Energy Company Obligation (ECO3)

Final Determination Report

1 October 2018 to 31 March 2022

ofgem

Making a positive difference
for energy consumers

Foreword

The government's Energy Company Obligation 3 (ECO3) scheme was designed to support low income and vulnerable households in reducing their energy bills though the installation of energy efficiency measures relating to home heating. As the main legislative driver for retrofitting homes across Great Britain, it has been great to see the impact the scheme has had in supporting low income and vulnerable households with measures such as insulation or the upgrade of inefficient heating systems.

The ECO3 scheme has helped reduce the impact of high energy costs for some of the most vulnerable in our society – now more important than ever in the current cost of living crisis. Simultaneously, the measures installed play an important role in reducing household carbon emissions which is a critical component of achieving our Net Zero ambitions.

As scheme administrator, Ofgem has played a central role in ECO3's successful delivery, including monitoring supplier progress towards targets and working to ensure compliance with the scheme rules. We expected suppliers to ensure that the full benefits of the scheme were realised for vulnerable households, as well as ensuring that the scheme was delivered at value for money for consumers.

Collectively suppliers were required to achieve estimated lifetime bills savings of £8.253 billion through the measures installed under ECO3. A minimum amount of these savings had to be delivered to properties in rural areas and to properties with harder to insulate solid wall construction.

I am pleased to report that these targets were met, with all but one active supplier achieving compliance. Through their delivery of obligated measures under ECO3, suppliers helped consumers achieve estimated lifetime bill savings of £8.547 billion, surpassing the obligation by £293.7 million. This was achieved under frequently challenging circumstances related to social distancing during the COVID-19 crisis, where we worked closely with industry to ensure that households across Great Britain did not miss out.

Unfortunately, in some cases suppliers left things very late and excessive engagement from us was required to support them with their delivery or reporting obligations. Moving forward, we expect suppliers to be far more proactive in their engagement and will have an increasingly low tolerance for those that do not take full responsibility for meeting their obligations – with serious consequences for those that do not.

When combined with the achievements of earlier ECO schemes (ECO1, ECO2 and ECO2t) over the last 10 years, a total of 2.4 million low income and vulnerable households have been supported. This has led to combined estimated lifetime bill savings of £19.3 billion and the estimated lifetime carbon savings amount to 58.2 $MtCO_2e$ - the amount of carbon absorbed by 264 million mature trees over 10 years. I am proud of Ofgem's role in supporting the delivery of these outcomes.

I now look forward to building on the success of ECO3 as we fine tune our processes and work with suppliers to ensure they deliver the best possible outcomes for consumers, as delivery of the next iteration of the scheme (ECO4) takes place.

Philippa Pickford
Director, Delivery and Schemes

£8.55 billion

Lifetime bills savings

£8.547 billion in estimated lifetime bill savings delivered to fuel poor and vulnerable households through ECO3 measures. In total, since the ECO scheme launched in 2013 almost £19.3 billion in estimated lifetime bill savings have been achieved.

1.03 million

Measures installed

1.03 million measures have been installed as part of ECO3 and 3.51 million measures have been installed since the launch of the first ECO scheme in 2013.

417,539

Insulation measures

417,539 insulation measures were installed under ECO3, including cavity wall insulation in 152,938 households, underfloor insulation in 133,173 households, and loft insulation in 88,588 households.

251,741

Boilers replaced

More than 251,000 broken down or energy inefficient boilers were replaced with energy efficient condensing boilers or low carbon heating alternatives.

58.2 $MtCO_2$

Lifetime carbon saving

Since ECO was first introduced in 2013, installed measures are estimated to provide lifetime carbon savings of around 58.2 $MtCO_2e$. This is equivalent to the amount of carbon absorbed by 264 million mature trees over 10 years.

Executive Summary

The Energy Company Obligation (ECO3), which started in October 2018 and ran to March 2022, was a government scheme for Great Britain that placed legal obligations on larger energy suppliers to deliver energy efficiency and energy bill saving measures to low income and vulnerable households. Support was delivered with the aim of bringing down the energy costs of those households most in need. Alongside reducing energy costs for some of those most vulnerable in our society, the measures installed also result in reduced household carbon emissions, a critical component of achieving our Net Zero ambitions. As with earlier iterations of the ECO scheme Ofgem was the administrator of ECO3, overseeing its successful delivery.

Unlike earlier ECO schemes, the ECO3 scheme consisted of one distinct obligation. Energy suppliers were collectively required to achieve lifetime bill savings of £8.253 billion under the Home Heating Cost Reduction Obligation (HHCRO). Lifetime bill savings are an estimate of the savings consumers will benefit from as a result of the measures installed. The targets for delivery were divided between obligated suppliers' supply licences according to each obligated supplier's share of the domestic gas and electricity market. Suppliers were also required to deliver a minimum amount of the savings through the following sub-obligations:

- **Rural sub-obligation** - Suppliers had to achieve at least 15% of their total HHCRO by delivering measures to domestic premises in rural areas.
- **Solid wall minimum requirement (SWMR)** - Suppliers were collectively required to deliver savings of at least £0.721 billion through the delivery of solid wall insulation or solid wall alternative measures.

In addition to these obligations, the ECO3 regulations also set limits on certain optional measures that could be used by suppliers to meet their obligations. There were three such limits or caps applicable to the ECO3 scheme:

- **Local authority flexible eligibility (LA Flex)** – LA Flex allowed local authorities to identify suitable households that may not have qualified under normal scheme eligibility criteria. A maximum of 25% of a supplier's HHCRO obligation could be met through LA Flex measures.
- **Replacement of broken heating systems** – Suppliers were permitted to provide replacements for certain broken heating systems. No more than 21.023% of a supplier's total obligation could be met by measures of this type.

- **Innovation** – Measures intended to encourage the development of new products, or more cost effective and efficient installation techniques. Suppliers could achieve a maximum of 10% of their total obligation through innovative measures.

The option to install innovative measures was new for ECO3 and designed to help encourage innovative solutions to the challenges of improving the energy efficiency of Great Britain's aging housing stock. There were two innovation pathways available:

- **Innovation measures** – a measure that is different from those previously delivered under supplier energy efficiency obligations by having, for example, an improved material that can demonstrate improved energy efficiency performance, or an improved installation technique.

- **Demonstration actions -** measures that have previously been tested in a laboratory setting and now require testing at scale in a live environment, or are marketable products that are being sold and may need additional support.

To encourage participation, a bill saving uplift was awarded to measures delivered under these innovation pathways.

In addition to the measures delivered over the course of ECO3, it was possible for suppliers to use 'surplus actions' towards meeting their ECO3 objectives. Surplus actions were certain nominated measures delivered during ECO2t that were not required by the supplier to meet their ECO2t obligations.

Incorporation of Trustmark into ECO3

To provide households with enhanced levels of assurance for the quality of retrofit measures being installed and higher levels of consumer protection, a new quality standard implemented by TrustMark was introduced into ECO3 by government. The requirement for measures to be completed by TrustMark registered businesses came into force on 1 January 2020. Initially installers could use either Publicly Available Specification (PAS) 2030:2017 or PAS 2030:2019 and PAS 2035:2019 design and installation standards. This changed on 1 July 2021, from when the enhanced PAS 2030:2019 and PAS 2035:2019 standards adopting a consumer focused, whole house approach were mandated.

Our response to COVID-19

Restrictions in force due to the COVID-19 pandemic led to numerous challenges for successful delivery of ECO3. This included difficulties for industry installing scheme measures, supplier monitoring of installations and for our audit programme. To address these difficulties we produced guidance to navigate these issues, whilst continuing to provide us with the necessary assurance that standards were being met. These solutions included adapting evidence requirements to allow remote declarations, greater use of media to capture suitable evidence of installation (enabling remote auditing) and temporary delays to some non-essential activities. The solutions we set out ensured that although there was an initial fall in the delivery rate, this was short lived.

Overall performance

The overall bill saving target for the HHCRO obligation was exceeded with lifetime bill savings of £8.547 billion achieved. This represents 103.56% of the original HHCRO obligation. Additionally, both sub-obligation targets were also exceeded. It should be noted that up to 10% excess ECO3 measures (on a per supplier basis) may be carried over into ECO4 as surplus actions. **Figure 1** provides an overview of delivery against the HHCRO obligation and sub-obligation targets.

Figure 1: Overall performance against ECO3 obligations

Chart showing ECO3 delivery against the HHCRO obligation and the HHCRO Rural and SWMR sub-obligations. All lifetime bill saving targets were exceeded with HHCRO at 103.56%, HHCRO Rural at 147.29% and SWMR at 113.94%.

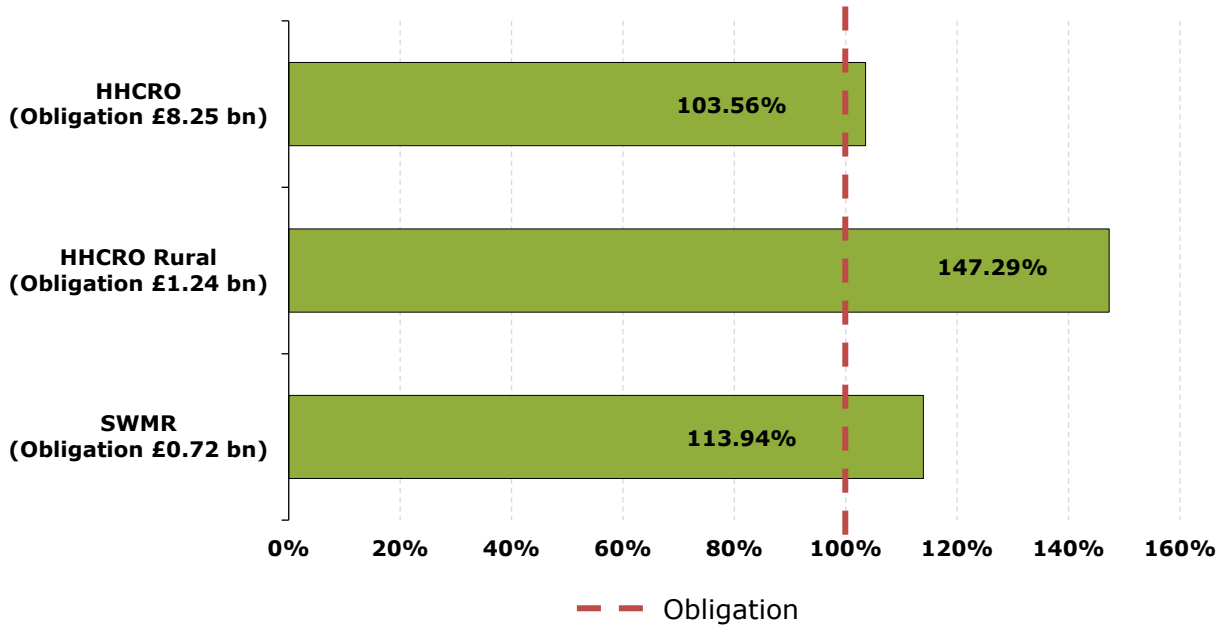
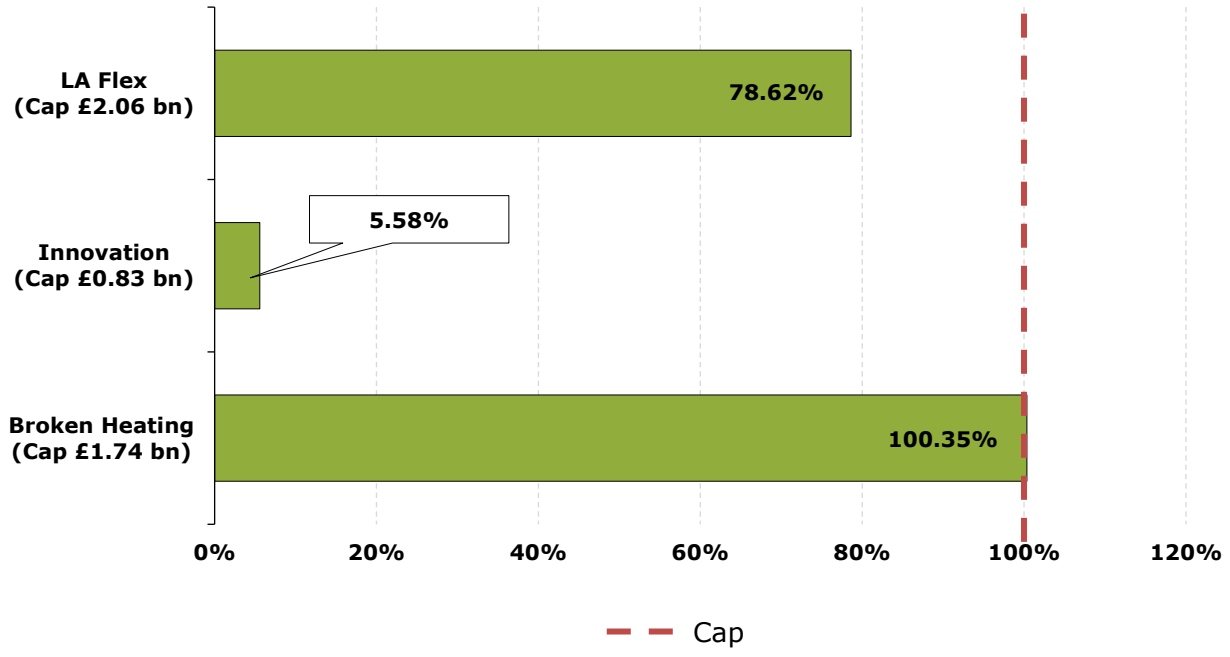


Figure 2 shows that collectively suppliers delivered bill savings well within the LA Flex and innovation caps. However, the broken heating cap was exceeded by 0.35% or £6.13 million. Any delivery in excess of the caps (on a per supplier basis) does not count towards a supplier's obligations and is not represented in **Figure 1**. Delivery in excess of the caps can however be carried forward to ECO4 as surplus actions.

Figure 2: Overall performance against ECO3 caps

Chart showing that suppliers collectively delivered measures well within the cap for LA Flex (78.62% of £2.06 bn) and innovation and demonstration actions (5.58% of £0.83 bn). However, the cap of £1.74 bn for broken heating replacements was exceeded by 0.35% or £6.13 million.

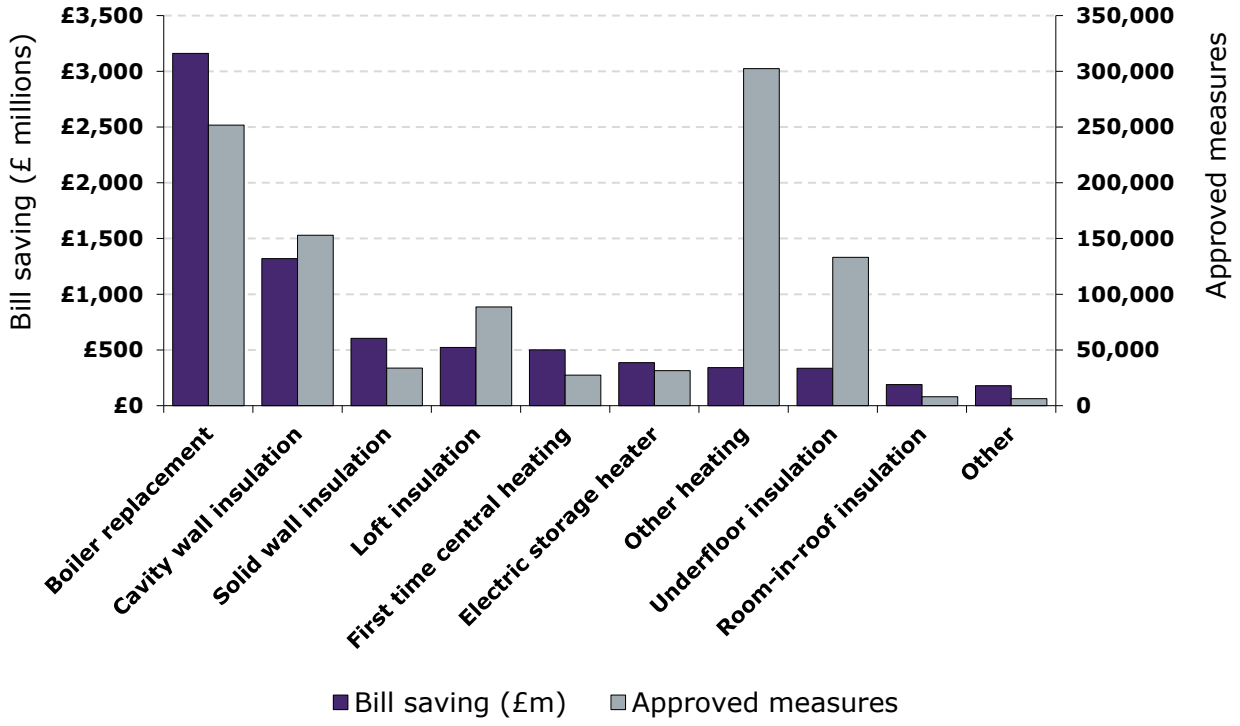


Measure types installed under ECO3

In total, 1,035,868 measures were approved under ECO3 representing more than £7.5 billion in lifetime bill savings (the balance of bill savings counted towards the HHCRO obligation were measures carried over from ECO2t as Surplus Actions). Of these, the most common were 'Other Heating' (heating control measures) accounting for 29.2% of measures and £342 million in lifetime bill savings. 'Boiler Replacements' were the second most common measure type accounting for 24.30% but were responsible for a lifetime bill saving of almost £3.2 billion. A more detailed breakdown can be seen in **Figure 3** below.

Figure 3: Measure types installed under ECO3

This chart shows the lifetime bill savings by measure type installed under ECO3, alongside the number of each measure type approved. Boiler replacements, cavity, solid wall and loft insulation account for almost 75% of total lifetime bill savings but only 51% of the measures installed. Other heating measures only account for 4.5% of lifetime bill savings but represent 29.2% of the measures approved.



Innovation measures and demonstration actions

There were 16 innovation measure types approved for use under ECO3. Of these, 12 types went on to have a total of 7,003 measures approved. The most common was the 'Nest smart thermostat' which uses an algorithm to learn from temperature corrections made by the occupant to optimise heating. The second most common was 'ARP cavity wall insulation' which used an improved installation technique for properties over five storeys. These accounted for 50.4% and 23.3% of approved innovation measures respectively.

Five types of demonstration action were approved for use and completed trials. These five demonstration actions had a total 495 measures approved under ECO3. 'Airoom', a smart passive ventilation system designed as a retrofit replacement for existing air bricks, was the most common of these accounting for 47.3% of the total.

Supplier performance

A summary of individual supplier performance against their obligations is shown in **Figure 4** below. Please note that this table only shows suppliers still operating in the energy market at the close of ECO3. This shows that, with the exception of Co-operative Energy, suppliers successfully met their HHCRO bill saving obligations and the HHCRO Rural and SWMR sub-obligations.

Figure 4: Individual supplier achievement against ECO3 obligations

Supplier	**HHCRO**	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
British Gas	105.4%	147.8%	110.0%
Bulb Energy	100.5%	103.8%	107.0%
Co-operative Energy	36.4%	30.6%	23.1%
EDF Energy	108.1%	207.6%	119.6%
Ecotricity	102.4%	135.0%	108.0%
E (Gas & Electricity)	107.6%	141.6%	116.0%
E.ON Energy	108.2%	162.6%	112.0%
ESB Energy	100.0%	157.0%	101.2%
Foxglove Energy	103.0%	109.5%	121.1%
Octopus Energy	101.4%	105.4%	104.2%
Ovo Energy	103.9%	112.4%	107.0%
Shell Energy	100.9%	121.0%	109.2%
So Energy	105.2%	142.6%	106.4%
Scottish Power	107.7%	181.2%	169.0%
Utilita	104.9%	171.6%	123.5%
Utility Warehouse	101.4%	103.5%	102.2%

* Figures in red indicate non-compliance against an obligation.

Co-operative Energy were found non-compliant having achieved 36.4% of their obligation by 31 March 2022. Co-operative Energy engaged constructively around their (then likely) non-compliance and alternative action was agreed, with particular consideration given to the fact their energy business had not traded since 2019 and no longer had any customers. By agreeing alternative action with Co-operative Energy, they will now deliver approximately an additional £3.5m lifetime bill savings on top of their outstanding obligation, ensuring more fuel-poor households benefit from energy efficiency measures.

A summary of performance against the scheme caps by supplier is shown in **Figure 5**. This shows that two suppliers exceeded the LA Flex cap and nine exceeded the broken heating cap. Bill savings delivered in excess of these caps do not count towards a supplier's ECO3 obligations and so do not factor in the figures shown in **Table 1** above.

Figure 5: Individual supplier performance against ECO3 caps

Supplier	LA Flex	Innovation	Broken heating
British Gas	74.4%	3.6%	103.8%
Bulb Energy	83.0%	0.3%	106.3%
Co-operative Energy	20.7%	0.0%	17.1%
EDF Energy	97.8%	26.8%	99.5%
Ecotricity	59.2%	0.0%	99.5%
E (Gas & Electricity)	100.1%	2.3%	106.0%
E.ON Energy	73.9%	0.8%	101.6%
ESB Energy	99.9%	0.0%	99.5%
Foxglove Energy	99.997%	0.0%	99.9%
Octopus Energy	99.6%	0.0%	101.8%
Ovo Energy	67.7%	2.6%	99.3%
Shell Energy	98.1%	5.0%	117.6%
So Energy	95.5%	0.1%	96.9%
Scottish Power	93.3%	9.0%	103.4%
Utilita	118.0%	0.4%	114.7%
Utility Warehouse	64.6%	1.9%	101.9%

* Figures in red indicate where a cap has been breached.

Suppliers exiting the market

Over the course of ECO3 a total of 26 suppliers were obligated under the scheme (this does not include suppliers that merged with or were acquired by another supplier during the course of ECO3). During ECO3 ten of these suppliers exited the market leaving 16 still operating as of 31 March 2022.

Of the ten suppliers that exited the market, six submitted measures towards their obligation before they exited the market and the remaining four exited the market without submitting any measures towards their obligations.

Collectively these suppliers had an obligation of £190 million or 2.3% of the total HHCRO obligation. 29.0% of this was met by those suppliers that did submit measures, leaving a shortfall of £135 million, or 1.6% of the total HHCRO obligation. However, over delivery by other obligated suppliers meant that the overall bill saving targets were still met.

Monitoring & compliance

The onus is on suppliers to meet their obligations on time and in full, and we expect them to be proactive in meeting scheme deadlines as well as in raising any issues at an early stage. As part of our duties as the scheme administrator, we conducted an extensive monitoring and compliance programme. We carried out checks to ensure that the relevant eligibility requirements had been met and that the savings reported by suppliers were accurate. Our checks included monitoring the quality of installations and the accuracy of scores (technical and score monitoring respectively). We also conducted audits of the measures notified to us by suppliers and supported them in preventing, detecting and deterring scheme abuse and suspected fraudulent activity.

Introduction of TrustMark

A key event for monitoring & compliance during ECO3 was the introduction of the TrustMark Quality Assurance Framework[1]. This came into force on 1 January 2020 and replaced Ofgem's technical monitoring programme. In addition, to allow Ofgem to continue to perform score monitoring (which helps to ensure that measures are scored accurately) TrustMark began collecting the necessary data during inspections of ECO measures from 1 July 2021.

As part of this change, we developed an Application Programming Interface (API) with TrustMark to allow us to check that notifications had been lodged in TrustMark's data warehouse and that key data points (such as measure type and date of installation) matched the information provided by suppliers. These checks produced a significant number of errors, which were mainly due to installers not entering the correct measure details on the TrustMark database. Moving forward we will be looking to simplify this process for ECO4 and will ensure there is clear guidance to aid suppliers in resolving any mismatches quickly.

Refused and revoked savings

Our extensive programme of monitoring and compliance checks ensured that the requirements as set out in our guidance and the ECO3 Order were being met. These included, but were not limited to:

- ensuring the household was eligible
- the measure was installed to the correct standards and scored accurately
- the savings being claimed for measures were not being double counted.

[1] TrustMark Quality Assurance Framework: <https://www.trustmark.org.uk/tradespeople/quality-assurance-guidance-government-funded-schemes>

Where the issue identified was not resolved, we ultimately refused to attribute, or revoked the savings associated with the measure. In total, we refused or revoked a total of 23,298 ECO3 measures (including surplus actions from ECO2).

Audit and compliance investigations

A key aspect of our ECO3 administration was developing and managing an effective auditing framework. The aim of the framework was to minimise the risk and impact of non-compliance with scheme requirements on consumers. We worked with all energy suppliers to detect and mitigate this risk.

A number of audit activities were conducted during ECO3. Initial 'health checks' were conducted at the beginning of the scheme or when an energy supplier became obligated at the start of a subsequent phase. These assessed the readiness of energy suppliers for delivering ECO and notifying measures to us. Following these, annual process-based audits assessed the procedures and compliance checks for measures in place by energy suppliers. These were complemented by measure-specific and ad hoc audits, which included a mix of documentation reviews and on-site monitoring activity.

In addition to our audit programme we also undertook compliance investigations where we had concerns around broader problems affecting delivery of the scheme.

Scheme abuse & fraud prevention

We regard fraudulent activity as covering any dishonesty or intentional misrepresentation in the context of the ECO3 Order[2] or our guidance. Due to its serious nature Ofgem has a zero-tolerance approach to fraud and we expect energy suppliers to have robust controls in place for preventing, detecting and addressing any potential fraud within their supply chains. When appropriate we do not hesitate to take enforcement action, including revoking or refusing measure savings and referring parties involved to the police, Action Fraud or the relevant accreditation bodies. These referrals do in some cases lead to significant professional consequences for those involved.

Throughout our administration of ECO we have identified aspects of the ECO supply chain which may be more vulnerable to fraudulent activity. We also scrutinised behaviour which may have undermined the government's policy intent or our administration of the scheme.

[2] We refer to the ECO3 legislation ('The Electricity and Gas (Energy Company Obligation) Order 2018' and was revised under 'The Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019') collectively as the ECO3 Order.

As a result of our investigations over the course of ECO3 we identified several specific areas of concern:

- The use of falsified documentation
- Providing falsified property information
- Misrepresentation in claims for insulation installation.

Our investigations into suspected fraud during ECO3 resulted in 6,317 measures having their savings refused or revoked. Following tightening of our guidance over the course of ECO3 suppliers have increased protections and controls to detect issues more effectively in future.

We expect suppliers to continue to be dynamic in their approach to the prevention of fraud and scheme abuse in the delivery of their ECO4 obligations. As part of this suppliers should be regularly reviewing and updating their evidence checking process and fraud prevention strategies.

Engaging with Ofgem as scheme administrator

Generally suppliers engaged proactively with Ofgem throughout the course of ECO3. However, there were some instances where engagement was not consistent; either poor engagement up until the final months preceding final determination or prior levels of engagement were not sustained through the final stages of the scheme.

In most instances submission deadlines were met by suppliers. Where there was a risk that a deadline would not be met, suppliers engaged with us to discuss potential deadline extensions.

Data and evidence submitted to us by suppliers was generally accurate and complete. However, in some cases involving our compliance processes, this did not provide sufficient assurance to demonstrate the eligibility of measures and further investigation and supporting evidence was required. This is despite evidential requirements and expectations being clearly outlined. It was disappointing that even with available guidance, and in some cases having clearly understood expectations before, a number of suppliers would continue to provide supporting evidence that fell short of the mark. This needlessly elongated the timeframes in resolving compliance cases. Ofgem expects suppliers to be as proactive as possible, using guidance available to gather necessary evidence before Ofgem has to request it

Please note: a spreadsheet containing the data used in the production of this report is published alongside the report on our website.

Contents

Feedback

We value your feedback on this report. Please contact us at SchemesReportingFeedback@ofgem.gov.uk with any comments or suggestions.

1. About the Scheme

Chapter summary

This chapter describes the background to the ECO3 scheme. It also summarises the legislative changes that occurred during the obligation period and how they affected delivery of measures.

Introduction

1.1. The Energy Company Obligation (ECO), first introduced in 2013, is a scheme for Great Britain that places legal obligations on larger energy suppliers to deliver energy efficiency measures to vulnerable and low income households. Whilst helping eligible customers reduce their energy bills the scheme also delivers carbon savings due to reductions in energy demand in the domestic housing sector; a vital component of achieving the country's Net Zero obligations.

1.2. ECO3 was the third iteration of the scheme with earlier iterations being:

- **ECO1** – from 1 January 2013 to 31 March 2015
- **ECO2** – from 1 April 2015 to 31 March 2017
- **ECO2t** – the ECO2 scheme was extended as ECO2t and ran from 1 April 2017 to 30 September 2018.

1.3. The ECO3 scheme, on which this report focuses, ran from 1 October 2018 to 31 March 2022 and came into force under The Electricity and Gas (Energy Company Obligation) Order 2018[3] and was revised under The Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019[4]. We refer to the ECO3 legislation collectively as the ECO3 Order.

[3] The Electricity and Gas (Energy Company Obligation) Order 2018: <https://www.legislation.gov.uk/uksi/2018/1183/contents/made>
[4] The Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019: <https://www.legislation.gov.uk/uksi/2019/1441/contents/made>

Determining obligated suppliers

1.4. The ECO3 Order established a threshold beyond which an energy supplier was considered a 'supplier' for the purposes of ECO3.[5] The threshold consisted of two elements which had to be met:

- the number of domestic customers
- the amount of supply to domestic customers.

1.5. Suppliers became obligated under the scheme when they exceed this threshold for the relevant phase. Once a supplier met the definition of a 'supplier' for a given phase, they remained obligated for all remaining phases. Details of the thresholds are shown in **Figure 1.1**.

Figure 1.1: Domestic customer number and supply volume thresholds for ECO3

	Phase 1	**Phase 2**	**Phase 3**	**Phase 4**
	1 Oct 2018 **to** 31 Mar 2019	1 Apr 2019 **to** 31 Mar 2020	1 Apr 2020 **to** 31 Mar 2021	1 Apr 2021 **to** 31 Mar 2022
Number of domestic customers	>250,000	>200,000	>150,000	>150,000
Electricity supply to domestic customers	500 GWh	400 GWh	300 GWh	300 GWh
Gas supply to domestic customers	1,400 GWh	1,100 GWh	700 GWh	700 GWh

Summary of supplier obligations

1.6. The ECO3 scheme consisted of one distinct obligation. Energy suppliers were required to achieve lifetime energy bill savings for customers of £8.253 billion under the Home Heating Cost Reduction Obligation (HHCRO). HHCRO, also known as the 'Affordable Warmth Obligation', supports those eligible to reduce the cost of heating their property through the installation of energy saving improvements.

[5] Further information in Chapter 2 of our ECO3 Supplier Administration Guidance: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-supplier-administration>

1.7. The target for delivery was divided between obligated suppliers according to each obligated supplier's share of the domestic gas and electricity market. Suppliers with multiple licences were able to consolidate their overall obligation target onto a single licence using the trading mechanism if they wished.

1.8. The sum of a supplier's Home Heating Cost Reduction Obligation (HHCRO) over all four phases is referred to as its 'Total Home Heating Cost Reduction Obligation'. A supplier was required to achieve its Total HHCRO obligations by the end of the overall obligation period (ie by 31 March 2022).

1.9. The obligations set for each phase of ECO3 were cumulative and did not need to be met individually for each phase. This means, for example, that a supplier was not required to meet its phase 1 HHCRO by the end of phase 1. Instead, a supplier's phase 1 HHCRO would be added to its phase 2, phase 3 and phase 4 HHCRO, and its total HHCRO must have been met by 31 March 2022.

1.10. Within the HHCRO there were two sub-obligations which also had to be met:

- **Rural sub-obligation** - Suppliers must have achieved at least 15% of their total HHCRO by delivering measures to domestic premises in rural areas.
- **Solid wall minimum requirement (SWMR)** - Suppliers were required to deliver savings through the delivery of solid wall insulation or solid wall alternative measures (which achieve the same saving as would have been achieved by solid wall insulation).

1.11. An overview of the overall ECO3 obligations for each phase can be seen in **Figure 1.2** below:

Figure 1.2: Overview of ECO3 obligations for each obligation phase

	Phase 1	Phase 2	Phase 3	Phase 4	
	1 Oct 2018 **to** 31 Mar 2019	1 Apr 2019 **to** 31 Mar 2020	1 Apr 2020 **to** 31 Mar 2021	1 Apr 2021 **to** 31 Mar 2022	**Total**
HHCRO	£1.179 bn	£2.358 bn	£2.358 bn	£2.358 bn	£8.253 bn
Rural sub-obligation	£0.177 bn	£0.354 bn	£0.354 bn	£0.354 bn	£1.238 bn
SWMR	£0.103 bn	£0.206 bn	£0.206 bn	£0.206 bn	£0.721 bn

1.12. In addition to these obligations the ECO3 regulations also stipulated limits on optional measures of certain types that could be used by suppliers to meet their obligations. There were three such limits or caps applicable to the ECO3 scheme:

- **Local authority flexible eligibility (LA Flex)** – Suppliers were permitted to achieve a maximum of 25% of their HHCRO obligation through LA Flex measures. LA Flex gave local authorities the ability to identify households in, or at risk of fuel poverty, or vulnerable to the effects of living in cold homes, that may not have qualified under normal scheme eligibility criteria.

- **Innovation** – Suppliers could achieve a maximum of 10% of their total obligation through installing innovative measures. These were intended to encourage the development of new products, or more cost effective and efficient installation techniques.

- **Replacement of broken heating systems** – Suppliers were permitted to provide replacements for certain broken heating systems as part of their HHCRO obligation. No more than 21.023% of a supplier's total obligation could be met using measures of this type.

1.13. Details of suppliers obligated in each phase can be found in **Appendix 2**.

Eligibility requirements

1.14. Support under the ECO3 scheme could only be provided to customers if they met certain criteria. These criteria targeted support at low income and vulnerable households, helping to meet the government's fuel poverty commitments.

1.15. Measures could be delivered to:

a) private domestic premises occupied by someone in receipt of specific benefits[6] (the help to heat group (HTHG))

b) private domestic premises listed in a local authority declaration[7] (and those which meet the associated 'in-fill'[8] criteria) (LA Flex)

c) social housing with an Energy Performance Certificate (EPC) energy efficiency rating of E, F or G

d) social housing with an EPC energy efficiency rating of D, E, F or G (for innovation measures and demonstration actions only)[9]

e) private domestic premises as Affordable Warmth "in-fill" measures, as long as the premises at which these measures are installed were linked to two other separate premises in a particular area that were eligible under (a) or (c), and all 3 premises have had solid wall insulation (SWI) or district heating system (DHS) measures delivered.

Determining ECO3 bill savings

1.16. Each measure installed received a score which determined the contribution that the measure made towards a supplier's and the overall HHCRO obligation.

1.17. Scores were based on the bill saving likely to be achieved by a qualifying action when installed in a domestic premises, over the lifetime of the measure. In certain circumstances, the legislation provided for 'uplifts' (multiplication factors) to be applied to the bill savings when determining a score. These were provided to encourage delivery of specific measures or treatment of certain property categories.

1.18. In ECO3 the vast majority of measures were scored using a predetermined score in the '*deemed score matrix*'[10]. There were exceptions to this for District Heating

[6] For information on qualifying benefits please refer to Chapter 3 of our delivery guidance. ECO3 delivery guidance: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-delivery>
[7] A local authority could make a declaration that in their opinion a premises was occupied by a household on a low income and either, that it could not be kept warm at reasonable cost, or the household is vulnerable to the effects of living in a cold home.
[8] For more information on in-fill in relation to local authority declarations or affordable warmth please refer to Chapter 3 of our delivery guidance.
[9] For more information on innovation measures and demonstration actions please refer to Chapter 3 of this report.
[10] Information on ECO3 deemed scores: <https://www.ofgem.gov.uk/publications/eco3-deemed-scores >

Systems (DHS), demonstration actions and where there was no deemed score for a non-DHS measure and there was insufficient evidence for a deemed score to be developed.

1.19. When the score was deemed it meant that a fixed score for each measure type was determined using three or four variables, plus any uplift that should be applied. For insulation measures the type of property, the number of bedrooms and the main heating source were taken into account. Additionally, for heating measures the main wall type of the property was also considered.

1.20. More detailed information on calculating bill savings can be found in our ECO3 Delivery Guidance[11].

Uplifts for deemed scores

1.21. Uplifts were applied to scores where required by legislation and meant that the score for an affected measure was higher than would have been the case were it based on bill savings alone.

1.22. The uplifts that were available are set out in **Figure 1.3** below, and have been divided into '*Tier 1*' and '*Tier 2*' according to how they were applied.

- **Tier 1** – When a measure met the relevant criteria, there was an uplifted version of the score for that measure in the '*deemed scores matrix*'. Where a measure was eligible for more than one Tier 1 uplift, only one (the largest) was applied.

- **Tier 2** – These uplifts were not included in the '*deemed scores matrix*' and had to be applied manually. Additionally, they could be combined with '*Tier 1*' and other '*Tier 2*' uplifts if all eligibility criteria were met.

[11] ECO3 Delivery Guidance: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-delivery>

Figure 1.3: ECO3 uplifts and eligibility requirements

Uplift	Tier	Multiplier	Eligibility
Non-mains gas insulation uplift	Tier 1	1.35	Insulation measures installed to properties in which the primary heat source was not fuelled by mains gas, and which did not have a DHS connection.
Broken central heating uplift (Broken cap and renewables)	Tier 1	4.00	Measures which were the replacement of a broken boiler with a new boiler, where the measure either fell within the broken heating system cap or was a renewable heating measure.
Broken central heating uplift (Secondary measures)	Tier 1	2.00	Measures which were the replacement of a broken boiler with a new boiler, where the measure was installed as a secondary measure and did not count towards the broken heating system cap.
Broken electric storage heater uplift	Tier 1	2.40	Measures which were the replacements of broken electric storage heaters with new electric storage heaters.
LA Flex 'F' & 'G' non-private rented sector uplifts	Tier 1	1.25	Measures which were installed to owner occupied properties listed in a LA Declaration, where a pre or post installation Energy Performance Certificate (EPC) shows the property was rated F or G.
Innovation measure uplift	Tier 2	1.25	Measures installed in accordance with the terms of an approved innovation measure application (provided that innovation caps had not been exceeded).
Publicly Available Specification (PAS) 2030:2019 uplift	Tier 2	1.20	Measures which were installed on or after 1 January 2020 and before 1 July 2021 in accordance with PAS 2030:2019 and by a TrustMark registered installer.

Amendments introduced under ECO3

1.23. This section summarises some of the main changes introduced during the course of ECO3.

Incorporation of Trustmark into ECO3

1.24. The independent Each Home Counts review[12] in 2016 recommended the introduction of a new, comprehensive quality mark for the retrofitting of energy efficiency measures. The intention was to provide households with enhanced levels of assurance for the quality of retrofit measures being installed alongside higher levels of consumer protection. That quality mark has been developed and implemented by TrustMark and provides a whole house (where the overall energy efficiency of a building is considered and not just measures in isolation) and end-to-end approach that covers the whole customer journey rather than just the installation of retrofit measures.

1.25. The TrustMark quality assurance standards are supported by new design and installation standards developed by a cross-section of industry working with Government. These stronger Publicly Available Specification (PAS) standards, overseen by TrustMark[13], were introduced into ECO3 as part of the Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019.

1.26. The requirement for measures to be completed by TrustMark registered businesses came into force on 1 January 2020. Initially installers could use either PAS 2030:2017 or PAS 2030:2019 and PAS 2035:2019. This changed on 1 July 2021 from when the enhanced PAS 2030:2019 and PAS 2035:2019 standards adopting a whole house approach were mandated.

1.27. From 1 July 2021 TrustMark launched their Quality Assurance Framework[14] which replaced Ofgem's technical monitoring programme. From this date TrustMark also began collecting the necessary data during inspections of ECO measures for Ofgem to continue to perform score monitoring.

[12] Information on the Each Home Counts review: <https://www.gov.uk/government/publications/each-home-counts-review-of-consumer-advice-protection-standards-and-enforcement-for-energy-efficiency-and-renewable-energy>
[13] Information on Trustmark requirements: <https://www.trustmark.org.uk/eco-installer>
[14] TrustMark Quality Assurance Framework: <https://www.trustmark.org.uk/tradespeople/quality-assurance-guidance-government-funded-schemes>

Our response to COVID-19

1.28. In response to the COVID-19 pandemic and concerns raised by industry on the impact of social distancing requirements on ECO delivery, Ofgem produced several iterations of guidance for industry from 7 May 2020. This guidance offered a number of solutions to facilitate installation, even during months of lockdown, that continued to provide Ofgem with the necessary assurance of standards being met but also worked within government restrictions. These solutions included adapted evidencing requirements to allow remote declarations, greater use of media to capture suitable evidence of installation (thus enabling remote auditing) and delay to some non-essential activity.

1.29. During the initial months of lockdown we did see a significant fall in the delivery rate, with the worst affected month dropping to 43% of the average. This was short-lived however, with only two months of the entire ECO3 scheme seeing delivery rates at 80% or less of the ECO3 average, as a result of the lockdown restrictions.

1.30. Whilst the COVID-19 pandemic did hamper ECO3 delivery to some extent, and there were concerns around the additional challenges and risks for ECO installers, the ECO industry recovered quickly from any impacts and the guidance produced was crucial to achieving this.

1.31. The guidance was applicable for the duration of the several lockdowns as well as the periods in between and is still applicable now in cases of households that remain cautious and vulnerable to COVID-19. In fact, some of the adaptations made have been adopted permanently given they offer equal levels of assurance and greater efficiency.

2. Overall Performance

Chapter summary

This chapter gives a summary of the overall achievement of energy suppliers against the HHCRO obligation, sub-obligations, and the associated caps.

Obligations

- Home heating cost reduction obligation (HHCRO)
- HHCRO rural (**sub-obligation**)
- Solid wall minimum requirement (SWMR) (**sub-obligation**).

Caps

- Local authority flexible eligibility (LA Flex)
- Innovation measures and demonstration actions
- Broken heating replacement measures.

Introduction

2.1. The HHCRO obligation and sub-obligations had specific eligibility requirements for measures delivered. Measures meeting those requirements had their bill savings attributed towards suppliers' obligations. Here we present the combined performance of all energy suppliers towards the ECO3 obligation and sub-obligation targets.

2.2. The ECO3 Order also set out limits or caps on the bill savings that could be achieved by measures meeting certain criteria. These were the bill savings attributable to local authority flexible measures (LA Flex), bill savings attributable to innovation and demonstration actions, and bill savings attributable to broken heating replacement measures.

2.3. In addition to the measures delivered over the course of ECO3, it was possible for suppliers to use certain 'surplus actions' towards meeting their ECO3 objectives. Surplus actions were measures delivered during ECO2t that were not required by the supplier to meet their ECO2t obligations. Suppliers were able to carry over these excess measures to count towards their ECO3 obligations as long as it was originally achieved by the same supplier, and it was an ECO2t qualifying action.

Overview

2.4. **Figures 2.1 and 2.2** below show details of achievement against the HHCRO obligation, sub-obligations, and associated caps. When looking at achievement against the obligations it should be noted that bill savings delivered in excess of the caps did not count towards the obligations and so are not included in **Figure 2.1**. Up to 10% excess ECO3 measures, including those delivered in excess of any caps, can be carried over into ECO4 as surplus actions.

Figure 2.1: Overall achievement against ECO3 obligation and sub-obligation targets. *The chart shows that the overall target bill savings for HHCRO were exceeded with delivery of measures worth 103.56% of the £8.25 bn obligation. For HHCRO Rural 147.29% of the £1.24 bn target was delivered and for SWMR 113.94% of the £0.72 bn target was delivered. Note these figures do not include savings from measures delivered in excess of any of the ECO3 caps.*

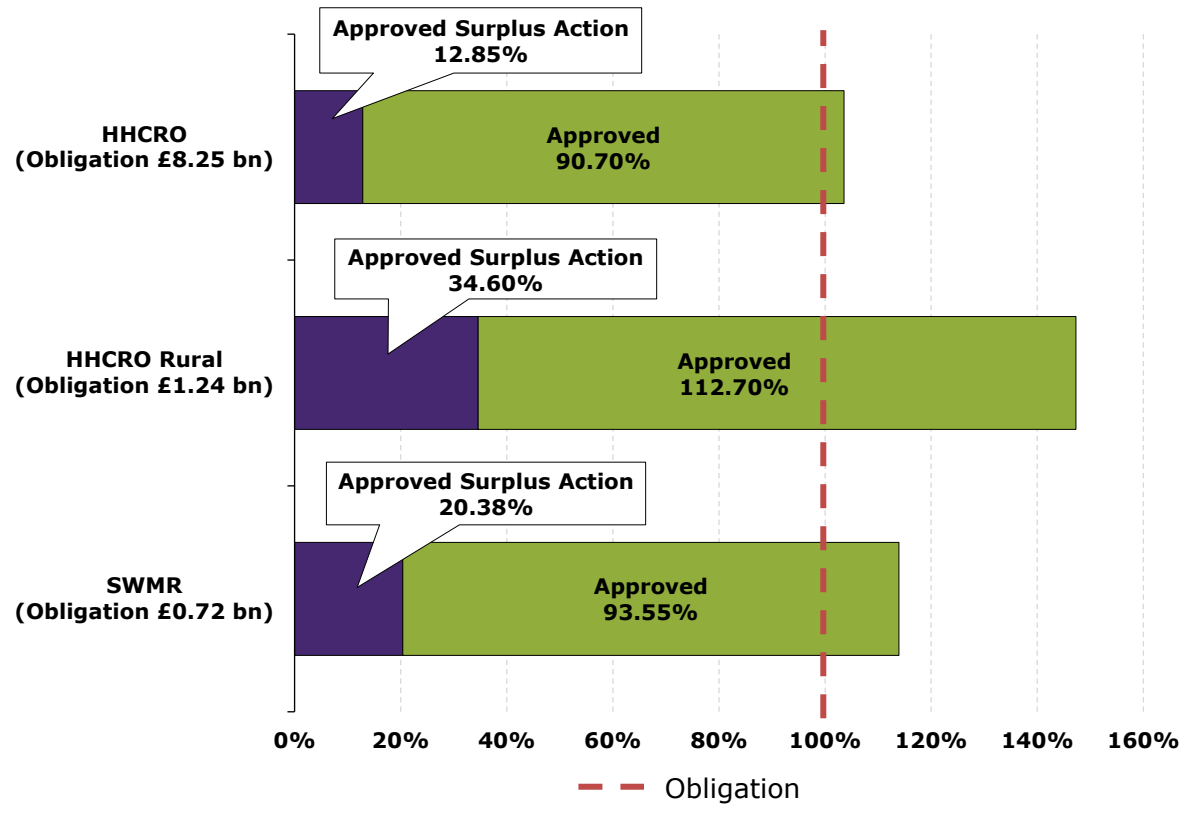
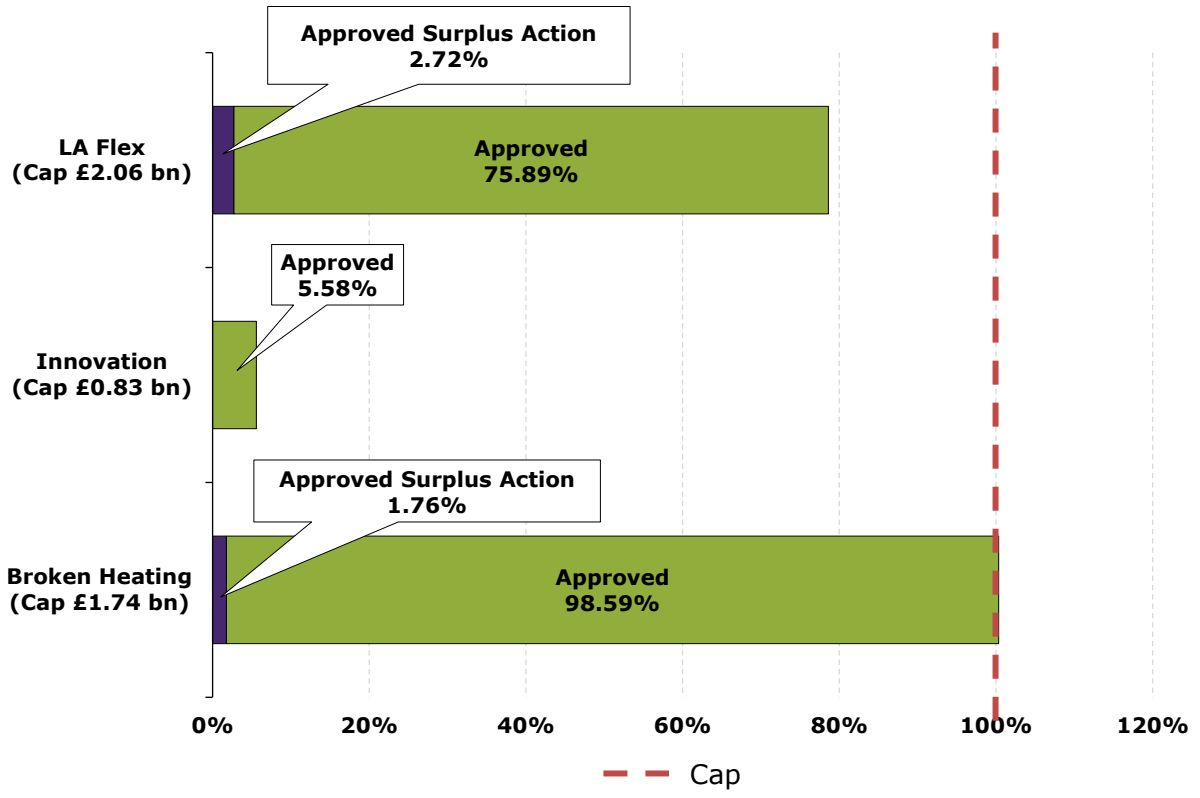


Figure 2.2: Overall performance against ECO3 caps

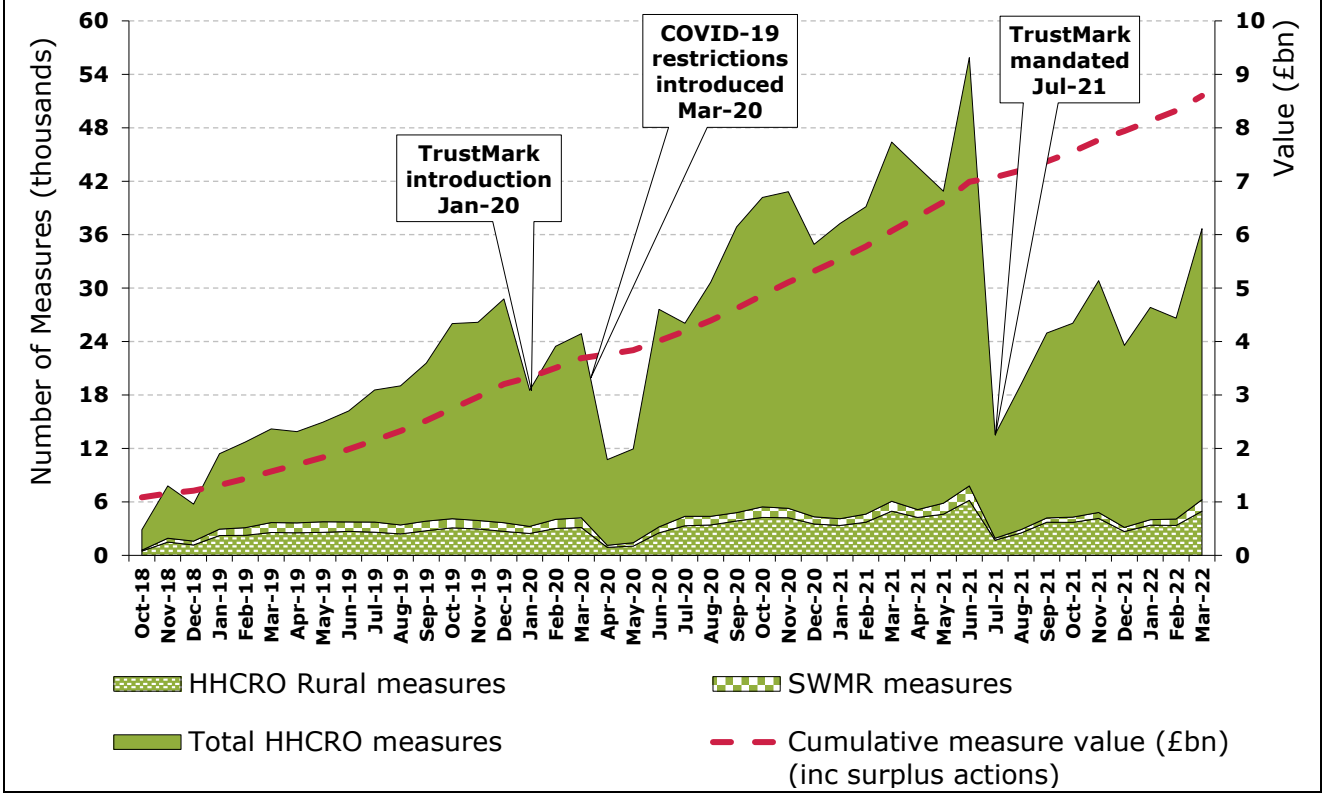
The chart shows that suppliers collectively delivered measures well within the cap for LA Flex (78.62% of £2.06 bn) and innovation and demonstration actions (5.58% of £0.83 bn). The cap for broken heating replacements was breached however, exceeding the allowed limit of £1.74 bn by 0.35% or £6.13 million. Measures in excess of any caps are not counted towards a supplier's total ECO3 obligation, however they may be carried forwards as Surplus Actions to ECO4.



2.5. Looking at how measures were delivered over time, **Figure 2.3** shows that the delivery rate fell around the time TrustMark[15] quality standards (using the PAS 2030:2017 standard or PAS 2030:2019 and PAS 2035:2019 standards) were introduced in January 2020. The delivery rate quickly recovered until March 2020 when Covid-19 restrictions started to impact on the delivery of measures. As restrictions were eased the delivery rate again increased reaching its peak in May 2021. The requirement to meet the enhanced PAS 2030:2019 and PAS 2035:2019 installation standards[16] were mandated from 1 July 2021. This saw another significant fall in the delivery of measures whilst installers adapted to the new customer focused, whole house, end to end approach.

Figure 2.3: ECO3 delivery over time

This area chart shows the total number of HHCRO measures delivered each month and what proportion of that is made up of HHCRO Rural and SWMR measures. This includes measures delivered in excess of the caps to represent the true delivery rate. The cumulative value of HHCRO measures delivered over the course of ECO3 (including surplus actions) is represented by the dashed line. This reached £8.60 bn by March 2022.



[15] Information on Trustmark requirements: <https://www.trustmark.org.uk/eco-installer>
[16] Information on Publicly Available Specification (PAS) 2030 and 2035: <https://www.trustmark.org.uk/tradespeople/pas-2035>

Suppliers exiting the market

2.6. Over the course of ECO3 a total of 26 suppliers were obligated under the scheme (this does not include suppliers that merged with or were acquired by another supplier during the course of ECO3). During ECO3, ten of these suppliers exited the market leaving 16 still operating as of 31 March 2022.

2.7. Of the ten suppliers that exited the market, six submitted measures towards their obligation before they exited the market and the remaining four exited the market without submitting any measures towards their obligations.

2.8. Collectively these suppliers had an obligation of £190 million or 2.3% of the total HHCRO obligation. 29.0% of this was met by those suppliers that did submit measures, leaving a shortfall of £135 million, or 1.6% of the total HHCRO obligation. However, over delivery by other obligated suppliers meant that the overall bill saving targets were still met.

2.9. Further information on the contributions of suppliers that exited the market towards the ECO3 obligation can be found in the 'Suppliers that ceased trading' section of Chapter 4: Supplier Performance.

Delivery mechanisms

2.10. Whilst energy suppliers were obligated to promote measures, they used a variety of mechanisms to do this. There was some delivery directly by suppliers but the most widely used methods were to contract work directly with installers, or to employ managing agents who represented a number of different installers.

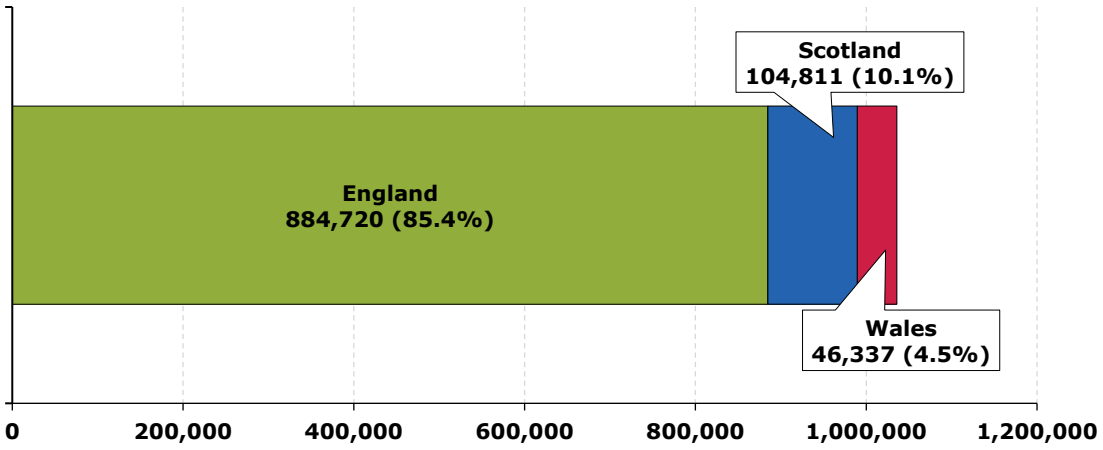
2.11. Energy suppliers could also use another mechanism called 'ECO brokerage'. Brokerage was a blind auction platform developed by the Department for Business, Energy and Industrial Strategy (BEIS), where suppliers could buy forward contracts for the delivery of bill savings by participating sellers. Installers could sell 'lots' of savings which they would then have to deliver for the obligated supplier who successfully bid for the lot. This system was created in response to requests from the energy efficiency industry to help smaller and newer installers access the market. The ECO brokerage mechanism was decommissioned as of June 2021. In total, 1,088 (0.11%) of ECO3 measures were delivered through this mechanism.

Measures delivered by country

2.12. **Figure 2.4** shows that the majority of measures were installed in England. The distribution of measures between countries correlates with the proportion of households in each country.

Figure 2.4: Approved ECO3 measures by country of installation

This chart shows that 85.4% of the 1,035,868 measures were installed in England. Scotland received 10.1% of measures and Wales 4.5%.



HHCRO

2.13. The ECO3 scheme consisted of one primary obligation. Energy suppliers had to achieve estimated lifetime bill savings of £8.253 billion under the Home Heating Cost Reduction Obligation (HHCRO). HHCRO, also known as the 'Affordable Warmth Obligation' supported those eligible to reduce the cost of heating their property, through the installation of energy saving improvements.

2.14. A total of 1,035,868 measures were delivered under HHCRO in ECO3, with a further 82,057 measures carried over from ECO2. These measures have associated lifetime bill savings of £8.547 bn, delivering 103.56% of the required HHCRO obligation savings.

2.15. The following suppliers exited the market during the course of ECO3 and failed to achieve their HHCRO obligations.

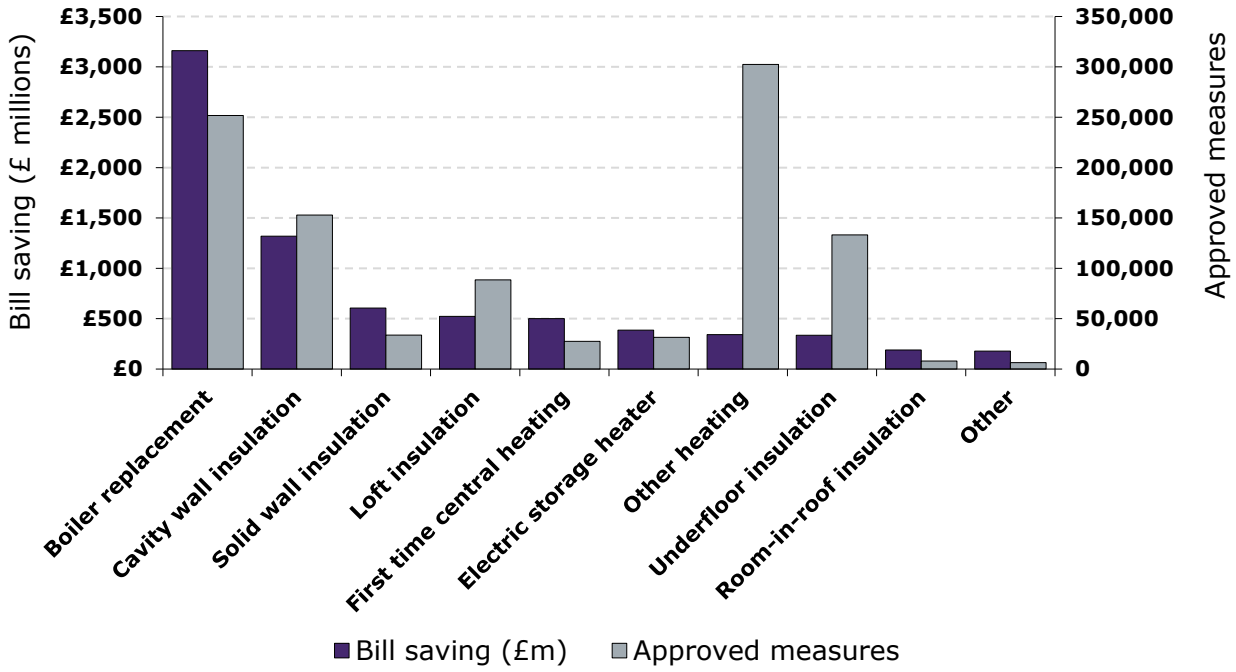
- Avro Energy
- Economy Energy
- Green Network Energy
- Igloo Energy
- People's Energy
- Pure Planet
- Robin Hood Energy
- Tonik Energy
- Together Energy
- Utility Point.

2.16. Co-operative Energy remained operational, though by the end of the scheme they had not supplied domestic customers with gas or electricity for some time, and also failed to meet their obligations. This is discussed in more detail in Chapter 4: Supplier Performance. All other suppliers met their individual obligations.

2.17. **Figure 2.5** below shows a breakdown of measure types installed under ECO3. Please note that surplus actions carried over from ECO2 are not represented. It should also be noted that the lifetime bill savings have been affected by uplifts applied to certain eligible measure types. Of note, boiler replacements that fell within the broken heating system cap or were a renewable heating measure, will have received a x4 uplift to the lifetime bill saving score. For more information on score uplifts please refer to Chapter 1: About the Scheme.

Figure 2.5: HHCRO measure types installed during ECO3

This chart shows the lifetime bill savings by measure type installed under ECO3, alongside the number of each measure type approved. Boiler replacements as well as cavity, solid wall and loft insulation account for 74.4% of total lifetime bill savings but only 50.9% of the measures installed. Other heating measures only account for 4.5% of lifetime bill savings but represent 29.2% of the measures approved.



Measure category	Bill saving (£m)	% of savings	Number of measures	% of measures
Boiler replacement	£3,160.16	41.9%	251,741	24.3%
Cavity wall insulation	£1,319.56	17.5%	152,938	14.8%
Solid wall insulation	£605.12	8.0%	33,697	3.3%
Loft insulation	£522.87	6.9%	88,588	8.6%
First time central heating	£500.38	6.6%	27,472	2.7%
Electric storage heater	£385.73	5.1%	31,481	3.0%
Other heating	£342.00	4.5%	302,426	29.2%
Underfloor insulation	£335.30	4.4%	133,173	12.9%
Room-in-roof insulation	£189.32	2.5%	7,996	0.8%
District heating system	£122.87	1.6%	2,951	0.3%
Micro-generation	£27.91	0.4%	1,712	0.2%
Other insulation	£15.21	0.2%	1,008	0.1%
Demonstration action	£11.76	0.2%	495	0.05%
Park home external wall insulation	£0.70	0.01%	139	0.01%
Boiler upgrade	£0.20	0.003%	51	0.005%
Total	**£7,539.06**	**100%**	**1,035,868**	**100%**

HHCRO rural sub-obligation

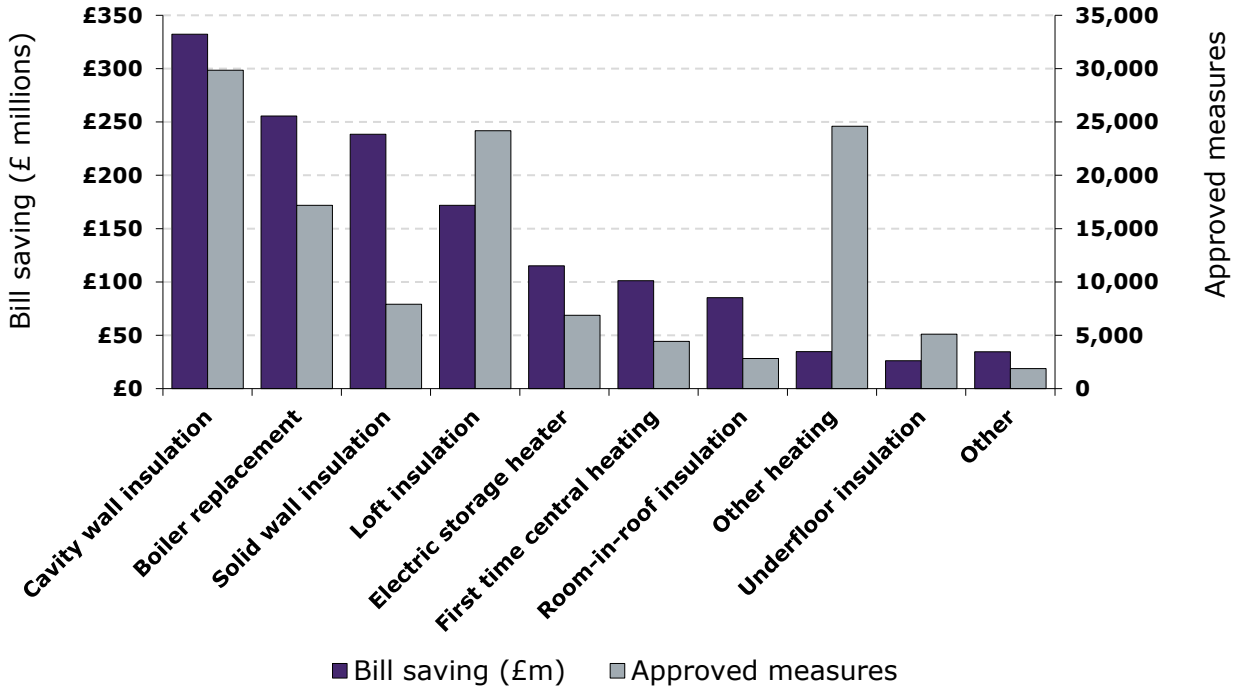
2.18. The HHCRO rural sub-obligation required that suppliers achieve at least 15% of their total HHCRO obligation by delivering qualifying measures to domestic premises in rural areas. If a supplier failed to meet this requirement, they would have failed to achieve their HHCRO obligation.

2.19. A total of 124,863 measures were delivered under HHCRO Rural in ECO3, with a further 27,558 measures carried over from ECO2. These measures have associated bill savings of £1.82 bn, delivering 147.29% of the required HHCRO rural sub-obligation savings.

2.20. **Figure 2.6** below shows a breakdown of measure types installed under HHCRO rural during ECO3. Please note that surplus actions carried over from ECO2 are not represented. It should also be noted that the lifetime bill savings have been affected by uplifts applied to certain eligible measure types. Of note, boiler replacements that fell within the broken heating system cap or were a renewable heating measure, will have received a x4 uplift to the lifetime bill saving score. For more information on score uplifts please refer to Chapter 1: About the Scheme.

Figure 2.6: HHCRO rural measure types installed during ECO3

This chart shows the lifetime bill savings by measure type installed under the ECO3 rural sub-obligation, alongside the number of each measure type approved. Cavity wall insulation, boiler replacements, solid wall insulation and loft insulation account for 71.6% of total lifetime bill savings and 63.4% of the measures installed. Other heating measures only account for 2.5% of lifetime bill savings but represent 19.7% of the measures approved.



Measure category	Bill saving (£m)	% of savings	Number of measures	% of measures
Cavity wall insulation	£332.25	23.8%	29,854	23.9%
Boiler replacement	£255.61	18.3%	17,191	13.8%
Solid wall insulation	£238.51	17.1%	7,912	6.3%
Loft insulation	£171.91	12.3%	24,182	19.4%
Electric storage heater	£115.06	8.2%	6,878	5.5%
First time central heating	£101.16	7.3%	4,435	3.6%
Room-in-roof insulation	£85.32	6.1%	2,829	2.3%
Other heating	£34.71	2.5%	24,599	19.7%
Underfloor insulation	£26.06	1.9%	5,109	4.1%
Micro-generation	£22.35	1.6%	1,150	0.9%
Other insulation	£5.92	0.4%	450	0.4%
District heating system	£5.25	0.4%	170	0.1%
Demonstration action	£0.50	0.04%	28	0.02%
Park home external wall insulation	£0.45	0.03%	73	0.1%
Boiler upgrade	£0.06	0.004%	3	0.002%
Total	**£1,395.13**	**100%**	**124,863**	**100%**

SWMR sub-obligation

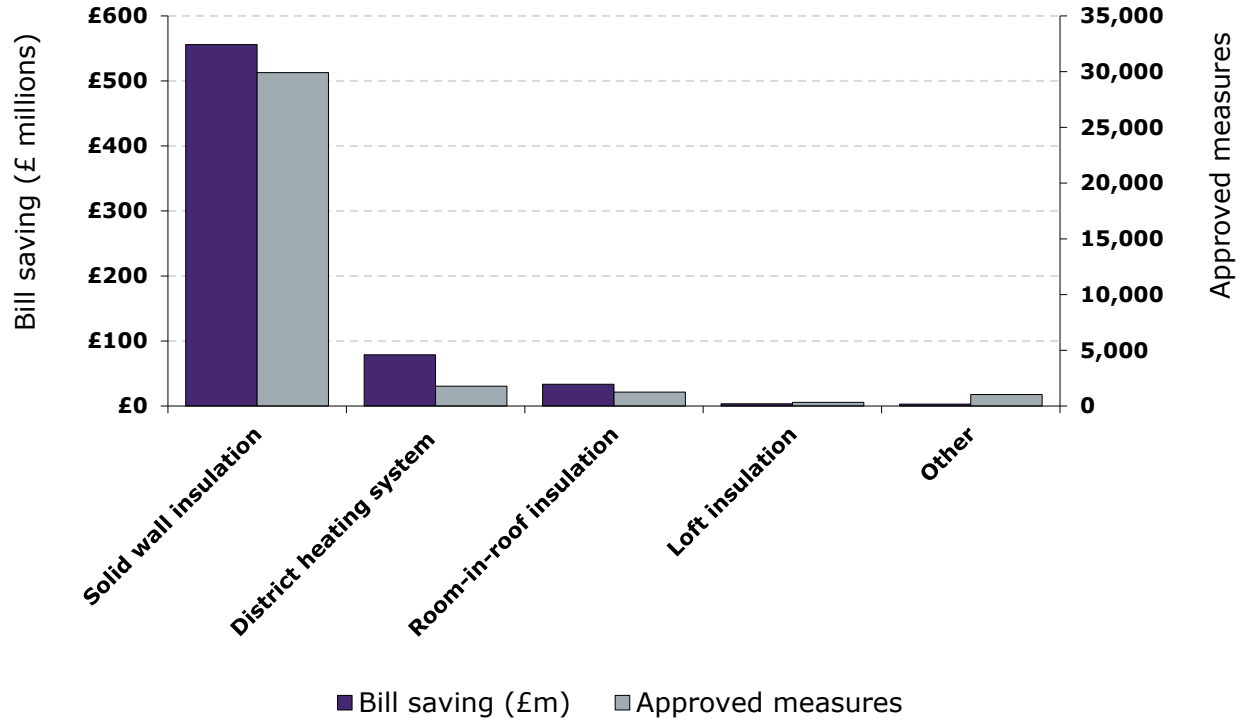
2.21. Suppliers are required to deliver a certain proportion of savings through the delivery of solid wall insulation or solid wall alternative measures (which achieve the same saving as would have been achieved by solid wall insulation).

2.22. A total of 34,312 measures were delivered towards the SWMR sub-obligation in ECO3, with a further 8,814 measures carried over from ECO2. These measures have associated bill savings of £0.82 bn, delivering 113.94% of the required SWMR sub-obligation savings.

2.23. **Figure 2.7** below show a breakdown of measure types installed under SWMR during ECO3. Please note that surplus actions carried over from ECO2 are not represented. It should also be noted that the lifetime bill savings have been affected by uplifts applied to certain eligible measure types. For more information on score uplifts please refer to Chapter 1: About the Scheme.

Figure 2.7: HHCRO SWMR measure types installed during ECO3

This chart shows the lifetime bill savings by measure type installed under the ECO3 SWMR sub-obligation, alongside the number of each measure type approved. Solid wall insulation forms the majority of measures installed and 82.4% of lifetime bill savings. District heating systems account for a further 11.7% of bill savings and room-in-roof insulation 5.0%.



Measure category	Bill saving (£m)	% of savings	Number of measures	% of measures
Solid wall insulation	£555.98	82.4%	29,913	87.2%
District heating system	£78.67	11.7%	1,778	5.2%
Room-in-roof insulation	£33.56	5.0%	1,245	3.6%
Loft insulation	£3.39	0.5%	335	1.0%
Underfloor insulation	£0.98	0.1%	271	0.8%
Cavity wall insulation	£0.89	0.1%	83	0.2%
Other heating	£0.65	0.1%	647	1.9%
Other insulation	£0.32	0.05%	36	0.1%
Micro-generation	£0.03	0.005%	2	0.01%
Electric storage heater	£0.03	0.004%	2	0.01%
Total	**£674.50**	**100%**	**34,312**	**100%**

Local authority flexible eligibility (LA Flex)

2.24. Suppliers are permitted to achieve a maximum of 25% of their HHCRO obligation through LA Flex measures. LA Flex gives local authorities the ability to identify households in, or at risk of fuel poverty, or vulnerable to the effects of living in cold homes, that may not qualify under normal scheme eligibility criteria.

2.25. A total of 196,750 measures were delivered under LA Flex in ECO3, with a further 4,846 measures carried over from ECO2. These measures have associated bill savings of £1.62 bn, representing 78.62% of the LA Flex cap.

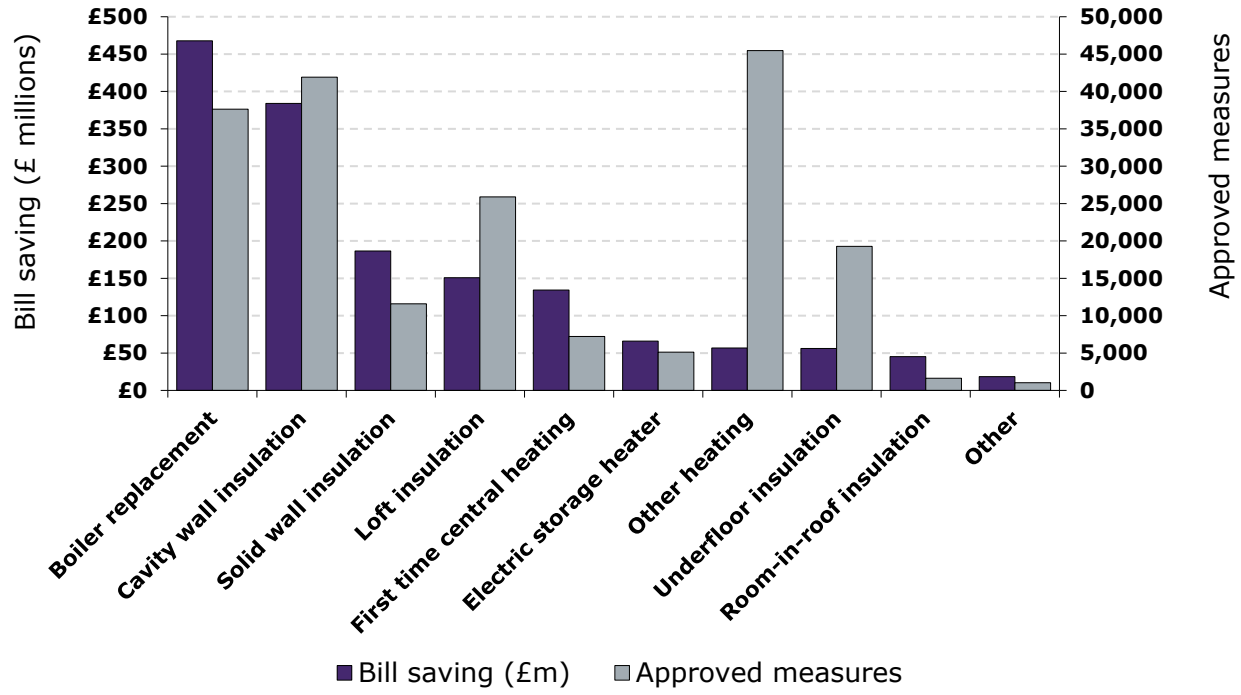
2.26. The two suppliers shown below exceeded their individual caps for lifetime bill savings under LA Flex by a total of £5.44 million. Bill savings delivered above the cap are not counted towards the obligation or sub-obligations but may be carried over as Surplus Actions to ECO4 if suppliers choose to do this. As suppliers can only select measures for carry over after final determination, we do not know at the time of writing how many measures will be affected. However, once these excess savings have been removed, total savings delivered under LA Flex represent 78.35% of the cap.

- E (Gas & Electricity)
- Utilita.

2.27. **Figure 2.8** below shows a breakdown of measure types installed under LA Flex during ECO3. Please note that surplus actions carried over from ECO2 are not represented. It should also be noted that the lifetime bill savings have been affected by uplifts applied to certain eligible measure types. Of note, boiler replacements that fell within the broken heating system cap or were a renewable heating measure, will have received a x4 uplift to the lifetime bill saving score. For more information on score uplifts please refer to Chapter 1: About the Scheme.

Figure 2.8: LA Flex measure types installed during ECO3

This chart shows the lifetime bill savings by measure type installed under the ECO3 LA Flex cap, alongside the number of each measure type approved. Boiler replacements and cavity wall insulation together account for 54.4% of lifetime bill savings and 40.4% of measures. Other heating measures only account for 3.6% of lifetime bill savings but represent 23.1% of the measures approved.



Measure category	Bill saving (£m)	% of savings	Number of measures	% of measures
Boiler replacement	£467.75	29.9%	37,634	19.1%
Cavity wall insulation	£384.01	24.5%	41,908	21.3%
Solid wall insulation	£186.45	11.9%	11,578	5.9%
Loft insulation	£150.79	9.6%	25,896	13.2%
First time central heating	£134.35	8.6%	7,208	3.7%
Electric storage heater	£66.01	4.2%	5,115	2.6%
Other heating	£56.75	3.6%	45,471	23.1%
Underfloor insulation	£56.20	3.6%	19,276	9.8%
Room-in-roof insulation	£45.15	2.9%	1,630	0.8%
Micro-generation	£14.49	0.9%	639	0.3%
Other insulation	£2.44	0.2%	202	0.1%
Demonstration action	£0.77	0.05%	55	0.03%
Park home external wall insulation	£0.60	0.04%	124	0.1%
Boiler upgrade	£0.06	0.004%	14	0.01%
Total	**£1,565.85**	**100%**	**196,750**	**100%**

Innovation measures and demonstration actions

2.28. Suppliers could achieve a maximum of 10% of their total obligation through installing innovative measures. This was a new feature of ECO3 and was intended to encourage the development of new products, or more cost effective and efficient installation techniques.

2.29. There were two innovation routes available:

- **Innovation measures** – a measure that is different from those previously delivered under supplier energy efficiency obligations by having, for example, an improved material that can demonstrate improved energy efficiency performance, or an improved installation technique.
- **Demonstration actions** – measures that have previously been tested in a laboratory setting and now require testing at scale in a live environment or are marketable products that are being sold and may need additional support.

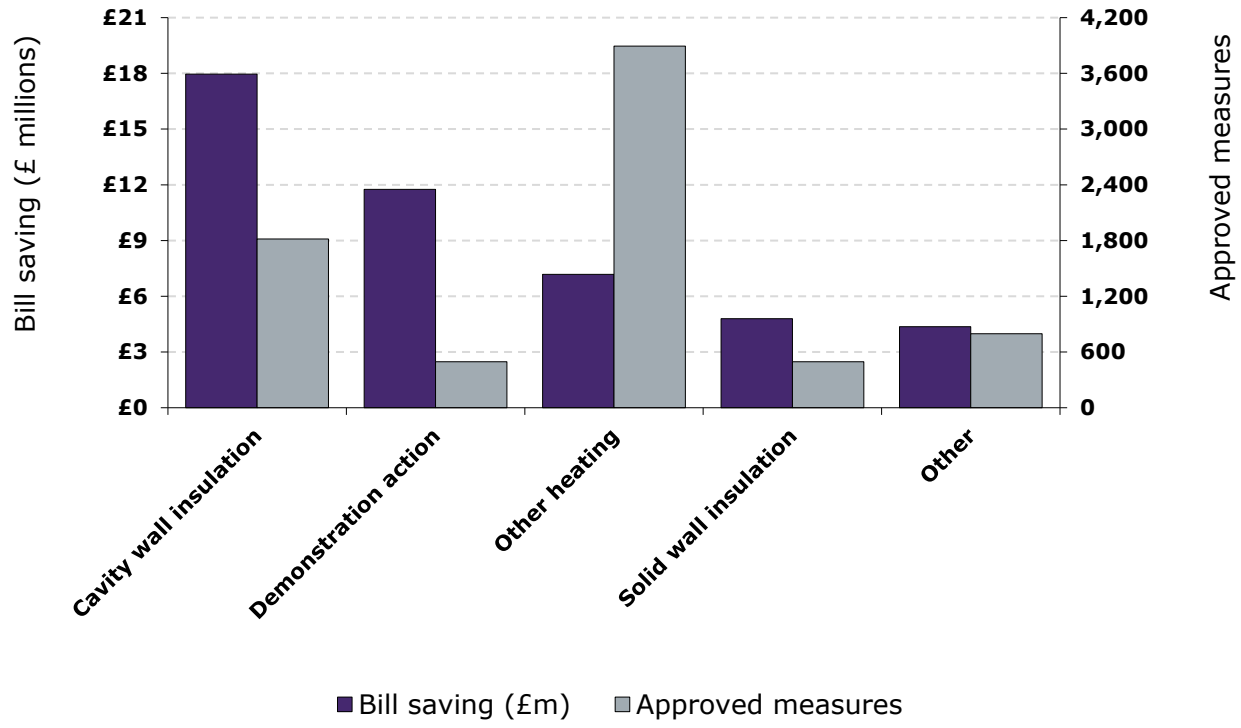
2.30. A total of 7,498 innovative measures were delivered under ECO3. This comprised of 7,003 innovation measures and 495 demonstration actions. These measures have associated bill savings of £0.046 bn, representing 5.58% of the innovation cap. To encourage participation, an uplifted lifetime bill saving score (for demonstration actions) or a deemed score uplift (for innovation measures) was awarded to measures delivered under these routes.

2.31. **Figure 2.9** below shows a breakdown of measure types installed as innovative measures. It should be noted that demonstration actions are shown as a distinct category, whereas innovation measures use the standard ECO3 measure categories.

2.32. More information on innovation measures and demonstration actions can be found in Chapter 3: Innovation measures & demonstration actions.

Figure 2.9: Innovation and demonstration measure types installed during ECO3

This chart shows the lifetime bill savings by measure type installed under the ECO3 innovation cap, alongside the number of each measure type approved. Cavity wall insulation measures are responsible for the largest proportion of bill savings at 39.0% but a lower proportion of the measures installed (24.2%). Demonstration actions account for 25.5% of bill savings but only 6.6% of measures installed. Other heating measures only account for 15.6% of lifetime bill savings but represent 51.9% of the measures approved.



Measure category	Bill saving (£m)	% of savings	Number of measures	% of measures
Cavity wall insulation	£17.96	39.0%	1,817	24.2%
Demonstration action	£11.76	25.5%	495	6.6%
Other heating	£7.18	15.6%	3,894	51.9%
Solid wall insulation	£4.79	10.4%	495	6.6%
Underfloor insulation	£2.62	5.7%	629	8.4%
Micro-generation	£1.36	3.0%	137	1.8%
Room-in-roof insulation	£0.38	0.8%	30	0.4%
Loft insulation	£0.002	0.005%	1	0.01%
Total	**£46.06**	**100%**	**7,498**	**100%**

Broken heating replacement measures

2.33. Suppliers were permitted to provide replacements for certain broken heating systems as part of their HHCRO obligation. No more than 21.023% of a supplier's total obligation could be met by measures of this type.

2.34. A total of 104,079 measures were delivered under the broken heating replacement cap in ECO3, with a further 1,566 measures carried over from ECO2. These measures have associated bill savings of £1.74 bn, representing 100.35% of the £1.74 bn broken heating replacement cap.

2.35. The nine suppliers shown below exceeded their individual Broken Heating caps by a combined total of £47.74 million. Bill savings delivered above the cap were not counted towards ECO3 obligations but may be carried over as Surplus Actions to ECO4 if suppliers choose to do this. As suppliers can only select measures for carry over after final determination, we do not know at the time of writing how many measures will be affected. However, once these excess savings have been removed, total Broken Heating savings delivered represent 97.60% of the cap.

- British Gas
- Bulb Energy
- E (Gas & Electricity)
- E.ON Energy
- Octopus Energy
- Shell Energy
- Scottish Power
- Utilita
- Utility Warehouse.

2.36. **Figure 2.10** below shows a breakdown of Broken heating replacement measures installed during ECO3. Please note that surplus actions carried over from ECO2 are not represented. It should also be noted that Boiler replacements that fell within the broken heating system cap received a x4 uplift to the lifetime bill saving score. For more information on score uplifts please refer to Chapter 1: About the Scheme.

Figure 2.10: Broken heating measure types installed during ECO3

Measure category	Bill saving (£m)	% of savings	Number of measures	% of measures
Boiler replacement	£1,709.59	99.9%	103,968	99.9%
Electric storage heater	£0.95	0.1%	111	0.1%
Total	**£1,710.55**	**100%**	**104,079**	**100%**

3. Innovation measures & demonstration actions

Chapter summary

This chapter presents an overview of the innovation measures and demonstration actions that were approved under ECO3.

Introduction

3.1. Under ECO3, energy suppliers could deliver up to 10% of their obligation by installing innovative measures in eligible households. There were two innovation routes under the scheme:

- **Innovation measures** – a measure that is different from those previously delivered under supplier energy efficiency obligations by having, for example, an improved material that can demonstrate improved energy efficiency performance, or an improved installation technique.
- **Demonstration actions** – measures that have previously been tested in a laboratory setting and now require testing at scale in a live environment or are marketable products that are being sold and may need additional support.

3.2. These optional innovation routes were new for ECO3 and designed to encourage innovation by incentivising the inclusion of new, cost-efficient measures into the scheme. To encourage participation, an uplifted lifetime bill saving score (for demonstration actions) or a deemed score uplift (for innovation measures) was awarded to measures delivered under these routes.

3.3. Summary details of the innovation measures and demonstration actions that were approved under ECO3 are shown below. More detailed information can be found on our website.[17]

[17] Information on innovative measures under ECO3: <https://www.ofgem.gov.uk/publications/eco3-innovation>

Innovation measures

3.4. We received positive engagement from both suppliers and innovators and received many innovation applications for assessment. In total, 16 innovation measure applications were approved under ECO3. However, innovation measure delivery was underutilised, and anecdotal evidence suggested the uplift level of 25% was not sufficient to fully support the cost of delivery. Four of the 16 approved innovation measures didn't go on to have any measure delivery notified to us under the scheme.

3.5. The 12 remaining measure types accounted for a total of 7,003 approved measures. Of these the Nest smart thermostat and the ARP cavity wall insulation were responsible for 50.4% and 23.3% respectively.

Figure 3.1: Innovation measures under ECO3

Name	Type	Description	Number of approved measures
ARP CWI	Cavity wall insulation (CWI)	Injection of mineral wool insulation into cavity walls in properties over 5 storeys using a rope access installation technique.	1,633
Climabead	Party Cavity Wall Insulation (PWI)	Injection of expanded polystyrene (EPS) beads with an adhesive into party cavity walls. Injection holes are drilled in a pre-determined pattern in the exterior wall of the property. Drilling technique uses a lance system, with a 360 multidirectional nozzle resulting in a reduced drilling pattern, allowing deployment in a greater range of properties.	184
Energystore Superbead	Internal wall insulation (IWI)	Injection of expanded polystyrene (EPS) beads with an adhesive into the cavity between the lath and plaster internal lining and the inner face of the exterior wall of traditionally-constructed properties or between the internal plasterboard and the inner face of the exterior wall in refurbished properties.	52
Instaclad	External wall insulation (EWI)	Installation of modular, tongue and grove, pre-primed external wall insulation boards that are mechanically fixed to the property using a rail system and can be finished with one coat of render.	1

Name	Type	Description	Number of approved measures
Mauer	External wall insulation (EWI)	System involves the installation of a new facade, creating a cavity between its inner surface and the existing walls which is then insulated with non-combustible blown fibre wall insulation.	0
MI Systems Design RIRI	Room in roof insulation (RIRI)	Room in roof thermal insulation layer envelope and plasterboard lining system, which comprises of a range of flexible and rigid thermal insulation products of various specifications, together with associated fixings, sealant and accessories.	26
Nest Seasonal Savings	Smart Thermostat	Smart thermostat algorithm learns from any temperature corrections made by the occupant and adjusts the incremental reductions accordingly.	3,531
Q-Bot	Under floor insulation (UFI)	Robotics and AI are employed to install underfloor insulation through accurately monitoring and applying polyurethane foam to the underfloor voids.	632
Secure Meters Smart Thermostat	Smart thermostat	Smart thermostat with a programmable thermostatic display interface and an app, which can be used via two connectivity modes, WI-FI and Bluetooth Low Energy (BLE). The system detects the communication modes available and automatically connects to the most suitable, without requiring any manual input from the user, thereby enabling the householder to continue to set and change heating schedules and operate heating controls if one connectivity mode drops.	0
Smart Fix Systems RIRI	Room in roof insulation (RIRI)	RIRI system comprised of Aerogel insulants to reduce the thickness of the insulation boards, and prefabricated insulated services panel to reduce cold bridging around services.	4
Soltherm 75	External wall insulation (EWI)	Mineral wool insulation slabs which are mechanically fixed to the substrate wall with supplementary adhesive. The mechanical fixing goes through two crossed fibreglass mesh strips which are embedded in the base coat adhesive, with corners and insulation ends having reinforced	142

Name	Type	Description	Number of approved measures
		insulation fixing. Fixing method enables an increased resistance to wind loads, and reduces delamination.	
Soltherm FSC (Fire Safe Composite) EWI	External wall insulation (EWI)	EWI system with adhesively fixed 'Fire Safe Composite' (FSC) panels with supplementary mechanical fixings, both with a reinforced basecoat and render finishes. The system is designed so that the external layers (basecoat, reinforcing mesh, and render) are permanently connected to the substrate through the mesh and adhesive.	298
Switchee	Smart Thermostat	Global System for Mobile communication (GSM) connected 'fit and forget' smart thermostat, with 5 sensors for monitoring temperature, motion, light, air pressure and humidity, which automate and optimise heating setting of a premise.	363
UKSOL Optimised Solar PV	Solar PV	The system consists of MCS certified monocrystalline PV modules, with optimiser units built in during the manufacturing process, that can be installed using multiple roof angles and orientations. Optional internet connectivity is available and were a fault or fire is identified, the system will automatically disconnect.	135
Viessmann Vitovalor Fuel Cell CHP	Boiler (Fuelled Cell micro–Combined Heat and Power)	Domestic sized micro–Combined Heat and Power (mCHP) unit that contains a low temperature fuel cell, which extracts hydrogen from natural gas to generate electricity at a lower cost. The waste heat can be used for central heating, or stored in the DHW cylinder contained within the unit.	0
Wetherby EWI	External wall insulation (EWI)	External wall insulation is adhesively and mechanically fixed through reinforcement mesh using high performance anchors, with mesh patches applied over the fixing heads and fully embedded. Stainless steel grade components are used for mechanical fixings, starter track, render stop ends and corner beads.	0

Demonstration actions

3.6. In total, five demonstration actions were approved and completed trials. Collectively these five demonstration actions accounted for a total of 495 approved measures. Airoom was responsible for 234 or 47.3% of the total.

3.7. All of these demonstration actions utilised smart meters to provide in-situ performance data to validate retrofit savings in households. This is one of the largest examples, successfully demonstrating the use of smart meter based methods to test the energy saving potential of new measures seen in the UK. Additionally the data collected helps to inform future policy such as the development of a Pay for Performance Pathway under ECO4.[18]

Figure 3.2: Demonstration actions under ECO3

Name	Sponsor	Type	Description	Number of approved measures
AirEx	EDF	Smart ventilation control	AirEx is an Internet of things enabled smart ventilation control that replaces conventional airbricks in pre-1950s dwellings. It monitors relevant environmental parameters like temperature and humidity and subsequently opens or closes air-vents to optimise ventilation. Using cloud-based algorithms, AirEx minimises cold airflow whilst ensuring sufficient air exchange to prevent moisture build-up and poor internal air quality.	95
Airoom	EDF	Smart ventilation control	Airoom is a smart passive ventilation system that has been designed as a retrofit replacement for existing air bricks that ventilate the habitable area of a home. It measures internal and external humidity as well as internal CO_2 levels and optimises ventilation to improve thermal performance of a home.	234

[18] The pay for performance pathway is discussed in the consultation 'Design of the Energy Company Obligation ECO4: 2022-2026': <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>

Name	Sponsor	Type	Description	Number of approved measures
Chimella	E.ON	Chimney Draught Excluder	Chimella is a chimney draught excluder that can be used by those who may wish to have occasional use of their chimney. It fits inside the chimney conveniently with the push of a button and prevents cold draughts. It's designed to allow a very limited airflow to improve householder thermal comfort whilst allowing any water which may come down the chimney to dry quickly, thereby preventing internal damage to the chimney caused by damp.	85
Energiesprong	British Gas	Whole-House Retrofit	Energiesprong is a Whole-House Retrofit (WHR) model that aims to deliver net-zero energy in warm, affordable to heat and comfortable homes. The model integrates low-carbon technologies including heat-pumps, a super-insulated wrap system including new windows, doors and roof, solar PV, and energy storage. Gas meters and gas supplies are removed with a shift to electric heating. Where gas cookers are used pre-retrofit, these also require replacement. The Energiesprong model takes a different approach to contracting by specifying a performance outcome. The 'Solution Provider' is responsible for designing and installing - and evidencing - the real-world performance of the outcome specified in order to provide the required long-term performance guarantee. It is hoped this focus on outcomes enables the Solution Provider to innovate to reduce cost. Offsite manufacture is also required, with homes aimed to be retrofitted in less than 15 days on site. As the Energiesprong approach is about outcomes and is technology and manufacturer agnostic, different Solution Providers can use	11

Name	Sponsor	Type	Description	Number of approved measures
			different systems to achieve the targeted performance outcome.	
Radbot	EDF	Smart TRV	Radbot is a smart thermostatic radiator valve (TRV) that incorporates environmental sensors and embedded AI algorithm intelligence in order to detect and predict room occupancy and automatically regulate radiators. This aims to provide radiator by radiator zoning, allowing temperatures in unoccupied spaces to be reduced and thus reducing fuel bills and saving energy.	70

4. Supplier Performance

Chapter summary

This chapter presents information on each energy supplier's achievement against their ECO3 obligation and sub-obligations targets, and delivery against the caps.

Overview

4.1. Each energy supplier's ECO3 obligation was calculated using the amount of energy they supplied to their domestic customers (i.e. market share) in the qualification year for each phase[19].

4.2. Suppliers become obligated under ECO3 when they exceed the relevant threshold for participation. As detailed in **Figure 1.1** the thresholds (which are based on the number of domestic customers, and gas or electricity supplied) reduced with each phase of the scheme, thereby increasing the total number of suppliers obligated. Once a supplier reached the threshold for participation, they remained obligated for the remainder of ECO3. The exception to this were the suppliers that exited the market, who no longer had supply licences and were therefore no longer obligated under the scheme.

4.3. A summary of individual supplier performance against their obligations is shown in **Figure 4.1** below. Please note that this table only shows suppliers still operating in the energy market at the close of ECO3. This shows that with the exception of Co-operative Energy suppliers successfully met their HHCRO bill saving obligations and the HHCRO Rural and SWMR sub-obligations.

4.4. Information on suppliers that were obligated under ECO3 but ceased trading can be found in the section on 'Suppliers that ceased trading' later in this chapter.

[19] Phase 1 (2017), phase 2 (2018), phase 3 (2019) & phase 4 (2020)

Figure 4.1: Individual supplier achievement against ECO3 obligations

Supplier	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
British Gas	105.4%	147.8%	110.0%
Bulb Energy	100.5%	103.8%	107.0%
Co-operative Energy	36.4%	30.6%	23.1%
EDF Energy	108.1%	207.6%	119.6%
Ecotricity	102.4%	135.0%	108.0%
E (Gas & Electricity)	107.6%	141.6%	116.0%
E.ON Energy	108.2%	162.6%	112.0%
ESB Energy	100.0%	157.0%	101.2%
Foxglove Energy	103.0%	109.5%	121.1%
Octopus Energy	101.4%	105.4%	104.2%
OVO Energy	103.9%	112.4%	107.0%
Shell Energy	100.9%	121.0%	109.2%
So Energy	105.2%	142.6%	106.4%
Scottish Power	107.7%	181.2%	169.0%
Utilita	104.9%	171.6%	123.5%
Utility Warehouse	101.4%	103.5%	102.2%

* Figures in red indicate non-compliance against an obligation.

4.5. A summary of performance against the scheme caps for these same suppliers is shown in **Figure 4.2**. This shows that two suppliers exceeded the LA Flex cap and nine breached the broken heating cap. Lifetime bill savings delivered in excess of these caps do not count towards suppliers ECO3 obligations and so are not included in the figures in **Figure 4.1** above.

Figure 4.2: Individual supplier performance against ECO3 caps

Supplier	LA Flex	Innovation	Broken heating
British Gas	74.4%	3.6%	103.8%
Bulb Energy	83.0%	0.3%	106.3%
Co-operative Energy	20.7%	0.0%	17.1%
EDF Energy	97.8%	26.8%	99.5%
Ecotricity	59.2%	0.0%	99.5%
E (Gas & Electricity)	100.1%	2.3%	106.0%
E.ON Energy	73.9%	0.8%	101.6%
ESB Energy	99.9%	0.0%	99.5%
Foxglove Energy	99.997%	0.0%	99.9%
Octopus Energy	99.6%	0.0%	101.8%
Ovo Energy	67.7%	2.6%	99.3%
Shell Energy	98.1%	5.0%	117.6%
So Energy	95.5%	0.1%	96.9%
Scottish Power	93.3%	9.0%	103.4%
Utilita	118.0%	0.4%	114.7%
Utility Warehouse	64.6%	1.9%	101.9%

* Figures in red indicate where a cap has been exceeded.

4.6. For further information on the supplier obligations or caps under ECO3 please refer to our ECO3 supplier administration guidance[20].

[20] ECO3 Guidance: Supplier Administration: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-supplier-administration>

Individual supplier performance

4.7. Further detail on each supplier's individual performance can be found on the pages as set out in **Figure 4.3**.

4.8. For each supplier a summary table of the performance against their obligations and the caps is provided. This includes details of any lifetime bill savings delivered in excess of the caps. Alongside these are charts showing the breakdown between surplus actions carried over from ECO2 (labelled as 'Approved SA') and those approved under ECO3 (labelled as 'Approved').

Figure 4.3: Energy company performance - page references

British Gas

Figure 4.4: British Gas overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£2,057	£308	£180
Lifetime bill saving (£m)	£2,168[21]	£456	£198
Lifetime bill saving (%)	105.4%	147.8%	110.0%

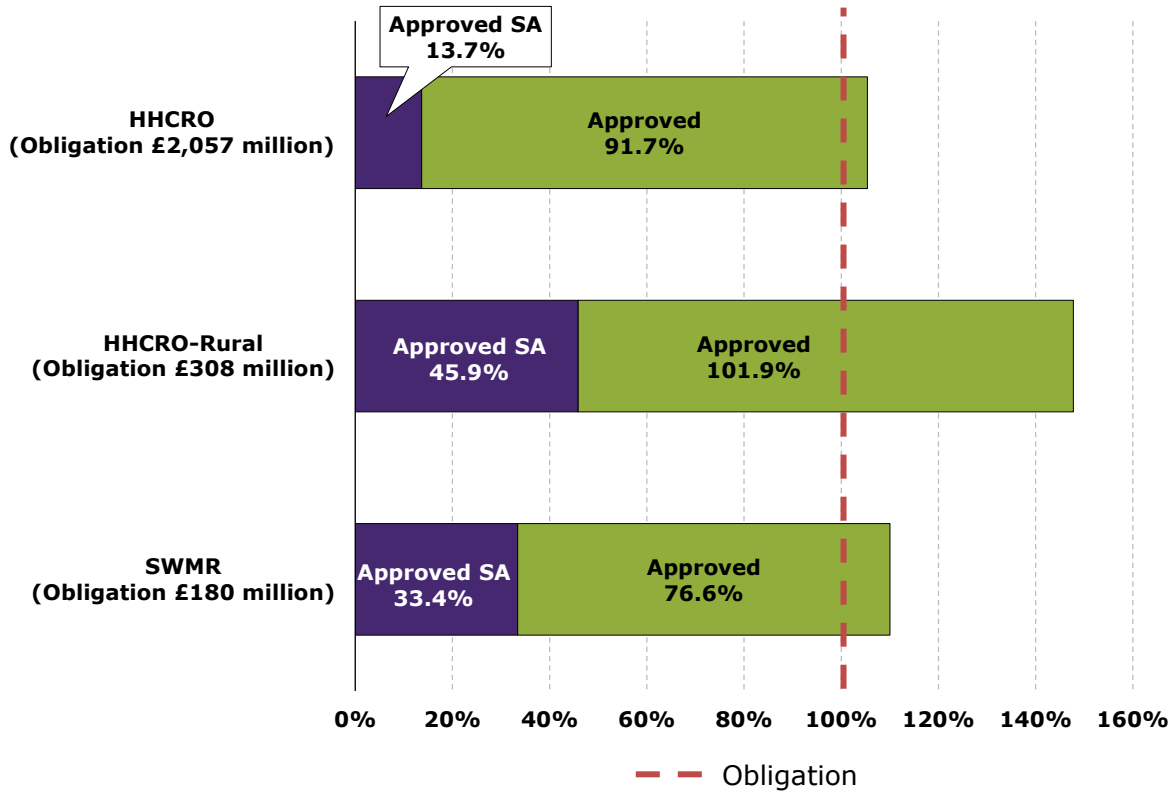
British Gas achievement against ECO3 obligations – breakdown

This chart shows that British Gas' bill savings against the scheme obligations were as follows:

***HHCRO**, Approved Surplus Actions (13.7%) and Approved measures (91.7%)*

***HHCRO-Rural**, Approved Surplus Actions (45.9%) and Approved measures (101.9%)*

***SWMR**, Approved Surplus Actions (33.4%) and Approved measures (76.6%).*



[21] The actual bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the Broken Heating cap. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.5: British Gas overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£514	£206	£432
Lifetime bill saving (£m)	£382	£7.5	£449
Lifetime bill saving (%)	74.4%	3.6%	103.8%
Excess delivery (£m)	-	-	£16.4

British Gas performance against ECO3 caps – breakdown

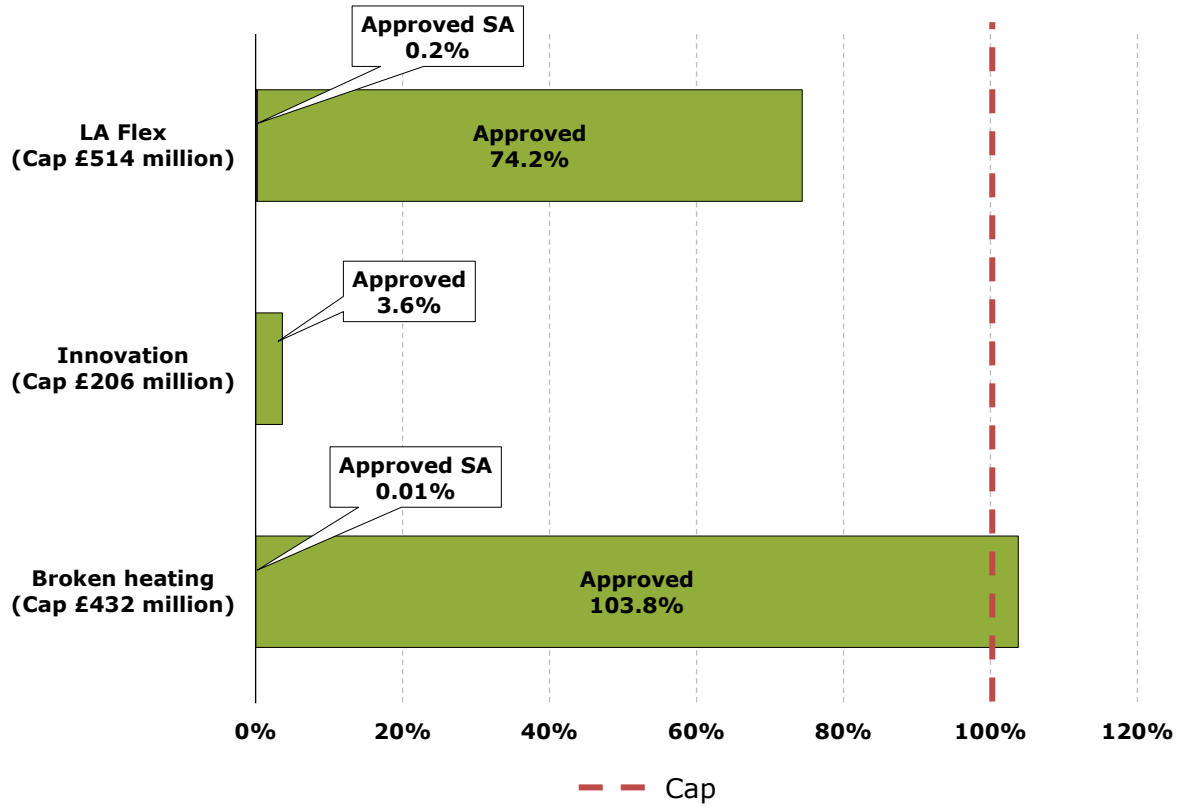
This chart shows that British Gas' bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (0.2%) and Approved measures (74.2%)*

***Innovation**, Approved measures (3.6%)*

***Broken Heating**, Approved Surplus Actions (0.01%) and Approved measures (103.8%).*

Bill savings delivered in excess of the cap do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



Bulb Energy

Figure 4.6: Bulb Energy overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£337	£50.5	£29.4
Lifetime bill saving (£m)	£338[22]	£52.4	£31.5
Lifetime bill saving (%)	100.5%	103.8%	107.0%

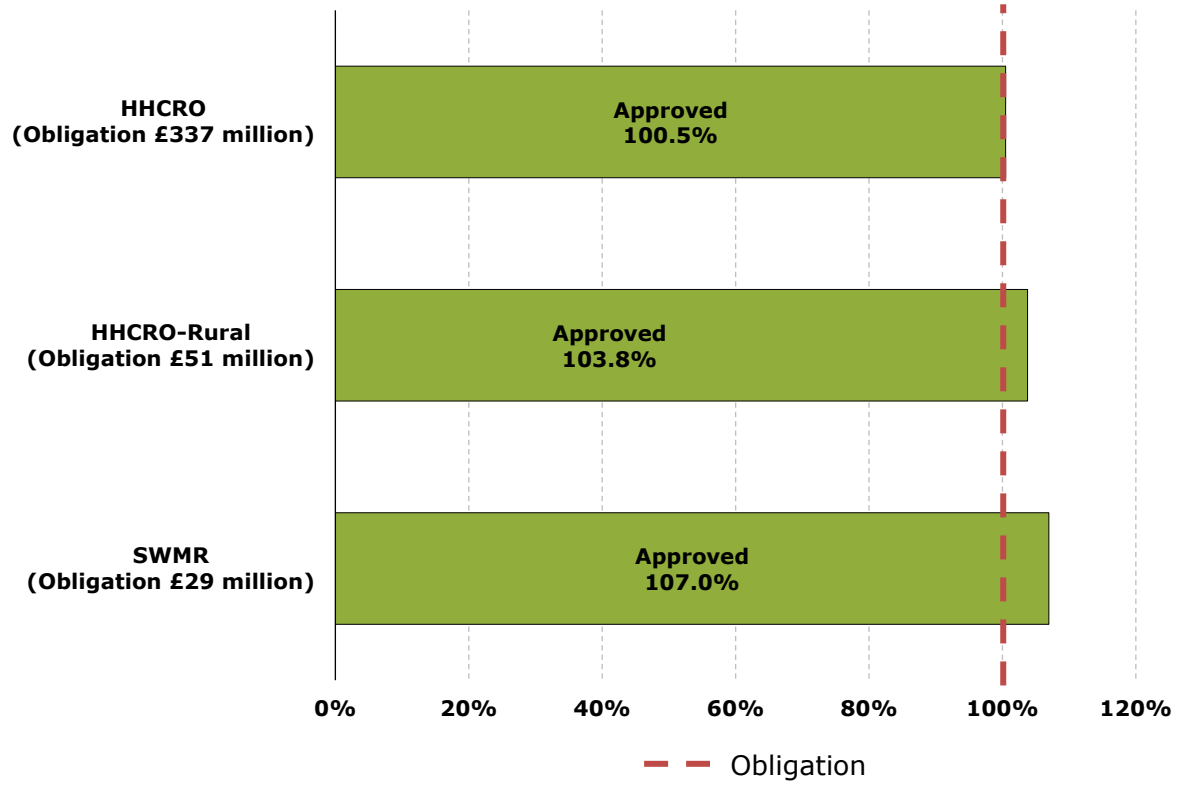
Bulb Energy achievement against ECO3 obligations – breakdown

This chart shows that Bulb's bill savings against the scheme obligations were as follows:

***HHCRO**, Approved measures (100.5%)*

***HHCRO-Rural**, Approved measures (103.8%)*

***SWMR**, Approved measures (107.0%).*



[22] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the Broken Heating cap. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.7: Bulb Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£84.2	£33.7	£70.8
Lifetime bill saving (£m)	£69.9	£0.1	£75.3
Lifetime bill saving (%)	83.0%	0.3%	106.3%
Excess delivery (£m)	-	-	£4.5

Bulb Energy performance against ECO3 caps – breakdown

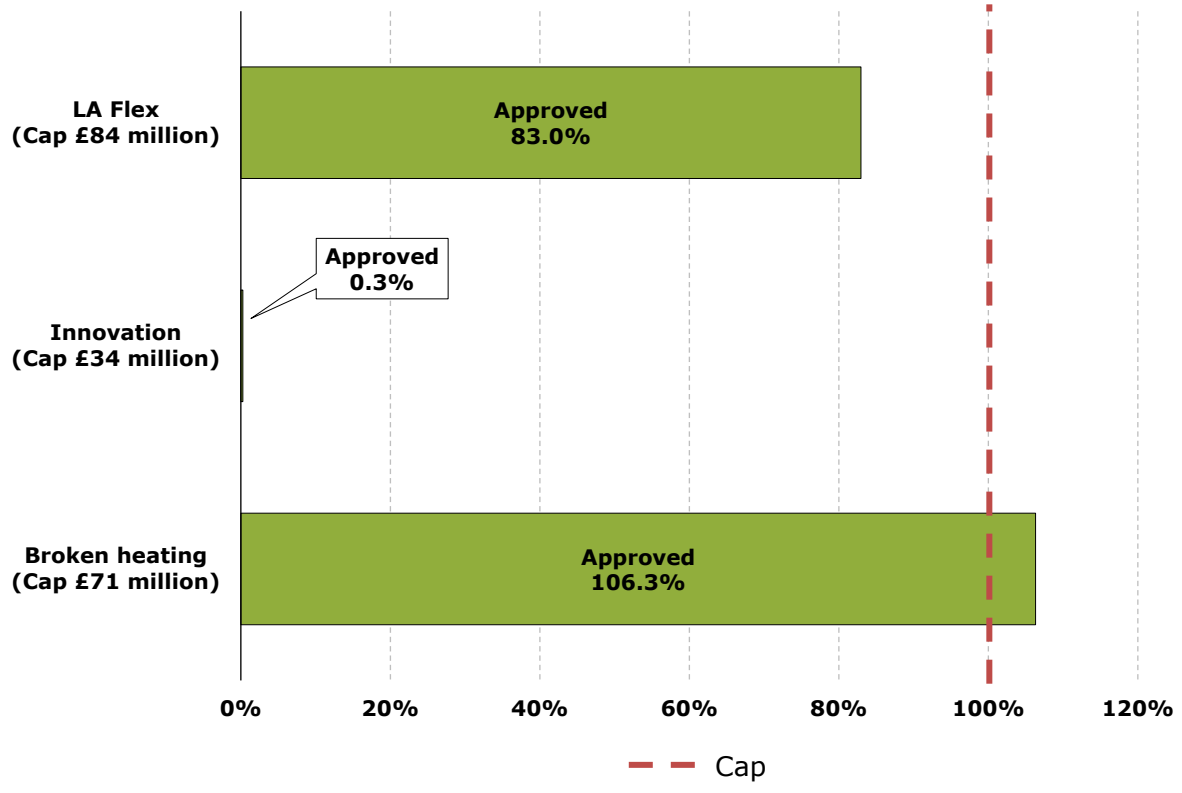
This chart shows that Bulb's bill savings against the caps were as follows:

***LA Flex**, Approved measures (83.0%)*

***Innovation**, Approved measures (0.3%)*

***Broken Heating**, Approved measures (106.3%).*

Bill savings delivered in excess of the cap do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



Co-operative Energy

4.9. Co-operative Energy were found non-compliant having achieved 36.4% of their obligation by 31 March 2022. Co-operative Energy engaged constructively around their (then likely) non-compliance and alternative action was agreed, with particular consideration given to the fact their energy business had not traded since 2019 and no longer had any customers. By agreeing alternative action with Co-operative Energy, they will now deliver approximately an additional £3.5m lifetime bill savings on top of their outstanding obligation, ensuring more fuel-poor households benefit from energy efficiency measures.

Figure 4.8: Co-operative Energy overall achievement against ECO3 obligations

	HHCRO	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Obligation (£m)	£56.1	£8.4	£4.9
Lifetime bill saving (£m)	£20.4	£2.6	£1.1
Lifetime bill saving (%)	36.4%	30.6%	23.1%

Co-operative Energy achievement against ECO3 obligations – breakdown

This chart shows that Co-operative Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (14.1%) and Approved measures (22.3%)*

***HHCRO-Rural**, Approved Surplus Actions (11.4%) and Approved measures (19.2%)*

***SWMR**, Approved measures (23.1%).*

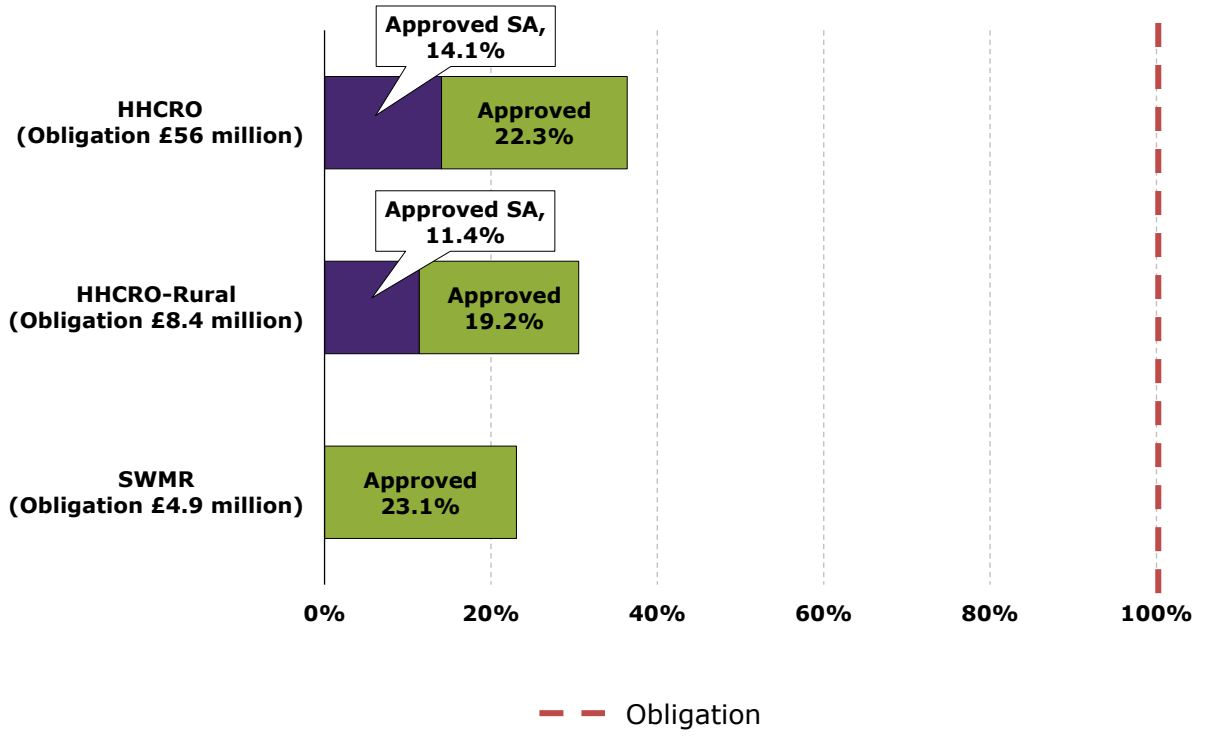


Figure 4.9: Co-operative Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£14.0	£5.6	£11.8
Lifetime bill saving (£m)	£2.9	£0	£2.0
Lifetime bill saving (%)	20.7%	0.0%	17.1%
Excess delivery (£m)	-	-	-

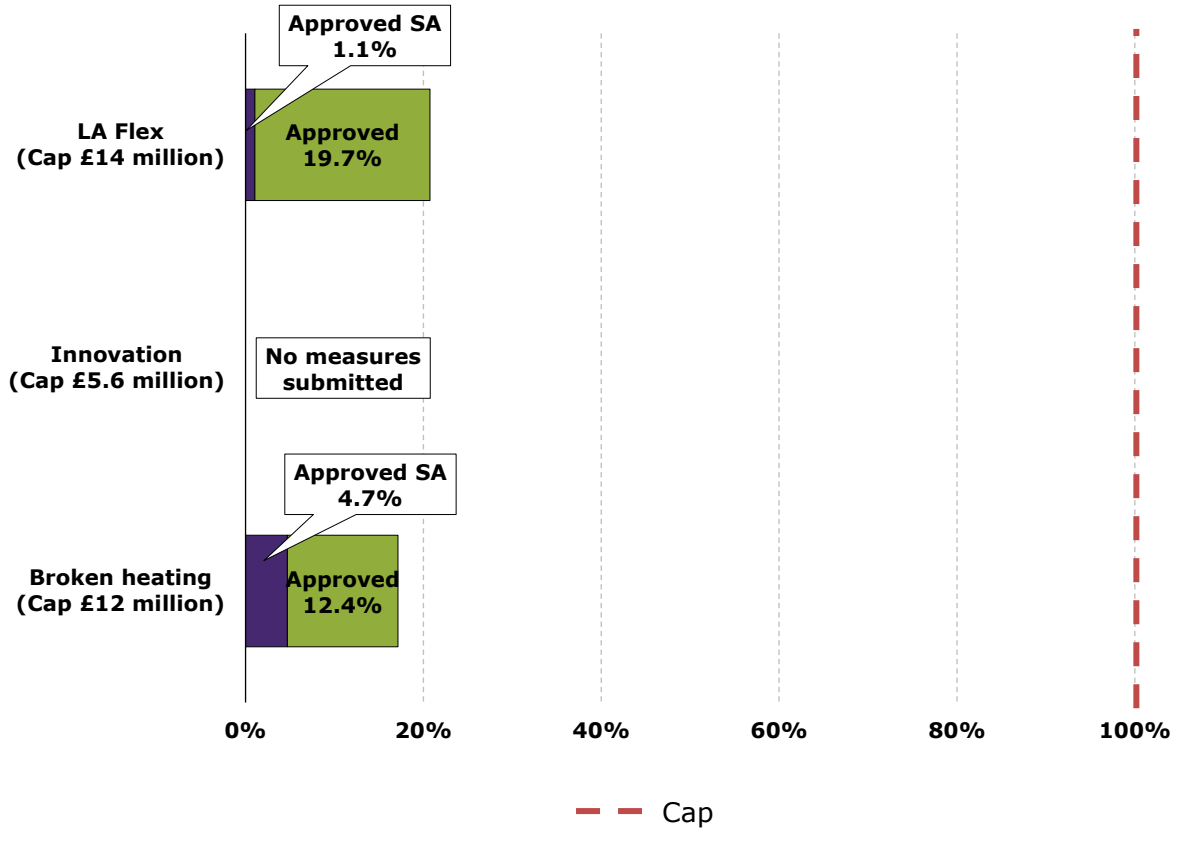
Co-operative Energy performance against ECO3 caps – breakdown

This chart shows that Co-operative Energy's bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (1.1%) and Approved measures (19.7%)*

***Innovation**, No measures submitted*

***Broken Heating**, Approved Surplus Actions (4.7%) and Approved measures (12.4%).*



EDF Energy

Figure 4.10: EDF Energy overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£922	£138	£80.6
Lifetime bill saving (£m)	£997	£287	£96.3
Lifetime bill saving (%)	108.1%	207.6%	119.6%

EDF Energy achievement against ECO3 obligations – breakdown

This chart shows that EDF Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (13.6%) and Approved measures (94.5%)*

***HHCRO-Rural**, Approved Surplus Actions (34.9%) and Approved measures (172.7%)*

***SWMR**, Approved Surplus Actions (14.1%) and Approved measures (105.5%).*

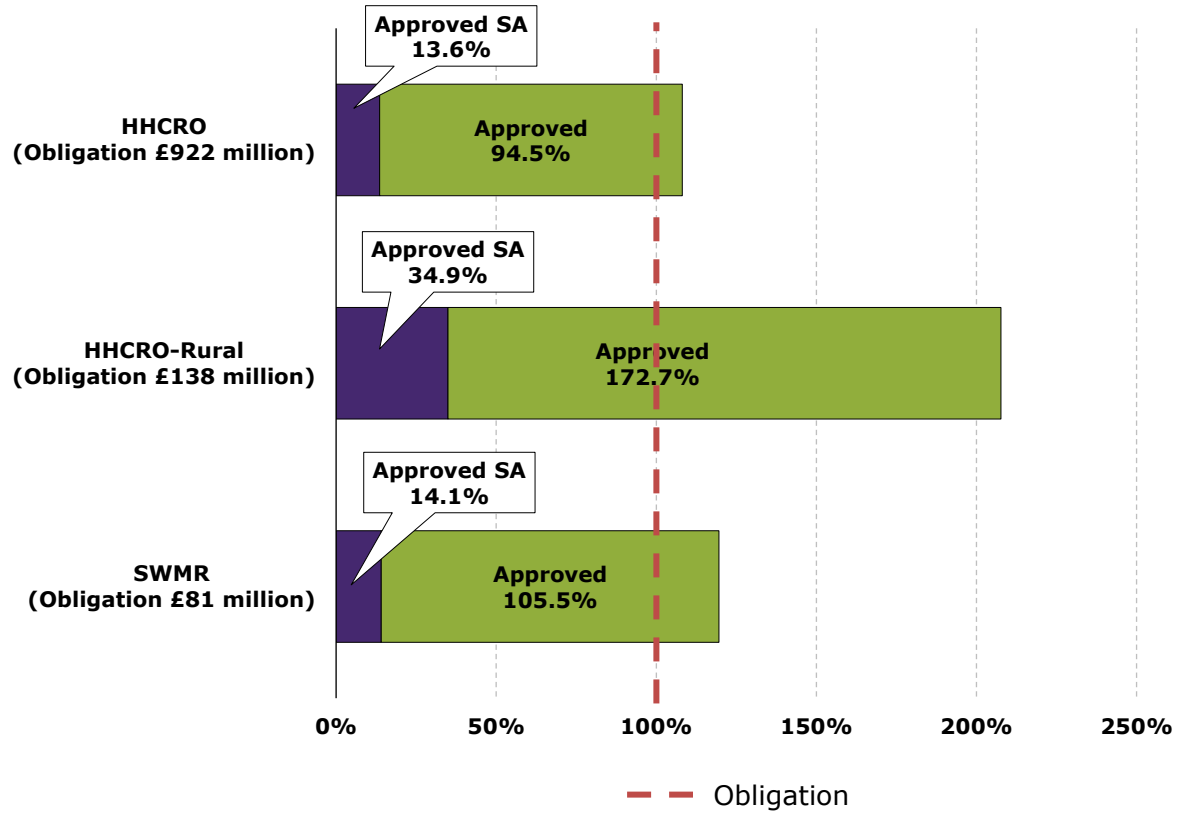


Figure 4.11: EDF Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£231	£92.2	£194
Lifetime bill saving (£m)	£225	£24.7	£193
Lifetime bill saving (%)	97.8%	26.8%	99.5%
Excess delivery (£m)	-	-	-

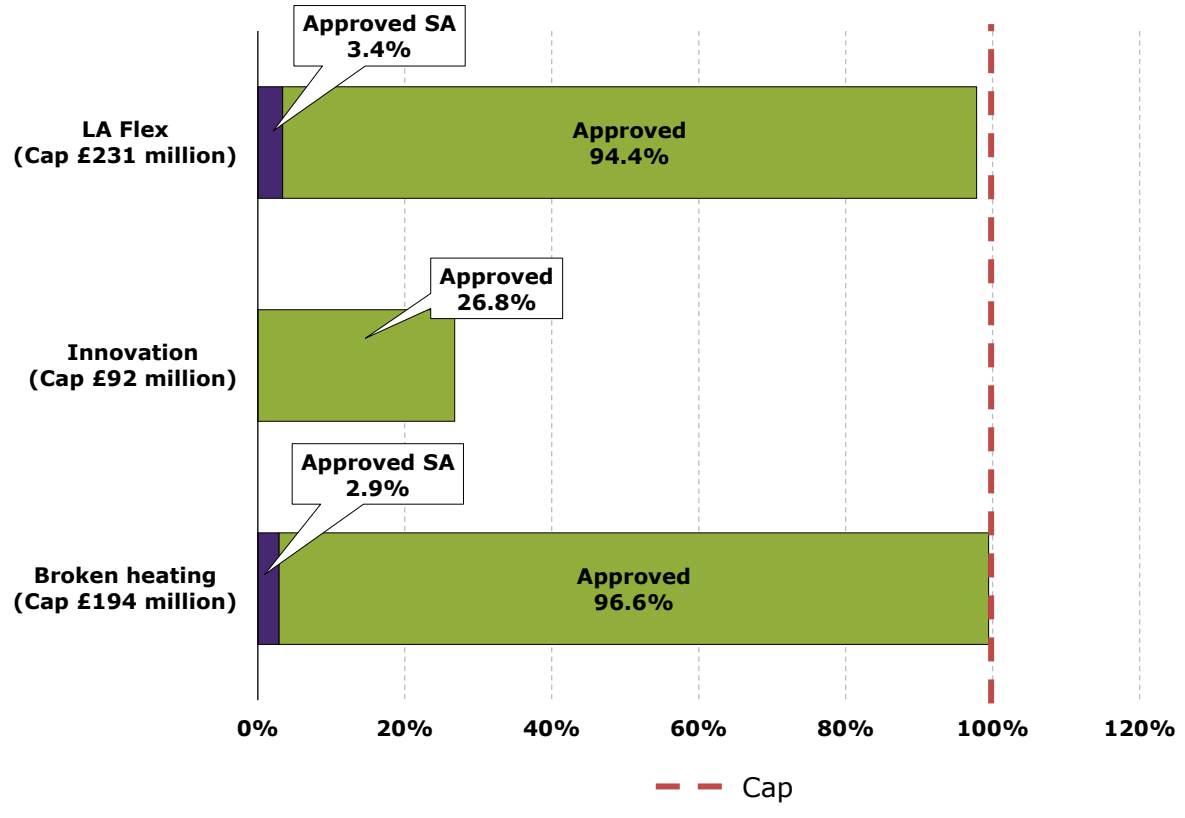
EDF Energy performance against ECO3 caps – breakdown

This chart shows that EDF Energy's bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (3.4%) and Approved measures (94.4%)*

***Innovation**, Approved measures (26.8%)*

***Broken Heating**, Approved Surplus Actions (2.9%) and Approved measures (96.6%).*



Ecotricity

Figure 4.12: Ecotricity overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£2.9	£0.4	£0.3
Lifetime bill saving (£m)	£3.0	£0.6	£0.3
Lifetime bill saving (%)	102.4%	135.0%	108.0%

Ecotricity achievement against ECO3 obligations – breakdown

This chart shows that Ecotricity's bill savings against the scheme obligations were as follows:

***HHCRO**, Approved measures (102.4%)*

***HHCRO-Rural**, Approved measures (135.0%)*

***SWMR**, Approved measures (108.0%).*

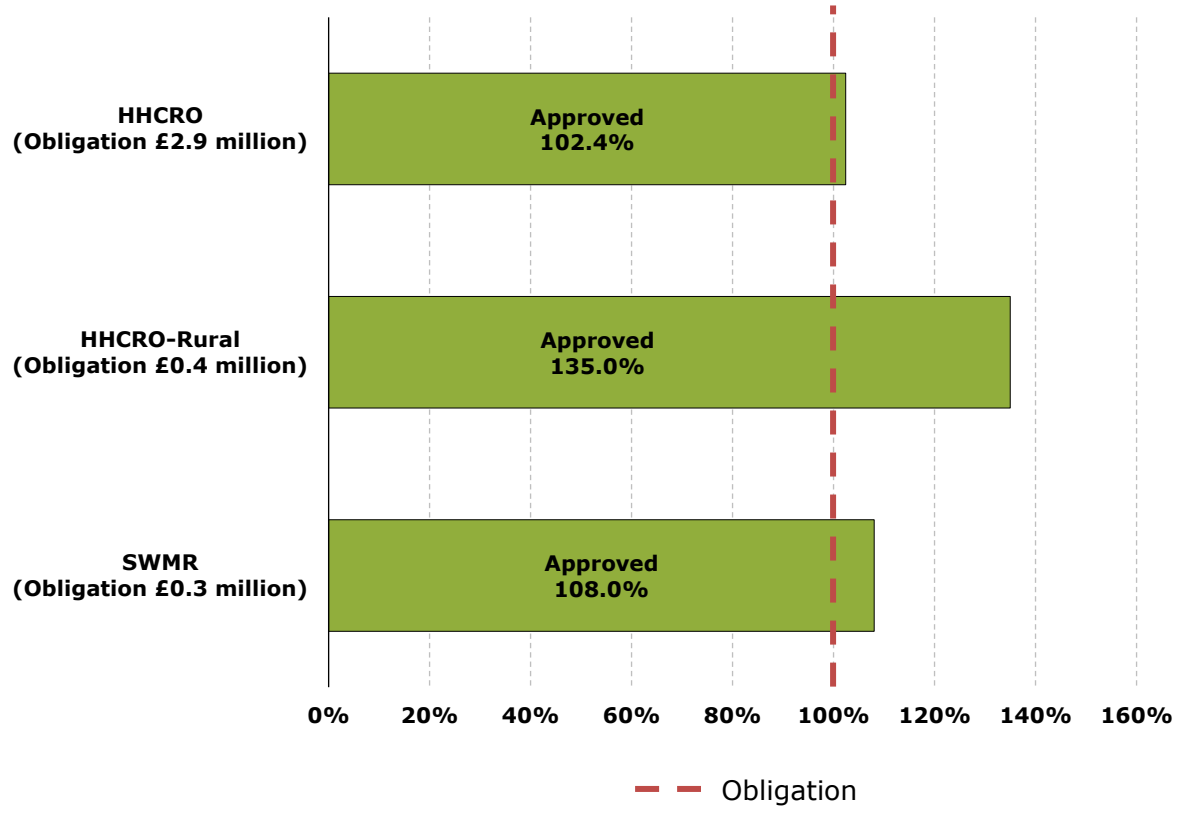


Figure 4.13: Ecotricity overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£0.7	£0.3	£0.6
Lifetime bill saving (£m)	£0.4	£0	£0.6
Lifetime bill saving (%)	59.2%	0%	99.5%
Excess delivery (£m)	-	-	-

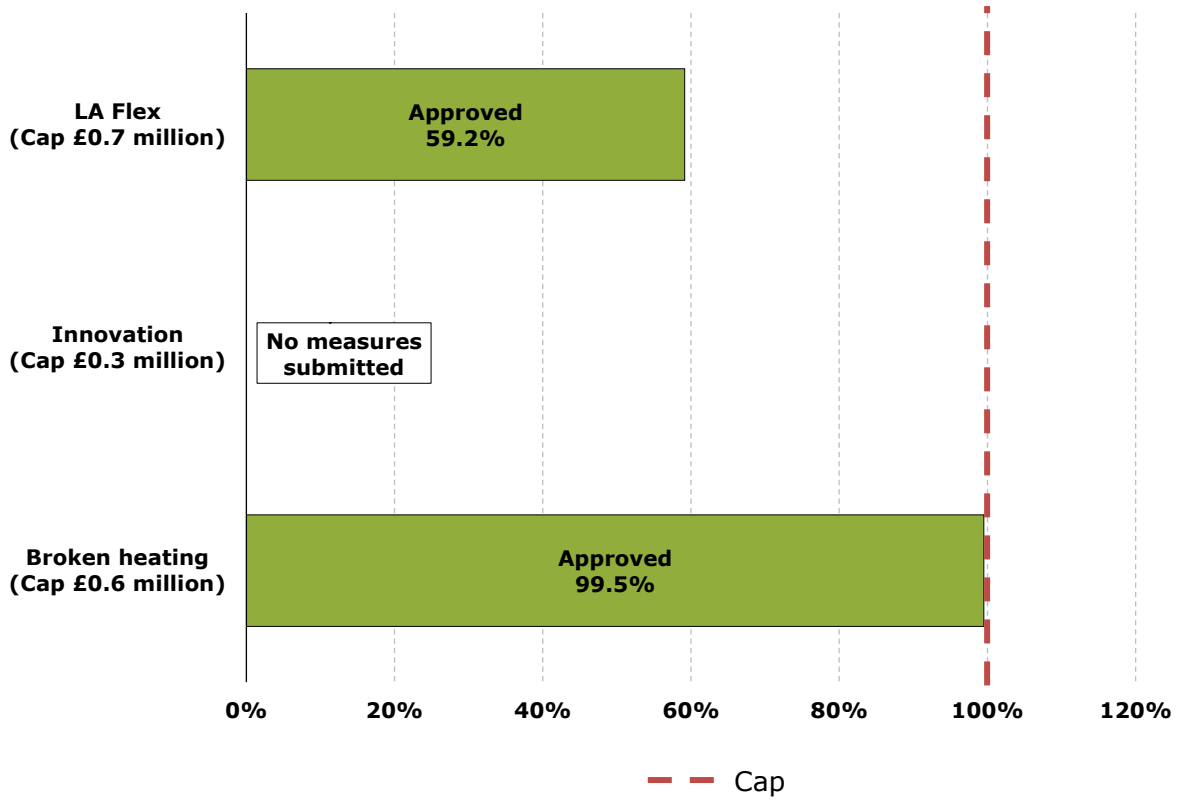
Ecotricity performance against ECO3 caps – breakdown

This chart shows that Ecotricity's bill savings against the caps were as follows:

***LA Flex**, Approved measures (59.2%)*

***Innovation**, No measures submitted*

***Broken Heating**, Approved measures (99.5%).*



E (Gas & Electricity)

Figure 4.14: E (Gas & Electricity) overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£15.9	£2.4	£1.4
Lifetime bill saving (£m)	£17.1[23]	£3.4	£1.6
Lifetime bill saving (%)	107.6%	141.6%	116.0%

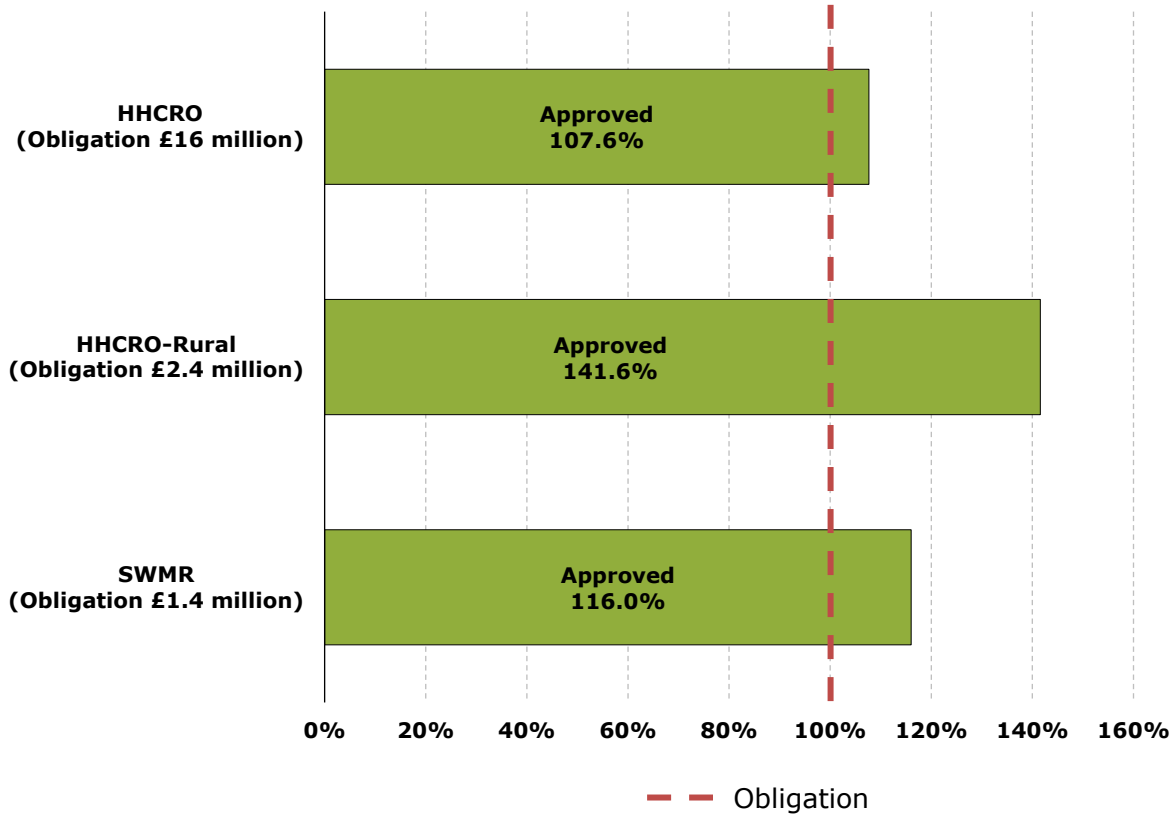
E (Gas & Electricity) achievement against ECO3 obligations – breakdown

This chart shows that E (Gas & Electricity) bill savings against the scheme obligations were as follows:

***HHCRO**, Approved measures (107.6%)*

***HHCRO-Rural**, Approved measures (141.6%)*

***SWMR**, Approved measures (116.0%).*



[23] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the LA Flex and Broken Heating caps. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.15: E (Gas & Electricity) overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£3.965	£1.6	£3.3
Lifetime bill saving (£m)	£3.969	£0.04	£3.5
Lifetime bill saving (%)	100.1%	2.3%	106.0%
Excess delivery (£m)	£0.003	-	£0.2

E (Gas & Electricity) performance against ECO3 caps – breakdown

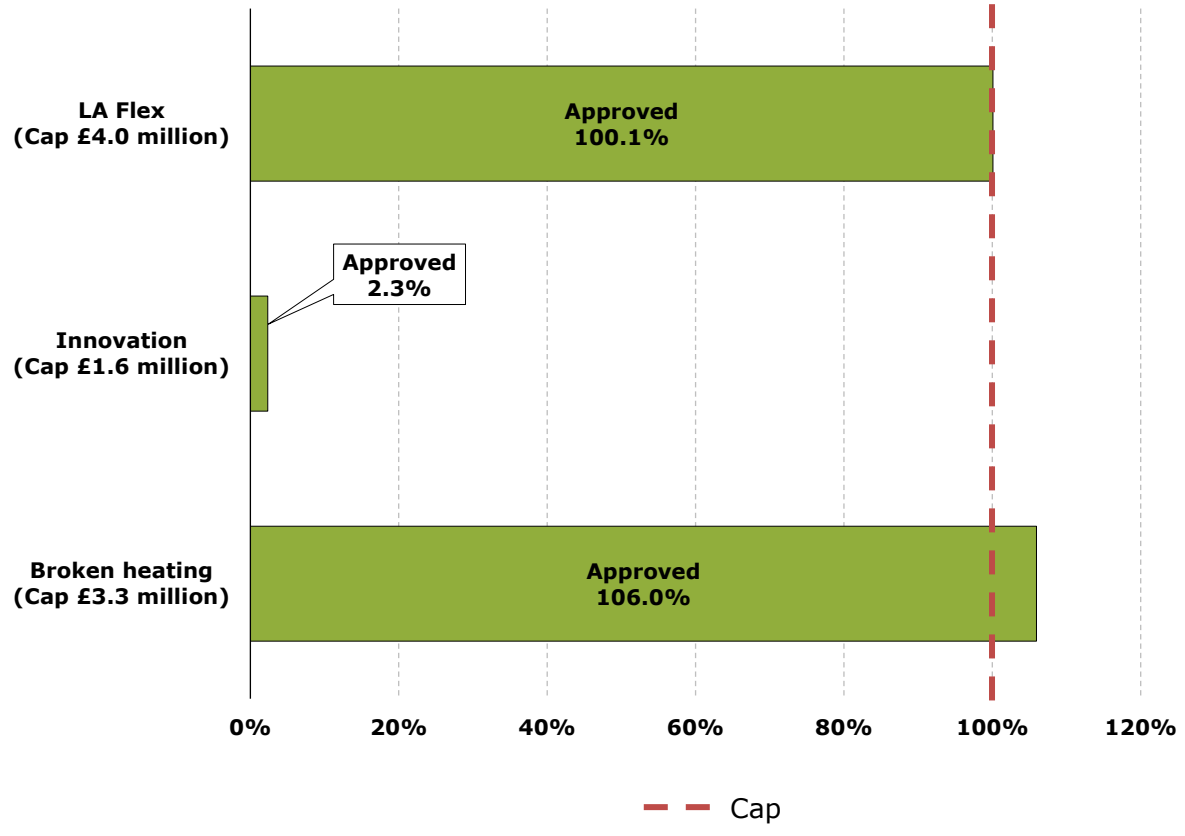
This chart shows that E (Gas & Electricity) bill savings against the caps were as follows:

***LA Flex**, Approved measures (100.1%)*

***Innovation**, Approved measures (2.3%)*

***Broken Heating**, Approved measures (106.0%).*

Bill savings delivered in excess of the cap do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



E.ON Energy

4.10. Npower Limited became a subsidiary of E.ON UK in January 2019. As part of this move, E.ON Energy inherited Npower Limited's ECO3 Phase 1 and Phase 2 obligation as well as any delivery Npower Limited had already notified to Ofgem. We began reporting on E.ON Energy's combined obligation shortly after.

Figure 4.16: E.ON Energy overall achievement against ECO3 obligations

	HHCRO	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Obligation (£m)	£1,757	£264	£154
Lifetime bill saving (£m)	£1,901[24]	£429	£172
Lifetime bill saving (%)	108.2%	162.6%	112.0%

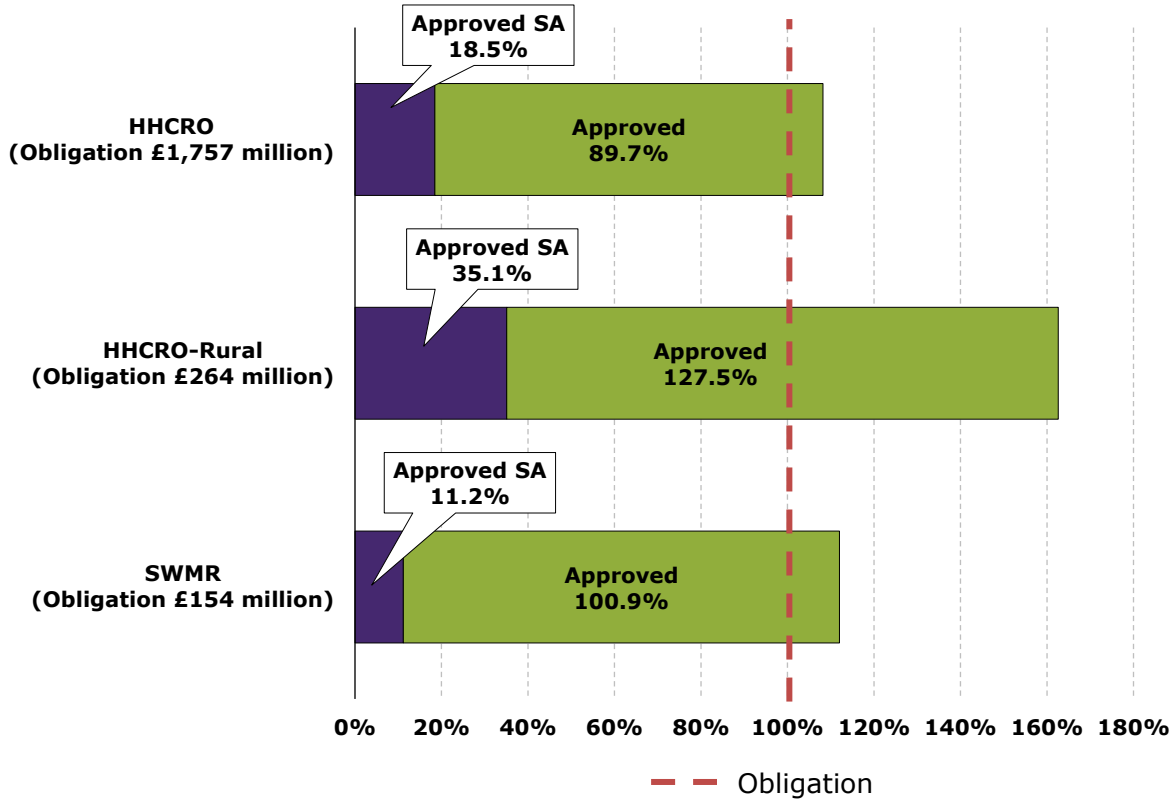
E.ON Energy achievement against ECO3 obligations – breakdown

This chart shows that E.ON Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (18.5%) and Approved measures (89.7%)*

***HHCRO-Rural**, Approved Surplus Actions (35.1%) and Approved measures (127.5%)*

***SWMR**, Approved Surplus Actions (11.2%) and Approved measures (100.9%).*



[24] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the Broken Heating cap. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.17: E.ON Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£439	£176	£369
Lifetime bill saving (£m)	£325	£1.4	£375
Lifetime bill saving (%)	73.9%	0.8%	101.6%
Excess delivery (£m)	-	-	£6.0

E.ON Energy performance against ECO3 caps – breakdown

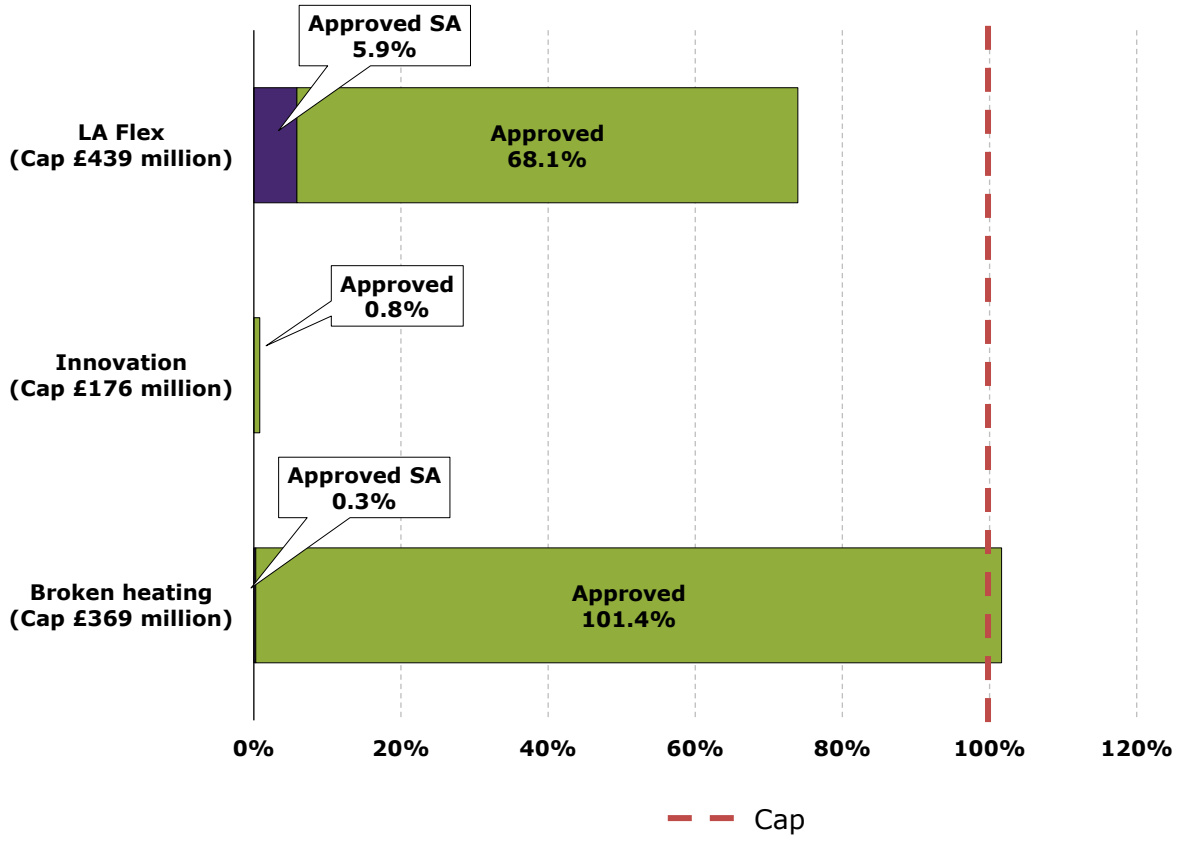
This chart shows that E.ON Energy's bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (5.9%) and Approved measures (68.1%)*

***Innovation**, Approved measures (0.8%)*

***Broken Heating**, Approved Surplus Actions (0.3%) and Approved measures (101.4%).*

Bill savings delivered in excess of the cap do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



ESB Energy

4.11. In August 2021 ESB Energy and So Energy merged. Their ECO3 obligation, however, remained split across their distinct licences. We have therefore reported on ESB Energy and So Energy separately.

Figure 4.18: ESB Energy overall achievement against ECO3 obligations

	HHCRO	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Obligation (£m)	£2.9	£0.4	£0.3
Lifetime bill saving (£m)	£2.9	£0.7	£0.3
Lifetime bill saving (%)	100.01%	157.0%	101.2%

ESB Energy achievement against ECO3 obligations – breakdown

This chart shows that ESB Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved measures (100.01%)*

***HHCRO-Rural**, Approved measures (157.0%)*

***SWMR**, Approved measures (101.2%).*

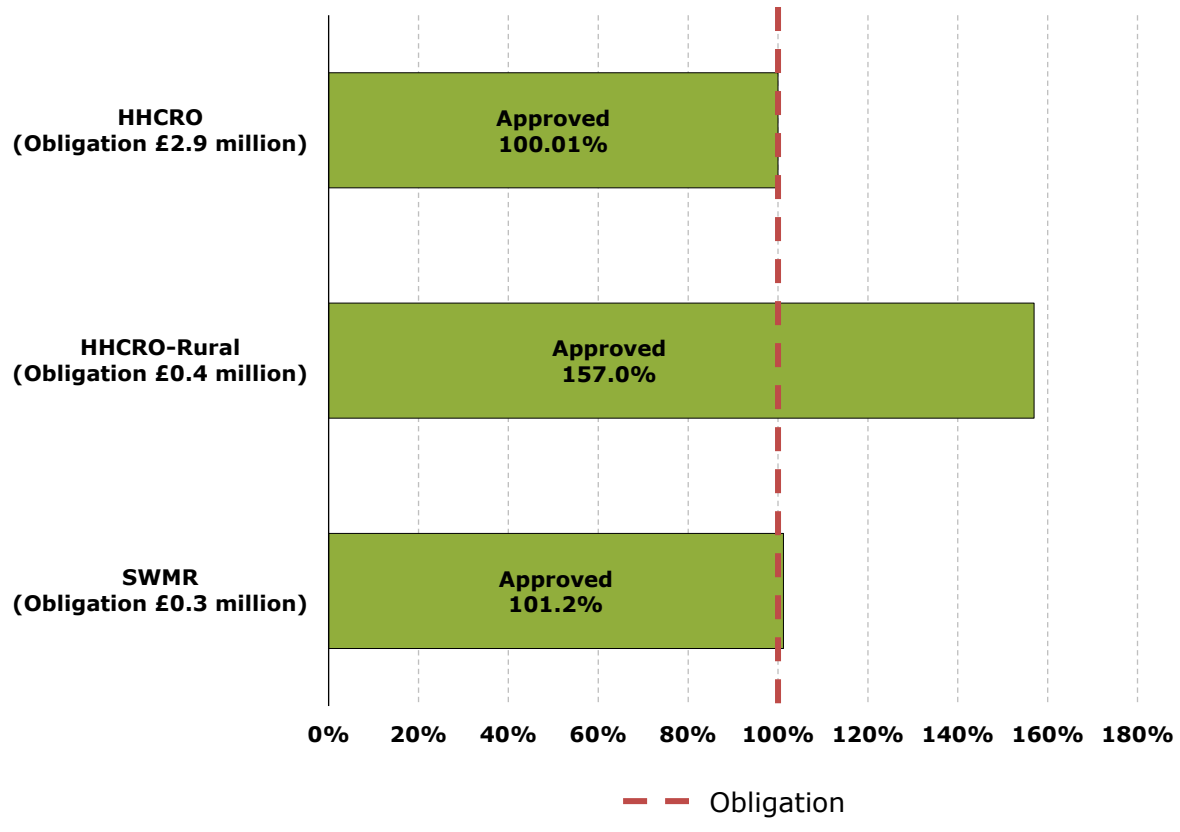


Figure 4.19: ESB Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£0.7	£0.3	£0.6
Lifetime bill saving (£m)	£0.7	£0	£0.6
Lifetime bill saving (%)	99.9%	0%	99.5%
Excess delivery (£m)	-	-	-

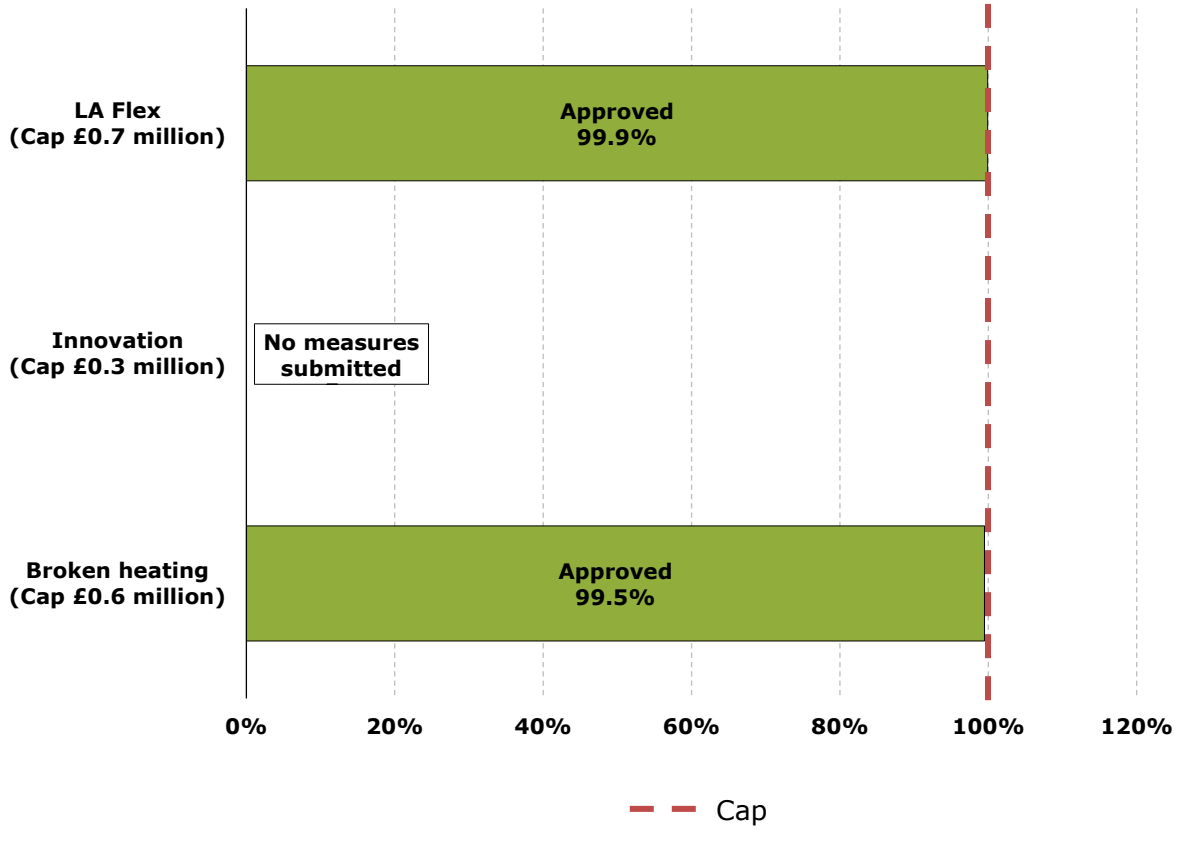
ESB Energy performance against ECO3 caps – breakdown

This chart shows that ESB Energy's bill savings against the caps were as follows:

***LA Flex**, Approved measures (99.9%)*

***Innovation**, No measures submitted*

***Broken Heating**, Approved measures (99.5%).*



Foxglove Energy

4.12. Foxglove Energy met their obligation targets via two transfers from EDF which included 268 measures with a bill saving score of £2,351,928.00.

Figure 4.20: Foxglove Energy overall achievement against ECO3 obligations

	HHCRO	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Obligation (£m)	£2.3	£0.3	£0.2
Lifetime bill saving (£m)	£2.4	£0.4	£0.2
Lifetime bill saving (%)	103.0%	109.5%	121.1%

Foxglove Energy achievement against ECO3 obligations – breakdown

This chart shows that Foxglove Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved measures (103.0%)*

***HHCRO-Rural**, Approved measures (109.5%)*

***SWMR**, Approved measures (121.1%).*

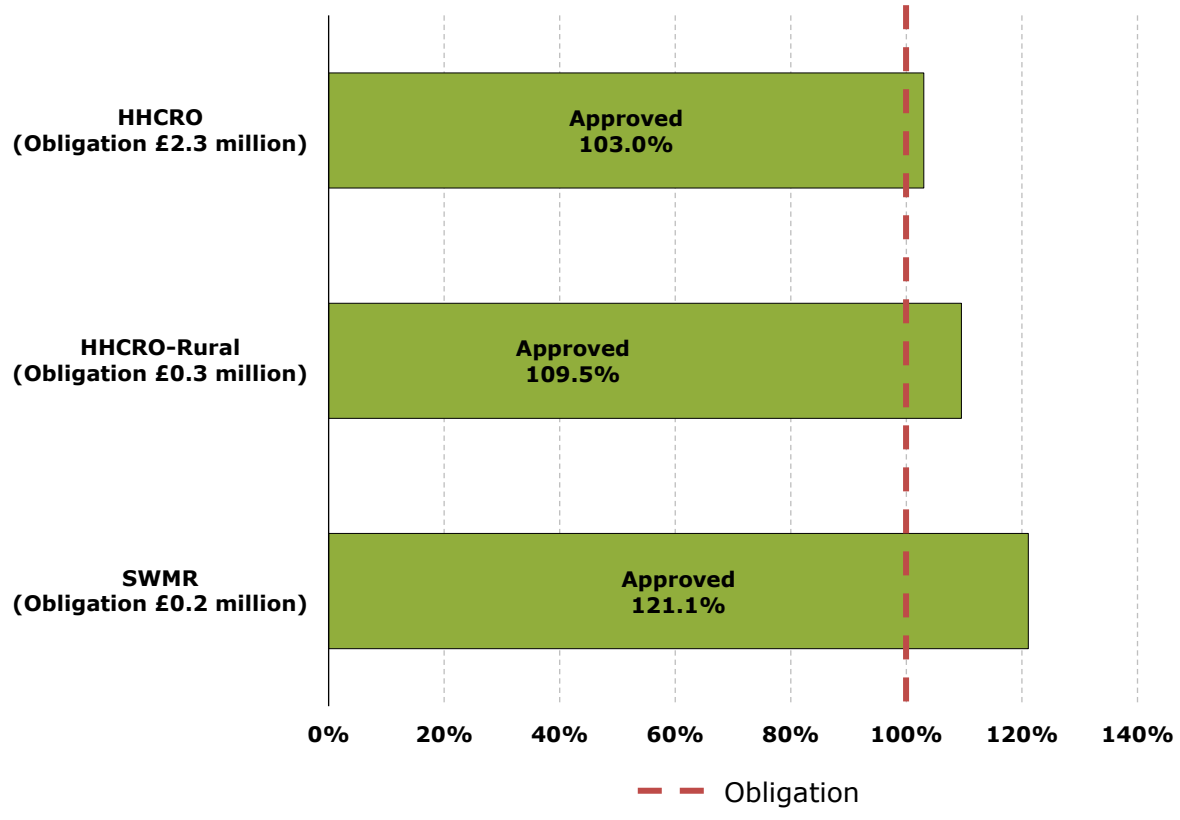


Figure 4.21: Foxglove Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£0.6	£0.2	£0.5
Lifetime bill saving (£m)	£0.6	£0	£0.5
Lifetime bill saving (%)	100.0%	0%	99.9%
Excess delivery (£m)	-	-	-

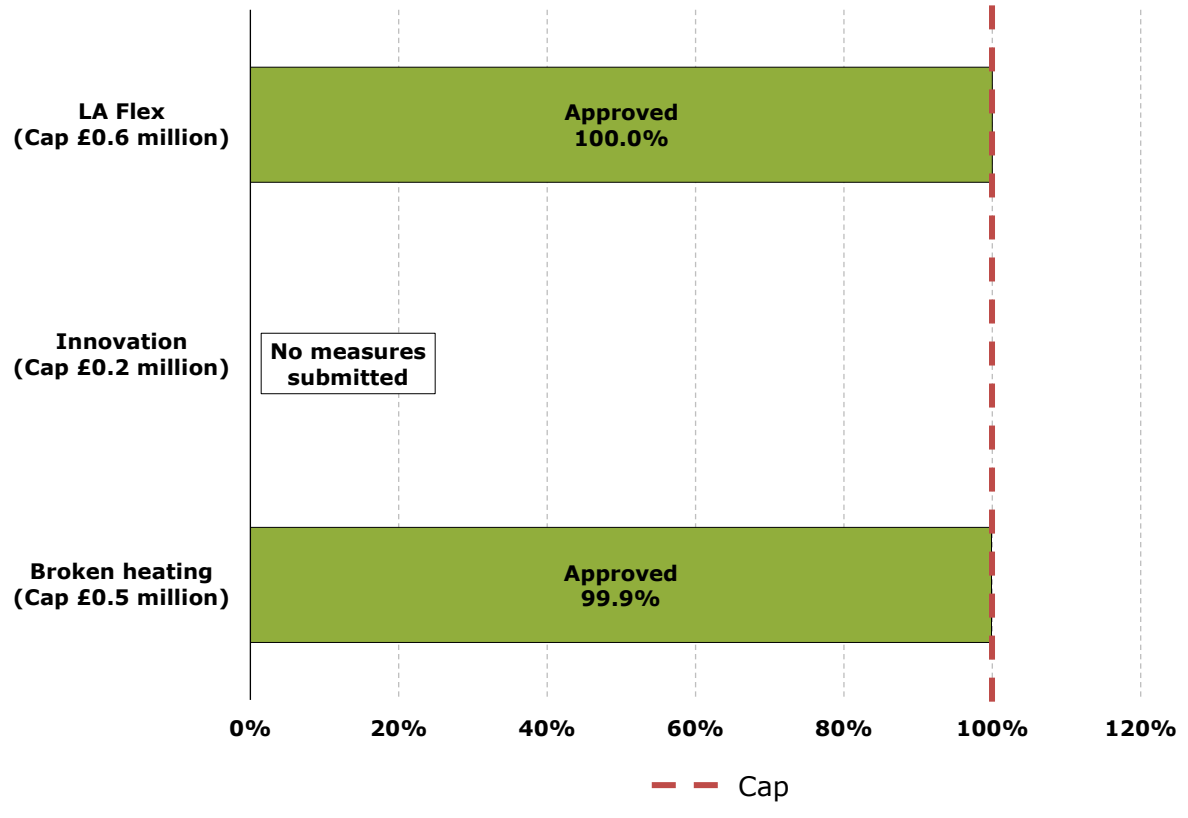
Foxglove Energy performance against ECO3 caps – breakdown

This chart shows that Foxglove Energy's bill savings against the caps were as follows:

***LA Flex**, Approved measures (100.0%)*

***Innovation**, No measures submitted*

***Broken Heating**, Approved measures (99.9%).*



Octopus Energy

Figure 4.22: Octopus Energy overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£236	£35.4	£20.6
Lifetime bill saving (£m)	£240[25]	£37.4	£21.5
Lifetime bill saving (%)	101.4%	105.4%	104.2%

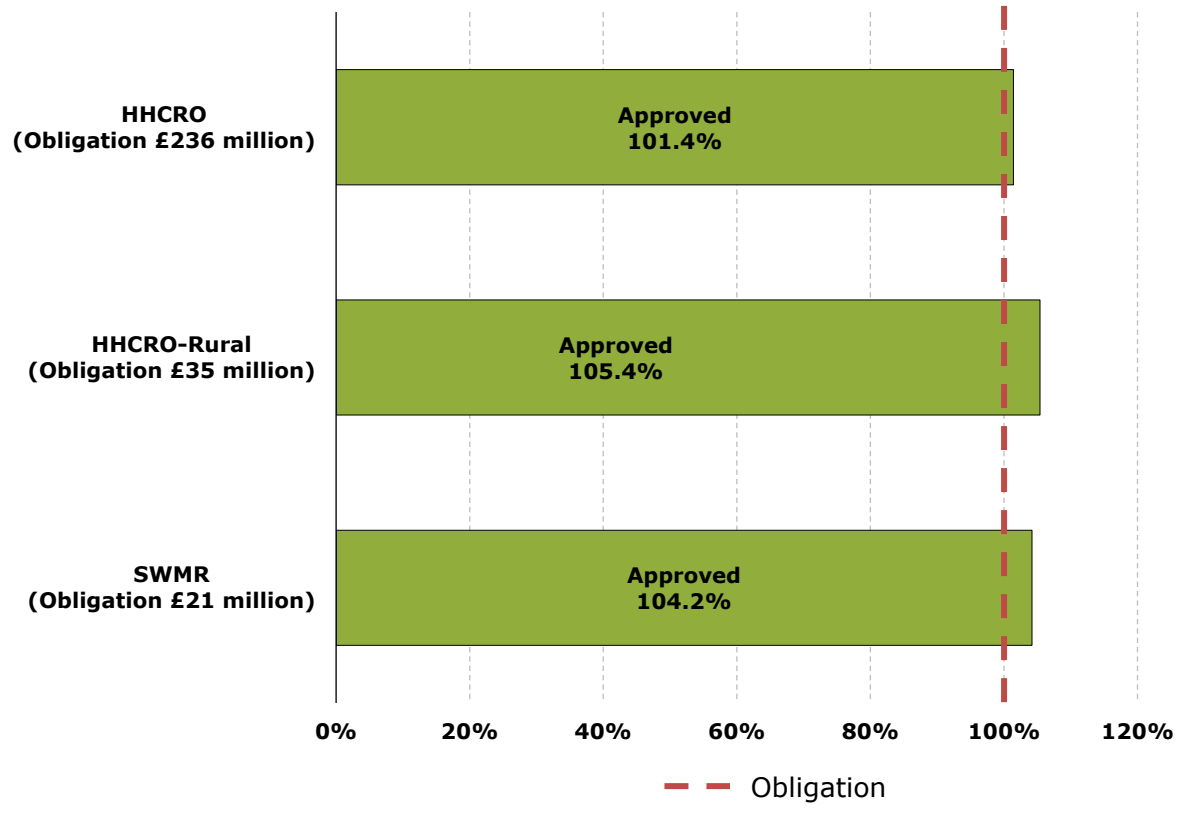
Octopus Energy achievement against ECO3 obligations – breakdown

This chart shows that Octopus Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved measures (101.4%)*

***HHCRO-Rural**, Approved measures (105.4%)*

***SWMR**, Approved measures (104.2%).*



[25] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the Broken Heating cap. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.23: Octopus Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£59.1	£23.6	£49.7
Lifetime bill saving (£m)	£58.8	£0	£50.6
Lifetime bill saving (%)	99.6%	0%	101.8%
Excess delivery (£m)	-	-	£0.9

Octopus Energy performance against ECO3 caps – breakdown

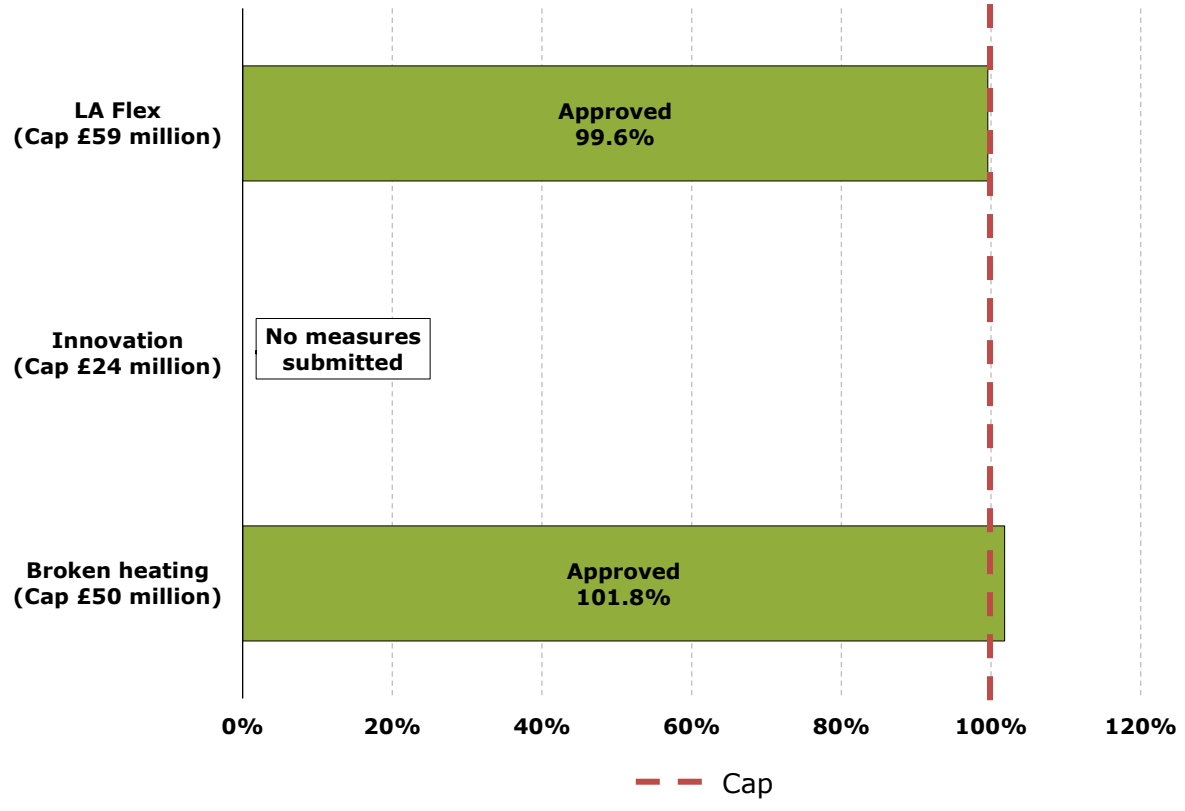
This chart shows that Octopus Energy's bill savings against the caps were as follows:

***LA Flex**, Approved measures (99.6%)*

***Innovation**, No measures submitted*

***Broken Heating**, Approved measures (101.8%).*

Bill savings delivered in excess of the caps do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



OVO Energy

4.13. In January 2020 OVO Energy bought SSE Energy Services. As part of this move, OVO Energy inherited SSE Energy Service's ECO3 Phase 1, Phase 2 and Phase 3 obligation as well as any delivery SSE Energy Services had already notified to Ofgem. We began reporting on OVO Energy's combined obligation shortly thereafter.

Figure 4.24: OVO Energy overall achievement against ECO3 obligations

	HHCRO	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Obligation (£m)	£1,300	£195	£114
Lifetime bill saving (£m)	£1,352	£219	£122
Lifetime bill saving (%)	103.9%	112.4%	107.0%

OVO Energy achievement against ECO3 obligations – breakdown

This chart shows that OVO Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (14.4%) and Approved measures (89.6%)*

***HHCRO-Rural**, Approved Surplus Actions (36.4%) and Approved measures (76.0%)*

***SWMR**, Approved Surplus Actions (46.7%) and Approved measures (60.3%).*

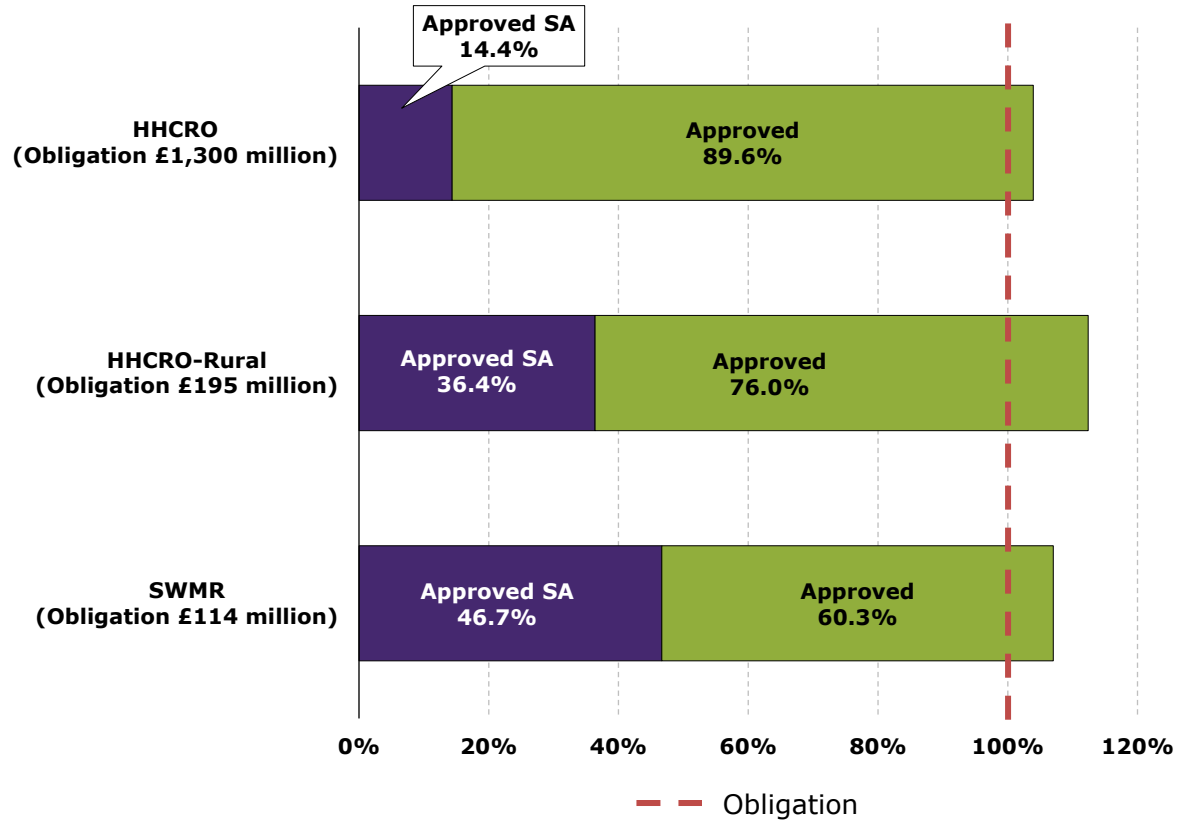


Figure 4.25: OVO Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£325	£130	£273
Lifetime bill saving (£m)	£220	£3.4	£272
Lifetime bill saving (%)	67.7%	2.6%	99.3%
Excess delivery (£m)	-	-	-

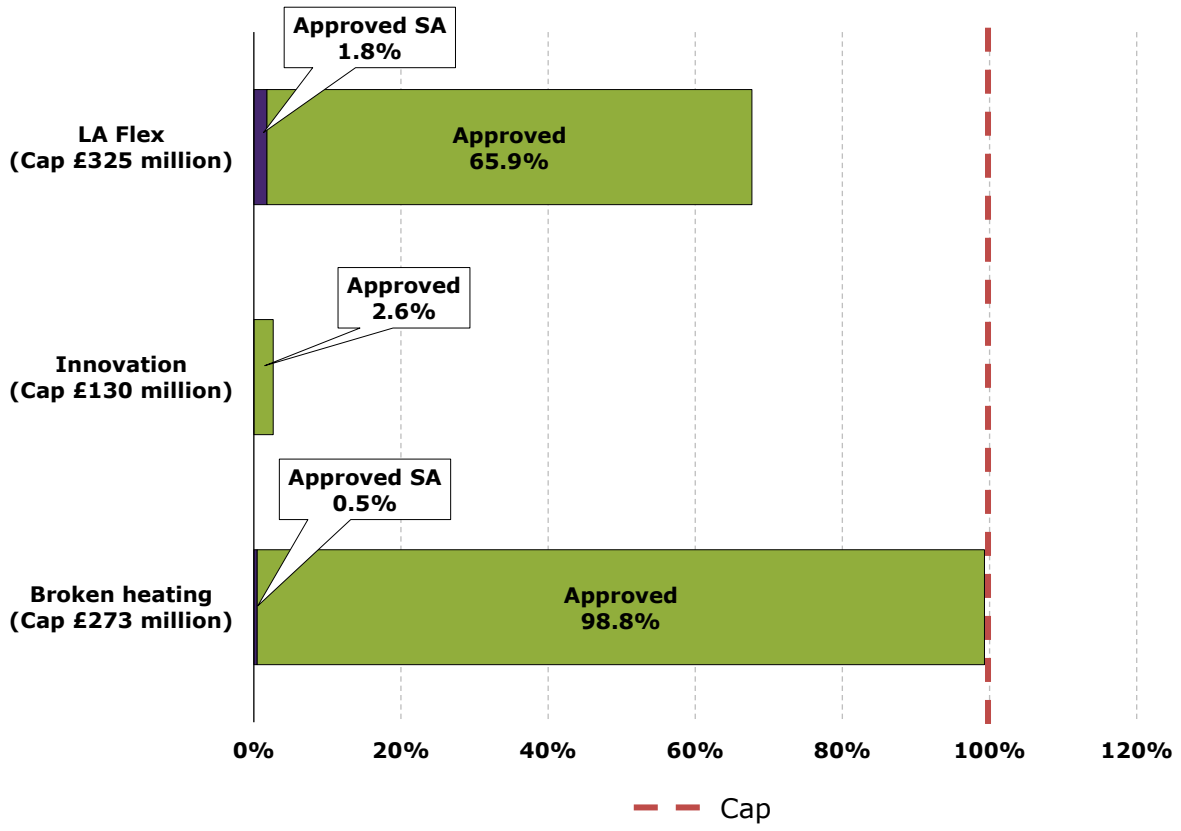
OVO Energy performance against ECO3 caps – breakdown

This chart shows that OVO Energy's bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (1.8%) and Approved measures (65.9%)*

***Innovation**, Approved measures (2.6%)*

***Broken Heating**, Approved Surplus Actions (0.5%) and Approved measures (98.8%).*



Shell Energy

Figure 4.26: Shell Energy overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£260	£39.0	£22.2
Lifetime bill saving (£m)	£262	£47.2	£24.3
Lifetime bill saving (%)	100.9%	121.0%	109.2%

Shell Energy achievement against ECO3 obligations – breakdown

This chart shows that Shell Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (8.9%) and Approved measures (92.0%)*

***HHCRO-Rural**, Approved Surplus Actions (44.3%) and Approved measures (76.7%)*

***SWMR**, Approved Surplus Actions (10.0%) and Approved measures (99.2%).*

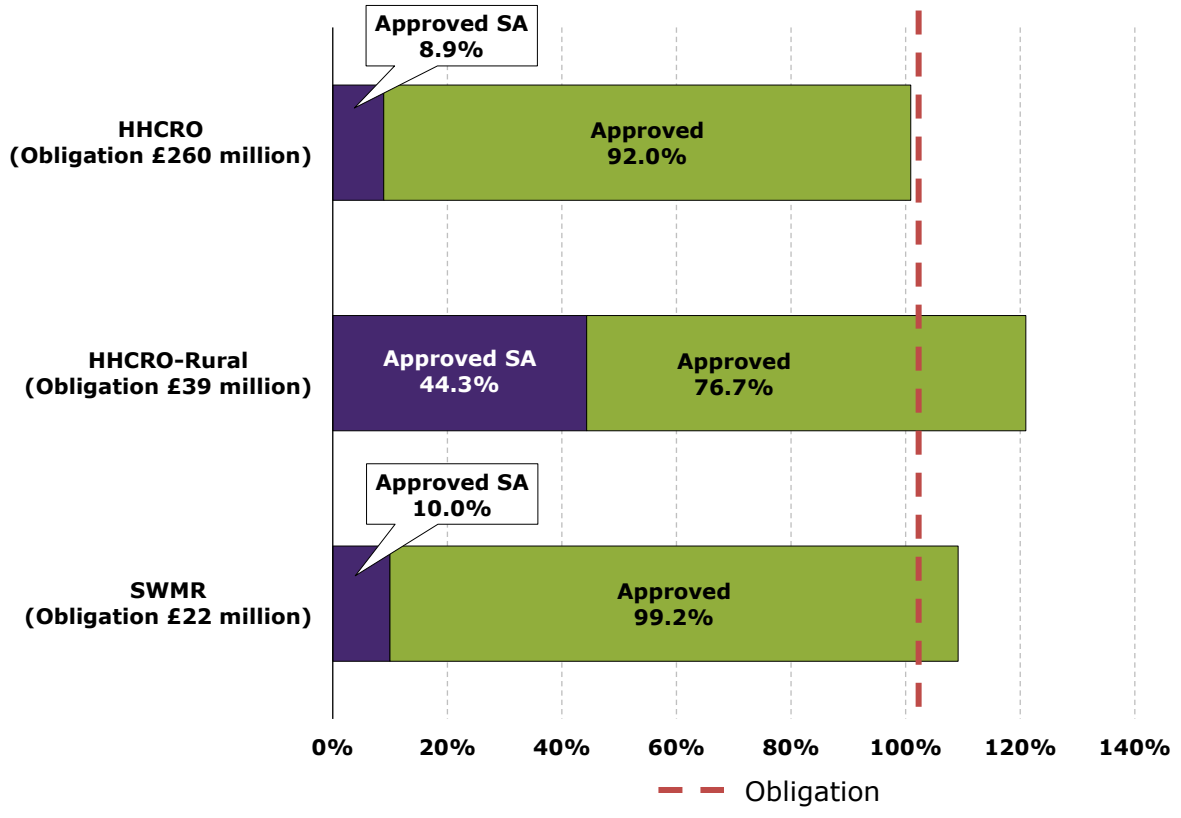


Figure 4.27: Shell Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£65.0	£26.0	£54.7
Lifetime bill saving (£m)	£63.8	£1.3	£64.3
Lifetime bill saving (%)	98.1%	5.0%	117.6%
Excess delivery (£m)	-	-	£9.6

Shell Energy performance against ECO3 caps – breakdown

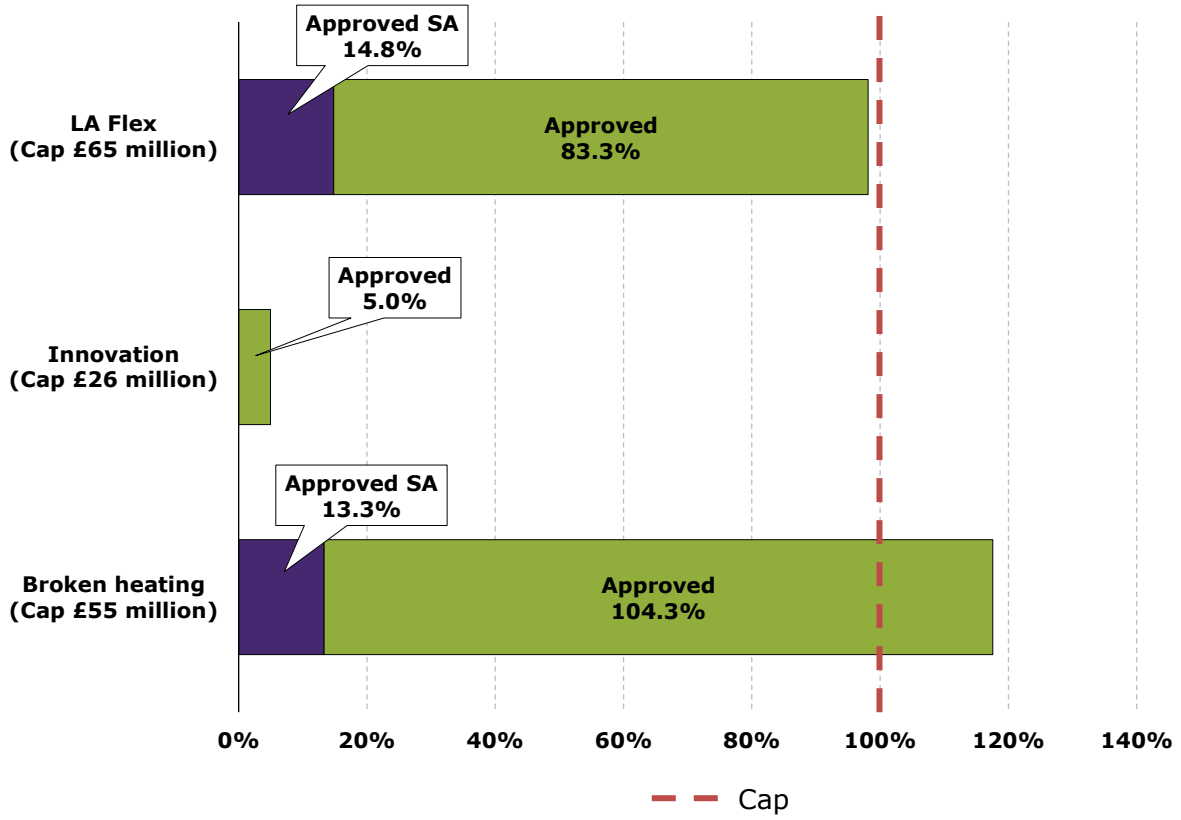
This chart shows that Shell Energy's bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (14.8%) and Approved measures (83.3%)*

***Innovation**, Approved measures (5.0%)*

***Broken Heating**, Approved Surplus Actions (13.3%) and Approved measures (104.3%).*

Bill savings delivered in excess of the caps do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



So Energy

4.14. In August 2021 ESB Energy and So Energy merged. Their ECO3 obligation, however, remained split across their distinct licences. We have therefore reported on ESB Energy and So Energy separately.

Figure 4.28: So Energy overall achievement against ECO3 obligations

	HHCRO	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Obligation (£m)	£28.5	£4.3	£2.5
Lifetime bill saving (£m)	£30.0	£6.1	£2.7
Lifetime bill saving (%)	105.2%	142.6%	106.4%

So Energy achievement against ECO3 obligations – breakdown

This chart shows that So Energy's bill savings against the scheme obligations were:

***HHCRO**, Approved measures (105.2%)*

***HHCRO-Rural**, Approved measures (142.6%)*

***SWMR**, Approved measures (106.4%).*

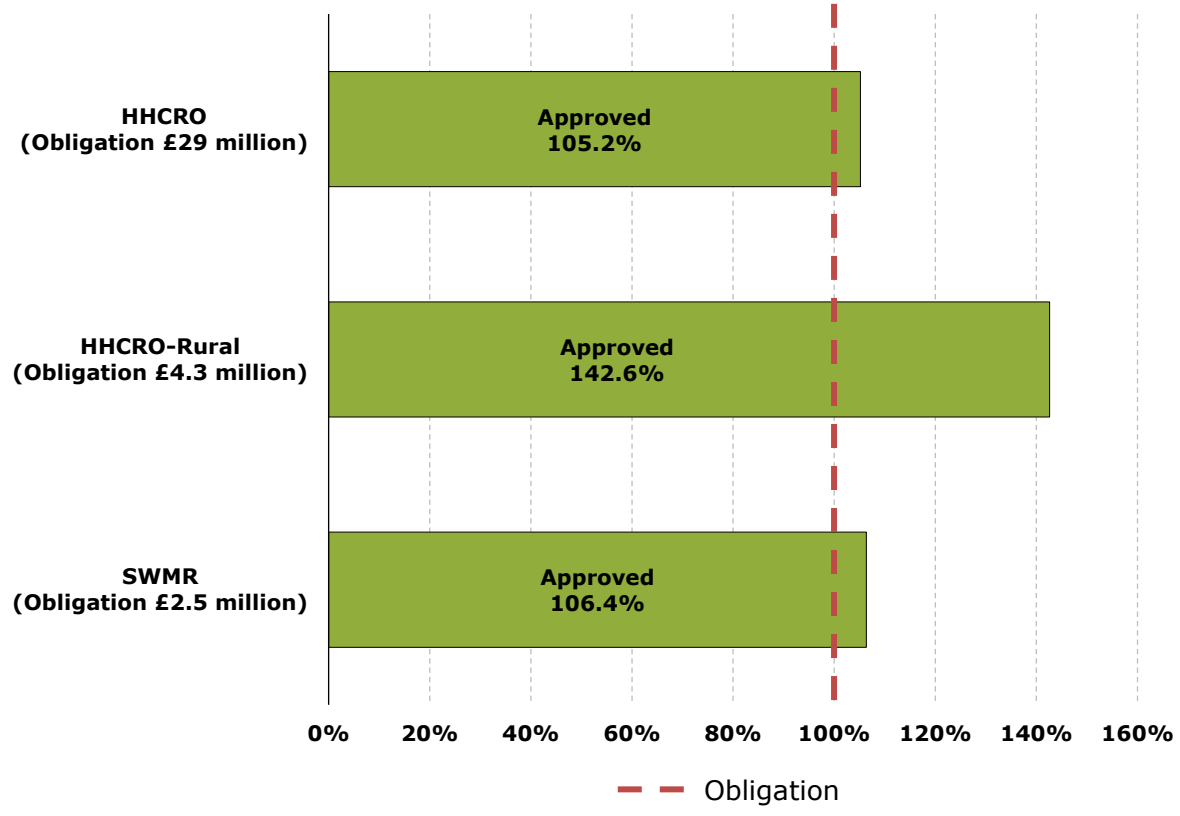


Figure 4.29: So Energy overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£7.1	£2.9	£6.0
Lifetime bill saving (£m)	£6.8	£0.002	£5.8
Lifetime bill saving (%)	95.5%	0.1%	96.9%
Excess delivery (£m)	-	-	-

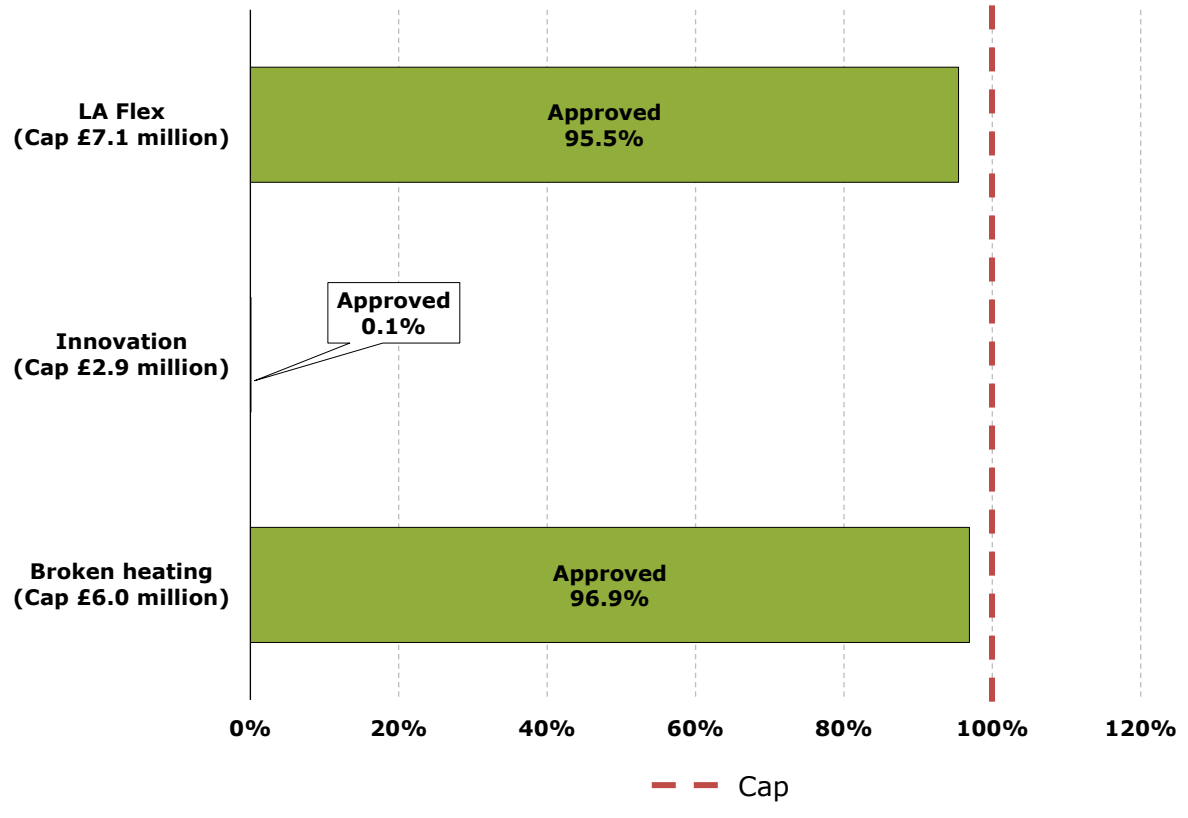
So Energy performance against ECO3 caps – breakdown

This chart shows that So Energy's bill savings against the caps were as follows:

***LA Flex**, Approved measures (95.5%)*

***Innovation**, Approved measures (0.1%)*

***Broken Heating**, Approved measures (96.9%).*



Scottish Power

Figure 4.30: Scottish Power overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£804	£121	£70.6
Lifetime bill saving (£m)	£866[26]	£218	£119
Lifetime bill saving (%)	107.7%	181.2%	169.0%

Scottish Power achievement against ECO3 obligations – breakdown

This chart shows that Scottish Power's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (11.9%) and Approved measures (95.8%)*

***HHCRO-Rural**, Approved Surplus Actions (42.1%) and Approved measures (139.0%)*

***SWMR**, Approved Surplus Actions (3.1%) and Approved measures (165.9%).*

[26] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the Broken Heating cap. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.31: Scottish Power overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£201	£80.4	£169
Lifetime bill saving (£m)	£187	£7.2	£175
Lifetime bill saving (%)	93.3%	9.0%	103.4%
Excess delivery (£m)	-	-	£5.8

Scottish Power performance against ECO3 caps – breakdown

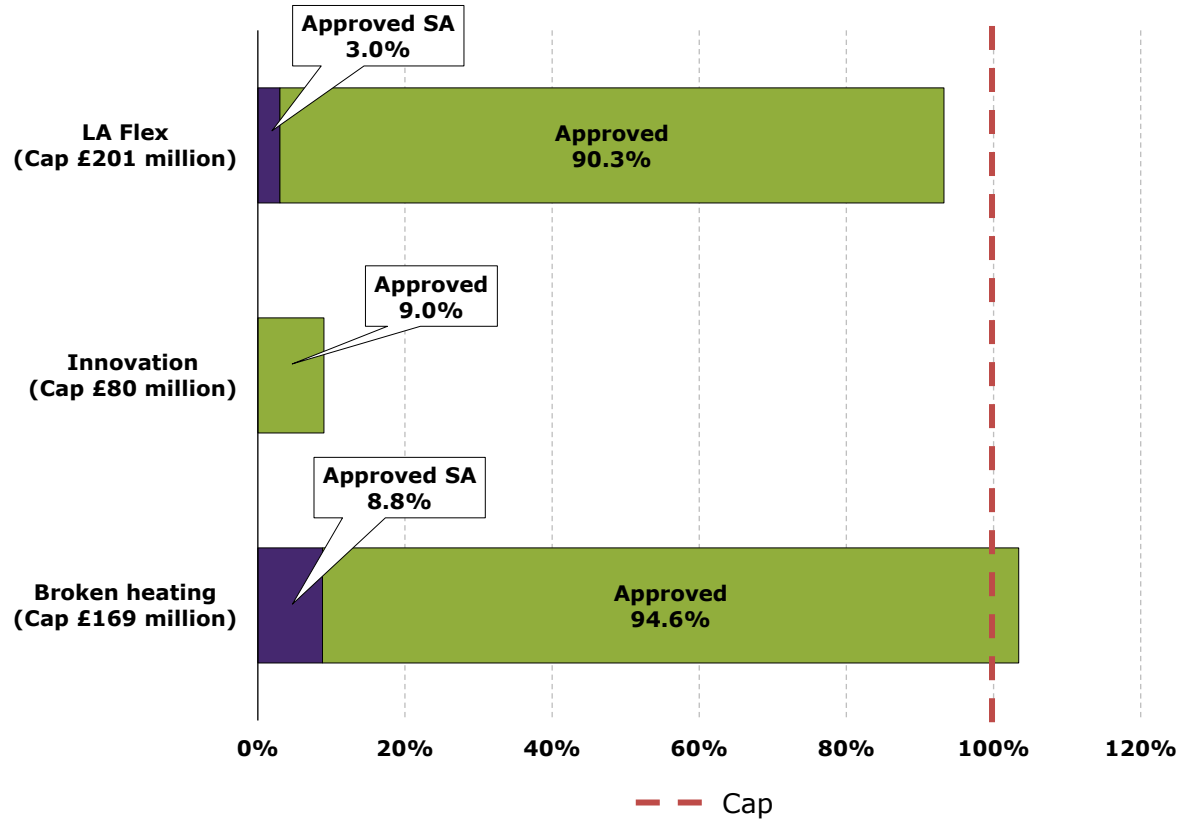
This chart shows that Scottish Power's bill savings against the caps were as follows:

***LA Flex**, Approved Surplus Actions (3.0%) and Approved measures (90.3%)*

***Innovation**, Approved measures (9.0%)*

***Broken Heating**, Approved Surplus Actions (8.8%) and Approved measures (94.6%).*

Bill savings delivered in excess of the caps do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



Utilita

Figure 4.32: Utilita overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£121	£18.2	£10.5
Lifetime bill saving (£m)	£127[27]	£31.1	£13.0
Lifetime bill saving (%)	104.9%	171.6%	123.5%

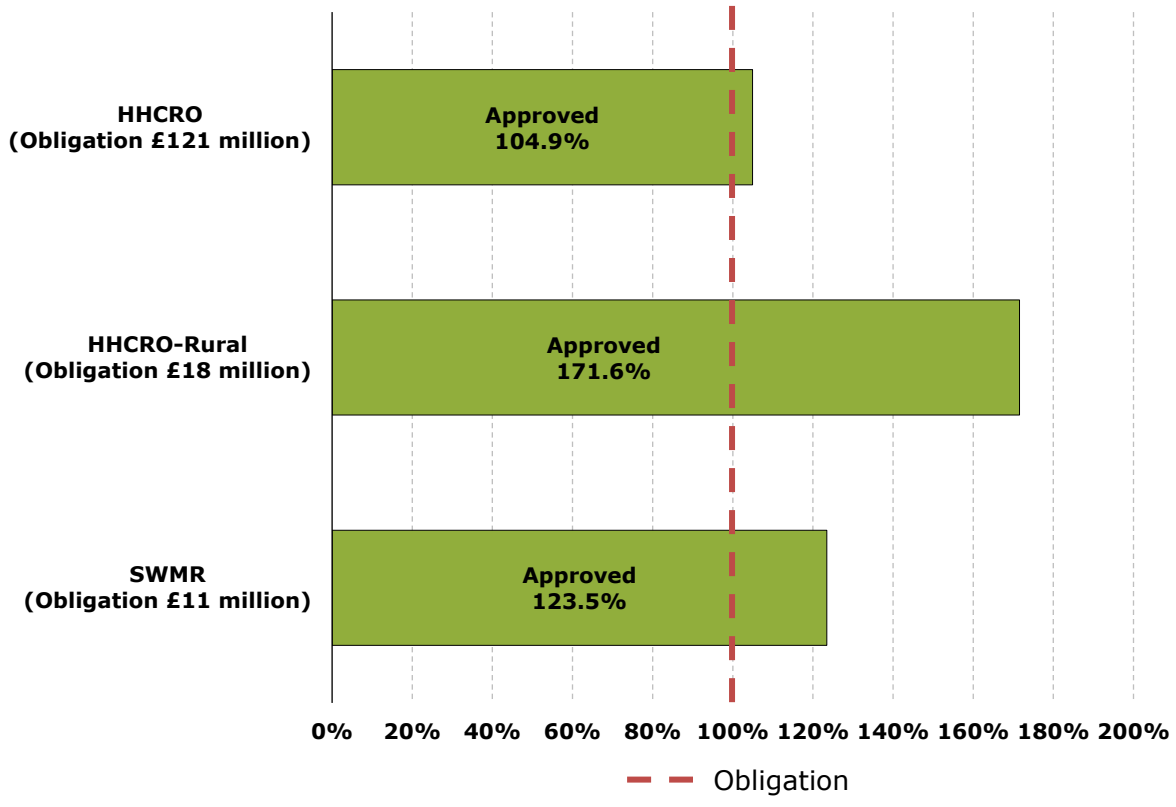
Utilita achievement against ECO3 obligations – breakdown

This chart shows that Utilita's bill savings against the scheme obligations were:

***HHCRO**, Approved measures (104.9%)*

***HHCRO-Rural**, Approved measures (171.6%)*

***SWMR**, Approved measures (123.5%).*



[27] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the LA Flex and Broken Heating caps. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.33: Utilita overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£30.3	£12.1	£25.4
Lifetime bill saving (£m)	£35.7	£0.1	£29.2
Lifetime bill saving (%)	118.0%	0.4%	114.7%
Excess delivery (£m)	£5.4	-	£3.7

Utilita performance against ECO3 caps – breakdown

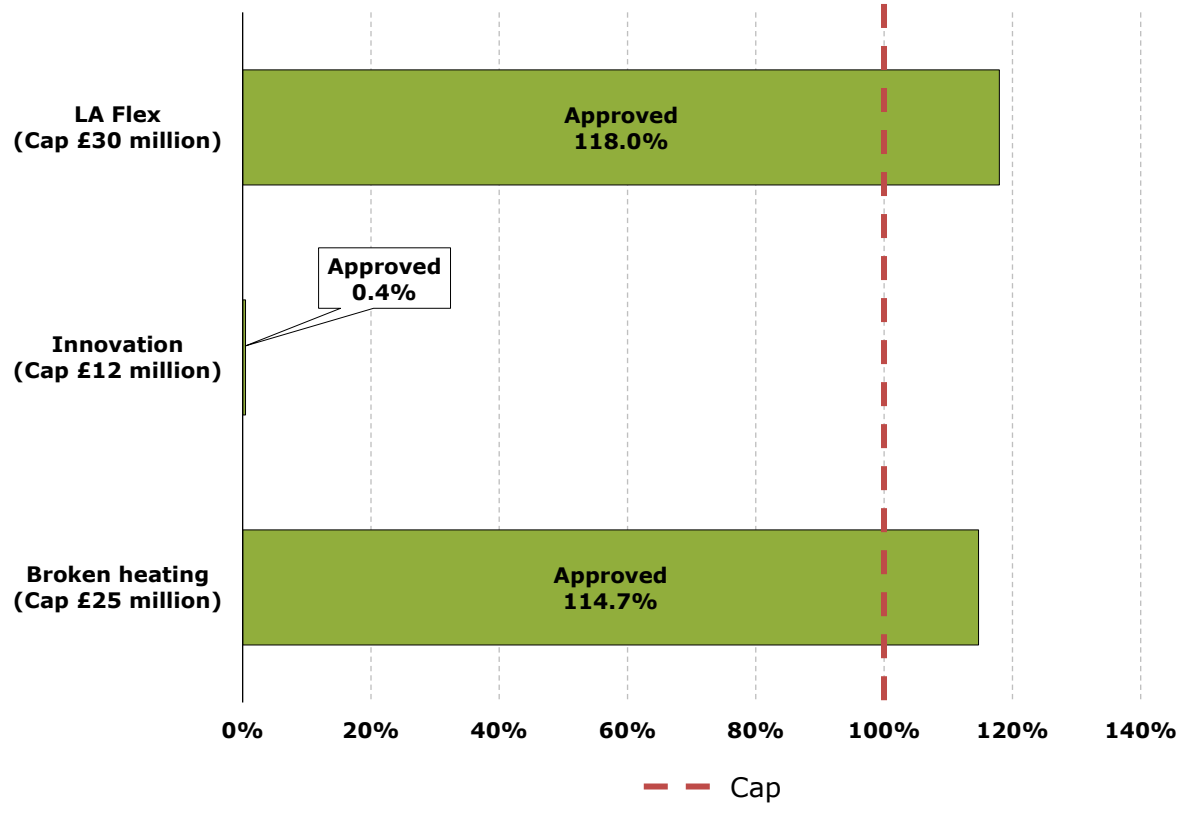
This chart shows that Utilita's bill savings against the caps were as follows:

***LA Flex**, Approved measures (118.0%)*

***Innovation**, Approved measures (0.4%)*

***Broken Heating**, Approved measures (114.7%).*

Bill savings delivered in excess of the caps do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



Utility Warehouse

4.15. Utility Warehouse met their obligation targets via £16,770,890 of surplus actions and four transfers from EON, which included 21,204 eligible measures with a lifetime bill saving score of £146,327,089.

Figure 4.34: Utility Warehouse overall achievement against ECO3 obligations

	HHCRO	HHCRO (Rural) sub-obligation	SWMR sub-obligation
Obligation (£m)	£160	£24.0	£14.0
Lifetime bill saving (£m)	£162[28]	£24.9	£14.3
Lifetime bill saving (%)	101.4%	103.5%	102.2%

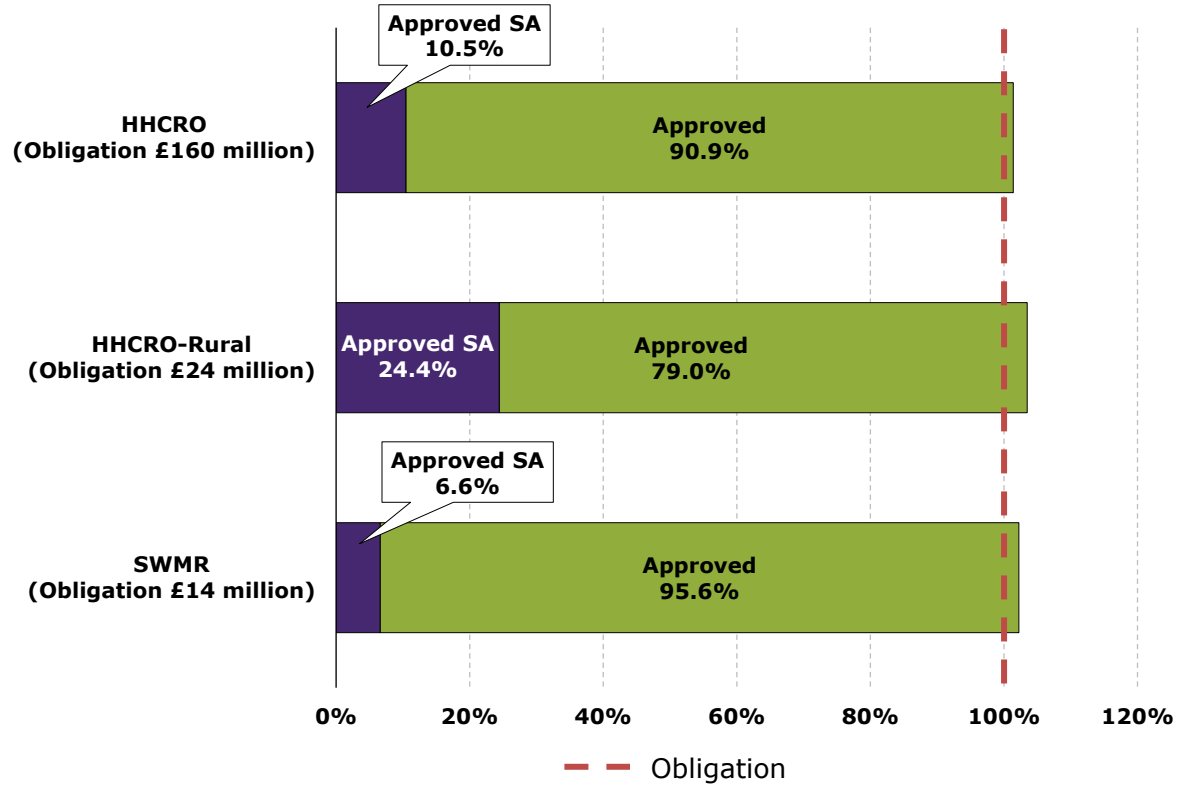
Utility Warehouse achievement against ECO3 obligations – breakdown

This chart shows that Utility Warehouse's bill savings against the scheme obligations were:

***HHCRO**, Approved Surplus Actions (10.5%) and Approved measures (90.9%)*

***HHCRO-Rural**, Approved Surplus Actions (24.4%) and Approved measures (79.0%)*

***SWMR**, Approved Surplus Actions (6.6%) and Approved measures (95.6%).*



[28] The lifetime bill saving and associated percentage for HHCRO has been adjusted to remove bill savings delivered in excess of the Broken Heating cap. Further information on the excess delivery against the caps can be found on the following page.

Figure 4.35: Utility Warehouse overall performance against ECO3 caps

	LA Flex	Innovation	Broken heating
Cap (£m)	£40.1	£16.0	£33.7
Lifetime bill saving (£m)	£25.9	£0.3	£34.3
Lifetime bill saving (%)	64.6%	1.9%	101.9%
Excess delivery (£m)	-	-	£0.6

Utility Warehouse performance against ECO3 caps – breakdown

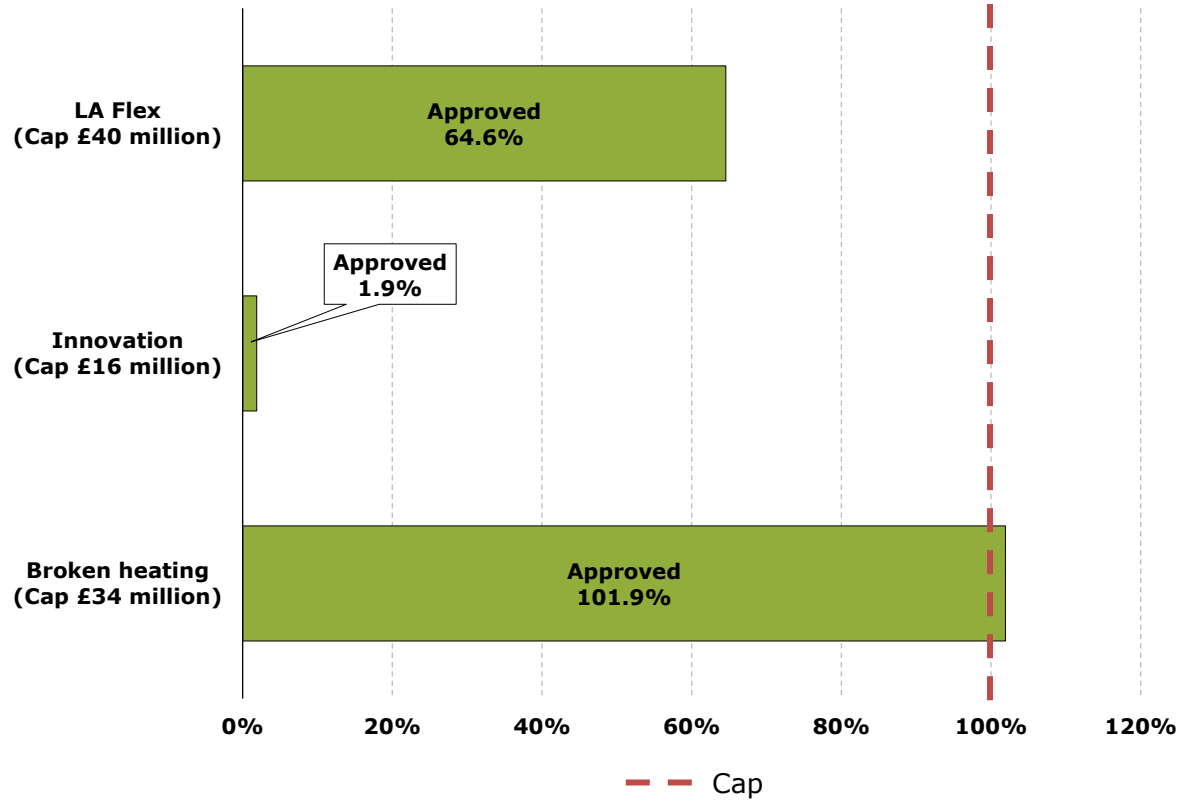
This chart shows that Utility Warehouse's bill savings against the caps were as follows:

***LA Flex**, Approved measures (64.6%)*

***Innovation**, Approved measures (1.9%)*

***Broken Heating**, Approved measures (101.9%).*

Bill savings delivered in excess of the caps do not count towards ECO3 obligations but may be carried over as Surplus Actions to ECO4.



Suppliers that ceased trading

4.16. Of the 26 suppliers that were obligated under the ECO3 scheme (this does not include suppliers that merged with or were acquired by another supplier during the course of ECO3) ten exited the market, leaving 16 still operating as of 31 March 2022. Collectively these ten suppliers had an obligation of £0.19 bn or 2.3% of the total obligation.

4.17. As shown in **Figure 4.36**, of the ten suppliers that exited the market, six submitted measures towards their obligations before they ceased trading and the remaining four exited the market without submitting any measures towards their obligations.

4.18. For these 10 suppliers a total of 29.0% of their HHCRO obligation was met. When looking only at those six suppliers that submitted measures, 32.2% of their collective HHCRO obligation was met.

Figure 4.36: Achievement against ECO3 obligations of suppliers that ceased trading

Supplier name	**Total obligation (£m)**	**HHCRO**	**HHCRO (Rural)** sub-obligation	**SWMR** sub-obligation
Avro Energy	95.1	30.6%	36.5%	14.5%
Economy Energy	7.1	-	-	-
Green Network Energy	29.3	40.4%	4.5%	41.7%
Igloo Energy	6.6	-	-	-
People's Energy	13.5	2.3%	-	1.0%
Pure Planet Limited	20.2	52.0%	49.9%	64.6%
Robin Hood Energy	1.7	-	-	-
Together Energy	3.7	66.7%	66.7%	66.7%
Tonik Energy	3.4	-	-	-
Utility Point Limited	9.4	9.8%	3.1%	10.1%

4.19. For those suppliers that submitted measures information on their performance against the ECO3 caps can be found in **Figure 4.37** below.

Figure 4.37: Suppliers that ceased trading - performance against ECO3 caps

Supplier name	LA Flex	Innovation	Broken heating
Avro Energy	27.1%	0.2%	33.5%
Green Network Energy	29.8%	0.8%	35.3%
People's Energy	2.2%	-	-
Pure Planet Limited	56.6%	-	38.4%
Together Energy	66.6%	-	66.6%
Utility Point Limited	9.8%	-	9.8%

5. Monitoring & Compliance

Chapter summary

This chapter explains the activities undertaken by us to support ECO compliance. It includes an overview of the monitoring and compliance activities we undertook, along with the results and actions taken.

Introduction

5.1. Under the ECO3 scheme suppliers are responsible for compliance with their obligations. To support their compliance and to ensure that all measures were valid and notified accurately, we undertook a number of core compliance activities over the course of the scheme. These included:

- working with external bodies such as TrustMark to develop more robust assurance of the quality of installations across the industry
- a review of data and information submitted to us to help ensure measures complied with the legislation and our guidance
- requiring energy suppliers to conduct technical monitoring of installations (prior to TrustMark taking on this responsibility)
- auditing of energy suppliers
- investigating suspected fraudulent activity.

5.2. Please note, information on measures refused or revoked by us is provided in each relevant section. However, for an overview of all the measures refused or revoked please refer the 'Refused and Revoked Savings' section on page 101

TrustMark introduction

5.3. During the course of ECO3, Ofgem's technical monitoring programme was replaced with the TrustMark Quality Assurance Framework[29], with the requirement for measures to be lodged with TrustMark coming into force on 1 January 2020[30]. This

[29] TrustMark Quality Assurance Framework: <https://www.trustmark.org.uk/tradespeople/quality-assurance-guidance-government-funded-schemes>
[30] This did not apply to demonstration actions and certain district heating system (DHS) measures.

change was implemented to improve the levels of quality assurance for retrofit measures and to provide higher levels of consumer protection.

5.4. In response to this change we developed an Application Programming Interface (API) with TrustMark to allow us to check that notifications had been lodged in TrustMark's data warehouse and that key data points (such as measure type and date of installation) matched information provided by suppliers.

5.5. In addition, to allow Ofgem to continue to perform score monitoring (to help ensure that measures were scored accurately) TrustMark began collecting the necessary data during inspections of ECO measures from 1 July 2021.

5.6. Both the TrustMark matching process on the key data points used during monthly notification processing, and the process used as part of score monitoring produced a significant number of errors (as expanded on in the following section). This was largely due to inconsistencies in the data lodged with TrustMark and the data notified to suppliers by installation companies. Assessment of these errors caused a substantial amount of work for suppliers and Ofgem. Consequently we will be looking to simplify these matching processes for ECO4 and will be working with TrustMark to ensure there is clear guidance to aid suppliers in resolving any mismatches quickly. We also expect suppliers to be proactive and develop their own robust processes to help avoid mismatch errors or resolve them promptly once they have been identified.

Measure processing

5.7. Each month, after measures had been notified to us, we assessed the information provided by energy suppliers to check whether the measures met the requirements set out in our guidance and legislation. Checks were conducted across all aspects of the information notified, including in relation to the eligibility requirements for each obligation, notified bill saving scores, and technical requirements.

5.8. We expect suppliers to have internal processes in place that ensure high-quality data is notified to Ofgem; to as far as possible reduce the number of errors caused by administrative oversight.

5.9. Errors in notifications were sent back to energy suppliers for correction each month. A small number of errors related to either missing or incorrect information provided for a measure and were often caused by administrative oversight. However, most errors where due to associated insulation measures not yet being in 'Approved' status, or TrustMark API mismatches. Error rates (as measured under the old technical

monitoring process) were low at around 10% at the start of ECO3 but increased significantly to around 27% when TrustMark API checks were introduced in 2020.

5.10. Throughout all processing rounds in ECO3, nearly 483,000 errors were identified. As shown in **Figure 5.1**, most were due to an associated insulation measure for a heating measure not being in an 'Approved' status (47% of errors). However, collectively the different TrustMark API mismatch errors accounted for 48% of the total.

5.11. The main cause of TrustMark API mismatch errors was installation companies not entering correct measure details on the TrustMark database. We applied error exemptions to some mismatch errors where we received adequate assurance from suppliers that the data notified to Ofgem was accurate.

5.12. The majority of errors identified were resolved by the end of ECO3. A total of 1,607 measures with unresolved processing errors were rejected.

Figure 5.1: Top five ECO3 processing errors

Number of errors	Percentage of all processing errors	Error details
228,222	47%	Associated insulation measure not in 'Approved' status
66,202	14%	TrustMark API mismatch for Measure Type
54,382	11%	TrustMark API mismatch for Date of Completed Installation
41,581	9%	TrustMark API mismatch for Business Licence number
41,062	9%	TrustMark API mismatch for Unique Measure Reference number

Extensions and lates

5.13. Whilst energy suppliers were required to notify measures to us the month after they had been installed, there was a mechanism which allowed an extension to this. Energy suppliers were granted an extension if they were unable to notify a measure on time due to unforeseen circumstances (excluding administrative oversight).

5.14. Alongside this, under ECO3 automatic extensions allowed up to 5% of the number of measures installed in a particular calendar month, and notified on time, to be given as automatic extensions (the automatic 5%). Therefore, the first 5% of late measures

notified to us for a particular calendar month without an extension request, were given an automatic extension of three months.

5.15. We received 100 extension requests covering 14,920 measures. 93% of these requests were approved. In addition, 14,506 measures were notified as automatic extensions.

5.16. Looking ahead to ECO4 we expect suppliers to take steps to minimise the need for extensions outside of the automatic 5% and expect far fewer than we saw under ECO3. Unless the reason for an extension request is based upon delays that were a result of Ofgem's systems or processes, we anticipate taking a much stricter approach to our extension review process.

Duplicates

5.17. When more than one measure of the same type is notified at the same address, there is a risk that the notified savings of one or more of the measures are not accurate. Therefore we carry out de-duplication checks on ECO3 measures using all ECO1, ECO2 and ECO3 data, to ensure that all savings claimed under the scheme reflect actual savings.

5.18. Where Ofgem identified inter-supplier duplicates, suppliers were expected to work together to resolve these by conducting evidence-based reviews to determine which of the duplicated measures are valid and which are invalid. Ofgem reviewed these determinations and acted as an arbitrator between suppliers as a last resort.

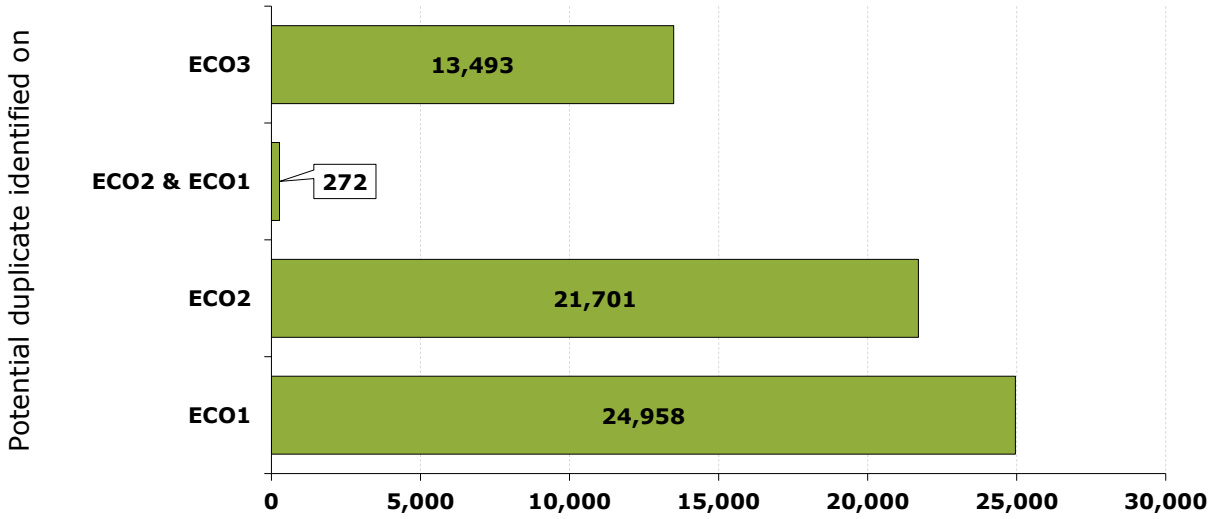
5.19. For intra-supplier duplicates (where both measures were promoted by the same supplier) the expectation was on the relevant supplier to perform de-duplication checks to identify and resolve these issues without the need for Ofgem to make a determination.

5.20. In total, we identified 60,424 ECO3 measures potentially duplicated with other measures in ECO3 or in previous schemes. This is a 248.6% increase on the 17,334 potential duplicates identified under ECO2.

5.21. As **Figure 5.2** shows, the majority of potential ECO3 duplicate measures we identified were against measures in a previous scheme.

Figure 5.2: ECO3 potential duplicate pairings across all ECO schemes

This chart shows that the most potential duplicates were identified against measures on the ECO1 scheme (24,958). On ECO2 there were 21,701 and on ECO3 13,493. There were also 272 measures potentially duplicated on both ECO1 and ECO2.



5.22. As shown in **Figure 5.3**, of the 60,424 ECO3 measures potentially duplicated, boiler measures formed the majority of potential duplicates identified. As shown in **Figure 5.4 (a-d)** boiler measures were the most commonly identified potential duplicates across all ECO schemes with the exception of potential duplicates within ECO3, where 'Other heating' measures were the most common and boiler measures were in second place.

5.23. It should be noted that the 'roof insulation' category in **Figures 5.3** and **5.4** includes 'loft insulation' and 'room-in-roof insulation'. The 'wall insulation' category includes 'cavity' and 'solid wall insulation'.

Figure 5.3: All ECO3 potential duplicate pairings by measure type

This chart shows that the most common duplicate pairings by measure type were 'boiler/DHS' at 59%, 'other heating' at 23%, 'roof insulation' at 7% and 'wall insulation' at 6%.

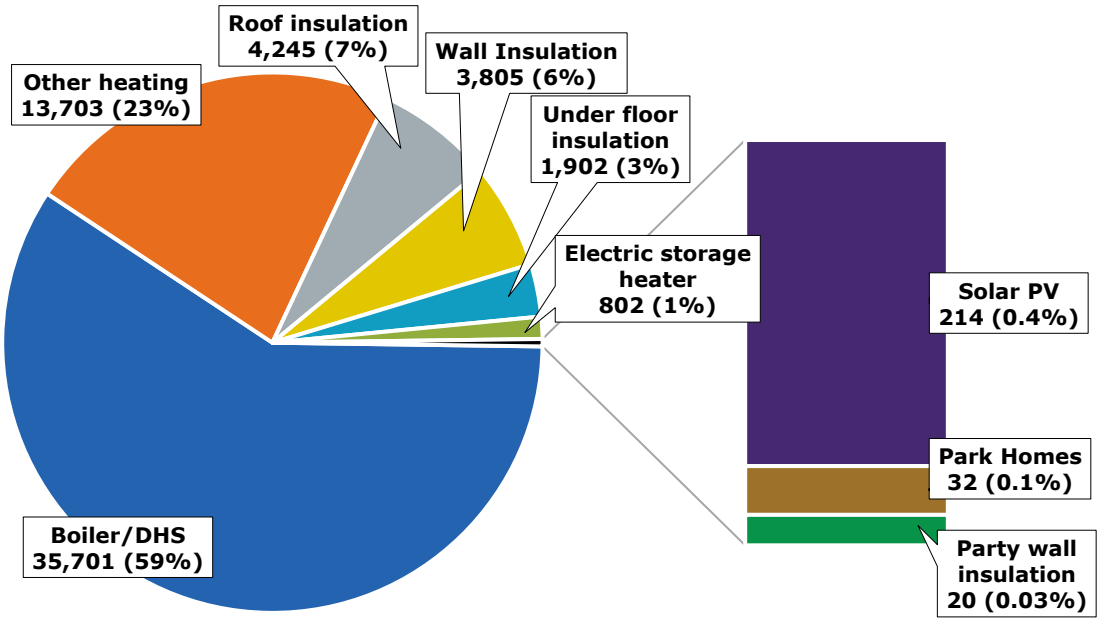
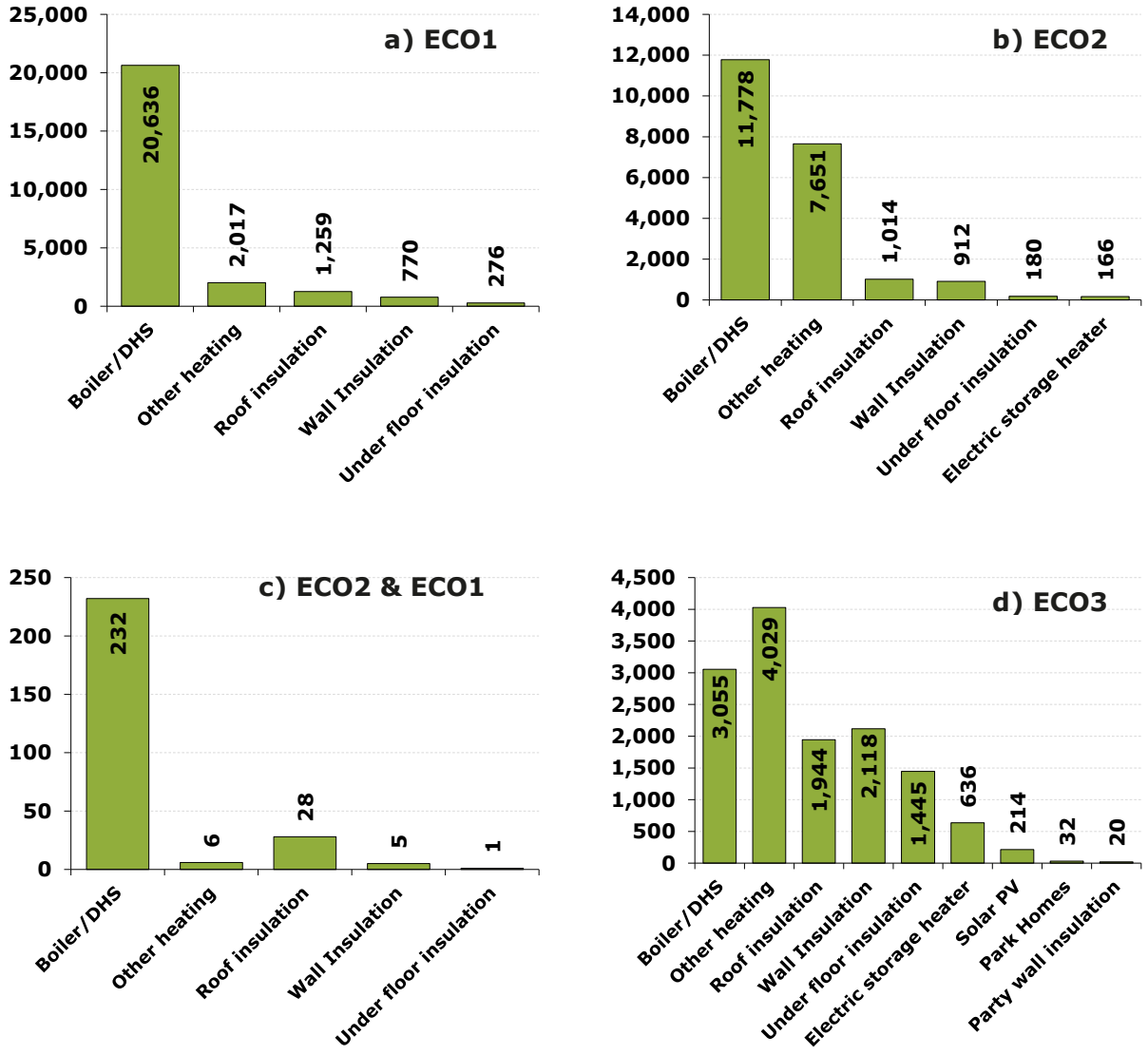


Figure 5.4 (a-d): ECO3 potential duplicate pairings by source scheme and measure type

These charts show that for potential duplicate pairings with the ECO1 scheme 'boiler/DHS' measures were by far the most common accounting for 82.7%. For potential duplicate pairings with ECO2, 'boiler/DHS' measures were also the most common (54.3%) but 'other heating' measures were also significant at 35.3%. For potential duplicates on both ECO1 and ECO2 'boiler/DHS' measures accounted for 85.3% and 'roof insulation' a further 10.3%. For potential duplicates within ECO3, there is a broader distribution of measure types with the most common being 'other heating' at 29.9%, then 'boiler/DHS' (22.6%), 'wall insulation' (15.7%), 'roof insulation' (14.4%) and 'under floor insulation' (10.7%).



5.24. Of the ECO3 measures identified though the duplicates process 6,423 ultimately had their savings refused or revoked.

Technical and score monitoring

5.25. From October 2018 to June 2021, technical and score monitoring were administered by Ofgem, and a requirement was placed on energy suppliers to ensure that ECO measures were installed to the required standards (technical monitoring) and scored accurately (score monitoring). It consisted of on-site and, particularly during periods of lockdown, remote inspections conducted by independent, suitably qualified technical monitoring agents. From June 2021, technical monitoring became the responsibility of TrustMark, details of which can be found in the TrustMark section below.

5.26. Energy suppliers were required to commission monitoring on a 5% sample of the measures that they had delivered. Additionally, to ensure that the monitoring conducted by a supplier was representative of both the installers used by that supplier, and the measure types notified by the supplier, there were three further requirements. A supplier was required to:

- Monitor 5% of measures of each measure type notified in a quarter
- Monitor at least 3% of measures notified as being installed by a single installer in a quarter
- Where an installer had notified fewer than 100 measures in a quarter (small installers), suppliers were required to monitor at least one of these measures.

5.27. All energy suppliers achieved at least the 5% required monitoring rate.

5.28. Monitoring agents, independent of any parties involved in the installation of the measure, assessed the standard of installation and ECO scoring inputs against a standard questionnaire provided by us. The results were reported to us by energy suppliers on a quarterly basis.

5.29. Where measures failed monitoring checks, we required the energy suppliers to resolve any issues discovered. **Figure 5.5** below shows the technical and score monitoring fail rate for each energy supplier. It should be noted that those suppliers meeting 100% of their obligations via transfers, or transfers and surplus actions, will not be represented in the table. Also, there are suppliers shown with 'N/A' in the table below as they were not obligated prior to Trustmark taking over the monitoring process.

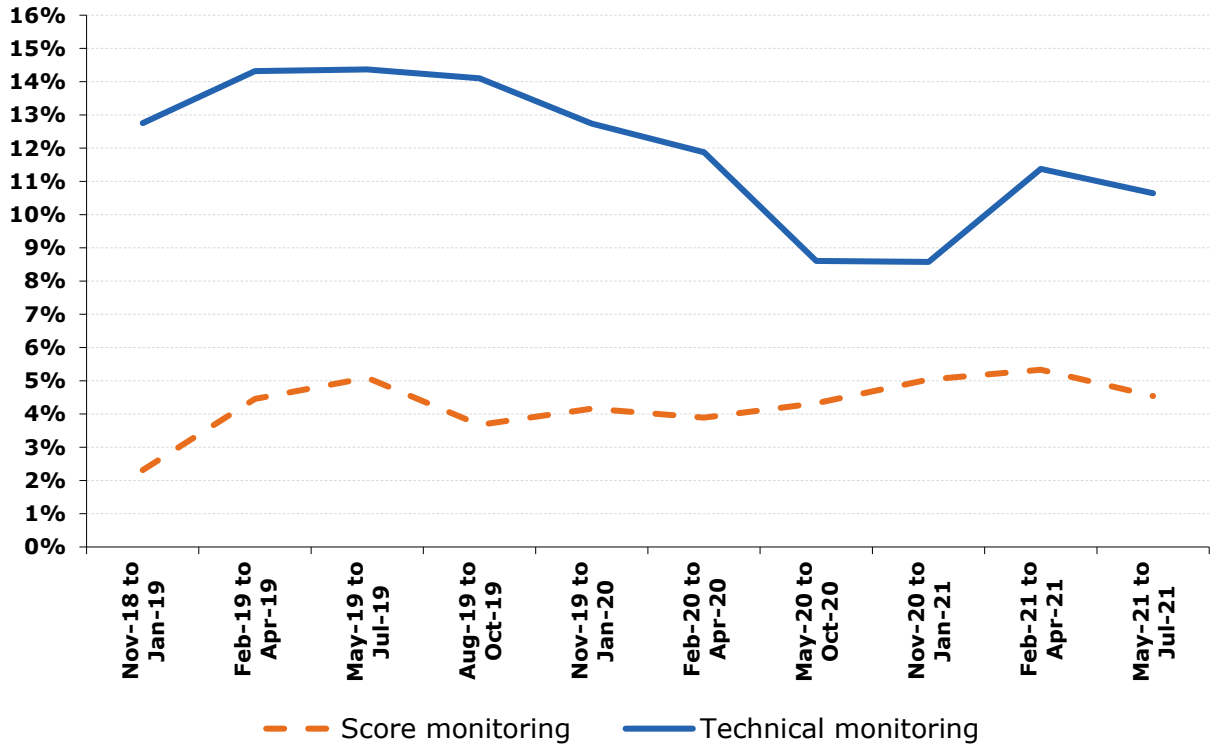
Figure 5.5: Overall ECO3 fail rates for each supplier

Supplier	Score monitoring (SM) fail rate	Technical monitoring (TM) fail rate
Avro Energy	6.54%	16.08%
British Gas	8.40%	14.72%
Bulb Energy	4.15%	12.04%
Co-operative Energy	8.33%	20.67%
Ecotricity	N/A	N/A
EDF Energy	1.86%	6.45%
E (Gas & Electricity)	2.21%	11.99%
E.ON Energy	2.66%	6.79%
Green Network Energy	N/A	N/A
OVO Energy	4.04%	13.26%
Pure Planet Limited	13.16%	27.78%
Shell Energy	1.76%	7.26%
So Energy	N/A	N/A
Scottish Power	5.57%	14.78%
Utilita	0.37%	0.49%
Overall fail rate	**4.50%**	**11.20%**

5.30. **Figure 5.6** below shows the technical and score monitoring failure rates over time. The quarters shown relate to the quarter in which the monitoring was conducted. These failure rates exclude any reported fails that were subsequently overturned.

Figure 5.6: Score and technical monitoring failure rates per quarter

This chart shows that score monitoring failure rates varied from just over 2% in the period November 2018 to January 2019 to a peak of just over 5% in February to April 2021. Technical monitoring failure rates varied from a peak of just over 14% in May to July 2019, to a low of around 8.5% in November 2020 to January 2021.



Pathways to compliance

5.31. As we take compliance extremely seriously our processes ensured that measures had been installed in accordance with the relevant standards of installation for that measure (technical monitoring) or that the deemed score was correct (score monitoring).

5.32. Where the minimum required number of measures were not inspected for an installer, or set failure rate tolerances were exceeded (10% for both score and technical monitoring) that installer was placed on a "Pathway to Compliance". This meant that an installer's measures, notified by a particular supplier and within a set quarter, were

placed at risk of rejection until appropriate action was undertaken to satisfy us that the installer could meet the relevant requirements. In the first instance this meant performing additional inspections to either meet the required monitoring rate or to confirm or refute the original reported failure rate.

5.33. Where the failure rate remained above the tolerance, suppliers were required to submit additional assurances (including actions such as root cause analyses and improvement plans) to provide Ofgem with assurance that installation and scoring issues were addressed. This gave us increased confidence in the quality of that installer's measures moving forward.

5.34. In ECO3 we opened 5,177 pathways to compliance placing 376,456 measures at risk. Pathways were only closed once we had received the results of additional monitoring and assurance from suppliers, giving us sufficient confidence over the quality and accuracy of an installer's installations. Where there was insufficient evidence to support the eligibility of any measure, approval was refused or revoked, which was the case for 2,263 of these measures.

Measure transfer

5.35. Transfer requests were a mechanism available to energy suppliers to manage compliance with their obligations. The transfer of measures could occur between licences held by the same or different suppliers. We received a total of 134 transfer requests, of which we approved 101 with 210,848 measures transferred. The remaining 33 transfer requests were withdrawn by Suppliers.

5.36. The majority of approved transfers (70%) occurred between licences held by the same energy company in order to balance or optimise their savings. This was the case where energy suppliers chose not to consolidate their ECO3 Obligations under their biggest licence using Intra-Supplier Licence Consolidation Trading (ISLCT)[31], or in a number of cases where suppliers had merged with or acquired the licences from other suppliers. Some measure transfers were also between distinct energy suppliers to meet obligations (30%). Of note, Utility Warehouse used four transfers to meet the bulk of their obligation and Foxglove Energy used two transfers meet the entirety their obligation.

[31] For more information on ISLCT please refer to our ECO3 Guidance for Supplier Administration: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-supplier-administration>

TrustMark quality assurance

5.37. From 1 July 2021 TrustMark launched their Quality Assurance (QA) Framework[32] which replaced Ofgem's technical monitoring programme. From this date TrustMark also began collecting the necessary data during inspections of ECO measures for Ofgem to continue to perform score monitoring.

5.38. Most measures found non-compliant through TrustMark QA were remediated through the same process. Any that weren't were reported to Ofgem to be forwarded to the relevant supplier. This offered the supplier the opportunity (where possible) to coordinate remediation, before Ofgem made a decision on refusing or revoking the measure.

5.39. Score monitoring data was provided to Ofgem and, using this data, a matching process was completed against supplier notified data. Mismatches were sent to the supplier to resolve, either through them updating their notification with Ofgem or ensuring TrustMark's database was updated. Some exemptions were applied where data mismatches were immaterial.

5.40. **Figure 5.7** below shows the total number of TrustMark QA un-remediated non-compliant measures reported to Ofgem, and of these how many were subsequently rejected.

Figure 5.7: Trustmark QA non-compliance reported

QA non-compliance reported	Rejected	Rejected (%)
1,502	155	10.32%

5.41. **Figure 5.8** shows the most common score monitoring mismatches based on TrustMark data. These account for 33.42% of errors. The remaining 66.58% of errors were identified across 19 question types. Due to the late introduction and complexity of this process, no measures were rejected as part of it.

[32] TrustMark Quality Assurance Framework: <https://www.trustmark.org.uk/tradespeople/quality-assurance-guidance-government-funded-schemes>

Figure 5.8: Most common scoring mismatch errors based on TrustMark data

Question	Question number[33]	Mismatches	Percentage
Property Type	SMQ.3	2,022	12.52%
Number of rooms	SMQ.4	1,185	7.34%
Percentage of property treated	SMQ.5	1,123	6.96%
Heating Type	SMQ.2	1,065	6.60%

Refused and revoked savings

5.42. Measures could only count towards a supplier's ECO3 obligation if they met all the relevant requirements under the ECO3 Order.

5.43. Following all our compliance checks, when we determined that measures had not met all the relevant requirements of the ECO3 Order, we refused or revoked savings attributed to these measures. Suppliers also identified non-compliant measures through their own internal processes. Suppliers either had to replace these savings by installing further measures in order to meet their obligations or will have less of an excess to carry over into ECO4. Whilst this may cost obligated suppliers more to meet their obligations, it deters poor practices throughout the ECO industry, enhances customer protection, and ensures the objectives of the scheme are met.

5.44. Across all our workstreams, we refused or revoked savings for 23,298 measures (including surplus actions), accounting for 2.01% of the total measures notified. The combined scores of these measures were equivalent to 2.68% of the HHCRO obligation, 3.51% of the HHCRO Rural sub-obligation; and 2.91% of the SWMR sub-obligation. **Figure 5.9** below highlights the five main reasons for refusing or revoking savings which combined account for over 77% of the total.

[33] Further information on score monitoring questions can be found on our website: <https://www.ofgem.gov.uk/publications/eco3-monitoring>

Figure 5.9: Table of five main reasons for refusing or revoking savings[34]

Reason for refusing/revoking savings	No. of measures	Percentage of the measures refused/revoked
Fraudulently produced documentation	6,443	25.07%
Duplicate	6,423	24.99%
Supplier did not promote the measure	2,580	10.04%
Inadequate information to process notification	2,531	9.85%
Measure not installed	1,957	7.61%

5.45. '**Fraudulently produced documentation'** describes instances where a conclusion is reached that the evidence submitted to support the eligibility and/or compliance of a measure has either been fabricated or produced fraudulently in an attempt to misrepresent aspects of the property or resident. When appropriate, parties are referred without hesitation to the police/Action Fraud and relevant accreditation bodies for further investigation.

5.46. '**Duplicate**' measures are instances where an ECO3 measure had been notified more than once or where an ECO3 measure was also notified at the same property as another ECO1, ECO2 or ECO3 measure of a similar or incompatible type.

5.47. '**Supplier did not promote the measure'** relates to instances where there is insufficient evidence that the relevant supplier was the cause of a measure being installed (usually established as a result of the supplier funding all or part of the installation of the measure).

5.48. '**Inadequate information to process notification**' describes instances where the information notified to us by a supplier is incomplete. We are therefore unable to process that measure for approval.

5.49. '**Measure not installed**' is where our assessment has shown that the notified measure was not installed. We are therefore unable to attribute savings it.

[34] Please note that rejected measures can have more than one rejection reason.

Audits

5.50. A key aspect of our ECO3 administration was developing and managing an effective auditing framework. The aim of the framework was to minimise the risk and impact of non-compliance with scheme requirements on consumers. We worked with all energy suppliers to detect and mitigate this risk. We expect all energy suppliers to engage fully in audits, dedicating appropriate resource and providing any evidence requested to facilitate a timely process. With this in mind it is also essential that suppliers retain or ensure they have quick access to any evidence that might be needed to support the eligibility and compliance of a measure.

5.51. A number of audit activities were conducted during ECO3. Initial 'health checks' were conducted at the beginning of the scheme or when an energy company became obligated at the start of a subsequent phase. These assessed the readiness of energy suppliers for delivering ECO and notifying measures to us. Following these, annual process-based audits assessed the procedures and compliance checks for measures in place by energy suppliers. These were complemented by measure-specific and more ad hoc audits, which included a mix of documentation reviews and on-site monitoring activity.

5.52. One more significant audit conducted was into the Local Authority Flexibility (LA Flex) mechanism.

LA Flex audit

5.53. In September 2020 we conducted an audit into measures delivered under the LA Flex mechanism. We were looking to ensure the requirements relating to both local authorities (LAs) and suppliers had been fulfilled accurately. Some of the more specific checks included:

- ensuring there was a statement of intent
- LAs were consulted on measures prior to install
- the paperwork matched what had been notified to Ofgem
- the eligibility criteria used for targeting households were appropriate.

5.54. Just over 1,000 measures were investigated by Grant Thornton who contacted the LAs directly. The majority met all requirements. There was a significant number however (20%), where the LAs didn't respond or where data was missing.

5.55. Following this, Ofgem engaged directly with suppliers to check the number of measures recorded by Ofgem matched the number recorded by each of the largest 35 LAs. Over 20,000 measures were included with the vast majority passing the checks. Less than 0.25% of measures were found to be non-compliant or the subject of suspected fraud though, again, it proved challenging for both Ofgem and suppliers to engage effectively with some LAs.

5.56. The outcomes of this investigation have fed into the policy development for ECO Flex under ECO4.

Scheme abuse & fraud prevention

5.57. The supply chain for ECO delivery can consist of a number of different elements. Over our administration of ECO we have identified aspects of this supply chain which may be more vulnerable to fraudulent activity. Suppliers are responsible for mitigating the risk of fraud and ensuring they have effective controls in place to prevent and detect fraudulent activity and scheme abuse within the supply chain. We therefore review supplier strategies and provide advice, and encourage them to share best practice, to ensure that controls are effective and robust.

5.58. We regard scheme abuse and fraudulent activity as covering any dishonesty or intentional misrepresentation in the context of the ECO3 Order or our guidance. We also scrutinised behaviour which may have undermined the government's policy intent or our administration of the scheme.

5.59. Throughout ECO3 we took the following steps in order to mitigate the risk of fraud:

- Taking a zero-tolerance approach to fraud by investigating all cases of suspected fraud and revoking and refusing savings for measures where suspected fraud was found. For all systemic instances of suspected fraud found, we reported concerns to any relevant accreditation bodies, and required suppliers to report matters to Action Fraud. As a result, effective relationships were developed with external stakeholders able to assist us with investigations into suspected fraud.

- Chairing the quarterly forum of the ECO Industry Fraud Prevention and Compliance Committee to engage with suppliers and discuss fraud risks and drive best practice.

- Reviewing the energy suppliers' fraud strategies, alongside Ofgem's fraud prevention strategy, to ensure they are effective and robust, and offering advice on where they could be strengthened.

Primary areas of concern

Falsified documentation

5.60. 59% of ECO3 measures which were investigated for suspected fraudulent activity, looked in part at falsified documentation concerns. One such issue was with the provision of appropriate signatures. Falsified signature concerns come to light on householder documentation, private and social landlord permission forms and LA Flex Declarations. We also detected significant concerns, particularly earlier in ECO3, with Boiler Assessment Checklists[35] being signed by someone who did not carry out the assessment (because that person was not appropriately qualified). Another issue was the fabrication of evidence to demonstrate households were eligible for the scheme as members of the 'help to heat group'[36]. These two examples make up the vast majority of measures investigated for falsified documentation concerns.

5.61. This will continue to be monitored as we move into ECO4 by requesting and reviewing supporting documents in line with Ofgem guidance. To improve the detection of issues earlier on, we also encourage increased customer contact exercises after installation – especially with social housing providers.

Falsified property information

5.62. 17% of suspected fraud measures investigated looked at, in part, manipulation of property information to inflate measure scores. Often the investigation of Energy Performance Certificate (EPC) falsification goes hand in hand with investigation of score inflation, as falsified EPCs attempt to provide additional evidence to support the false claim. If, when examining a properties characteristics prior to measure installation (which may include reviews of previous EPCs), we find evidence that EPCs have been falsified, we refer our concerns to accreditation bodies for further investigation. Therefore, in addition to the rejection of measures, for some domestic energy assessors our investigations have led to them losing their accreditation.

[35] The Boiler Assessment Checklist is a document suppliers were required to complete for all boiler upgrades, replacements, or repairs under the ECO scheme: <https://www.ofgem.gov.uk/publications/eco3-boiler-assessment-checklist>

[36] Information on how membership of the help to heat group is determined can be found in our ECO3 delivery guidance: <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-delivery>

5.63. 66% of these measures investigated for deemed score inflation, involved concerns that the Pre-Main Heating System (PMHS)[37] had been misrepresented. This was by far the most common type of attempt to inflate measure scores investigated, but other common concerns investigated were around misrepresentation of bedroom numbers and the 'Percentage of Property Treated'.

5.64. On a similar theme, an additional 5% of all the measures investigated as part of counter fraud cases were looking in part at misrepresentation of 'First Time Central Heating' measures. Here evidence was misrepresented to appear as if the property had never been heated by a wet central heating system. In most instances, this involved misrepresentation of the PMHS, usually as electric room heaters

5.65. We have been working closely with suppliers over the duration of ECO3 to tackle misrepresentation and tampering of photographs provided in support of measures, and working with accreditation bodies to investigate concerns of EPC falsification. We encourage suppliers to share best practice to ensure those checking evidence submitted are vigilant to the new and evolving ways of attempting to fabricate evidence.

Non-installation of insulation

5.66. 39% of measures investigated were looking into the concern of non-installation of insulation measures. Meaning that the property was already insulated prior to the installation of the measure, or extraction and refill of existing insulation had been misrepresented. Typically where this led to refusal or revocation, associated boiler measures were also then rejected due to the loss of the primary insulation measure.

5.67. Cavity wall insulation was by far the most common measure type investigated for this concern, making up 79% of these measures. Underfloor insulation (UFI) non-installs made up a further 11%. Falsified documentation was usually also an issue with these non-installed measures as considerable documentary evidence will have been fabricated, including the likelihood of staged or stock photography use or photographs from other properties to avoid detection.

5.68. We provided advice to suppliers on using online tools to help with these documentation checks and investigations, including checks of previous EPCs for boilers, radiators and insulation existing in the property prior to the measure install.

[37] The pre-main heating system is the heating system that was previously in place at a premises, prior to installation of a new heating system.

We also encouraged increased customer contact exercises after installation. Such activity has proven beneficial as it provides the opportunity to expose a potential concern of non-install early.

Outcome

5.69. As a result of our suspected fraud investigations into 17,721 measures, 8,587 (48%) were retained as unchanged as the concerns were not proven or could not be verified. 120 (<1%) were amended, and 6,317 (36%) had savings refused or revoked. For cases where suspected fraudulent activity appeared to be a systemic issue, suppliers referred details of the parties involved to the police/Action Fraud for further investigation.

5.70. At the time of our final determination, a total of 2,697 ECO3 measures remained under investigation relating to suspected fraud which could not be resolved before 30 September 2022. The savings associated with these measures have been counted towards suppliers' final determinations. However, should the savings subsequently be revoked, this would not currently cause any energy company to fail in achieving their obligations.

5.71. It should be noted that although the final determination of measures under ECO3 has now been made, if significant concerns of scheme abuse or suspected fraud come to light, we may review the status of the affected measures.

5.72. Looking forward, suppliers should ensure they continue to be dynamic in their approach to the prevention of fraud and scheme abuse over the duration of the delivery of their ECO4 obligations, and should be regularly reviewing and updating their evidence checking processes and fraud prevention strategies.

Compliance investigations

5.73. As well as the standard compliance checks Ofgem performs monthly to ensure the compliance and eligibility of notifications, we conducted a number of ad-hoc investigations into areas of potential concern. These were based upon intelligence gathered through our internal checks and from external sources. Below are two of the more significant examples.

LPG boiler investigation

5.74. In August 2019 we became aware that for LPG boilers there are two different types of technology in use under ECO: bulk and bottled. Bulk uses bulk bought LPG which is

then stored in a tank. It is relatively cheap compared to bottled LPG. Bottled LPG boilers rely on regular purchases of canisters/cylinders which is relatively expensive.

5.75. Up until January 2020 there was only one score in use for these technologies with the underlying assumptions being based on the bulk type of boiler. Concerns were raised that the savings achieved by bottled LPG boilers were significantly different to those achieved by bulk LPG boilers and were not representative of the scores being awarded. Our investigation found that bottled LPG as a fuel source for a boiler is far less efficient than bulk LPG and the consensus was that using bulk LPG scores for boilers using bottled LPG inflated the savings that would actually be achieved.

5.76. At the time the issue was identified in August 2019 there were no deemed scores applicable for instances where the post-main heat source was bottled LPG. From January 2020 onwards, a new score for the bottled LPG technology had been developed and implemented. This clearly demonstrated that the use of the bulk LPG scores for bottled LPG had been significantly over-representing the savings achieved. Although the new score for bottled LPG boiler measures had been applied from 1 January 2020, we were aware there were likely bottled LPG measures installed before then where the bulk LPG boiler score had already been claimed. We discovered that this matter involved the majority of suppliers and a large number of installers.

5.77. As part of our investigation, we considered whether it was necessary to rescore any bottled LPG boilers where the bulk LPG score had been claimed. We considered several factors in arriving at our decision. These included:

- the number of measures this investigation related to
- the proximity to the end of ECO3
- the evidence relating to the technical compliance of the installations
- the level of consumer detriment
- the guidance available at the time.

5.78. With the above factors in mind, we took the decision not to re-score historic bottled LPG boiler measures installed prior to January 2020. We believe this decision was the most proportionate given the relatively small number of measures affected, the fact the installs are technically sound and the fact there is no obvious consumer detriment.

Underfloor insulation (UFI) investigation

5.79. We became aware of concerns in December 2021 around the installation of UFI to certain properties where cross-flow ventilation may not be adequate. Cross-flow ventilation (the potential for airflow across the underside of the floor to which insulation is fixed) is a requirement under building regulations to ensure the moisture content of the wooden joists supporting the floor and between which insulation has been applied, remains within a safe margin.

5.80. It has been difficult to narrow down the issue to any specific property types – almost all appear to be at risk. The nature of UFI means it can also be difficult to assess compliance with Building Regulation (through, for example, technical monitoring or quality assurance checks). Once insulation is installed, the floor surface is effectively irreversibly restored – there is no intention that it be taken up again, making post-installation inspection problematic. Any problems would likely only be visible once damage had already been done.

5.81. A conclusion to these concerns has not been reached under ECO3. Given the lack of available evidence, the potential systemic misinterpretation of industry standards, and the potentially widespread nature of the concern (impacting most obligated suppliers and numerous industry parties), Ofgem is continuing to engage with BEIS and industry on the matter.

Engaging with Ofgem as scheme administrator

5.82. Generally suppliers engaged proactively with Ofgem throughout the course of ECO3. However, there were some instances where engagement was not consistent; either poor engagement up until the final months preceding final determination or prior levels of engagement were not sustained through the final stages of the scheme.

5.83. In most instances submission deadlines were met by suppliers. Where there was a risk that a deadline would not be met, suppliers engaged with us to discuss potential deadline extensions.

5.84. Data and evidence submitted to us by suppliers was generally accurate and complete. However, in some cases involving our compliance processes, this did not provide sufficient assurance to demonstrate the eligibility of measures and further investigation and supporting evidence was required. This is despite evidential requirements and expectations being clearly outlined. It was disappointing that even with available guidance, and in some cases having clearly understood expectations before, a number of suppliers would continue to provide supporting evidence that fell

short of the mark. This needlessly elongated the timeframes in resolving compliance cases. Ofgem expects suppliers to be as proactive as possible, using guidance available to gather necessary evidence before Ofgem has to request it.

6. Looking Forward

Chapter summary

In this chapter we provide information on some of the key policy changes for the ECO4 scheme, as well as outlining our focus as the scheme administrator and what we expect from suppliers going forwards.

6.1. As with previous ECO schemes the next iteration (ECO4) commenced before final determination was completed, with deployment possible the day after the end of ECO3, on 1 April 2022. ECO4 continues to build on the successes of ECO3 by increasing to a £1 billion a year, four year scheme[38], and crucially moving to a multiple measure, deep retrofit approach.

Policy changes for ECO4

6.2. ECO4 will continue to build on the outcomes from the Each Home Counts review[39] by incorporating the PAS 2035 standards in full, overseen by TrustMark, and by mandating deep retrofits in households.[40] In order to score and award payments to installers for these deep retrofits a new scoring approach for the project based on starting and finishing SAP ratings[41] has been developed. The old ECO3 deemed scores are being replaced by partial project scores to enable payments mid project.

6.3. Eligibility criteria remains broadly the same, using the same benefits proxy approach to target fuel poverty as with previous incarnations, however there will be an increased limit on the number of households that can be eligible through the flexible eligibility portion of the scheme. 50% of a supplier's obligation can be delivered through ECO4 Flex which is available not only to Local Authorities and Devolved Administrations, but also to energy suppliers as well. Increased scrutiny of the process will see greater controls required in the administration of 'flex' households.

6.4. The rural sub-obligation has been removed, but in its place is a new SAP band E, F, and G minimum target of 150,000 homes to ensure the homes needing the most work get targeted. A solid wall minimum will remain and is now set at 90,000 homes.

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[38] ECO3 funding was set as £640 million per year.
[39] Each Home Counts Review: <https://www.eachhomecounts.com/>
[40] Design of the Energy Company Obligation ECO4: 2022-2026: <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco4-2022-2026>
[41] Information on Standard Assessment Procedure (SAP) ratings: <https://www.gov.uk/guidance/standard-assessment-procedure>

6.5. Demonstration Actions will be removed but an additional level of funding will be introduced to Innovation Measures, to reward new products as they come to market.

6.6. And finally, there will be incentives to deliver in off-gas rural areas in both Scotland and Wales.[42]

Supplier due diligence and engagement

6.7. As part of the closedown of ECO3, we reflected on engagement from suppliers with their responsibilities under the scheme and our own processes – considering where improvements can be made. As set out earlier in the report, we will be looking to work with TrustMark to simplify scheme processes and improve guidance. We are also making a number of changes internally, to improve our efficiently processing measures and completing compliance checks.

6.8. We expect suppliers to also reflect on their approach to the ECO scheme and improve their processes as a result of this. We expect suppliers to:

- be more proactive in their engagement throughout the duration of the scheme
- improve the quality of their data submissions
- adhere to process deadlines
- improve their due diligence to reduce the likelihood of non-compliance and fraud, ensuring householders receive quality measures and service in line with the scheme and industry requirements.

6.9. Ofgem will be placing greater onus on suppliers to fulfil their responsibilities in respect of the above and will have an increasingly low tolerance for those that do not take full responsibility for meeting their obligations.

Reducing energy costs further

6.10. At the time of publication there exists a crisis in living standards in the UK. In response the government has introduced a range of support for households to assist with energy bills.[43] This includes the Energy Price Guarantee (which aims to save a typical household around £900 on their energy bills over the winter of 2022-23) and

[42] In England, support is available to low-income households in inefficient off-gas homes through the Home Upgrade Grant scheme: <https://www.gov.uk/government/publications/home-upgrade-grant-phase-2>
[43] Help with your energy bills: <https://helpforhouseholds.campaign.gov.uk/help-with-your-bills/>

targeted support such as the Cost of Living Payment (a £650 payment to households on certain means tested benefits).

6.11. The Government has also set out plans[44] to implement new obligations on suppliers to help hundreds of thousands of their customers take action to reduce their energy bills and has recently consulted on a scheme called ECO+[45]. With launch planned for Spring 2023, ECO+ will sit alongside ECO4, primarily targeting a wider group of households living in the least efficient homes, that are not eligible for support through other schemes.

[44] The Growth Plan 2022: <https://www.gov.uk/government/publications/the-growth-plan-2022-documents>
[45] Consultation 'Design of the Energy Company Obligation (ECO): 2023-2026': <https://www.gov.uk/government/consultations/design-of-the-energy-company-obligation-eco-2023-2026>

Appendix 1 – Associated Documents

Legislation

- The ECO3 legislation and its amendment can be found on the legislation.gov.uk website:

  The Electricity and Gas (Energy Company Obligation) Order 2018

  <https://www.legislation.gov.uk/uksi/2018/1183/contents/made>

  The Electricity and Gas (Energy Company Obligation) (Amendment) Order 2019

  <https://www.legislation.gov.uk/uksi/2019/1441/contents/made>

Guidance

- We published a number of guidance documents in relation to ECO3:

  ECO3 supplier administration guidance

  <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-supplier-administration>

  ECO3 delivery guidance

  <https://www.ofgem.gov.uk/publications/energy-company-obligation-2018-22-eco3-guidance-delivery>

  ECO3 innovation guidance

  <https://www.ofgem.gov.uk/publications/eco3-innovation>

- In addition to the guidance published by Ofgem, BEIS also published guidance on flexible eligibility for local authorities:

  Guidance on ECO3 flexible eligibility

  <https://www.gov.uk/government/publications/energy-company-obligation-eco-help-to-heat-scheme-flexible-eligibility>

Consultations

- The Department for Business, Energy & Industrial Strategy (BEIS) ran the following consultations in relation to ECO3:

  Consultation on ECO3 policy 2018 to 2022

  <https://www.gov.uk/government/consultations/energy-company-obligation-eco3-2018-to-2022>

  Consultation on ECO3 improving consumer protection

  <https://www.gov.uk/government/consultations/energy-company-obligation-eco3-improving-consumer-protection>

Further information on ECO

- Further information on the ECO scheme can be found on our website:

  The ECO section of the Ofgem website

  <https://www.ofgem.gov.uk/environmental-and-social-schemes/energy-company-obligation-eco>

  Public reports and data on the ECO scheme (including webcharts and previous Final Determination Reports)

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

Appendix 2 – Suppliers obligated per phase of ECO3

The below table shows which suppliers became obligated during each phase of ECO3.

Figure A2.1: Suppliers obligated per phase of ECO3

Supplier	Phase 1	Phase 2	Phase 3	Phase 4
Avro Energy*	-	Obligated	Obligated	Obligated
British Gas	Obligated	Obligated	Obligated	Obligated
Bulb Energy	Obligated	Obligated	Obligated	Obligated
Co-operative Energy	Obligated	Obligated	Obligated	Obligated
E (Gas & Electricity)	-	Obligated	Obligated	Obligated
E.ON Energy	Obligated	Obligated	Obligated	Obligated
Economy Energy*	Obligated	-	-	-
Ecotricity	-	-	Obligated	Obligated
EDF Energy	Obligated	Obligated	Obligated	Obligated
ESB Energy	-	-	-	Obligated
Foxglove Energy	-	-	-	Obligated
Green Network Energy*	-	Obligated	Obligated	-
Igloo Energy*	-	-	-	Obligated
Octopus Energy	-	Obligated	Obligated	Obligated
Ovo Energy	Obligated	Obligated	Obligated	Obligated
People's Energy*	-	-	-	Obligated
Pure Planet Limited*	-	-	Obligated	Obligated
Robin Hood Energy*	-	-	Obligated	-
Scottish Power	Obligated	Obligated	Obligated	Obligated
Shell Energy	Obligated	Obligated	Obligated	Obligated
So Energy	-	-	Obligated	Obligated
Together Energy*	-	-	-	Obligated
Tonik Energy*	-	-	Obligated	-
Utilita	Obligated	Obligated	Obligated	Obligated
Utility Point Limited*	-	-	Obligated	Obligated
Utility Warehouse	Obligated	Obligated	Obligated	Obligated

*These suppliers exited the market during the last phase they were obligated in, in some cases before the qualification date for the subsequent phase.

Note that Scottish and Southern Electricity, Hudson Energy and npower were all originally obligated but merged with OVO Energy, Shell Energy and E.ON Energy respectively. As such they haven't been included. Bristol Energy and iSupply Energy were also obligated however traded their obligations to other suppliers. They also haven't been included.