

DATE: 27th July 2022

Proposed Domestic Building Environmental Standards (Scotland) Bill

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.

Consultation by

Alex Rowley MSP for Mid Scotland and Fife Region

SUBMISSION via <https://www.smartsurvey.co.uk/s/BuildingStandards/> and via email to Rowley A (Alex), MSP Alex.Rowley.msp@parliament.scot

Summary Statement

The Royal Incorporation of Architects in Scotland (RIAS) Council declared a Climate Emergency in response to the over whelming evidence of expected climate collapse, setting out its [strategic priorities](#) and [strategic statements](#) ([#createbuildprotect](#)) to address the crisis. The RIAS recognise that this requires immediate action to minimise GHG (Green House Gas) emissions and mitigate against the unavoidable consequences of climate change already in train. The combination of rising global temperatures and increased fabric efficiencies, leaves buildings vulnerable to climatic extremes. It is imperative that we support a campaign to *Build Once for the Future*.

The RIAS believe that the Scottish Government should adopt standards which will achieve an 'Advanced' level of energy and emissions reductions as a minimum for both new build and existing buildings and support a widening of the proposed Bill to bring existing buildings to equivalent standards, where appropriate.

The RIAS previously responded to the Scottish Building Regulations: *Proposed Changes to Energy Standards* and the *2040 Heat Standard* consultations setting out support for improvements in such standards across a range of measures.

We recognise that supporting standards and regulation with appropriate quality assurance is essential and we are seeing an increasing move by contractors and clients adopting the principles applied in systems such as Passivhaus, recognising they deliver high standards

and building performance for most building situations. We are aware that such systems apply rigid requirements for analysis and performance and support a drive to bring forward such systems that increase the requirements for analysis of buildings, drive improvements, and promote a fabric first and ventilation approach drawing on principles that consider a wider range of design, technical and economic considerations.

The RIAS would welcome a move for any new standards to be framed so that they build in the necessary flexibility required to respond to the varying conditions that occur when delivering new housing or retrofitting existing housing, thereby ensuring the right solutions are applied. The RIAS advocate that new standards and targets, as they apply to retrofit or existing traditional buildings may require different provisions for different building retrofit situations, and that any review considers how this is covered and the correct compliance prescribed, and that a buildings actual energy performance is both measured and published.

The RIAS support improving performance standards, building on our existing regulatory system, which can be made, such as changes to SAP (Standard Assessment Procedures) and SBEM (Simplified Building Energy Modelling) requirements that could deliver the necessary change.

The RIAS advocates a “fabric and ventilation” first approach to address energy and emissions from all buildings including new housing and non-domestic buildings in order to reduce energy demand to the point where flexible and smart technologies can then play a proportionally bigger role. This will require the government and other organisations to undertake major retrofit programmes, in order to achieve both economic and physical economies at scale.

We have concerns that the move to bring about the necessary changes could be slow if the normal routes to regulatory change are followed and would urge the review to consider how the necessary improvements to regulatory standards can happen appropriately, efficiently and quickly.

We also support the position set out in the consultation that improvements in the energy performance of the built environment may deliver further economic and social benefits in addressing, for example, fuel poverty and health issues. These should not, however be addressed in isolation, for fear of encountering other unintended consequences.

The RIAS recognise that improvements will be realised through continued technological advances and innovation in design and construction and as a result there will be a requirement to support the industry to upskill. Opportunities for training and diversification of locations to access these skills will be critical.

The RIAS has also advocated for some time that the disparity in VAT as it applies for improvements to existing buildings has a significant and negative impact on maintaining an appropriate level of quality assurance and encouragement to owners and developers to understand their buildings and to employ the correct systems. We recommend that a removal of this constraint would assist in realising the proposed changes to energy standards where they apply to existing building.

The RIAS continues to highlight that it is essential to apply a holistic approach to the design of the built environment, such as the development of 20-minute walkable cities/ neighbourhoods, to encourage behaviours that would reduce 'in use' energy demand and discourage behaviours that would increase it.

Architects, along other built environment professionals, are key to delivering the added value of good architecture and design which ensures that the built environment sustains social and economic systems whilst being environmentally regenerative.

The RIAS therefore:

1. Endorse the need for urgent climate action, focussing on minimising the carbon footprint of all new and existing properties.
2. Support the need for a substantive improvement in the current Scottish requirements, extending the Bill to develop a flexible Scottish Standard for both new and existing housing.
3. These changes can be realised by improvements within the existing vehicles of the current standards and supporting technical guidance and handbooks, providing the changes are considered holistically in relation to other existing standards.
4. New standards supported with training initiatives to ensure the necessary skills are developed within the industry.
5. Support the move to expediate timescales (18months to 2years), mirroring the response to cladding in order to effect change quickly.

The RIAS welcomes the invitation to respond to the Private Member's Bill consultation on Proposed Domestic Building Environmental Standards (Scotland) Bill.

The RIAS is the professional body for all of Scotland's chartered architects. Our members work in over 1,000 architectural practices of all sizes, as well as in areas of industry from housebuilding to local and central government. The RIAS should be seen as a prime participant in the review process. The RIAS is responding on behalf of the 5,000 members of the architectural profession. The RIAS has drawn on its members' expertise including those of Sustainability and Practice and offers the following matters for consideration.

The RIAS would welcome the opportunity to address any of the points raised in this paper and to assist the Scottish Parliament further alongside any calls for evidence that may follow.

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](#)

Questions

About You

(Note: Information entered in this "About You" section may be published with your response (unless it is "not for publication"), except where indicated in bold.)

1. Are you responding as:

an individual

on behalf of an organisation? **Yes X**

2B. Please select the category which best describes your organisation:

- Public sector body (Scottish/UK Government or agency, local authority, NDPB)
- Commercial organisation (company, business)
- Representative organisation (trade union, professional association) **Yes X**
- Third sector (charitable, campaigning, social enterprise, voluntary, non- profit)
- Other (e.g. clubs, local groups, groups of individuals, etc.)

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).

3. Please choose one of the following:

- I am content for this response to be published and attributed to me or my Organisation **Yes X**
- I would like this response to be published anonymously
- I would like this response to be considered, but not published (“not for publication”)
- If you have requested anonymity or asked for your response not to be published, please give a reason. (Note: your reason will not be published.)

4. Please provide your full name (or the name of your organisation if you are responding on behalf of an organisation). (Note: The name will not be published if you have asked for the response to be anonymous or “not for publication”.)

Name: **The Royal Incorporation of Architects in Scotland (RIAS)**

Please provide 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. (Note: We will not publish these contact details.)

Contact details:

Karen Stevenson, Director: Policy and Development. Karen.stevenson@rias.org.uk

5. Data protection declaration

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

If you are under 12 and making a submission, we will need to contact you to ask your parent or guardian to confirm to us that they are happy for you to send us your views.

Please tick this box if you are under 12 years of age.

Your Views on the Proposal

Note: All answers to the questions in this section may be published (unless your response is “not for publication”).

Aim and approach

1. Which of the following best expresses your view of the proposed Bill? (please note that this question is compulsory)

- Fully supportive
- Partially supportive **YES X**
- Neutral (neither support nor oppose)
- Partially opposed
- Fully opposed
- Do not wish to express a view

Please explain the reasons for your response.

RIAS Response

The RIAS Council declared a Climate Emergency in response to the over whelming evidence of climate collapse, setting out its strategic priorities to address the crisis. The RIAS recognise that this requires immediate action to minimise GHG (Green House Gas) emissions and mitigate against the unavoidable consequences of climate change already in train. The combination of rising global temperatures and increased fabric efficiencies, leaves buildings vulnerable to tackling extreme conditions.

The RIAS believe that the Scottish Government should adopt standards which will achieve an ‘Advanced’ level of energy and emissions reductions as a minimum for both new build and existing buildings and support a widening of the proposed Bill to bring existing buildings to equivalent standards, where appropriate.

The RIAS previously responded to the Scottish Building Regulations: *Proposed Changes to Energy Standards* and the *2040 Heat Standard* consultations setting out support for improvements in such standards across a range of measures.

Recognising that supporting standards and regulation with appropriate quality assurance are essential the RIAS established, at the Scottish Governments invitation a Certification of Design (Section 6 – Energy) Scheme in 2006 in order to deliver guaranteed Levels of building performance.

Whilst the RIAS recognise that the Passivhaus Standard, when fully applied, will deliver energy efficient buildings, we recognise that the application of some of these principles can already improve outcomes within the current regulatory system. The RIAS, therefore, support increasing performance standards, building on the existing regulatory system, and through improvements in the National Calculation Methodologies (NCMs) of SAP (Standard Assessment Procedures) and SBEM (Simplified Building Energy Modelling).

2. 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.

RIAS Response

The RIAS believe the existing Scottish legislative framework can be used to mandate the levels of fabric and ventilation performance, which are included within the Passivhaus Standard and many other similar UK and international voluntary systems, without the need to off-shore the Scottish regulatory system.

Introducing the need to satisfy yet another external body (which is unaccountable to the Scottish Government) would only add to the current complexity where some local authorities have introduced their own localised standards through the planning system, but do not have a clear regulatory route by which applications can be assessed as part of their statutory duties.

The RIAS supports a proposal to develop a flexible Scottish equivalent to the Passivhaus Standard.

3. 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
- Partially supportive **Yes X**
- Neutral (neither support nor oppose)
- Partially opposed
- Fully opposed
- Unsure

Please explain the reasons for your response.

RIAS Response

A fabric and ventilation first approach to reducing energy demand should be at the heart of Scotland's response to the need to reduce overall energy demand, making it viable to deliver that energy by renewably generated electricity.

In order to mitigate against the unintended impacts of that environmental goal the Scottish Government must take steps to ensure that the delivered cost of electricity to buildings (allowing for efficiency gains in use) matches or improves upon the equivalent fossil fuel cost.

4. 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
- Partially supportive **Yes X**
- Neutral (neither support nor oppose)
- Partially opposed
- Fully opposed
- Unsure

Please explain the reasons for your response.

RIAS Response

The electricity grid is decarbonising more quickly than it is appropriate to revise the Technical Standards. The RIAS therefore supports the move to regulate against energy and heat demand to ensure that fabric and service efficiencies are improved. A Scottish equivalent to the Passivhaus Standard, will contribute to achieving that.

5. 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 above)

- Fully supportive
- Partially supportive **Yes X**
- Neutral (neither support nor oppose)
- Partially opposed
- Fully opposed
- Unsure

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.

RIAS Response

The RIAS agree with Scottish Ministers, that the widespread adoption of Certification of Design, including that for (Section 6 – Energy) is both beneficial and necessary and should now be mandated for all new and retrofit projects. Existing buildings will need to be assessed individually, in some cases, to ensure the specific construction and building designs are fully understood.

The RIAS also supports the Scottish Governments move to a more robust regime set out in the proposals for a Compliance Plan and Compliance Manager. This means that energy use in the first year of occupation must be monitored and published. The RIAS supports a significant level of independent oversight and inspection of building contracts.

We would support the further development of this regime and for the Scottish Government to work with industry bodies to return to these traditional values.

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

Financial implications

RIAS Response

As part of an ambition to build once for the future, the RIAS maintains that considering the long term, the overall occupancy cost of a well-insulated, well-ventilated, and well-built building must be the objective, and not the design and build costs alone.

7. Any new law can have a financial impact that 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
- some increase in costs **Yes X**
- no overall change in costs
- some reduction in costs
- a significant reduction in costs
- don't know

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.

RIAS Response

The RIAS recognise that some reduction in costs can be realised from adopting a whole life cost approach to the design and implementation of developments and would support a model that looks beyond the design and construction costs alone.

Improvement in fabric and ventilation standards may also have an upward impact on the construction costs of a building envelope. However, the current regulatory regime allows this to be balanced by a reduction in cost of those building services which can be downsized or even eliminated.

The cost to the client of the existing Certification of Design schemes are minimal, given that all of the work undertaken by a Certifier of Design is required to be undertaken by someone and therefore currently charged through design and/or warrant application fees.

Equalities

8. 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.

RIAS Response

The RIAS has nothing to add.

Sustainability

9. 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?

RIAS Response

The RIAS concerns for a better Scotland encompass environmental, social, and financial sustainability issues.

Improving building fabric performance should ideally be achieved, with the added benefit of using more Scottish organic and timber products, such as wood fibre insulation, which would have direct environmental and financial benefits for Scotland.

Whilst beyond the scope of this consultation it should be recognised that, improved 'in-use' fabric performance may be predominately delivered using construction methodologies which rely on materials and services installations which are imported and / or have high embodied toxins and / or CO_{2(e)} emissions at the point of manufacture. We would like to see the embodied carbon of energy efficiency measures and pay-back periods included in the assessment of whether retrofit work should be undertaken.

General

10. 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)?

RIAS Response

Refer to Summary Statement.

Ends.