Software Solutions UK – manage national lodgement of Green Deal measures
- Energy Savings Trust Scotland (EST) – manage lodgement of Green Deal measures in Scotland
- Green Deal Oversight and Regulation Body (ORB) – administer Green Deal organisations certification

Further administrative datasets are used to provide the geographic breakdowns included in this release. Reference geography datasets and map boundary files are obtained from the Office for National Statistics (ONS), through the Open Geography Portal.

Methodology and revisions

The statistics presented in this release cover measures installed up to December 2022. The quarterly reports are now published earlier but the ECO costs data for the latest quarter are not yet available as further data quality assurance is carried out. ECO Cost data is included in this release up to March 2022.

Further information regarding the methodology and quality assurance process used to produce estimates for this statistical series can be found here: Household Energy Efficiency Statistics Methodology Note

Revision's policy

Figures for the latest periods are provisional and are liable to subsequent revision. The DESNZ statistical revisions policy sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority Code of Practice for Statistics.

Scheme Information

The Energy Company Obligation (ECO) was introduced in January 2013 to reduce energy consumption and support people at greater risk of living in fuel poverty. The larger energy companies are set obligations to install insulation and heating measures to achieve reductions in energy usage and heating costs.

The Green Deal (GD) is a government initiative that is designed to help homeowners install energy efficiency measures into their properties, and the costs of these measures are paid back through their energy bill over a period of time; this is in the form of a Green Deal Finance Plan (GD Plan).

Definitions

The Energy Company Obligation required the larger energy suppliers to achieve savings in homes. (CERO & CSCO are measured in terms of lifetime carbon savings, Affordable Warmth is measured in terms of lifetime bill savings).

Energy Suppliers are set targets for each phase of the scheme based on two criteria: the number of customers that they have and the amount of energy that they supply to domestic properties in Great Britain. This threshold remained the same for ECO1, 2 & Help-to-Heat but tightened through ECO3. Targets for ECO4 have remained the same as ECO3. The criteria for ECO4 are as follows:

- Number of domestic customers must be 150,000 or more
- Electricity supply to domestic customers must be 300 GWh or more
- Gas supply to domestic customers must be 700 GWh or more

Suppliers are obligated to participate in the scheme if they exceeded both the customer number threshold and the electricity or gas supply threshold as of 31 December of the previous year. The ECO4 Phases are as follows:

- Phase 1: 27 July 2022 to 31 March 2023
- Phase 2: 1 April 2023 to 31 March 2024
- Phase 3: 1 April 2024 to 31 March 2025
- Phase 4: 1 April 2025 to 31 March 2026

Within the Energy Company Obligation there are sub-obligations

Carbon Saving Target (CERO)	This covered the installation of measures like solid wall and hard-to-treat cavity wall insulation, which ordinarily cannot be financed solely through Green Deal Plans. From April 2017 this included a rural sub-obligation where at least 15 per cent of a supplier's CERO for Help-to-Heat must be achieved in rural areas. (Closed end September 2018)
Carbon Saving Communities (CSCO)	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. (Closed end March 2017)
Affordable Warmth[4] *(HHCRO)*	This provides heating and insulation measures to consumers who receive particular means-tested benefits. Since April 2017 it enables those in social housing living in E, F and G rated properties to receive insulation measures, and some heating measures. This obligation supports low-income consumers who are vulnerable to the impact of living in cold homes, including the elderly, disabled and families. From October 2018 this included a rural sub-obligation where at least 15 per cent of a supplier's ECO3 must be achieved in rural areas.
Flexible Eligibility	Local Authorities can determine eligible homes under the new 'Flexible Eligibility' mechanism, introduced in 2017. Up to 25% of the Obligation could be delivered through Flexible Eligibility under ECO3, up from 10% under ECO Help-To-Heat. Households can be assessed by local authorities to be 'living in fuel poverty'; or assessed to be 'living on a low income and vulnerable to cold'. Under ECO4, up to 50% of suppliers obligations can be delivered through Flexible Eligibility.
Innovation Measures	Under ECO3, suppliers could meet up to 10% of their obligation to deliver innovation measures to eligible households. A further 10% could be used to monitor the actual energy performance of measures in homes.

[4] Also known as The Home Heating Cost Reduction Obligation

9. Further Information

Recent publications of interest

Household Energy Efficiency Detailed statistics (annual)
For detailed analysis of ECO and GD Plans, along with home insulation levels across Great Britain see the Annual Household Energy Efficiency Detailed Statistics publication.

Green Homes Grant Local Authority Delivery statistics
For statistics monitoring the Green Homes Grant Local Authority Delivery scheme across England, see the Green Homes Grant Local Authority Delivery statistics.

Social Housing Decarbonisation Fund statistics
For statistics monitoring the Social Housing Decarbonisation Fund scheme across England, see the Social Housing Decarbonisation Fund statistics.

Smart Meters quarterly statistics
For estimates on the roll-out of Smart Meters in Great Britain, covering meters operating and meters installed, see the Smart Meters statistics.

Renewable Heat Incentive statistics
For statistics on deployment data for the domestic and non-domestic Renewable Heat Incentive (RHI) to support the uptake of renewable heat, see the Renewable Heat Incentive statistics.

Energy Trends
For detailed data on supply and demand of coal, oil, gas, electricity, and renewables in the United Kingdom, see the Energy Trends statistics.

Energy Consumption in the United Kingdom (ECUK)
For detailed data on end use estimates of energy in the UK, see the Energy Consumption in the United Kingdom (ECUK) statistics.

Sub-national total final energy consumption
For findings of the sub–national energy consumption analysis in the UK for all fuels, for the period covering 1 January to 31 December, with gas consumption covering the annual period from mid-May, see the sub-national total final energy consumption statistics.

Sub-national electricity consumption
For electricity consumption by consuming sector for Great Britain and devolved administration areas, see the sub-national electricity consumption statistics. Data are based on the aggregation of Meter Point Administration Number readings as part of BEIS's annual meter point electricity data exercise.

Sub-national gas consumption
For gas consumption by consuming sector for Great Britain, and devolved administration areas, see the sub-national gas consumption statistics. Data are based on the aggregation of Meter Point Reference Number readings throughout Great Britain as part of BEIS's annual meter point gas data exercise. Data are subject to a weather correction factor to enable comparison of gas use over time.

Domestic Energy Interactive Map
For an interactive map for indicators of domestic energy efficiency, including the percentage of households receiving ECO measures down to Lower Layer Super Output Area up to December 2021, see the Domestic Energy Map. The map also shows the number of loft and wall insulation measures installed.

Future updates to these statistics

The next headline release on the gov.uk website is planned for publication at 9.30am on 30th March 2023 and will contain the latest available information on headline ECO measures up to the end of January 2022.

On 30th March 2023, the annual detailed statistical release will be published. This contains additional estimates on insulation across Great Britain.

The next quarterly release is planned for publication at 9.30am on 25th May 2023.

National statistics

This is a National Statistics publication. National Statistics status means that our statistics meet the highest standards of trustworthiness, quality, and public value, and it is our responsibility to maintain compliance with these standards.

The statistics last underwent a full assessment against the Code of Practice for Statistics on 12 June 2014.

Pre-release

Some ministers and officials receive access to these statistics up to 24 hours before release. Details of the arrangements for doing this and a list of the ministers and officials that receive pre-release access to these statistics can be found in the DESNZ statement of compliance with the Pre-Release Access to Official Statistics Order 2008.

Uses of these statistics

These statistics are used by Government to monitor the delivery and effectiveness of the ECO and GD schemes. They are used to monitor the delivery of the ECO obligation and the share of the obligation delivered though key aspects of the scheme, including Flexibility Eligibility and innovation measures. The data are used within the National Energy Efficiency Data-framework to assess the impact of these measures in different types of homes.

User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to this statistical release are welcomed and should be sent to the Energy Efficiency Statistics mailbox.

The DESNZ statement on statistical public engagement and data standards sets out the department's commitments on public engagement and data standards as outlined by the Code of Practice for Statistics.

This publication is available on Gov.uk by following the link here.

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