



Annual Fuel Poverty Statistics in England: 2019 based projections to 2021

Headline Statistics

- The share of households in fuel poverty in England is projected to fall from 13.4 per cent of households (3.18 million) in 2019 to 12.5 per cent (3.00 million) in 2021 under the LILEE metric. Fuller details of the drivers for this reduction, including the economic impact of Covid on incomes are covered in the main body of the report.
- The aggregate fuel poverty gap for England is projected to be £599 million in 2021 under the LILEE metric down by 13 per cent in real terms since 2019 (£687 million). The average fuel poverty gap for England in 2021 (the reduction in fuel costs needed for a household to not be in fuel poverty) is projected to be £200, down by 8 per cent in real terms since 2019 (£216).
- Since 2019, further progress was made towards the interim 2030 fuel poverty target, with an estimated 52.4 per cent of all low income households in 2021 living in a property with a fuel poverty energy efficiency rating of band C or better.

Projected headline figures, 2019-2021

Headline figures	2019 Annual report	2020 Projection	2021 Projection
Average fuel poverty gap ¹ (£)	216	207	200
Aggregate fuel poverty gap ¹ (£ millions)	687	642	599
Proportion of households in fuel poverty (%)	13.4	13.0	12.5
Number of households in fuel poverty (millions)	3.18	3.10	3.00
<i>Percentage of low income households, Band C or above</i>	<i>47.8</i>	<i>50.3</i>	<i>52.4</i>

¹ The fuel poverty gap figures are adjusted to 2019 prices.

Contents

Contents	2
Chapter 1: Introduction	3
Chapter 2: Projected Fuel Poverty Figures	5
2.1 Projected headline figures, 2010-2021	5
2.2 Changes to key drivers, 2019-2021	6
2.3 Projected progress against the target, 2010-2021	11
Annex: Further information	13
Revisions policy	13
User engagement	13
Pre-release access to statistics	13
Contact	13

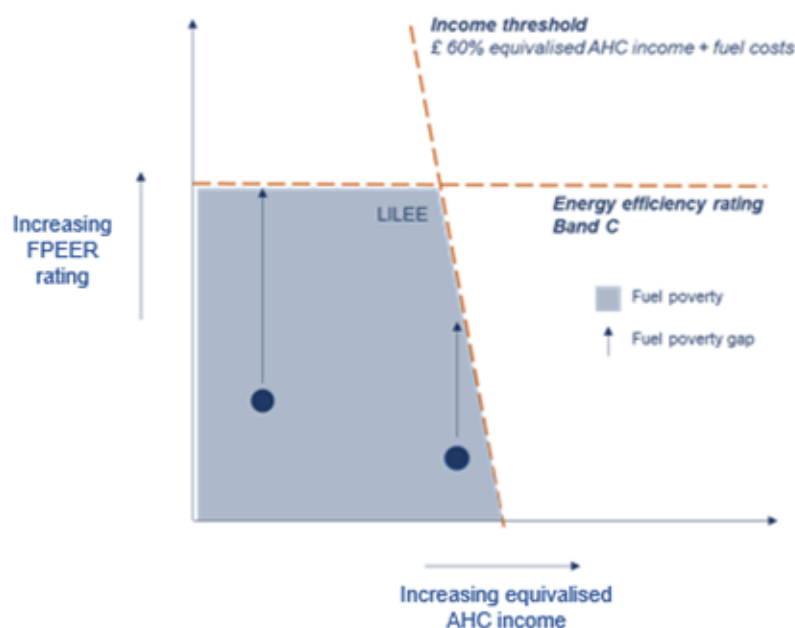
Chapter 1: Introduction

This report builds on the [Annual Fuel Poverty Statistics](#) for 2019 published on 4th March 2021. The fuel poverty statistics are based on the latest available survey data but the data processes required create a time lag in the data series². To give an indication of more recent trends, the fuel poverty headline figures for 2020 and 2021 are projected based on changes to the three key drivers of fuel poverty: energy efficiency, energy prices and incomes.

As confirmed in the [Sustainable Warmth](#) strategy published in February 2021, fuel poverty is now measured using the Low Income Low Energy Efficiency (LILEE) indicator, which considers a household to be fuel poor if:

- it is living in a property with an energy efficiency rating of band D, E, F or G as determined by the most up-to-date Fuel Poverty Energy Efficiency Rating (FPEER)³ Methodology - this is depicted by the horizontal threshold in Figure 1; and
- its disposable income (income after housing costs (AHC) and energy needs) would be below the poverty line⁴ as depicted by the vertical sloping threshold in Figure 1.

Figure 1: The LILEE metric including the fuel poverty gap



The fuel poverty gap measures the depth of fuel poverty defined the reduction in fuel costs needed for a household to not be in fuel poverty. Under LILEE this is either the change in

² The 2019 fuel poverty dataset is based on surveys conducted between April 2018 and March 2020. After the completion of the English Housing Survey data are subject to validation and processing the fuel poverty data.

³ More information on FPEER can be found her

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/332236/fpeer_methodology.pdf

⁴ The poverty line (income poverty) is defined as an equivalised disposable income of less than 60% of the national median (Section 2):

<https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/persistentpovertyintheukandeu/2015>

required fuel costs associated with increasing the energy efficiency of a fuel poor household to an FPEER rating of at least 69 (band C threshold) or reducing fuel costs sufficiently to meet the income threshold.

The 2014 fuel poverty target for England set an objective to ensure that as many fuel poor households as reasonably practicable achieve a minimum energy efficiency rating of band C^{5,6} by 2030, with interim targets of band E by 2020, and band D by 2025. The primary purpose of the Annual Fuel Poverty Statistics and projections is to monitor progress against the statutory target and track the proportion of households in fuel poverty and their fuel poverty gap⁷.

The fuel poverty statistics, and underlying data, form a key element of the evidence base supporting BEIS to:

- Implement the Fuel Poverty Sustainable Warmth Strategy
- Inform Clean Growth Strategy ambitions⁸
- Develop, monitor and evaluate key policies including the Energy Company Obligation (ECO), Warm Homes Discount, Green Homes Grant and Private Rented Sector Minimum Energy Efficiency Standards

The Government is interested in the amount of energy households need to consume to have a warm, well-lit home, with hot water for everyday use, and the running of appliances. Therefore fuel poverty is measured based on *required* energy bills rather than *actual* spending. This ensures that those households who have low energy bills simply because they actively limit their use of energy at home, for example, by not heating their home are not overlooked.

The methodology handbook has been updated alongside this publication to set out the methodology used to produce the fuel poverty projections. It is available at:

<https://www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook>

⁵ Energy efficiency rating is measured using Fuel Poverty Energy Efficiency Rating (FPEER), see Section 2.3.3 and glossary for more detail.

⁶ Household energy efficiency ratings are banded from G (lowest) to A (highest).

⁷ Fuel poverty gap is the reduction in fuel bill that a fuel poor household needs in order to not be classed as fuel poor.

⁸ <https://www.gov.uk/government/publications/clean-growth-strategy>

Chapter 2: Projected Fuel Poverty Figures

2.1 Projected headline figures, 2010-2021

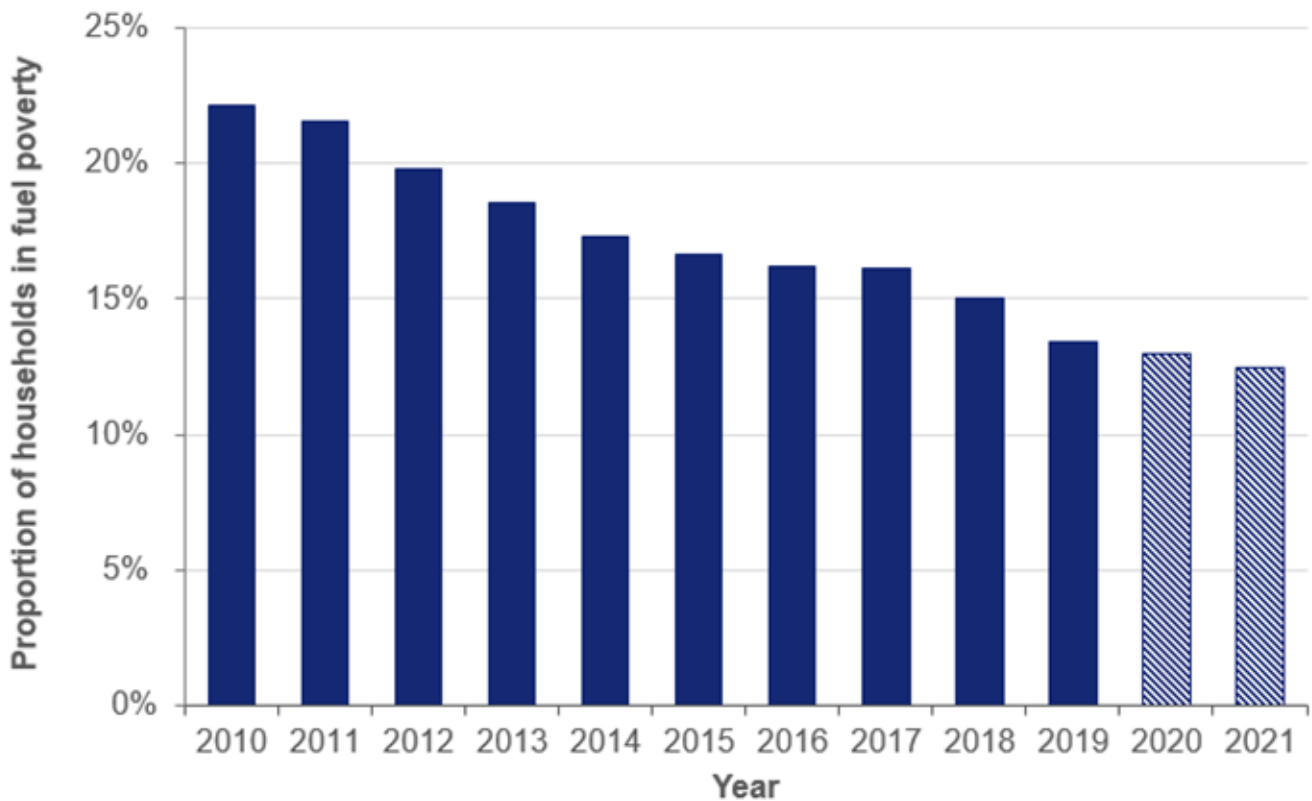
Table 1 summarises the projected headline figures.

Table 1: Projected headline figures, 2019-2021

Headline figures	2019 Annual report	2020 Projection	2021 Projection
Average fuel poverty gap ⁹ (£)	216	207	200
Aggregate fuel poverty gap ⁹ (£ millions)	687	642	599
Proportion of households in fuel poverty (%)	13.4	13.0	12.5
Number of households in fuel poverty (millions)	3.18	3.10	3.00

Note that these figures are based on our fuel poverty projections model. These should be interpreted as indicative projections, not precise point estimates.

Figure 2: The proportion of households in fuel poverty is projected to continue to decrease to 2021 driven by energy efficiency progress

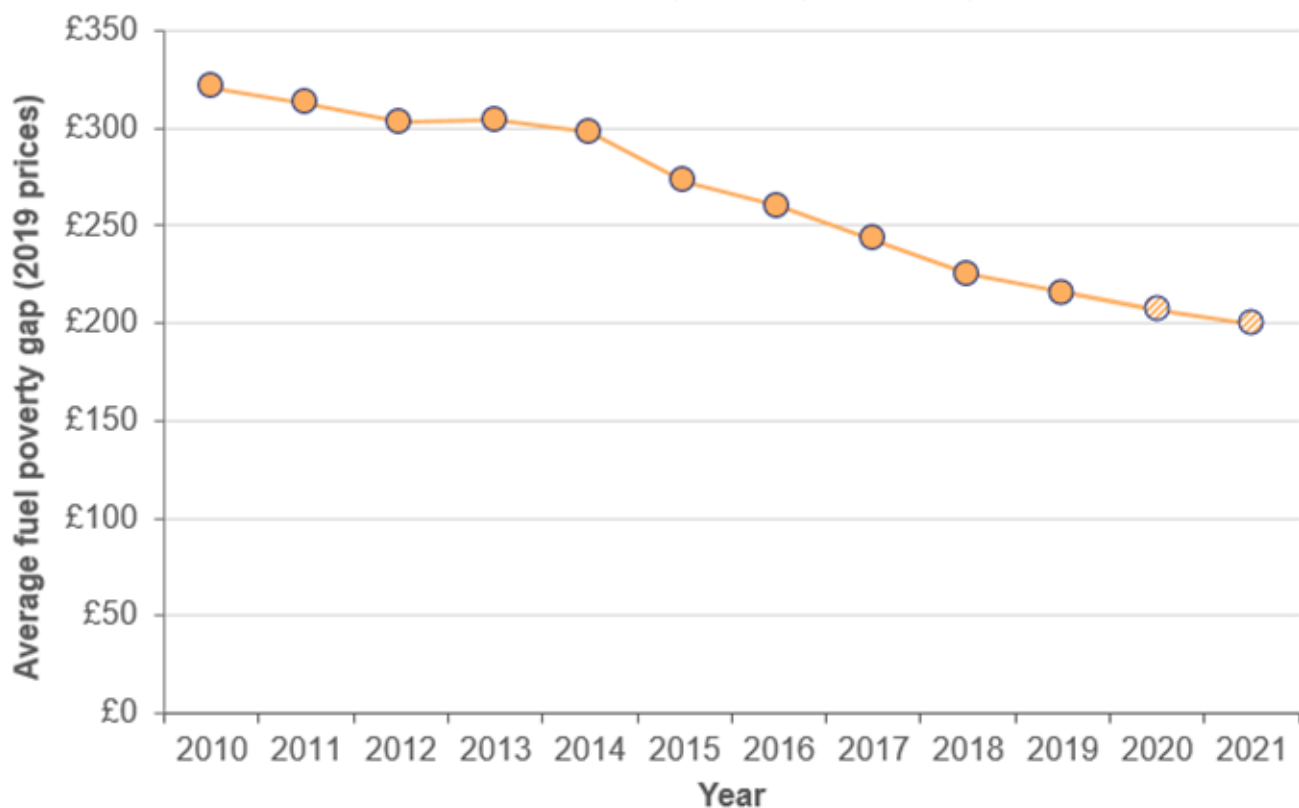


⁹ The average gap figures are adjusted to 2019 prices.

The proportion of households in fuel poverty has fallen steadily from 22.1 per cent in 2010 to a projected 12.5 per cent in 2021 as a result of progress in energy efficiency however there have been slight impacts from income and prices changes which are discussed further in section 2.2.

The average fuel poverty gap for England in 2021 (the reduction in fuel costs needed for a household to not be in fuel poverty) is projected to be £200, down by 8 per cent in real terms since 2019 (£216). This has fallen as a result of energy efficiency measures in homes in energy efficiency bands D-G bringing households closer to a band C rating and falling energy prices in real terms.

Figure 3: The average fuel poverty gap is projected to continue to decrease to 2021 due to energy efficiency and projected falls in real terms energy prices after 2019



The aggregate fuel poverty gap for England is projected to be £599 million in 2021 under the LILEE metric down by 13 per cent in real terms since 2019 (£687 million). This greater reduction reflects the combination of a lower average gap and fewer fuel poor households.

2.2 Changes to key drivers, 2019-2021

The key drivers will be assessed in turn to explore their effect on the 2019 based projections. *Higher* incomes, *increased* energy efficiency and *lower* energy prices would each have a positive impact on a fuel poor household. More information on key drivers can be found in Section 2.3 of the Annual Fuel Poverty Statistics¹⁰.

¹⁰ <https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2021>

While the fuel poverty indicator has an absolute threshold for energy efficiency, the relative nature of the income threshold makes it difficult to accurately isolate individual reasons for change.

A household's fuel poverty status depends on the interaction of three key drivers

- **Energy efficiency** – improvement in energy efficiency between 2019 and 2021.
- **Incomes** – the Covid 19 pandemic has a slight impact on these projections due to the relative income threshold as the lower income deciles have seen a similar change in total income to the median income.
- **Energy prices** – the default tariff price cap resulted in lower energy prices in real terms which drives down the fuel poverty gap.

2.2.1 Energy efficiency

Fuel poverty under LILEE has shown a strong declining trend driven by energy efficiency as more low income households achieve an energy efficiency rating of C or above.

The modelling shows that the impact of energy efficiency continues to bring households out of fuel poverty. If the incomes and prices seen in 2021, were the same as in 2019 before the start of the Covid-19 pandemic, an estimated 12.2 per cent of households would be fuel poor in 2021 (0.3 percentage points less than the overall estimate).

Currently, the main policies under which energy efficiency measures are installed include:

Policy	Incentive	Type of measure covered
Energy Company Obligation (ECO) ¹¹	Households eligible for ECO can get a grant to cover, or contribute to the costs of, home energy efficiency improvement	Replacement boiler, heating improvements, insulation, double glazing, additional innovative measures ¹²
Minimum Energy Efficiency Standards (MEES) ¹³	Landlords of households in Band F and G and are private rented can get a grant to cover, or contribute to the costs of, home energy efficiency	Replacement boiler, heating improvements, insulation, double glazing, additional innovative measures ¹⁴

¹¹ From October 2018, the ECO scheme was wholly targeted to low income vulnerable households¹¹. In previous phases of the ECO scheme, any household was entitled to subsidies towards energy efficiency improvements, regardless of their income. ECO statistics: <https://www.gov.uk/government/collections/household-energy-efficiency-national-statistics>

¹² For more information on innovative measures under ECO3, see: <https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>

¹³ From 1st April 2019, the Private Rented Sector Minimum Energy Efficiency Standards¹³ regulations for the domestic private rented sector required private landlords to improve their properties to an efficiency of at least an E, to meet the minimum standards. This is captured in the 2020 projections but it is assumed that no additional measures are driven by this in 2021. MEES: <https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance>

¹⁴ For more information on innovative measures under ECO3, see: <https://www.ofgem.gov.uk/publications-and-updates/eco3-innovation>

	improvement. It is assumed that these are delivered by 2020.	
Micro-generation Feed in Tariff Scheme (FiTs) ^{15,16}	Householders who generate their own renewable electricity receive payments from their energy supplier	Solar panels, wind turbines, anaerobic digestion, hydro power, micro CHP
Green Homes Grant (GHG) ¹⁷	Households applied for vouchers to fund measures. The scheme covers both low income households and other households. There is also a Local Authority Delivery element to this scheme.	A range of insulation measures, low carbon heating and heating controls.

The overall trend in the increase of condensing boilers (including condensing-combination boilers) in England is projected to continue. Around 1 million additional condensing boilers are added to the stock of homes but some are removed as already captured through the policies listed above or as a result of the new dwellings modelled.

2.2.2 Income

A key component of this year's projections has been to understand the changes in incomes as a result of Covid 19. To inform this, extensive use has been made of the Household Resilience Study¹⁸, which recontacted households who took part in the English Housing Survey in 2019/20. Wave 1 was carried out in June/July 2020 and Wave 2 in November 2020. This has been used primarily to project the changes to earnings with our usual assumptions used to reflect changes to other sources of incomes e.g. pensions and benefits. Households were asked how they perceived their income had changed, whether income had increased by at least £100 per month, income had decreased by at least £100 per month, income changed by less than £100 per month or if income had not changed. They were also asked to provide an updated estimate of their annual income. See the updated methodology handbook¹⁹ for details how these have been used.

It should be noted that fuel poverty estimates are made from two years of survey data and so our 2020 estimates use 2019/20 (pre-Covid) and 2020/21 (Covid impacted) incomes. Therefore, the 2020 projection is only partially affected by Covid but will be representative of the 2020 fuel poverty statistics to be published next year which will use the combined year sample. The 2021 estimates use projected 2020/21 (Covid impacted) and 2021/22 ("Recovery from Covid" scenario) and hence shows a deeper fall in incomes in real terms. For the Recovery from Covid scenario we have assumed the income profile is reflective of summer and autumn 2020 and so reflects a lower level of restrictions than the entire 2020/21 year.

¹⁵ FiTs statistics: <https://www.gov.uk/government/collections/feed-in-tariff-statistics>

¹⁶ FiTs closed to new applications at end March 2019 but will still reflect some installations after the date of the 2019 survey base. Support for householders generating their own electricity is now provided through the Smart Export Guarantee (SEG) scheme. <https://www.ofgem.gov.uk/environmental-programmes/smart-export-guarantee-seg/about-smart-export-guarantee-seg>

¹⁷ Green Homes Grant (GHG) <https://www.gov.uk/guidance/apply-for-the-green-homes-grant-scheme>

¹⁸ Household Resilience Study <https://www.gov.uk/government/statistics/household-resilience-study-wave-1> & <https://www.gov.uk/government/statistics/household-resilience-study-wave-2>

¹⁹ Fuel Poverty Methodology Handbook <https://www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook>

There is a high level of uncertainty with these income estimates in particular for 2021/22 where observed data are not currently available.

The components that comprise a household's full income²⁰ (after income tax and National Insurance contributions) are categorised as follows:

- Earnings
- Savings
- Benefits
- Other
- Winter fuel payments
- Council tax

Figure 4: Projected change in total household income by income decile between 2019 and 2021 (cash prices)

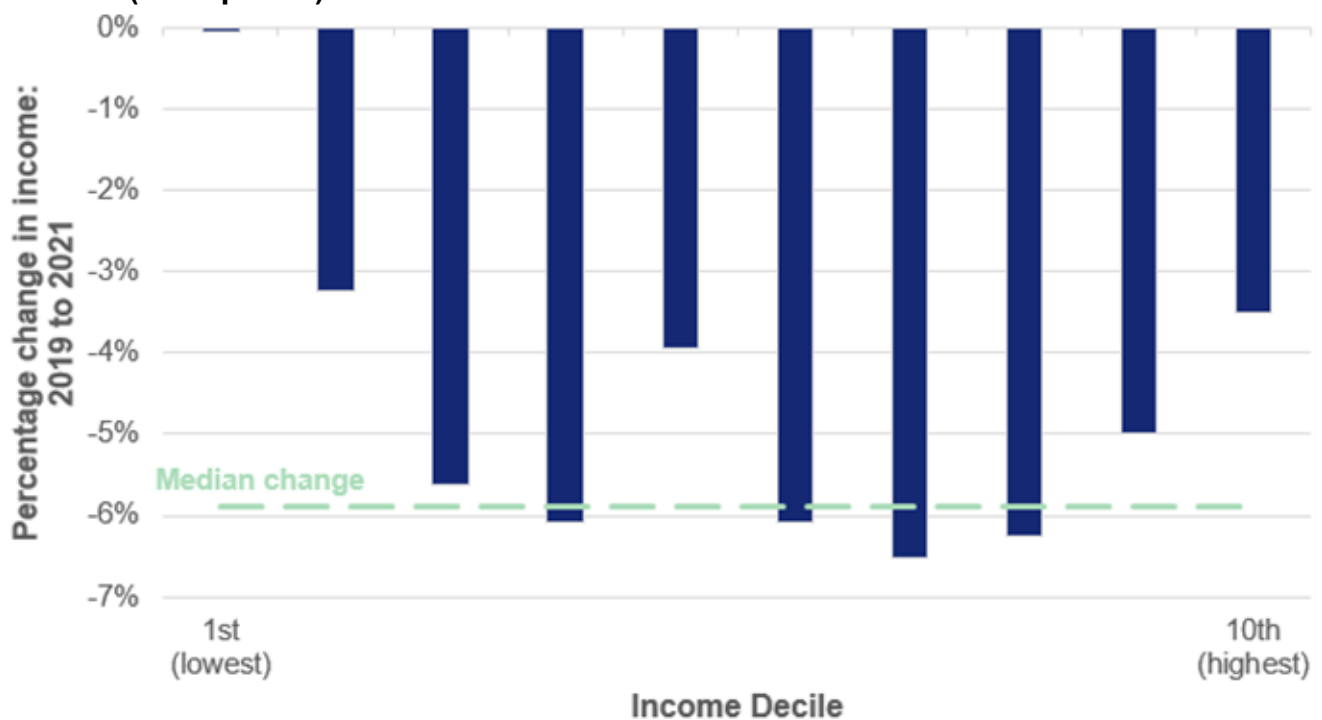


Figure 4 shows that total household income (after housing costs) is projected to fall in all income deciles between the 2019 and 2021 datasets. However, there was negligible overall change in the first decile reflecting the higher share of incomes from benefits and pensions which are less likely to be impacted by lockdown restrictions. Typically the 3rd and 4th income decile households are where the borderline cases of fuel poverty fall. The change in these deciles was close to the median which only makes a slight change in the share of low income households.

²⁰ See Chapter 3 for details (<https://www.gov.uk/government/publications/fuel-poverty-statistics-methodology-handbook>).

Table 2: Percentage of households below the income threshold

Share of households	2019	2021 relative threshold	2021 (using 2019 threshold)
Low income Low Energy Efficiency (fuel poor)	13.4	12.5	14.1
Low income High Energy Efficiency (non-fuel poor)	12.3	13.7	15.1
Share of low income households	25.7	26.2	29.3

In 2019, 25.7 per cent of households were considered to be low income, defined based on having a household income (after housing costs) minus the required fuel costs which is less than 60 per cent of the median AHC income. Of these, 12.3 per cent were living in high energy efficient properties (FPEER rated A through C), leaving 13.4 per cent in fuel poverty.

Between 2019 and 2021, the pandemic affected the incomes of a large number of households. However, because incomes are compared to the median, there was only a slight increase in the overall share of low income households to 26.2 per cent in 2021. Of these, 12.5 per cent are in fuel poverty. The AHC median income is projected to fall by 6 per cent from £23,500 in 2019 to £22,100 in 2021. If the 2019 median income in cash terms was used to derive the threshold, 29.3 per cent of households would be considered as low income. With the improvements in energy efficiency this would leave 14.1% of households in fuel poverty.

2.2.3 Energy prices

Under the LILEE metric the impact of fuel prices is small on the overall level of fuel poverty, however they do have a direct impact on the fuel poverty gap.

Fuel poverty estimates are based on two years of survey data so this price comparison is of prices used for the 2019 fuel poverty statistics (2018 & 2019 prices) with 2020 fuel poverty statistics (2019 & 2020 prices) and 2021 fuel poverty statistics (2020 & 2021 prices).

Table 3: Energy bills for households on all payment types are projected to reduce between 2018|19 and 2020|21 than other payment types (real terms)²¹

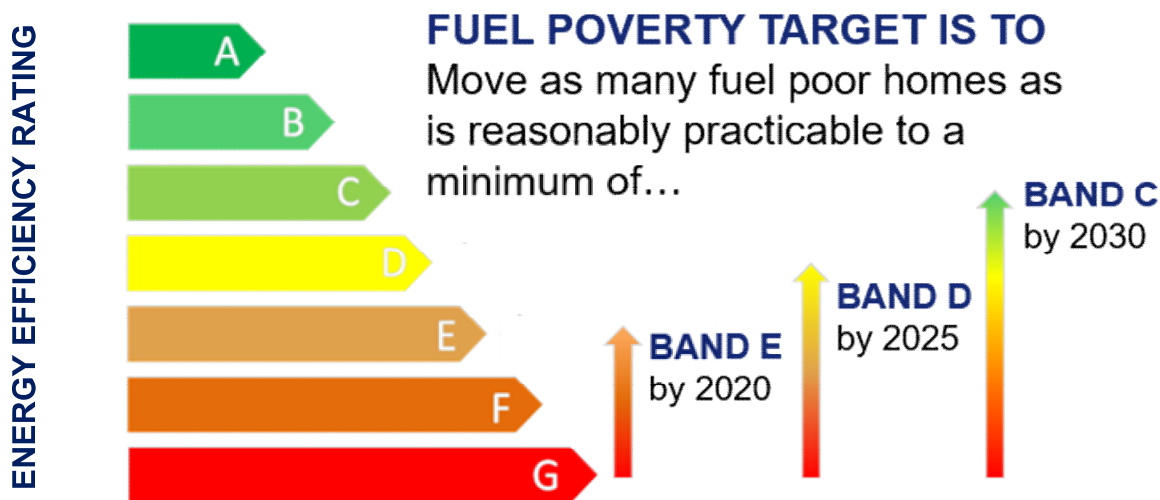
Method of payment	2018 19 (£)	2019 20 (£)	2020 21 (£)	Percentage change 2018 19-2020 21 (%)
Prepayment	1,130	1,114	1,056	-6.5%
Standard Credit	1,236	1,173	1,141	-7.7%
Direct debit	1,105	1,053	1,021	-7.6%

²¹ Source: Figures are based on standard consumption for standard electricity (3,100kWh) and gas users (12,000kWh) and are derived from estimates in Quarterly Energy Prices and the announced Ofgem default tariff cap levels for 2021. Figures in real terms (2019 prices) and cover England and Wales.

2.3 Projected progress against the target, 2010-2021

The Government’s statutory fuel poverty target for England is to ensure that as many fuel poor households as reasonably practicable achieve a minimum energy efficiency rating of band C^{22,23} by 2030, with interim targets of band E by 2020, and band D by 2025.

England’s statutory fuel poverty target



Under the LILEE metric, a household that achieves a fuel poverty energy efficiency rating of band C or above would not be measured as fuel poor, and therefore fuel poverty would be eradicated if all low income households achieved an energy efficiency band C rating. Progress towards the fuel poverty target is measured as the share of all low income households who achieve an energy efficiency band C in 2030 and the interim milestones.

Within these projections, estimates are made for 2020 and 2021 of the share of low income households who would meet the target and milestones at this period.

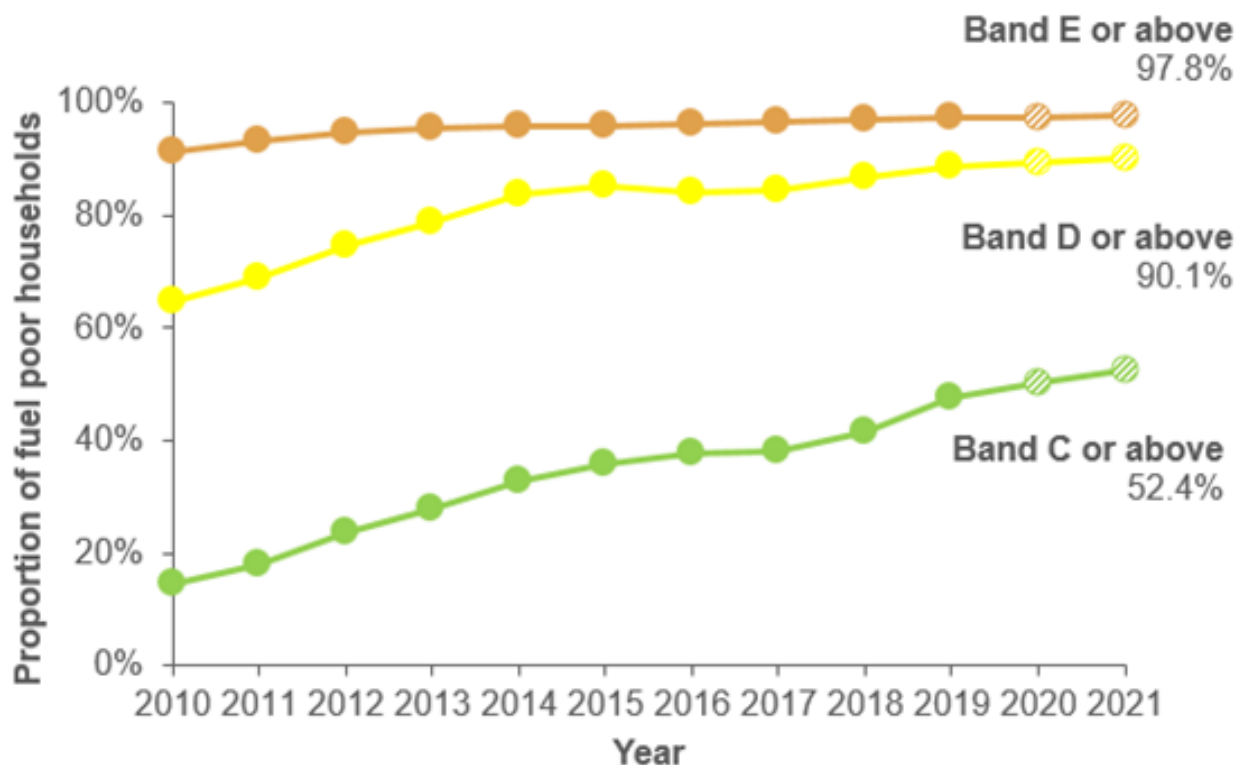
Table 4: Projected headline figures, 2019-2021³

Fuel poverty target	2019 Annual report (%)	2020 Projection (%)	2021 Projection (%)
Band E or above by 2020	97.4	97.5	97.8
Band D of above by 2025	88.8	89.6	90.1
Band C or above by 2030	47.8	50.3	52.4

²² Energy efficiency rating is measured using Fuel Poverty Energy Efficiency Rating (FPEER).

²³ Household energy efficiency ratings are banded from G (lowest) to A (highest).

Figure 4: Further progress is projected to be made towards the fuel poverty target and interim milestones beyond 2019



Progress towards the interim milestones and the 2030 target is projected for 2021, with 52.4 per cent of low income households projected to be in Band A to C, 90.1 per cent of low income households projected to be in Band A to D and 97.8 per cent of low income households projected to be in Band A to E. In other words, 2.2 per cent of low income households in 2021 are projected to be in Band F or G.

Annex: Further information

Revisions policy

The [BEIS statistical revisions policy](#) sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority [Code of Practice for Statistics](#).

User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to this statistical release are welcomed and should be sent to: fuelpoverty@beis.gov.uk

The BEIS statement on [statistical public engagement and data standards](#) sets out the department's commitments on public engagement and data standards as outlined by the [Code of Practice for Statistics](#).

Pre-release access to statistics

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

Contact

- Responsible statistician: Stephen Oxley
- Email: fuelpoverty@beis.gov.uk
- Media enquiries: 020 7215 1000
- Public enquiries: 0300 068 5025



© Crown copyright 2021

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available from: www.gov.uk/beis

If you need a version of this document in a more accessible format, please email enquiries@beis.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.