

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.

on behalf of an organisation

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".)

No Response

Please select the category which best describes your organisation

Commercial organisation (company, business)

Optional: You may wish to explain briefly what the organisation does, its experience and expertise in the subject-matter of the consultation, and how the view expressed in the response was arrived at (e.g. whether it is the view of particular office-holders or has been approved by the membership as a whole).

We are an architects practice, based in Glasgow, who specialise in zero carbon affordable housing.

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).

Anderson Bell Christie

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 opposed

Please explain the reasons for your response.

We offer Passivhaus services, however we recognise that this is not the only way to achieve zero carbon. We offer a range of approaches to zero carbon in affordable housing. This allows clients to choose the best solution for their needs and the needs of their clients. We promote a balanced approach based on client choice.

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.

We see that the affordable housing sector in Scotland is progressive and is achieving very low carbon homes that offer very low energy bills to occupants. The main problem is within the private sector. Homes in the private sector are frequently built to backstops and defaults in the building standards. Private housing represents the majority of all housing completions in Scotland. We would expect that improvements in this sector should be driven by updating Building Standards. There should be an immediate move to Gold Standards, with the backstops in U-value performance enhanced accordingly.

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 opposed

Please explain the reasons for your response.

Using Passivhaus will significantly reduce occupants energy bills, however so will other zero carbon strategies. Our practice offers clients alternative strategies that still achieve zero carbon while providing very low energy bills.

It should be noted that in any low energy home the main energy consumption will be for hot water. Whether the project is built to Passivhaus or any other zero carbon standard there will still be a significant energy demand here. So renewables will be required to generate hot water with very low energy consumption. This is true for Passivhaus or any zero carbon approach. This adds a significant additional cost to the capital expenditure. We do not recognise the 4% additional cost quoted in the Bill. This is more akin to 16% to 20%. By comparison we can use other strategies to achieve zero carbon, provide low energy bills and do so for a 10% cost uplift.

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 opposed

Please explain the reasons for your response.

Passivhaus is not a zero carbon standard. Significant amounts of energy are still required to generate hot water. This is true for any highly insulated and airtight dwelling. Consequently renewables must be used in combination with the Passivhaus standard to achieve zero carbon. The proposed bill does not fully address this issue. The additional cost associated with Passivhaus Plus should also be considered.

We practice a balanced approach that offers a tailored response to clients needs. We would like to see the opportunity for choice retained. There is more than one way to achieve zero carbon and very low energy bills.

While this is technically possible it adds significantly to the capital cost.

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 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

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)

work in practice.

We would prefer to offer clients choice in their zero carbon strategy.

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

The additional cost would constrain the number of new build homes that could be delivered. While we agree there is an additional cost to be paid for zero carbon, it does not have to be as high as the full Passivhaus or Passivhaus Plus standards.

We would also expect there to be bottlenecks in the market place as the materials and consultancy services are constrained and controlled by a single private entity.

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?

a significant 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.

We would expect there to be a significant reduction in the number of affordable homes built in Scotland. We are able to optimise the additional capital cost, which would allow more zero carbon homes to be built for the Scottish Governments budget. We would prefer to see a more balanced approach to zero carbon.

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.

We appreciate that Passivhaus is a very good standard, so it would not be detrimental to individuals in that sense. However it would mean that others on the housing waiting lists would be denied access to a new affordable home, as the capital budget would not be able to deliver as many homes compared to a more balanced approach.

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?

We are researching embodied carbon in new build affordable homes. Embodied carbon is now the dominant form of carbon associated with new build affordable housing, eclipsing the carbon associated with energy in use. We believe the additional cost of blanket application of the Passivhaus standard will prohibit progress in reducing embodied carbon. With a balanced approach we can achieve both while optimising costs.

We are also concerned that the approach will hinder progress with retrofitting existing housing stock. The carbon emitted from existing dwelling operational energy also eclipses that from new build. If additional funds were made available to support the Passivhaus approach, we would prefer to see these diverted to retrofit where they could deliver a significant carbon saving for every pound spent.

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)?

We understand the rationale for the Bill and we enjoy working on Passivhaus projects, however a balanced approach to zero carbon must be permitted.