

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

I am an architect who works in the private residential sector. I have had a professional interest in low energy building design for well over a decade. I trained as a Passivhaus designer and have designed and delivered a number of Passivhaus projects. I am convinced that the Passivhaus standard is the highest and most robust low-energy building standard to which all our new buildings should be built.

Please select the category which best describes your organisation

No Response

Please choose one of the following:

I am content for this response to be published and attributed to me or my organisation

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).

Richard Lomas of Lomas + Mitchell Architects

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.

Fully supportive

Please explain the reasons for your response.

We need to set our building performance targets much higher. We need to reduce our energy consumption and our carbon emissions. We need to build homes which are healthy and which people can afford to heat. Houses built to the Passivhaus standard will achieve all of these aims.

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.

Legislate. Make it law.

Brussels example is interesting. <https://passivehouseplus.ie/magazine/insight/how-brussels-went-passive>. Funding was made available for new buildings built to the passivhaus standard. There was a large take-up of the offer and a huge number of buildings were built to Passivhaus standard. In 2015 a law was passed stating that all new buildings should be built to the Passivhaus standard. Builders, developers and clients all pushed back against the law, saying it was too expensive/too difficult/too restrictive etc, but the government could point to the success of the Batiment project and demonstrate that it was achievable and Brussels had architects, engineers and builders with some experience of delivering buildings to the standard.

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.

Use less energy to keep warm. It's not rocket science. Well, it is physics, actually.
An appropriate amount of insulation; high standards of airtightness, mechanical ventilation with heat recovery.

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.

Use less energy and emit less carbon.
Even running a mechanical ventilation system (with heat recovery) 24/7 will save 6, 7 or 8 times more energy than it consumes.

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)

Fully 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.

To remove the performance gap it is essential that all new homes have the designs and the buildings checked and verified by accredited Passivhaus certifiers. The processes need to be robust to ensure what is designed and built performs as intended.

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

I think that in the short term it could create two tiers of homes. The Passivhaus homes may, initially be more expensive to deliver, but as the number of completed homes grows, people will have a choice of living in a healthy, energy-efficient, low carbon home, or one which is not. I know which one I would

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

choose. The existing workforce (designers and builders) would require training in order to gain the skills required to deliver homes to this standard.

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.

I think there would be an increase in costs - especially initially. Costs associated with up-skilling and educating clients, developers, architects and builders would reduce after a few years. at that stage you would have a mature, fully-skilled sector with established supply chains of high performance window suppliers, airtightness products, MVHR and heat pumps etc.
Financial models which have looked at the cost of a home built to the Passivhaus v Bregs standard over a 25 year period (mortgaged), have actually shown the Passivhaus to be cheaper, due to lower bills. The calculation I saw was done at least five years ago, so I should think that with current and predicted energy costs, the financial argument for Passivhaus would be even more compelling.

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.

Perhaps there should be some financial support/grants/incentives to build homes for people most at risk of falling in to extreme fuel poverty.
These are often the same people who live in sub-standard homes which have unhealthy internal environments - difficult/expensive to heat and poorly-ventilated.

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?

I think this law could have such a positive impact for the people of Scotland.

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. Just, "Good luck" and I hope you get the law passed.