

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

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".)

Optional: You may wish to explain briefly what expertise or experience you have that is relevant to the subject-matter of the consultation

Architect, qualified as a Passivhaus Designer, have experience in the design and delivery of projects up to Passivhaus Plus

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.

Really welcome the bill, this level of action very much needed and would be the driver needed to upskill the construction industry. I would be concerned that a "Scottish Equivalent" would be reinventing the wheel and potentially waterdown benefits - often "Passivhaus Principles" are referred to, but these fail to capture the attention to detail, modelling, and quality assurance that cumulatively close the performance gap.

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.

Legislation is required. I've previously analysed the impact of design and build contracts on energy efficiency, and Passivhaus certification addresses the tendency for sustainability ambitions (often even those required by planning) to be watered down through procurement.

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?

Fully supportive

Please explain the reasons for your response.

Passivhaus was developed around thermal comfort as well as building physics, and monitoring shows it achieves consistent internal temperatures.

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.

Post occupancy monitoring of Passivhaus demonstrates that it closes the performance gap and achieves consistently low energy use/carbon emissions

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 opposed

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.

Certification is a key component of the Passivhaus Standard. It ensures that the design, model and construction align in a comprehensive quality assurance process that helps close the performance gap. Beyond visiting the site, the certifier reviews the model regularly (and ideally from an early stage), and collates evidence including site photos at key stages, delivery slips, and air-tightness test results.

I think any of the certification/verification models could work, and might need to happen in conjunction as it is particularly highly skilled work and would significant need capacity-building.

It might be worth asking for input from the Passivhaus Institute about developing certification at scale. For example, this might include mentoring on PHPP support, agreements around climate data zones, aligning Accredited Construction Details (Scotland) to Passivhaus including calculated u-values/psi-values/chi-values, a more standardised approach to providing evidence alongside random spot checking.

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

Not my area of expertise, and depends how it quickly, and with what support, it was introduced! But perhaps...

- reduced dependence on fossil fuels increasing economic resilience

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

- reduced inequality/fuel poverty increasing spending power
- greater potential for renewable energy generation due to reduced volatility of energy use
- possibly relative depreciation of homes built prior to legislation coming in
- improved perception of Scotland as showing innovative climate leadership could bring economic benefits

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 reduction 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.

As per previous question, I think this would depend on how, and with what support, the legislation was brought in. Initially I think capital costs would increase slightly as professionals and trades upskill, and get used to the process, but I think this would come down over time. The Passivhaus Trust have done some work looking at these increases in cost.

This would be offset over time by financial payback through utility bills, and other associated benefits such as health, local pollution, comfort, quality of construction and carbon emissions reductions.

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.

It would disproportionately benefit low income, fuel poor households, and those with disabilities particularly respiratory. To address some of the challenges, I think social rent providers should be provided with support to address the initial increase in capital costs.

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?

Addressed by previous questions, but this proposal would reduce emissions, local pollution, fuel poverty, inequality, poor indoor air quality, whilst improving comfort, health and an educated workforce.

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)?

No Response