Written evidence submitted by the BRE Group [RSH 078]

About BRE

BRE (Building Research Establishment) is here to contribute to a thriving and sustainable world, by developing science-led solutions to built environment challenges. We have played a vital role in supporting the development of the built environment for one hundred years; this includes 45 years of carrying out the English Housing Survey to expert input into almost every aspect of Building Regulations, as well as substantial support for local authorities on housing stock modelling and advice. We deliver several methodologies and modelling used by Government, including SAP and SBEM, which underpin the performance of the UK's buildings and will be key to supporting the Government's future energy efficiency and building policies.

Summary

- The Decent Homes Standard was introduced in 2000 to address concerns about the quality of social housing and to provide a prompt for tackling the backlog of disrepair that existed at the time. The Standard was updated in 2006, and we believe that it once again needs updating to reflect the modern aspirations of both tenants and landlords, and the need for UK buildings to reach net zero carbon emissions. Equally, the Housing Health and Safety Rating System (HHSRS) must be updated to reflect the hazards posed by new technologies and the impact of climate change on our homes, especially the increasing prevalence of overheating.

- As the Decent Homes programme draws to a close, homes are falling back into disrepair. Approximately 12% of social housing was deemed 'non-decent' in 2017, with an estimated cost of £1.2bn to rectify this. BRE has called for a new 'Decent Homes 2' scheme to inject momentum back into the improvement of social housing.

- Although criticised for a lack of ambition, the thermal comfort criterion in the Decent Homes Standard led to a major improvement in the energy efficiency of the social housing stock through the 2000s and undoubtedly played a major role in the positive health outcomes from the programme. Our view is that it is now appropriate to replace the thermal comfort criterion with a SAP-based standard. This should be set around homes reaching Energy Performance Certificate (EPC) Band C by 2028.

- It is important that an updated energy performance standard for social housing providers also encourages action to take homes to a net-zero-ready standard. We therefore suggest that an updated Decent Homes Standard should incorporate a voluntary enhanced standard for energy efficiency which can be applied to social housing homes that are net-zero-ready.

- There are clear resource implications arising from the need both to remediate building safety risks and to retrofit social housing to make it more energy efficient. However, safety and sustainability are core principles in the delivery of high-quality housing, and these must be prioritised in any attempts to maintain or improve social housing stock.

- BRE analysis finds that the cost of raising social housing to an Energy Efficiency Rating (EER) Band C or higher is lower than the average cost for both owner-occupied homes and private rented dwellings. Investment in energy improvements is also likely to result in increased asset value over time, positively impacting social providers' resources in the long term.

- For nearly 50 years, BRE has carried out the English Housing Survey on behalf of the UK Government. The survey provides insight into the quality of social housing, and BRE standards ready

to work closely with local authorities and central government to assist with the delivery of the highest quality new and refurbished social housing possible.

- If we can provide any further data which would be useful to the Committee in understanding the current regulation of social housing, we would be very happy to assist.

What changes, if any, should the Government make to the Decent Homes Standard?

England's Decent Homes Standard is designed to be applied to social housing. For a dwelling to be considered 'decent' it must:

- Meet the statutory minimum standard for housing (assessed since 2006 using the HHSRS, which BRE helped develop).
- Be in a reasonable state of repair.
- Have reasonably modern facilities and services.
- Provide a reasonable degree of thermal comfort.

The Decent Homes Standard was introduced in 2000 to address concerns about the quality of social housing and to provide a prompt for tackling the backlog of disrepair that existed at the time, by setting a minimum standard of decency for all social housing by 2010.[1] The Standard was updated in 2006 to incorporate the Housing Act 2004, including the HHSRS. We believe that the Standard once again needs updating to reflect the modern aspirations of both tenants and landlords, and the need for UK buildings to reach net zero carbon emissions.

As the Decent Homes programme draws to a close, homes are falling back into disrepair. There were approximately 516,000 (12%) non-decent social homes in 2017, with an estimated cost to make them decent of £1.2bn.[2] BRE has called for a new 'Decent Homes 2' scheme to inject momentum back into the improvement of social housing. Refurbishment must be carefully planned and executed, to avoid some of the problems that have occurred previously and learn from best practice.

For nearly 50 years, BRE has carried out the English Housing Survey (EHS) – a national survey of people's housing circumstances and the condition and energy efficiency of housing in England – on behalf of the UK Government. We also conduct the equivalent surveys in Wales and Northern Ireland and support the delivery of the Scottish House Condition Survey. The survey provides insight into the quality of social housing, and BRE standards ready to work closely with local authorities and central government to assist with the delivery of the highest quality new and refurbished social housing possible.

Critically, the various policy measures and resulting standards and legislation must be consistent and clear, to ensure social landlords are able to understand their obligations and explain these to tenants. Given the breadth of consultation on social housing regulations currently being conducted across Government, there is a need to ensure effective cross-departmental working in order to create cohesive, joined-up policy.

How widespread and serious are the concerns about the quality of social housing?

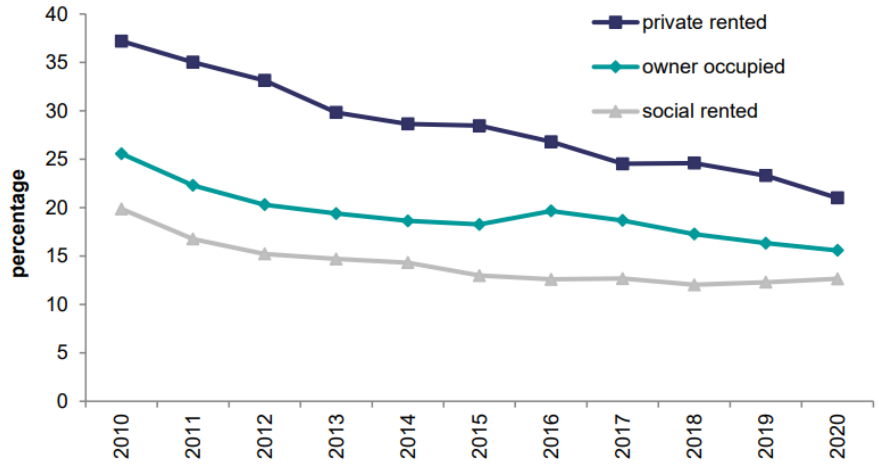
In 2020, the EHS[3] found the social housing sector continues to have the lowest levels of non-decent homes of any tenure, with 13% of dwellings in the social rented sector failing to meet the Decent

[1] Note that the Decent Homes Standard is used as an informal measure of housing quality in the private sector, which differs from its use in the social housing sector as a Government-funded and mandatory standard for landlords.

[2] BRE Trust, 100 Years of Council Housing, 2020.

Homes Standard, compared with 21% of dwellings in the private rented sector and 16% of owner-occupied homes.[4]

Figure 1: Non-decent homes, by tenure, 2010 to 2020



Source: English Housing Survey: Headline Report, 2020-21

The Housing Health and Safety Rating System (HHSRS)

The HHSRS – an evidence-based system used to identify and rate the seriousness of any hazard in the home– identifies Category 1 hazards as the most serious. It is used by environmental health officers to assess levels of housing safety.

In 2020, 9% of the housing stock had an HHSRS Category 1 hazard, and these hazards were more common in the private rented sector (12%) and owner-occupied housing stock (10%), than the social rented sector (5%).[5]

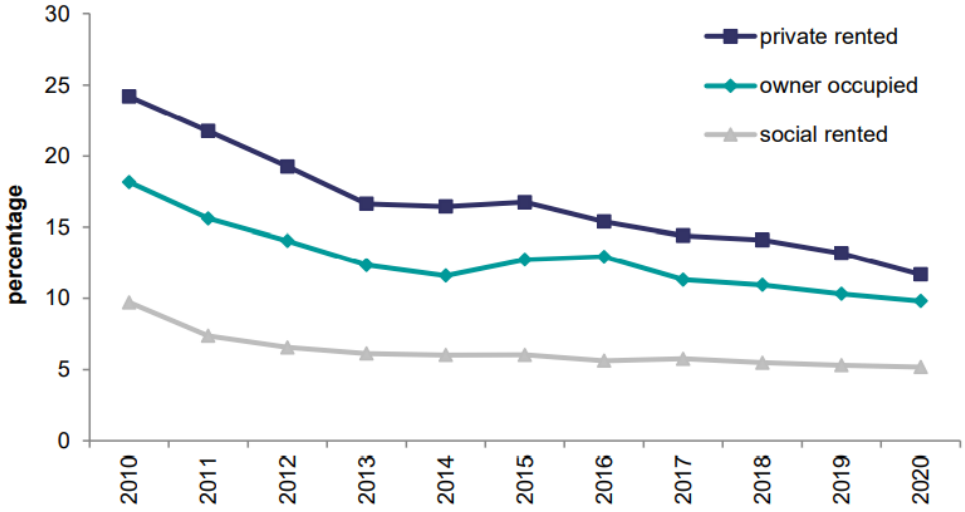


Figure 2: Homes with Category 1 hazards, by tenure, 2020

[3] Department for Levelling Up, Housing and Communities, English Housing Survey: Headline Report, 2020-21, p.36.

[4] In 2020-21, COVID-19 restrictions prevented surveyors from completing an assessment of the inside of homes. As such, the Decent Homes statistics provided in this section are based on modelled data (see the technical notes section of the 2020-21 English Housing Survey report for more details).

[5] Department for Levelling Up, Housing and Communities, English Housing Survey: Headline Report, 2020-21, p.37.

to 2021

Source: English Housing Survey: Headline Report, 2020-21

HHSRS, which is used as an assessment criterion within the social housing Decent Homes Standard, is currently under parallel review by DLUHC. In our input to this review, BRE has stated that we support its ongoing risk-based approach rather than a minimum standard approach. However, we believe that HHSRS guidance should be updated to take account of new evidence regarding risks in the housing stock. The guidance should also incorporate consideration of risks around new technologies used in the home, such as new types of insulation materials.

Energy efficiency

The HHSRS includes an assessment of "excess cold" risk that identifies where homes have such low levels of energy efficiency that they are unsafe. BRE's recent report, The Cost of Poor Housing in England, finds that excess cold is the most expensive hazard affecting homes in England, and costs the NHS £857m per annum.

The 2020-21 EHS finds that the social sector remains more energy efficient than the private sector, partly due to the wider use of wall insulation and partly due to dwelling type – with a higher proportion of flats than the private rented sector, which have less exposed surface area where heat can be lost. The wider use of insulation can be attributed to landlords fitting retrofit insulation (partly as a result of the thermal comfort criterion of the Decent Homes standard – see below) and can be attributed to the social sector having newer homes than the private sector, with newer homes more likely to have been built with insulation. Some 66% of social dwellings are in Energy Efficiency Rating (EER) Bands A to C, compared to 42% of owner-occupied and private rented dwellings. The social sector also has the highest mean SAP ratings, with housing associations at 70 and local authority at 69. The owner-occupied and private sectors scored lowest, with the mean value for both at 65.[6]

Upgrading a dwelling's heating system and increasing insulation are the two primary ways of increasing the energy efficiency of existing dwellings. In general, social housing has efficient heating systems: in 2020, over 90% of social homes had central heating systems and only 3% of all social sector dwellings had older, less energy efficient boiler types, compared to 10% of owner-occupied dwellings and 7% of private rented sector dwellings.[7] Some 1% of social rented dwellings had fixed room heaters, compared with 7% in the private rented sector and 2% of owner-occupied dwellings. In terms of insulation, the social rented sector had a higher proportion of solid wall dwellings with solid wall insulation (28%) than the private sector (9%), and 75% of all cavity wall dwellings in the social rented sector had cavity wall insulation, compared with 72% of owner-occupied dwellings and 59% of private rented sector homes.[8]

However, research conducted by BRE in conjunction with Loughborough University finds that those living in social housing were significantly more likely to experience overheating in their homes. The study notes that the presence of energy efficiency measures, loft insultation, double glazing and wall insulation "had no significant impact on the prevalence of monitored overheating,"[9] although there

English Housing Survey: Headline Report, 2020-21,

[7] Ibid.

[8] Ibid.

[9] Loughborough University, Dwelling and household characteristics' influence on reported and measured summertime overheating: a glimpse of a mild climate in the 2050's, 2021.

are ongoing concerns about the impact of insulation on housing quality, particularly with regards to occurrences of damp and overheating, and these issues should be monitored.

The risk of overheating has increased as climate change leads to a global rise in temperatures and increased frequency, intensity, and duration of heatwaves. The majority of fatal heat exposures in developed nations occur indoors, and where non-fatal, high indoor temperatures can lead to thermal discomfort and negatively impact health and wellbeing. This risk has been reflected in the Department for Levelling Up, Housing and Communities' recent update of building regulations to include standards of overheating in new residential buildings for the first time.[10] Excess heat is included as a risk category within HHSRS, and we recommend that this category is included as a topic of focus during the review of HHSRS, to ensure that it reflects the increased likelihood of overheating.

The most disadvantaged in society – the poor, those living in social housing, the elderly and the unemployed, disproportionately suffer from overheated homes, and mitigation measures as well as help and support during heatwaves should be targeted at these groups.[11]

Should the Decent Homes Standard be amended to include energy efficiency and other means of mitigating climate change, and if so how?

BRE is supporting DLUHC in its review of the Decent Homes Standard.

The principal element of Decent Homes relating to energy efficiency is the thermal comfort criterion which lays out minimum requirements for insulation and heating systems in homes. While the criterion was criticised as unambitious almost from the start of the Decent Homes programme,[12] it led to a major improvement in the energy efficiency of the social housing stock through the 2000s, with a twelve-point SAP improvement in the energy efficiency of social homes from 2001-2011.[13] It also provided a minimum standard for energy efficiency which many social housing providers then rapidly and significantly surpassed.

The thermal comfort criterion undoubtedly played a major part in the positive health outcomes from the Decent Homes programme. Research undertaken by the BRE Trust in 2014 showed that making social homes decent between 2001 and 2010 saved the NHS some £400m and these savings should continue to accrue at a rate of over £70m p.a.[14]

BRE's view is that it is appropriate to replace the thermal comfort criterion with a SAP-based standard. This should be set around homes reaching EPC Band C by 2028.

It is important that an updated energy performance standard for social housing providers also encourages action to take homes to a net-zero-ready standard. 2050 is 29 years away – within the timeline of most providers' existing asset management plans. Rather than improving homes to EPC Band C and then undertaking a further retrofit in 10 to 15 years' time, it will increasingly make sense for providers to plan "one hit" deep retrofits to a net-zero-ready standard. Innovation programmes like Energiesprong are showing how this can be done.

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[10] Department for Levelling Up, Housing and Communities, Overheating: Approved Document O, 2021.
[11] Ibid.
[12] See paragraph 91 of the Environment, Food and Rural Affairs Select Committee report on Energy efficiency and fuel poverty, 2009.
[13] Department for Levelling Up, Housing and Communities, English Housing Survey: Headline Report, 2019-20,
[14] BRE Trust, The cost of poor housing to the NHS, 2014.

We therefore suggest that an updated Decent Homes Standard should incorporate a voluntary enhanced standard for energy efficiency which can be applied to social housing homes that are net-zero-ready. A target date could also be set for the enhanced standard to become the Decent Homes minimum energy standard. Robust repair standards are also vital for energy efficiency. For example, having external walls free of disrepair better enables the installation of external solid wall insulation.

We make three final points on Decent Homes:

1) Tenant Demand and Engagement

New kitchens and bathrooms were used by social landlords as selling points to get buy-in to Decent Homes programmes. The benefits of the new heating systems and upgraded insulation to be installed as part of low carbon upgrades, required under a revised Decent Homes Standard, may be more complicated to communicate to tenants. Engaging social housing tenants with the benefits of low carbon retrofit will be an important part of any enhanced Decent Homes or low carbon programme's success. Social housing providers could work with local authorities here to provide retrofit advice to households in their area.

2) Leaseholder costs in mixed tenure blocks

A new, mandatory Decent Homes Standard will drive major works on social housing blocks of flats, many of which have private leaseholders. The allocation of costs to these leaseholders needs to be considered: it is likely to be politically unacceptable for lower income owner-occupiers in social housing blocks to bear a high cost for low carbon retrofit. This may follow on from expensive fire risk remediations works for many.

3) A Decent Homes Standard for the private sector

The Decent Homes Standard was originally designed to be used as a standard across social and private rented housing occupied by 'vulnerable' tenants. Though all private sector homes' progress against Decent Homes is measured through the English Housing Survey, policies have not been designed at national level around bringing private homes to this standard.

We are strongly supportive of efforts to improve energy efficiency in the private rented sector and we welcome the Domestic Minimum Energy Efficiency Standard (MEES) which set a minimum energy efficiency level of EPC Band E for domestic private rented properties. We encourage the Committee to consider whether this could viably be extended to the owner-occupier sector at point of sale.

What is the impact on social housing providers' resources, and therefore their ability to maintain and improve their housing stock, of the need to remediate building safety risks and retrofit their homes to make them more energy efficient?

There are clear resource implications arising from the need both to remediate building safety risks and to retrofit social housing to make it more energy efficient. However, safety and sustainability are core principles in the delivery of high-quality housing, and these must be prioritised in any attempts to maintain or improve social housing stock.

We are aware of social housing providers' concerns about how to ensure that any improvements made are financially viable, without passing on costs to tenants. However, while much progress has been made on improving the quality of social housing as a result of the Decent Homes programme, there is much left to do. BRE's report, 100 Years of Council Housing, finds that in 2017, the cost of

urgent repairs to address the backlog of work to make all social homes decent was £2.6bn, with the cost of comprehensive repairs reaching £10bn.

The 2017 Clean Growth Strategy sets out the Government's intention to upgrade all fuel poor homes to EPC Band C by 2030, and its aspiration for as many homes as possible to be EPC Band C by 2035,[15] as a key step in its net zero strategy. EPC Band C by 2028 is the recommendation of the Committee on Climate Change for the social housing sector in its sixth carbon budget advice on the trajectory to net zero.[16]

BRE has provided public data for Government that can inform discussion about costs. As part of our work on the 2019-20 English Housing Survey, we undertook analysis of the costs and energy saving benefits of bringing different property types – including flats – to an EER Band C standard. The analysis found that where it was possible for energy improvements to raise dwellings with an EER Band D or below into a band C or higher, the average costs for local authority and housing association dwellings were £6,070 and £5,910 respectively. This was lower than the average cost for both owner-occupied homes (£8,580) and private rented dwellings (£7,650).[17] Investment in energy improvements is also likely to result in increased asset value over time, positively impacting social providers' resources in the long term.

December 2021

[15] Department for Business, Energy & Industrial Strategy, Clean Growth Strategy, 2017.
[16] Climate Change Committee, Policies for the Sixth Carbon Budget and Net Zero, 2020.
[17] Ministry of Housing, Communities and Local Government, English Housing Survey: Energy Report, 2019-20.