

Proposed Domestic Building Environmental Standards (Scotland) Bill

Introduction

A proposal for a Bill to introduce new minimum environmental design standards for all new-build housing to meet the Passivhaus standard or a Scottish equivalent in order to improve energy efficiency and thermal performance.

The consultation runs from 4 May 2022 to 27 July 2022

All those wishing to respond to the consultation are strongly encouraged to enter their responses electronically through this survey. This makes collation of responses much simpler and quicker. However, the option also exists of sending in a separate response (in hard copy or by other electronic means such as e-mail), and details of how to do so are included in the member's consultation document.

Questions marked with an asterisk (*) require an answer.

All responses must include a name and contact details. Names will only be published if you give us permission, and contact details are never published – but we may use them to contact you if there is a query about your response. If you do not include a name and/or contact details, we may have to disregard your response.

Please note that you must complete the survey in order for your response to be accepted. If you don't wish to complete the survey in a single session, you can choose "Save and Continue later" at any point. Whilst you have the option to skip particular questions, you must continue to the end of the survey and press "Submit" to have your response fully recorded.

Please ensure you have read the consultation document before responding to any of the questions that follow. In particular, you should read the information contained in the document about how your response will be handled. The consultation document is available here:

[Consultation Document](#)

[Privacy Notice](#)

I confirm that I have read and understood the Privacy Notice which explains how my personal data will be used.

About you

Please choose whether you are responding as an individual or on behalf of an organisation.

Note: If you choose "individual" and consent to have the response published, it will appear under your own name. If you choose "on behalf of an organisation" and consent to have the response published, it will be published under the organisation's name.

an individual

Which of the following best describes you? (If you are a professional or academic, but not in a subject relevant to the consultation, please choose "Member of the public".)

Professional with experience in a relevant subject

Please select the category which best describes your organisation

No Response

Please choose one of the following:

I would like this response to be published anonymously

Please provide your Full Name or the name of your organisation. (Only give the name of your organisation if you are submitting a response on its behalf).
(Note: the name will not be published if you have asked for the response to be anonymous or "not for publication". Otherwise this is the name that will be published with your response).

Please provide details of a way in which we can contact you if there are queries regarding your response. Email is preferred but you can also provide a postal address or phone number.

We will not publish these details.

Aim and approach - Note: All answers to the questions in this section may be published (unless your response is "not for publication").

Q1. Which of the following best expresses your view of the proposed Bill? Please note that this question is compulsory.

Partially supportive

Please explain the reasons for your response.

I have extensive experience of designing and building both to 'Passivhaus level' (uncertified) and certified Passivhaus (both domestic and more recently non domestic). In principle I am fully supportive of the proposal, however given my experience I am mindful of a number of pitfalls within it.

Q2. Do you think legislation is required, or are there other ways in which the proposed Bill's aims could be achieved more effectively? Please explain the reasons for your response.

Yes. It will only ever be to base standard that the majority of new homes are built, both affordable housing with the tightest budgets and commercial developments. It is therefore imperative that building standards are raised.

Q3. Which of the following best expresses your view on setting the Passivhaus standard or a Scottish equivalent as the most appropriate new build housing standards to contribute to eradicating fuel poverty?

Partially supportive

Please explain the reasons for your response.

I believe Passivhaus is a tried and proven standards. I am mindful that there is a limited number of designers and contractors able to meet this standard. This number is growing slowly. I am also mindful that there is an even greater deficit of Passivhaus certifiers - the 'gatekeepers' to certification. It would be tempting to propose a standard for 'designing to' Passivhaus standards bypassing additional consultants who are in short supply, however this would totally negate the emphasis on the performance gap. A 'Scottish' equivalent could work, and could perhaps deal with the above issue in the longer term. It could also cover a more broad sustainability agenda as already seen in the Silver and Gold standards. There is a real danger however that this would likely lead to an overly long consultative process and end in an unmanageable, over-the-top, expensive, almost unattainable standard - as experienced in the Net Zero Public Sector Buildings standard. Passivhaus does come 'ready made' and proven, and with some investment, Scotgov could increase the number of practitioners etc.

Q4. Which of the following best expresses your view on setting the Passivhaus standard or a Scottish equivalent as the most appropriate new build housing standards to contribute to a reduction in emissions?

Fully supportive

Please explain the reasons for your response.

In energy use terms Passivhaus is proven beyond doubt. In addition, quality of life - most significantly indoor air quality and thermal comfort - no draughts. This is incredibly important for the wellbeing and health of occupants.

Q5. Which of the following best expresses your view of the process set out to ensure that the new standards are met in all new build housing? (see pages 14 to 16 in the consultation document)

Partially supportive

Please explain the reasons for your response, including your views on how effective the process would be in removing the 'performance gap' and on how the proposed verification process might work in practice.

It must be made clear that the Passivhaus certification process - as existing - is akin to a very rigorous Completion process. However, it is currently submitted to essentially a private Institute for approval via third party certifier, and there is, as can be expected, a degree of autonomy between certifiers. This wouldn't work very effectively for a blanket country-wide policy. The themes of Passivhaus very much overlap with Local Authority Building Standards - thermal insulation, ventilation etc. As the technical handbooks already include the SPA process it seems straightforward that the Passivhaus certification route takes place through the same department. However, training would be required, and likely separate checklist - similar to the CCNP - would be required. It would also be required that each checkbox is met in order to have full information available for certification. Currently the stretched system does not support such an approach. The elimination of the performance gap would also require individual record and testing of each house. Currently, as I understand it, a volume house builder is only obliged to test a fraction of houses built. This could be seen as a lengthy and costly addition to the delivery of new homes.

Q6. What could be the market effects of the introduction of this proposal?

Very detrimental to people like me who can only afford to live in very old leaky Victorian flats, and very positive for the tiny fraction of the population living in new builds. Remember, 80% of buildings of building that are predicted to exist in 2050 already exist today. So we are talking about a small proportion of future homes.

Financial Implications

Q7. Any new law can have a financial impact which would affect individuals, businesses, the public sector, or others. What financial impact do you think this proposal could have if it became law?

some increase in costs

Please explain the reasons for your answer, including whom you would expect to feel the financial impact of the proposal, and if there are any ways you think the proposal could be delivered more cost-effectively.

Meeting a new standard at minimum requires knowledgeable design professionals and experienced contractors. There is not currently enough of either, therefore initially there will be a market squeeze. From my knowledge of Passivahus detailing the cos increase is real but manageable. There are plenty of affordable housing projects across the globe achieving PH certification.

Equalities

Q8. Any new law can have an impact on different individuals in society, for example as a result of their age, disability, gender re-assignment, marriage and civil partnership status, pregnancy and maternity, race, religion or belief, sex or sexual orientation.

What impact could this proposal have on particular people if it became law? If you do not have a view skip to next question.

Please explain the reasons for your answer and if there are any ways you think the proposal could avoid negative impacts on particular people.

No Response

Sustainability

Q9. Any new law can impact on work to protect and enhance the environment, achieve a sustainable economy, and create a strong, healthy, and just society for future generations.

Do you think the proposal could impact in any of these areas? If you do not have a view then skip to next question

Please explain the reasons for your answer, including what you think the impact of the proposal could be, and if there are any ways you think the proposal could avoid negative impacts?

Passivhaus is an energy calculation - it does not ask what type of insulation you are using. To achieve best thermal results you would tend to use petroleum-based insulations, and this skips the advantages of more sustainable building practices using timber, cellulose, hemp etc. It also does not tackle embodied carbon. This is a purely operational carbon standard and as a result could have negative environmental impacts in other ways.

General

Q10. Do you have any other additional comments or suggestions on the proposed Bill (which have not already been covered in any of your responses to earlier questions)?

Technical standards already deal with the fact that flats are more energy efficient than detached houses. it is worth noting that in some areas of Scotland (the north or at high altitudes) it is actually quite challenging to meet Passivhaus standard. It is also worth noting that overheating is a real issue for PH-level buildings, and in a warming climate could be an increasing problem.
I believe the proposals are rightly ambitious, but will be very difficult to achieve in practice.