

METHODOLOGY NOTE ACCOMPANYING STATISTICAL RELEASES ON ESTIMATES OF HOME INSULATION LEVELS IN GREAT BRITAIN.

The high level methodology used in producing these estimates is to take the starting point from the 2008 housing surveys and add known changes based on insulations delivered through the Government policies and data on new buildings from Communities & Local Government (CLG). This note helps users understand the assumptions taken to compile these statistics and some of the limitations of the data sources.

Currently these data are considered to be Experimental Statistics; that means they are new official statistics undergoing an evaluation process prior to being assessed as National Statistics. They are published in order to involve users and stakeholders in their development, and as a means to build in quality assurance at an early stage of development.

Background statistical data

English Housing Survey

- The source of data for the housing characteristics required for this work is the English Housing Survey (EHS). The EHS is an annual survey, commissioned by the Department of Communities and Local Government (CLG). It covers all tenures and involves a physical inspection of properties by professional surveyors. The information obtained through the survey provides an accurate picture of the type and condition of housing in England. The survey is an unclustered, random sample of housing in England. As part of the survey, information on insulation measures is obtained. The latest results from the EHS cover the period upto March 2008.

Scottish House Condition Survey

- The Scottish House Condition Survey (SHCS) gives insulation numbers excluding vacant dwellings. The figures have been scaled up to give a dwelling count assuming that there is no difference in the percentage.

Living in Wales Survey

- The Living in Wales survey asks households about the insulation measures they have. This survey is not like EHS/SHCS that have physical surveys carried out by technical surveyors. Results are therefore subject to considerable uncertainty as householders may not know what measures they have particularly for cavities and less detail is known about lofts regarding the depth and completeness of the insulation. For this reason it was decided not to use the results of the Living in Wales survey when producing these statistics. However the general profile of the housing stock in terms of dwelling type and tenure is similar between England and Wales. As a result, the insulation levels in Wales have been derived using the percentage coverage in England adjusted by difference in the number of dwellings.

Carbon Emissions Reduction Target

- The Carbon Emissions Reduction Target (CERT) is an obligation placed by Government on gas and electricity suppliers with more than 50,000 customers to deliver a reduction in household carbon savings across England, Scotland and Wales. It aims to help ensure the UK meets its statutory carbon reduction targets. In helping households take up energy efficiency measures, it helps more households benefit from reduced energy bills and increased thermal comfort alongside increased security of supply from reducing energy demand and local air quality benefits. Suppliers meet this target by promoting the uptake of low carbon energy solutions to household energy consumers, thereby assisting them to reduce the carbon footprint of their homes. The CERT scheme is regulated by the Office of the Gas and Electricity Markets (Ofgem). Ofgem reports supplier progress towards their CERT target in summary form on a quarterly basis and provide a more extensive annual review of the scheme¹.

Assumptions made in producing the estimates

Loft insulation

- The data published by Ofgem does not identify how much insulation was present before the CERT installation. An assumption has been made that 10 per cent of insulations done under CERT are top-ups from above 125mm. These have not been included to avoid double counting of lofts insulated above the 125mm threshold. DECC is seeking better information to assess

¹ <http://www.ofgem.gov.uk/Sustainability/Environment/EnergyEff/CU/Pages/CU.aspx>

the validity of this top-up assumption, which may result in the estimates being revised in future statistical releases.

- The level of DIY insulation is reported by Ofgem based on sales by square metre rather than dwellings. Using English Housing Survey (EHS) data it is estimated that the average size of a loft is about 50m². It is also recognised that some CERT subsidised loft insulation is used for non CERT eligible projects including new buildings, extensions and small businesses. It is estimated that the level of this is 10 per cent. For example 55 million square meters of loft insulation sold would imply 1 million eligible lofts were insulated.

Cavity wall under recording

- The Building Research Establishment (BRE) have advised DECC that the EHS 2008 and previous EHCS surveys under-estimate the number of filled cavities by 5-10%. The figures in the statistical release have applied an adjustment of 5% to the statistical count. The other 5% should be treated as uncertainty when considering the remaining potential. Improved training has been given by BRE to surveyors for the 2009 survey to remove this under-recording.

New build

- It is assumed that all new dwellings are built with cavities and have cavity wall insulation fitted as standard. Some modern constructions will have other types of structure, for example glass, but would not benefit from retro fitted cavity wall insulation.
- It is assumed that all new dwellings with lofts have 270mm of loft insulation fitted as standard. The number of properties with lofts is based on the recent ratio of flats to houses and the average number of floors in blocks of flats.
- The number of net additional dwellings consists mostly of new builds but also includes conversions, change of use and removal of demolitions. Figures on all of these are produced by CLG². New dwellings are assumed to be fully insulated but nothing is known about the other categories. Since 96% of net additional dwellings are new builds the other 4% have been excluded but are likely to be less than 20,000 dwellings and would be subject to large uncertainty.

² Source CLG Live table 120 available at:

<http://www.communities.gov.uk/housing/housingresearch/housingstatistics/housingstatisticsby/stockincludingvacants/livetable/>

Policy programmes included

- Quarterly data on CERT and Warmfront have been included. Data from the Community Energy Saving Programme (CESP) has not been included since it reports schemes at a community level not individual property measures.

Referencing figures to dates

- These estimates reflect a particular point in time. They are based on figures reported for the previous quarter and therefore represent the point immediately between quarters.
- For ease of reference these have been presented as the start of following month. This is consistent with how dates for the English Housing Survey (EHS) are reported. The EHS reports surveys for two combined financial years. The figures for 2007-08 and 2008-09 are referred to by the mid-point of April 2008.

Further information

Further clarification of the information contained in this methodology note can be obtained from Stephen Oxley in the DECC's Energy Statistics Team.

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