



Environmental Audit Committee Call for evidence Energy Efficiency of Existing Homes

Introduction to the Institute of Historic Building Conservation

The Institute of Historic Building Conservation (IHBC) is the professional body of the United Kingdom representing conservation specialists and historic environment practitioners in the public and private sectors. The Institute exists to establish the highest standards of conservation practice, to support the effective protection and enhancement of the historic environment, and to promote heritage-led regeneration and access to the historic environment for all.

The IHBC has developed its own [IHBC Position Statement on Sustainability and Conservation of the Historic Built Environment](#) which demonstrates that IHBC believes conservation of the historic built environment is an essential component of the response to the threat posed by climate change and long-term planning for sustainable development, and sets out sixteen key points that underpin this belief.

The IHBC has produced its own guidance on the [Retrofitting of Traditional Buildings](#) and [Climate Change & Older Buildings](#) .

The IHBC is a member of the Sustainable Traditional Buildings Alliance (STBA) and we support the response of the STBA to this call for evidence alongside the contents of the Institute's own response. The IHBC also supports the points made in the response by the National Trust.

The IHBC supports the [Climate Heritage Network](#), a voluntary, mutual support network organizations committed tackling climate change and achieving the ambitions of the Paris Agreement.

Summary

The Institute considers when considering the impact of energy efficiency measures especially on older buildings these points should be noted:

- All buildings should be improved, insofar as that is compatible with both special interest of the building and avoiding damage to its fabric.
- Traditional buildings do not perform like modern buildings and respond differently to retrofit measures. This should be taken into

account when proposals for energy efficiency measures are developed.

- 'One-size fits all' solutions are potentially harmful to historic buildings
- Policy or initiatives should not be based on the current Energy Performance Certificate (EPC)
- The potential adverse and unintended effects of standard solutions on traditional buildings are little understood by those recommending, surveying, specifying, designing and implementing the retrofit measures and there is an urgent need for appropriate training or re-training in these areas.

1. Are the Government's targets on residential energy efficiency still appropriate to achieve its ambition to reach net zero emissions by 2050?

- **What are the potential risks and opportunities of bringing forward the Government's energy efficiency target?**

The basic principle, which IHBC strongly supports, is that all buildings should be improved, insofar as that is compatible with both special interest of the building and avoiding damage to its fabric. But there are substantial risks in setting targets and we suggest looking back at the various failed schemes, ill thought alterations and has serious unintended negative consequences. Over many years retrofit policies and funds have failed but the Government has not learnt from these and continues to create similar problems.

The potential for targets to lead to more schemes which waste money and carbon in their installation. They are often hastily conceived and implemented without thought for the subsequent consequences they may produce. They do not necessarily have the desired greening impact they are intended to have but can cause substantial long-term damage to a building instead.

The Government's retrofit guidance PAS 2035:2019 integrates heritage and health. PAS 2035:2019 the Standard in use for England and Wales has multiple objectives including:

- Improved functionality, usability and durability of buildings
- Improved comfort, health and well-being of building occupants and visitors
- Improved energy efficiency, leading to reduced fuel use, fuel costs and pollution
- Reduced environmental impacts of buildings

- Protection and enhancement of the architectural and cultural heritage
- Avoidance of unintended consequences.

Making retrofit schemes countrywide PAS 2035 compliant, could help prevent inadequate wasted money and inadequate installations requiring subsequent remediation, wasting money and carbon

• **Should Government targets for energy efficiency be legislated for, and if so, what difference would this make?**

No. Statutory targets could lead to more hasty and inappropriate approaches.

2. **How effective is the EPC rating at measuring energy efficiency? Are there any alternative methodologies that could be used? What are the challenges for rural areas?**

Traditional buildings and generally buildings from before 1919 should be treated differently to more modern buildings but the Government consistently adopts a single approach to buildings of all types. The repair and retrofit of traditional buildings requires specialist skills and if more retrofit schemes are to be implemented major specialist training is needed for those recommending, surveying, specifying, designing and implementing the retrofit measures. A focus on each building individually will be achieved by ensuring that a suitably qualified and experienced professional is required for survey and design of retrofit measures using the most compatible methods and materials. The aim should be to create better quality measures which work for the individual property and its owners, rather than having a one-size-fits-all approach.

The Government's targets and reliance on EPCs do not balance other important sustainability criteria such as health, local prosperity and building longevity, whole-life embodied carbon, or the carbon cost and durability of retrofit measures.

The Government approach is heavily reliant on EPC Energy Efficiency Ratings as a measure. UK domestic EPC Energy Efficiency Ratings are a cost/fuel poverty measure not a carbon measure. They concern themselves with fuel costs not carbon emissions unlike commercial EPCs "an EER is based on cost, not on energy efficiency, and so is fundamentally misleading"¹ EPCs are a blunt tool producing recommendations that are over simplified and especially not suited to historic and other buildings of traditional construction.

The Whole House Approach to retrofit is more effective than EPCs. Use of the Environmental Improvement Rating not the Energy

¹ <http://files.site-fusion.co.uk/e8/8e/e88ebac9-50d6-4710-8fea-0d39e46bcadd.pdf>

Efficiency Rating would be a starting point. The general advantages of such a change, including making targets more achievable, are set out in "EPCs and the Whole House Approach – A Scoping Study"². This study makes a series of recommendations which we commend to you. Understanding the behaviour of materials in historic properties is essential.

3. How will lack of progress on residential energy efficiency impact the decarbonisation of heat and the associated costs of this?

4. How can the Government frame a Covid-19 stimulus strategy around improved energy efficiency of homes?

Investment in training is important to ensure that the specification and fitting of retrofit is most likely to be successful. It would be possible to create long term skilled and specialist jobs in retrofitting and ensure more informed thought is given to the type and nature of any retrofit projects.

There is currently insufficient training in understanding traditional buildings, or in how to repair and alter them, on anything like the scale needed to implement Government energy efficiency schemes and targets.

5. Is the £5 million Green Home Finance Innovation Fund enough to stimulate the market for and drive action from the banks to encourage owner occupiers to improve the energy efficiency of their homes?

- a. What policy and/or regulation could supplement it?
- b. Which models in other countries have been successful at stimulating demand for energy efficiency within this market?

6. What additional policy interventions are needed for social housing, leaseholders, landlords and tenants?

7. How should the proposed Home Upgrade Grant Scheme be delivered to help the fuel poor? Should the new grant scheme supplement ECO in its current form, or should ECO be redesigned?

8. Are there examples of where energy efficiency policy has fallen between Government Departments? How could cross-departmental coordination be improved?

One department should have a focus on providing an overview of achieving a more sustainable environment. This aim is not just

² <http://files.site-fusion.co.uk/e8/8e/e88ebac9-50d6-4710-8fea-0d39e46bcadd.pdf>

about insulation and retrofit, as is so often presumed, but should include embodied energy, health, quality of life, sustainable resources and long-term impacts on building stock.

The IHBC is particularly concerned that the Department of Energy and Climate Change (DECC), now Department for Business, Energy & Industrial Strategy (BEIS), has not cross-referenced successive energy efficiency schemes to Part L1B of the Building Regulations. Part L1B, which covers energy efficiency of existing buildings, and has been in force since 2002, includes conditional exemptions (paras 3.6.a and 3.7) for listed buildings and buildings in conservation areas, and special consideration (para 3.8) for further categories of historic buildings, and also, notably, for buildings of traditional breathable construction (para 3.8c). According to the Building Research Establishment, this latter category which includes almost all pre-1919 buildings as well as some inter-war, makes up approximately 35% of the total dwelling stock. Similar special consideration is included in the Welsh version of Part L (sections 12.1 and 12.2) and the Scottish Building Standards Technical Handbook section 6.2.8.

There is no cross-reference of the Part L special consideration, and to include safeguards for traditional buildings (notably in ECO) has opened the door to inappropriate schemes affecting up to a third of the stock, with potential for ever-greater problems as the focus increases on “hard to treat” dwellings. PAS 2035 will be a vitally important safeguard, but will not yet be fully in force over the timescale of the new Green Homes Grants.

Availability of good advice will be vital to safeguard buildings, public finance, and carbon. Part L of the Building Regulations advises the Building Control Body to consult the local planning authority’s conservation officer. Conservation officers are able to provide impartial advice but the availability of conservation officer advice has been drastically curtailed due to austerity cuts (from 2006 to 2018 the number of conservation specialists in Local Authorities fell by 35%³)

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³ <https://historicengland.org.uk/images-books/publications/tenth-report-la-staff-resources/tenth-report-la-staff-resources/>

