

Assessment of compliance with the Code of Practice for Official Statistics

Statistics on Fuel Poverty

*(produced by the Department of Energy and
Climate Change)*

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About the UK Statistics Authority

The UK Statistics Authority is an independent body operating at arm's length from government as a non-ministerial department, directly accountable to Parliament. It was established on 1 April 2008 by the *Statistics and Registration Service Act 2007*.

The Authority's overall objective is to promote and safeguard the production and publication of official statistics that serve the public good. It is also required to promote and safeguard the quality and comprehensiveness of official statistics, and good practice in relation to official statistics.

The Statistics Authority has two main functions:

1. oversight of the Office for National Statistics (ONS) – the executive office of the Authority;
2. independent scrutiny (monitoring and assessment) of all official statistics produced in the UK.

Contact us

Tel: 0845 604 1857

Email: authority.enquiries@statistics.gsi.gov.uk

Website: www.statisticsauthority.gov.uk

UK Statistics Authority
Statistics House
Myddelton Street
London EC1R 1UW

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(produced by the Department of Energy and Climate Change)

ASSESSMENT AND DESIGNATION

The *Statistics and Registration Service Act 2007* gives the UK Statistics Authority a statutory power to assess sets of statistics against the *Code of Practice for Official Statistics*. Assessment will determine whether it is appropriate for the statistics to be designated as National Statistics.

Designation as National Statistics means that the statistics comply with the *Code of Practice*. The *Code* is wide-ranging. Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well.

Designation as National Statistics should not be interpreted to mean that the statistics are always correct. For example, whilst the *Code* requires statistics to be produced to a level of accuracy that meets users' needs, it also recognises that errors can occur – in which case it requires them to be corrected and publicised.

Assessment Reports will not normally comment further on a set of statistics, for example on their validity as social or economic measures. However, Reports may point to such questions if the Authority believes that further research would be desirable.

Assessment Reports typically provide an overview of any noteworthy features of the methods used to produce the statistics, and will highlight substantial concerns about quality. Assessment Reports also describe aspects of the ways in which the producer addresses the 'sound methods and assured quality' principle of the *Code*, but do not themselves constitute a review of the methods used to produce the statistics. However the *Code* requires producers to "seek to achieve continuous improvement in statistical processes by, for example, undertaking regular reviews".

The Authority may grant designation on condition that the producer body takes steps, within a stated timeframe, to fully meet the *Code's* requirements. This is to avoid public confusion and does not reduce the obligation to comply with the *Code*.

The Authority grants designation on the basis of three main sources of information:

- i. factual evidence and assurances by senior statisticians in the producer body;
- ii. the views of users who we contact, or who contact us, and;
- iii. our own review activity.

Should further information come to light subsequently which changes the Authority's analysis, it may withdraw the Assessment Report and revise it as necessary.

It is a statutory requirement on the producer body to ensure that it continues to produce the set of statistics designated as National Statistics in compliance with the *Code of Practice*.

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1 Summary of findings

1.1 Introduction

1.1.1 This is one of a series of reports¹ prepared under the provisions of the *Statistics and Registration Service Act 2007*². The Act requires all statistics currently designated as National Statistics to be assessed against the Code of Practice for Official Statistics. The Act also allows Ministers or the National Statistician to request an assessment of other official statistics in order for them to gain National Statistics status. This report is in response to such a request. The report covers the *Annual Report on Fuel Poverty Statistics*³, most recently published in October 2009, produced by the Department of Energy and Climate Change (DECC). DECC has also published sub-regional fuel poverty levels⁴ for England for 2006 but, as a one-off analysis, these are not included in the assessment.

1.1.2 This report was prepared by the Authority's Assessment team, and approved by the Board of the Statistics Authority on the advice of the Head of Assessment.

1.2 Decision concerning designation as National Statistics

1.2.1 The Statistics Authority judges that the statistics covered by this report are readily accessible, produced according to sound methods and managed impartially and objectively in the public interest, subject to any points for action in this report. The Statistics Authority confirms that the statistics published in the *Annual Report on Fuel Poverty Statistics* can be designated as National Statistics, subject to DECC implementing the enhancements listed in section 1.5 and reporting them to the Authority by December 2010.

1.3 Summary of strengths and weaknesses

1.3.1 Since taking over responsibility for fuel poverty statistics in 2008, DECC has worked effectively to bring the statistics into line with the Code of Practice and the statistics currently comply with most of the requirements of the Code. DECC engages with users via the Fuel Poverty Methodology Group (FPMG) which consists of both users within government and external users. DECC has also carried out consultations with users of key datasets, such as local authorities. There is little published information on the uses made of the statistics.

1.3.2 The *Annual Report on Fuel Poverty Statistics - 2009* (presenting 2007 data) was the first report to be published separately from the policy document⁵ in order to increase the transparency and independence of the statistics; it received positive feedback from users. It contains a number of analyses and

¹ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

² http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf

³ http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/fuelpov_stats.aspx

⁴ http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/regional/regional.aspx

⁵ http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/fuel_poverty/strategy/strategy.aspx

breakdowns, as well as presenting trends in fuel poverty since 2003. The report could present the headline figures in a more accessible way. DECC provides a dataset with the fuel poverty variables on request.

- 1.3.3 Fuel poverty statistics are based on a model that relies upon a number of assumptions. The *Annual Report* and methodology documentation present these assumptions but this could be expanded upon. Some users expressed concern about the income classifications used in producing the headline figure for fuel poverty. DECC publishes information on the different income definitions in the *Annual Report*, according to recommendations from the FPMG.

1.4 Detailed recommendations

- 1.4.1 The Assessment team identified some areas where it felt that DECC could strengthen its compliance with the Code. Those which the Assessment team considers essential to enable designation as National Statistics are listed in section 1.5. Other suggestions, which would improve the statistics and the service provided to users but which are not formally required for their designation, are listed at annex 1.

1.5 Requirements for designation as National Statistics

- | | |
|----------------------|---|
| Requirement 1 | Take steps to develop a more complete understanding of the use made of the statistics, the needs of current and potential users, and user views on the service provided. Publish the relevant information and assumptions and use them to better support the beneficial use of the statistics (para 3.2). |
| Requirement 2 | Publish further information about the impact on published estimates of variations to the assumptions made in modelling fuel poverty (para 3.8). |
| Requirement 3 | Publish more information in the <i>Annual Report</i> on the quality of the statistics in relation to actual and potential uses (para 3.17). |

2 Subject of the assessment

- 2.1 Households in fuel poverty are defined as those that need to spend more than 10% of their income on fuel in order to maintain an adequate level of warmth⁶. The 10% measure was devised on the basis of research on energy spending and was adopted as an appropriate measure of fuel poverty in the Warm Homes and Energy Conservation Act 2000⁷.
- 2.2 Fuel poverty is calculated using data on income and household type from the English House Condition Survey⁸ (EHCS) and data on fuel prices from section 2 of DECC's *Quarterly energy prices*⁹ publication and ONS' Retail Prices Index¹⁰. Fuel costs (usage based on a model of the fuel requirements of the household combined with fuel prices) are divided by income to produce a ratio of fuel poverty. The EHCS is an annual sample survey of 8,000 dwellings conducted on behalf of the Department for Communities and Local Government (CLG). Two years of EHCS data are combined, to allow the in-depth sub-group analysis needed for the fuel poverty results. This means that there is a two-year lag between the reference period and the publication date.
- 2.3 Statistics on fuel poverty are published annually by DECC. The *Annual Report* presents the number of households in fuel poverty for England and the UK. Until 2007, DECC released fuel poverty statistics as part of the annual UK *Fuel Poverty Strategy Report*¹¹. In 2008 and 2009 DECC took steps to extract the statistical information from the policy report, publishing it as an annex in 2008 and as a separate publication in 2009. DECC has also published estimates of sub-regional¹² fuel poverty levels for England for 2006 based on national EHCS data and nationally available small area datasets such as the Census.
- 2.4 As well as showing historical time series, DECC publishes fuel poverty projections in the *Annual Report* for the most recent two years¹³ based on domestic energy prices and estimates of the impact of energy efficiency measures from DECC, and estimates of income from HM Treasury. DECC also uses energy prices data collected by the Office for National Statistics (ONS) and the DECC Energy team.
- 2.5 The *Annual Report* presents some breakdowns of the data - for example, fuel poverty by income decile and by method of payment of gas bills. It also reports the various components that affect the levels of fuel poverty, such as income, fuel prices and energy efficiency measures. The report examines fuel poverty using a number of other indicators, such as actual expenditure data from the

⁶ Usually defined as 21°C for main living area and 18°C for other occupied rooms, with an allowance made for lighting, cooking and appliance use.

⁷ http://www.opsi.gov.uk/acts/acts2000/ukpga_20000031_en_1

⁸ The EHCS was merged with the Survey of English Housing in 2008 and will in future be known as the English Housing Survey. See

<http://www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousingsurvey/>

⁹ <http://www.decc.gov.uk/en/content/cms/statistics/publications/prices/prices.aspx>

¹⁰ <http://www.statistics.gov.uk/STATBASE/Product.asp?vlnk=2176>

¹¹ See footnote 3

¹² Data are published at Government Office Region, Parliamentary Constituency and Local Authority levels

¹³ For example, in 2009 DECC published data up to 2007 and projections for the years 2008 and 2009.

Expenditure and Food Survey¹⁴ (EFS) and self-reported fuel poverty from EHCS data. It also presents the work of the Fuel Poverty Methodology Group (FPMG) and planned developments. Detailed tables and time series are published alongside the *Annual Report*.

- 2.6 The Warm Homes and Conservation Act 2000 requires DECC to report annually on the level of fuel poverty. The Act requires the Government to eradicate fuel poverty, as far as is reasonably practicable, in England by 2016. (Similar targets exist for Scotland, Northern Ireland and (with a target of 2018) for Wales.) The statistics are used within DECC and local authorities to measure progress against these targets, to monitor energy efficiency measures and as a measure of social conditions. The annual statistics are also widely used by pressure groups, researchers and the media.
- 2.7 DECC employs a contractor, the Building Research Establishment (BRE), to produce the fuel poverty figures. Producing the statistical report and associated work costs DECC around £500 thousand per year – this includes the cost of modelling energy costs by BRE, staff costs for compiling the final statistics and the administrative costs of printing and publishing.
- 2.8 A peer review of the methodology for calculating fuel poverty was carried out in 2004¹⁵. Some changes to methods were made on the basis of this review and the FPMG was set up to carry out continuing development work.

¹⁴ http://www.statistics.gov.uk/ssd/surveys/expenditure_food_survey.asp

¹⁵ http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/fuelpov_stats.aspx

3 Assessment findings

Principle 1: Meeting user needs

The production, management and dissemination of official statistics should meet the requirements of informed decision-making by government, public services, business, researchers and the public.

- 3.1 DECC engages with main users primarily via the Fuel Poverty Methodology Group (FPMG). This group includes government users as well as some users from energy and consumer groups. DECC has told us that it is currently reviewing the membership and remit of the FPMG to ensure that it remains effective and representative. We suggest that DECC publish more information about the Group and its discussions. DECC has recently consulted users about the usefulness of the sub-regional estimates and how these data meet their needs. We suggest that DECC publish the results of this consultation, and its plans to implement any changes deemed necessary.
- 3.2 There is little published documentation about the various uses made of the fuel poverty data. Given that these uses may be quite different, such as use in planning energy efficiency strategies or in monitoring social conditions, further documentation is required in order to align the published statistics with the uses they are seeking to meet. As part of the designation as National Statistics, DECC should take steps to develop a more complete understanding of the use made of the statistics, the needs of current and potential users, and user views on the service provided. DECC should also publish the relevant information and assumptions and use them to better support the beneficial use of the statistics¹⁶ (Requirement 1). During the assessment, DECC showed us some interesting case studies of use. The Assessment Team suggests that DECC publish these case studies to demonstrate how the statistics are used.

¹⁶ In relation to Principle 1 Practice 2 of the Code of Practice

Principle 2: Impartiality and objectivity

Official statistics, and information about statistical processes, should be managed impartially and objectively.

- 3.3 The *Annual Report on Fuel Poverty Statistics 2009* (presenting data for the period up to 2007) is the first to be published separately from the policy report on fuel poverty, and was published in an orderly and impartial manner.
- 3.4 DECC discusses proposed changes in the methods underpinning its estimates of fuel poverty with the FPMG, and announces them in the *Annual Report*. DECC has told us that it would announce any significant changes in the preceding *Annual Report*. Fuel poverty statistics are generally not revised as they are based on previously published data. If errors were detected subsequently, the general DECC revisions policy¹⁷ would apply.
- 3.5 A dataset containing some derived fuel poverty variables is available free of charge on request (see Principle 8 for further comments). DECC statisticians also carry out further analyses on request.

¹⁷ <http://www.decc.gov.uk/en/content/cms/statistics/governance/governance.aspx>

Principle 3: Integrity

At all stages in the production, management and dissemination of official statistics, the public interest should prevail over organisational, political or personal interests.

- 3.6 No incidents of political pressure, abuses of trust or complaints relating to professional integrity, quality or standards were reported or identified by the Assessment team.

Principle 4: Sound methods and assured quality

Statistical methods should be consistent with scientific principles and internationally recognised best practices, and be fully documented. Quality should be monitored and assured taking account of internationally agreed practices.

- 3.7 Methods for calculating fuel poverty are documented in a methodology report published alongside the *Annual Report*. In 2004, a peer review¹⁸ was carried out to independently assess the methodology. The report of the review is published on DECC's website along with a departmental response¹⁹. The FPMG was set up to address some of the issues arising from the review and several changes were made, for example to the fuel poverty model and to the underlying data sources. DECC told us that the FPMG agreed in 2008 that DECC had addressed the recommendations of the peer review.
- 3.8 The model used to calculate the number of households in fuel poverty involves making some assumptions - for example, about heating requirements for the type of property and type of household, and the use of average fuel prices for the area in question rather than the actual price a particular household pays. DECC has undertaken and published analyses of the impact of different assumptions on its estimates of the number of households in fuel poverty. However, these analyses relate only to the total number of households in fuel poverty and not, for example, to estimates of fuel poverty by household type. In addition, DECC has not published any information about the sensitivity of the estimates to variations in each assumption. Doing so would help users to understand better the nature of the factors affecting fuel poverty, and DECC itself to identify which parts of the model might warrant further improvement. As part of the designation as National Statistics, DECC should publish further information about the impact on published estimates of variations to the assumptions made in modelling fuel poverty²⁰ (Requirement 2).
- 3.9 Some users expressed concerns that DECC does not publish fuel poverty figures using equivalised income and income after housing costs. DECC publishes full and basic income variants in the *Annual Report* and has also published variants of fuel poverty using other income classifications.
- 3.10 BRE and DECC carry out extensive quality assurance of the fuel poverty data at different stages. DECC has also published quality guidelines on its website²¹.
- 3.11 DECC publishes a UK figure for fuel poverty in the *Annual Report*, incorporating data from England, Wales, Scotland and Northern Ireland. The data are not fully comparable due to differences in definitions and datasets. DECC describes these differences in the *Annual Report* and also takes part in regular four-nation meetings to discuss comparability. DECC is a world leader in producing fuel poverty statistics, the UK being the only country to produce figures on fuel poverty on a regular basis.

¹⁸ Peer review carried out by two independent academics, Tom Sefton and John Chesshire

¹⁹ See under 2004 Methodology Review on DECC's website

http://www.decc.gov.uk/en/content/cms/statistics/fuelpov_stats/fuelpov_stats.aspx

²⁰ In relation to Principle 4 Practice 2 of the Code of Practice

²¹ <http://www.decc.gov.uk/en/content/cms/statistics/governance/governance.aspx>

Principle 5: Confidentiality

Private information about individual persons (including bodies corporate) compiled in the production of official statistics is confidential, and should be used for statistical purposes only.

- 3.12 DECC does not receive any disclosive data. Access to unpublished statistical data is restricted to named individuals within the statistical production unit and is held on restricted areas in the computer system used to produce fuel poverty statistics.

Principle 6: Proportionate burden

The cost burden on data suppliers should not be excessive and should be assessed relative to the benefits arising from the use of the statistics.

- 3.13 Fuel poverty statistics are based on data from previously published sources (English Housing Survey (EHS), DECC and ONS energy price data). DECC sits on an EHS advisory group and has regular meetings with CLG to ensure that data supplied from the EHS remain of sufficient quality for use in fuel poverty modelling.
- 3.14 DECC has investigated new data sources. For example, at the request of the FPMG, DECC statisticians consulted CLG about the possibility of collecting further data in the EHS interview to permit the identification of energy supply company, tariff details and consumption. This was found to be prohibitively expensive and instead DECC is looking to match existing consumption data from energy companies with addresses from the EHS. DECC has also investigated ways to reduce the burden by using existing Consumer Price Indices²² data instead of conducting a separate survey of non-metered fuel prices.

²² <http://www.statistics.gov.uk/statbase/product.asp?vlnk=868>

Principle 7: Resources

The resources made available for statistical activities should be sufficient to meet the requirements of this Code and should be used efficiently and effectively.

- 3.15 BRE carries out the fuel poverty modelling. DECC statisticians have carried out more analytical work themselves in the last two years to ensure that they have the appropriate skills and knowledge about these statistics. An additional temporary post has allowed them to do this.
- 3.16 In awarding the contract for the production of sub-regional estimates, DECC sought to balance quality with cost, accepting a simpler approach than that used previously. While DECC has not been able to meet the needs of all users, it appears to have taken account of the needs of the main users, those in local authorities in particular.

Principle 8: Frankness and accessibility

Official statistics, accompanied by full and frank commentary, should be readily accessible to all users.

- 3.17 The *Annual Report* provides some helpful commentary about the factors that contribute to fuel poverty, and more detailed analyses, such as fuel poverty by household composition or by gas connection, which has been welcomed by users. It also provides some analysis of uncertainties in the data. However there is little discussion of the quality of the statistics in relation to their uses. As part of the designation as National Statistics, DECC should publish more information in the *Annual Report* on the quality of the statistics in relation to actual and possible uses²³ (Requirement 3).
- 3.18 The report has received positive feedback from users. However the headline figures are not presented until Chapter 2 of the report. We suggest that DECC present the headline figures in a more accessible way and consider including more graphical presentation, tables or charts in the press release issued alongside the report.
- 3.19 DECC provides an SPSS dataset containing derived fuel poverty variables on request. Some users would like to see more derived variables, although DECC has told us that they publish all the fuel poverty variables produced by the contractor. A full EHS dataset is also available from CLG. The Assessment team suggests that DECC clearly promote the link to CLG's EHS data. The Assessment team also suggest that DECC review the content of the SPSS dataset to ensure that this meets users' needs.

²³ In relation to Principle 8 Practice 1 of the Code of Practice

Protocol 1: User engagement

Effective user engagement is fundamental both to trust in statistics and securing maximum public value. This Protocol draws together the relevant practices set out elsewhere in the Code and expands on the requirements in relation to consultation.

3.20 The requirements for this Protocol are covered elsewhere in this report.

Protocol 2: Release practices

Statistical reports should be released into the public domain in an orderly manner that promotes public confidence and gives equal access to all, subject to relevant legislation.

- 3.21 DECC follows the release practices set out in the Code of Practice for Official Statistics, on the National Statistics Publication Hub and on its website. The 2009 fuel poverty statistics were subject to pre-release access and pre-announcement rules. The pre-release access list²⁴ is available on DECC's website.
- 3.22 Previously DECC has published the statistics report in October at the same time as the policy report but future statistical releases will be brought forward to July, in response to users' needs.

²⁴ <http://www.decc.gov.uk/en/content/cms/statistics/governance/governance.aspx>

Protocol 3: The use of administrative sources for statistical purposes

Administrative sources should be fully exploited for statistical purposes, subject to adherence to appropriate safeguards.

3.23 DECC does not currently use data from administrative sources in producing fuel poverty statistics. However DECC told us that it is seeking to exploit administrative data collected from energy suppliers in the estimation of fuel consumption. Any such data used in the future should be included in DECC's Statement of Administrative Sources²⁵, which has been published on its website.

²⁵ <http://www.decc.gov.uk/en/content/cms/statistics/governance/governance.aspx>

Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to the fuel poverty statistics published by DECC, in the interest of the public good. These are not formally required for designation, but the Assessment team considers that their implementation will improve public confidence in the production, management and dissemination of official statistics.

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| Suggestion 1 | Publish more information about the Fuel Poverty Methodology Group and its discussions (para 3.1). |
| Suggestion 2 | Publish the results of the Local Authority consultation, and plans to implement any changes deemed necessary (para 3.1). |
| Suggestion 3 | Publish the case studies on the uses of the statistics (para 3.2). |
| Suggestion 4 | Present the headline figures in a more accessible way and consider including some more graphical presentation, tables or charts in the press release issued alongside the report (para 3.18). |
| Suggestion 5 | Clearly promote the link to CLG's EHCS data (para 3.19). |
| Suggestion 6 | Review the content of the SPSS dataset to ensure that this meets users' needs (para 3.19) |

Annex 2: Summary of assessment process and users' views

A2.1 This assessment was conducted from February to July 2010.

A2.2 The Assessment team – Cathy Kruger and Ruth Naylor – agreed the scope of and timetable for this assessment with representatives from DECC in February. The Written Evidence for Assessment was provided on 25 March. The Assessment team subsequently met with DECC during April to review compliance with the Code of Practice, taking account of the written evidence provided and other relevant sources of evidence.

Summary of users contacted, and issues raised

A2.3 Part of the assessment process involves our consideration of the views of users. We approach some known and potential users of the set of statistics, and we invite comments via an open note on the Authority's website. This process is not a statistical survey, but it enables us to gain some insights about the extent to which the statistics meet users' needs and the extent to which users feel that the producers of those statistics engage with them. We are aware that responses from users may not be representative of wider views, and we take account of this in the way that we prepare assessment reports.

A2.4 The Assessment team received 21 responses from the user consultation. The respondents were grouped as follows:

Internal DECC	7
Local government	3
Academic / Think tank	5
Parliamentary	1
Third sector	4
Regulatory body	1
Total	21

A2.5 There was some disparity in the comments received from users. Generally users within DECC, and occasional users from outside DECC were satisfied with the data and found the figures useful and comprehensive. Academic users, interested in in-depth analysis of fuel poverty, were less satisfied and found the methodological information and data provided lacking in detail. Timeliness was often mentioned as a problem although users generally understood the reasons behind the two-year delay. Users were positive about the statistical report, generally finding the commentary useful and the report easy to use. Most users felt that DECC statisticians were helpful and responded well to enquiries.

Key documents/links provided

Written Evidence for Assessment document

