

Policy and Sustainability Committee

10.00am, Tuesday, 5 October 2021

Scottish Government Consultation: Scottish Building Regulations

Executive/routine Wards Council Commitments	Routine All
---	----------------

1. Recommendations

- 1.1 It is recommended that the Policy and Sustainability Committee:
 - 1.1.1 Agree the consultation response to the Scottish Government Consultation for Scottish Building Regulations: Proposed changes to Energy Standards and associated topics, including Ventilation, Overheating and Electric Vehicle Charging Infrastructure; and
 - 1.1.2 Note that the consultation on Scottish Building Regulations closes on the 29 October 2021.

Paul Lawrence

Executive Director of Place

Contact: Gareth Dixon, Senior Policy and Insight Officer and Colin Wishart, Acting Operations Manager, Building Standards

E-mail: Gareth.dixon@edinburgh.gov.uk | Colin.Wishart@edinburgh.gov.uk

Scottish Government Consultation: Scottish Building Regulations

2. Executive Summary

- 2.1 This report provides a response to the Scottish Government Consultation on Scottish Building Regulations. This consultation relates to a range of different building regulations including heat and energy in buildings, ventilation and avoiding the risk of overheating, construction and design standards and proposals for Electric Vehicle (EV) chargers to be installed in new and existing premises with a certain number of parking spaces.

3. Background

- 3.1 The City of Edinburgh Council declared a Climate Emergency in 2019 and set an ambitious target for Edinburgh to become a net zero city by 2030. Delivering net zero emissions by 2030 and adapting to the impacts of climate change will require system-wide and transformational change across all sectors of the city. The draft Climate Strategy sets out actions for delivering on this ambition and also makes a number of asks of Scottish Government, focused on those areas where the Council or the city does not have the powers, resources or levers to enable net zero action at the pace required.
- 3.2 The purpose of this consultation is to review and make further improvements to the standards set within the Building (Scotland) Regulations 2004 to limit greenhouse gas emissions and energy use, both in new buildings and where work to existing buildings takes place. The aim of which is to offer proposals, as part of broader action by the Scottish Government on climate change, to become a net-zero society by 2045.
- 3.3 This Consultation is part of a continuous review process that will focus on actions which are effective in reducing energy demand and the delivered energy needed for a new building. This purpose of the review is to ensure alignment with national policy on climate change as detailed in the [Scottish Government's Climate Change Plan update](#) published in December 2020. This update maintains the commitment to investigate the potential for improvement on 2015 energy standards and also

how building regulations can support national policy on decarbonisation of heat and the decarbonisation of transport.

- 3.4 Some of the proposals have direct relevance to the Council in its delivery of the Draft 2030 Climate Strategy.

4. Main report

The Consultation Survey

- 4.1 The purpose of the consultation survey is to consider further improvements to the standards set within the Building (Scotland) Regulations 2004 (Building Regulations) to limit greenhouse gas emissions and energy use, both in new buildings and where work to existing buildings takes place. The outcomes of the consultation will impact on capital programmes for housing, operational estate and transport.
- 4.2 The consultation covers questions related to the technical, commercial and wider policy implications of improvements to energy standards and offers proposals, as part of broader action by the Scottish Government on climate change. It also presents proposals on the provision for EV charging infrastructure.

The Scottish Building Standards system

- 4.3 The building standards system in Scotland is established by the Building (Scotland) Act 2003. The system regulates building work on new and existing buildings to provide buildings that meet reasonable standards which:
- 4.3.1 Secure the health, safety, welfare and convenience of persons in or about buildings and of others who may be affected by buildings or matters connected with buildings;
 - 4.3.2 Further the conservation of fuel and power; and
 - 4.3.3 Further the achievement of sustainable development.
- 4.4 A draft response to the Consultation has been prepared and is attached in Appendix 1 for approval.

5. Next Steps

- 5.1 If approved, the Council's response will be submitted through the Scottish Government's consultation page: [Scottish Building Regulations: Proposed changes to Energy Standards and associated topics, including Ventilation, Overheating and Electric Vehicle Charging Infrastructure.](#)

6. Financial impact

- 6.1 There have been no costs incurred in preparing this Consultation response, other than staff time.

7. Stakeholder/Community Impact

- 7.1 Future work will be developed on the expected stakeholder and community impacts if the proposals make their way into law.
- 7.2 These will be considered by the Council proposed changes to existing Building Regulations are defined by the Scottish Government.

8. Background reading/external references

- 8.1 [Consultation Paper on Building Regulations](#), Scottish Government.

9. Appendices

- 9.1 Appendix 1 – Response from City of Edinburgh Council on the Scottish Building Regulations Consultation Survey.

Appendix 1 – Response from City of Edinburgh Council on the Scottish Building Regulations Consultation Survey

Consultation Questions

Part 2 – Energy, new buildings

Question 1 –

Do you support the extension of standard 6.1 to introduce an energy target in addition to the current emissions target? If yes, do you have a view on the metric applied – primary or delivered energy?

Yes, a primary energy target

Yes, a delivered energy target

No

Please provide a summary of the reason for your view below.

[Click or tap here to enter text.](#)

Question 2 –

What level of uplift to the 2015 standard for new dwellings do you consider should be introduced as an outcome of this review?

Option 1: 'Improved' standard (32% emissions reduction)

Option 2: 'Advanced' standard (57% emissions reduction)

Another level of uplift

Please provide a summary of the reason for your view.

It is appreciated that a stepped change has to be taken in improving the energy performance and demands in the construction of new or alteration of existing buildings. To allow the energy suppliers to adjust to and move fully towards low (or net zero) carbon generation a radical approach has to be taken to address the climate change targets that are necessary to reduce effects of greenhouse gas emission on the atmosphere. The City of Edinburgh Council is aiming for Net Zero by 2030 and any change in legislation to help achieve this target is welcomed.

Although new housing is currently only adding 1% annually to the housing stock, the starting point in improving standards is to set targets as high as possible.

Question 3 –

What level of uplift to the 2015 standard for new non-domestic buildings do you consider should be introduced as an outcome of this review?

Option 1: 'Medium' standard (16% emissions reduction)

Option 2: 'High' standard (25% emissions reduction)

Another level of uplift

Please provide a summary of the reason for your view.

As above. Owners of new or altered buildings have a responsibility and role to play in helping achieve a more sustainable future. Green energy generation is achievable with the correct investment in infrastructure.

Question 4 –

Do you have any comments or concerns on the values identified for the elements which make up the Domestic notional building specification for either option, e.g. in terms of their viability/level of challenge?

Yes

No

If yes, please provide your comments.

Ambitious targets must be set to demonstrate the seriousness of the situation and the need to reduce carbon production in the building industry.

Delaying any improvements will not help achieve a sustainable future.

Price increases in materials, shortages in materials and labour upskilling are concerns and should be guarded against as reasons for delaying the introduction of new and improved requirements.

Question 5 –

Do you have any comments or concerns on the values identified for the elements which make up the Non-domestic notional building specification for either option, e.g. in terms of their viability/level of challenge?

Yes

No

If yes, please provide your comments.

See comments above.

Question 6 –

Do you have any comments on the simplified two-specification approach to defining the Domestic notional building from 2022?

Yes

No

If yes, please provide your comments.

The simplified two-specification approach gives a base figure for designers to work from, has a built-in degree of flexibility as well as a defined set of figures that could be followed in the design of a new building and still achieve compliance.

Question 7 –

Do you have any comments on the simplified two-specification approach to defining the Non-domestic notional building from 2022?

Yes

No

If yes, please provide your comments.

As above.

Question 8 –

Do you have any comments on the proposal to separate and provide a more demand-based approach to assignment of domestic hot water heating within the Non-domestic notional building specification from 2022?

Yes

No

If yes, please provide your comments.

N/A.

Question 9 –

Do you support this change in application of targets for supplied heat connections to new buildings, focussed on delivering a consistent high level of energy performance at a building level?

Yes

No

Please provide a summary of the reason for your view.

This change simplifies the understanding, promotes the use of and recognises the benefits of supplying heat to a building from external networks.

Encouraging designers to consider this route to compliance.

This also informs the verifier of the implications of using a heat connection.

Question 10 –

Do you agree with the principle set out, that the benefit from on-site generation within the compliance calculation should be limited by a practical assessment of the extent that generated energy can be used onsite?

Yes

No

Please provide a summary of the reason for your view.

The draft guidance succinctly provides assurance that such generation is effective in reducing the delivered energy total for the building, reducing over capacity and waste.

Question 11 –

Are there any particular concerns you have over this approach, e.g. with regards particular technologies or solutions?

Yes

No

Question 12 –

Do you agree with the proposal that new buildings where heat demand is met only by 'zero direct emissions' sources should be exempt from the need for a calculation to demonstrate compliance with the Target Emissions Rate?

Yes

No

Please provide a summary of the reason for your view.

This simplifies the design and assessment processes in establishing when a building meets the mandatory standards.

Question 13 –

Do you support the need for new buildings to be designed to enable simple future adaptation to use of a zero direct emissions heat source where one is not initially installed on construction. And for information setting out the work necessary for such change to be provided to the building owner?

Yes

No

Please provide a summary of the reason for your view.

Allowing flexibility of design in areas where there is a skill or material shortage is important, but it must guard against this being an opportunity to circumvent high sustainability standards and continue to use carbon producing heat generation on buildings.

Question 14 –

Do you have any comments on the level of information needed to support such action in practice or on the extent to which alterations other than those at, or very close to, the heat generator can be justified?

Yes

No

Clarification on what could be deemed as "simple future adaptation" would be useful. The lessons learned from the inclusion of a "future shower" requirement in Section 3 should be used to help in this instance.

Question 15 –

Do you support the retention of the current elemental approach to setting minimum standards for fabric performance in new dwellings, supported by the option to take an alternate approach via calculation of the total space heating demand for the dwelling (as described)?

Yes

No

Please provide a summary of the reason for your view.

Giving designers a base figure to work with provides a near prescriptive approach that can easily be followed to achieve compliance, whilst still including the flexibility that designers seek.

Question 16 –

In the context of the proposed approach, If you have any comments on the maximum U-values proposed for elements of fabric, in relation to their level of challenge and achievability at a national level, please set them out below.

Yes

No

These back-stop levels are useful in assessing works to extend or alter existing buildings. These types of applications make up most building warrant applications across the country. There should be limited challenge in achieving the maximum levels.

Question 17 –

Do you support the move to airtightness testing of all new dwellings, by registered members of an appropriate testing organisation?

Yes

No

Please provide a summary of the reason for your view.

The infrastructure should now be in place to accommodate this additional requirement. It will create a more consistent approach to how all new dwellings should be constructed, reduce the likelihood of inconsistencies not being identified at the completion of dwellings and provide a better service and product to the customer.

Question 18 –

Do you support the move to increased airtightness testing of all new non-domestic buildings, by registered members of an appropriate testing organisation?

Yes

No

Please provide a summary of the reason for your view.

As above. This will also create more jobs in the sector to cope with the increased demand.

Question 19 –

Do you support the adoption of CIBSE TM 23 as the basis for airtightness testing in Scotland?

Yes

No

Please provide a summary of the reason for your view.

By appreciating the need for airtight construction in the early stages of design, building engineers can achieve the high controllable ventilation standards demanded by clients. This guide shows why it is necessary to carry out air leakage testing, acceptable rates of air filtration, and what can be done where problems are discovered.

Question 20 –

Do you support the introduction of the pulse test method of airtightness testing as a further means to testing and reporting on the performance of new buildings?

Yes

No

Please provide a summary of the reason for your view.

Pulse is a portable compressed-air based system that is used to measure the air leakage of a building or enclosure at a near ambient pressure level (4Pa). By measuring at a lower pressure, the system provides an air change rate measurement that is representative of normal inhabited conditions, helping to improve understanding of energy performance and true building ventilation needs. It brings Scotland in line with England and Wales.

Question 21 –

Are there any particular benefits, risks or limitations you would seek to identify?

Yes

No

Giving a choice to the building industry will allow users to decide which method they prefer to use **provided the skills required for the testing regime match the demand.**

Question 22 –

Do you consider this amended provision provides an appropriate balance between:

- the requirement to improve building energy performance in new buildings;
- enabling the reuse of better performing modular elements; and
- enabling use of small units for short term use at short notice?

Yes

No

Please provide a summary of the reason for your view.

As above.

Question 23 –

We welcome any other comments you wish to make on the proposed changes to the setting of performance targets for new buildings or the application of other amended provisions within Section 6 (energy) which apply to the delivery of new buildings.

Where practical, please with a reference to any particular issue in the context of the Domestic or Non-domestic Handbook (or both if applicable) and cite any standard or revised guidance clause relevant to the topic.

The City of Edinburgh Council welcomes the proposed changes to the setting of performance targets for new buildings. City of Edinburgh Council are setting an ambitious target of becoming a net zero by 2030 and would encourage the Scottish Government to accelerate their program where possible and set as high a target as possible for energy targets.

City of Edinburgh Council would also welcome any further guidance that could be incorporated into the Technical Handbooks that will help inform designers **and contractors** on how to achieve net zero carbon (or near net zero) for new **homes and** buildings and/or how they could improve the existing building stock in a situation where extensive alterations or extensions are proposed on an existing building. As stated above, such works make up the majority of all building warrant applications across Scotland. Taking any opportunity to make any small improvement or contribution is helpful in achieving the 2030 target.

Part 3 – Energy, all buildings

Question 24 –

Do you agree with the proposed introduction of the term ‘major renovation’ as defined above as an additional means of identifying when aspects of building regulations shall be applied to an existing building?

Yes

No

Please provide a summary of the reason for your view.

The term “major renovation” could not be found in the on-line draft updates to Part 6 – Energy.

Alterations and/or extensions to existing buildings make up the majority of all building warrant applications across Scotland. Taking any opportunity to make any small improvement or contribution to saving energy in the existing building stock is helpful in achieving the net zero carbon 2030 target set by City of Edinburgh Council.

Question 25 –

Do you support the improvement in maximum U-values for elements of building fabric for Domestic buildings, as set out above?

Yes

No

Please provide a summary of the reason for your view.

As stated above, most agents work to these maximum values when submitting building warrant applications. There are fewer occasions when alternative solutions are proposed and setting improved targets will help raise energy performance.

Question 26 –

We would also welcome your views on the proposed simplification achieved by setting of a single set of values for all building work to new and existing buildings.

Whilst seemingly prescriptive, there is still scope within the guidance to allow for individuality and flexibility in design. Setting a single set of values simplifies the most commonly adopted approach used by designers of building work and thus will improve the efficiency of assessing the compliance of a proposal.

Question 27 –

Do you support the improvement in maximum U-values for elements of building fabric for Domestic buildings, as set out above?

Yes

No

Please provide a summary of the reason for your view.

The information provided above in Questions 24 and 25 is relevant here.

Question 28 –

We would also welcome your views on the proposed simplification achieved by setting of a single set of values for all building work to new and existing buildings.

Whilst seemingly prescriptive, there is still scope within the guidance to allow for individuality and flexibility in design. Setting a single set of values simplifies the most commonly adopted approach used by designers of building work and thus will improve the efficiency of assessing the compliance of a proposal.

Question 29 –

Do you support the standardisation of values and approach for conversions, extensions and shell buildings, as set out above and in sections 3.2.2 and 3.2.3?

Yes

No

Please provide a summary of the reason for your view.

However, the removal of the requirement to provide more challenging fabric values in the shell and making it discretionary will lead to a reduction in the u-values provided at the shell construction stage. The opportunity to achieve the best possible thermal performance for the external envelope will be missed.

Question 30 –

If you have a view on the preferred format for presentation of information on compliance of building services, what would be your preference?

Retain current separate Compliance Guides

Move Compliance Guides into Section 6 as an Annex

Re-integrate into guidance to the relevant standard

Other (please specify in summary box below)

Please provide a summary of the reason for your view.

Re-integration into the guidance makes for more efficient referencing of the information and reduces the likelihood of missing out a particular requirement. It improves the understanding of what standard is being achieved and the relevance of the requirement.

Question 31 –

Do you support the continued alignment of minimum provisions for fixed building services at a UK level within the Domestic Building Services Compliance Guide?

Yes

No

Please provide a summary of the reason for your view.

Standardisation of building services to a national level will help in situations where many contractors work across the UK. The ability to source equipment and fittings to meet standards set at national will also be easier.

Question 32 –

Are there any issues you wish to raise in relation to the amended or retained specifications set out within the draft Guide?

Yes

No

Question 33 –

Do you support the continued alignment of minimum provisions for fixed building services at a UK level within the Non-domestic Building Services Compliance Guide?

Yes

No

Please provide a summary of the reason for your view.

Standardisation of building services to a national level will help in situations where many contractors work across the UK. The ability to source equipment and fittings to meet standards set at national will also be easier.

Question 34 –

Are there any issues you wish to raise in relation to the amended specifications set out within the draft Guide?

Yes

No

Question 35 –

Do you agree with the proposal that the option of installing a less efficient heat generator and compensating for this using heating efficiency credits in existing buildings should be withdrawn from the Non-domestic Building Services Compliance Guide?

Yes

No

Please provide a summary of the reason for your view.

Any target being set by these proposed changes in guidance should be set as high as possible. Every opportunity should be taken to provide the most efficient heat generator at the installation stage to take advantage of the situation. Thus reducing the net overall effort it will take to have to replace a heat generator in the future. All small improvements are essential and should be made as easy to implement as possible.

Question 36 –

Do you agree with the proposal to limit distribution temperatures in wet central heating systems to support effective implementation of low and zero carbon heat solutions and optimise the efficiency of heat generation and use?

Yes

No

Please provide a summary of the reason for your view.

The proposal in general is agreeable, however, there will be situations where the end user will want to achieve a more optimum temperature in the building. This could result in less efficient heat generators being installed by the occupant. Clear and concise user guides should be provided for use by the occupant to maximise the efficient use of all services in a building and help users understand the holistic approach to heating and ventilation of their property.

Question 37 –

Do you agree with the proposed extension to the provision of self-regulating devices to include when replacing a heat generator?

Yes

No

Please provide a summary of the reason for your view.

Replacement of obsolete equipment by a full new system is far more efficient and beneficial for the end user, as well as the installer. Although initial costs will be higher, the overall pay-back period will be shorter.

Question 38 –

Do you have any comment on issues of technical feasibility or determining when installation should be at a room/zone level?

Yes

No

Question 39 –

Do you agree with the proposed introduction of a requirement for building automation control systems, of the type specified, in larger non-domestic buildings with systems with an effective rated output over 290kW

Yes

No

Please provide a summary of the reason for your view.

Automation of larger systems is more readily available and will provide greater efficiency in the system that will ultimately benefit the user.

Question 40 –

We welcome any other comments you wish to make on the above topics and broader changes to the setting of minimum standards for all buildings.

Where practical, please with a reference to any particular issue in the context of the Domestic or Non-domestic Handbook (or both if applicable) and cite any standard or revised guidance clause relevant to the topic.

The City of Edinburgh Council welcomes the proposed changes to the setting of minimum standards for all new buildings. City of Edinburgh Council are setting an ambitious target of

becoming a net zero carbon city by 2030 and would encourage the Scottish Government to accelerate their program where possible and set as high a target as possible for energy efficiency of services.

City of Edinburgh Council would also welcome any further guidance that could be incorporated into the Technical Handbooks that will help inform designers on how to achieve net zero carbon (or near net zero) for new buildings and/or how they could improve the existing building stock in a situation where extensive alterations or extensions are proposed on an existing building. As stated above, such works make up the majority of all building warrant applications across Scotland. Taking any opportunity to make any small improvement or contribution is helpful in achieving the 2030 target.

Part 4 – Ventilation

Question 41 –

Do you support the proposed revisions to the presentation of guidance on ventilation and the incorporation of the ‘domestic ventilation guide’ into the Technical Handbooks?

Yes

No

Please provide a summary of the reason for your view.

In the building sector there is a lack of understanding on the essential need for providing an efficient and effective ventilation system in a building. There are countless examples of poorly installed, ineffective equipment installation in domestic premises in Scotland. The guidance should rightly take advantage of the experiences of other countries to raise the standards of ventilation systems and provision in Scotland.

Question 42 –

Do you agree with the revision of guidance to clarify the function of purge ventilation and increase provision to align with that applied elsewhere in the UK?

Yes

No

Please provide a summary of the reason for your view.

A national standard can only lead to simplification and improved understanding of requirements and ease of design by many in the industry that work at a national level.

Question 43 –

Do you support reference to a single option for continuous mechanical extract ventilation which can have centralised or decentralised fans, with the same design parameters being applied to the system in each case?

Yes

No

Please provide a summary of the reason for your view.

The same design parameters will make it easier for designers to compare and chose the system most efficient and effective to their clients' needs.

Question 44 –

If you have any further views on the use of continuous mechanical extract to deliver effective ventilation in both low infiltration (3-5 m³) or higher infiltration (5 m³+) buildings, we would also welcome your comments.

No comment.

Question 45 –

Do you support introduction of proposed guidance on default minimum size of background ventilator for continuous mechanical extract systems?

Yes

No

Please provide a summary of the reason for your view and on any specific concerns which may arise from the proposed level of background ventilation or its application in the design of systems.

There is a lack of understanding by many in the building sector about the necessity, effectiveness and provision of background information. The proposed guidance will help improve the understanding.

Question 46 –

Should continuous mechanical extract systems be considered a viable solution in very low infiltration dwellings and, if so, under what circumstances?

Yes

No

Please provide a summary of the reason for your view.

There are known benefits from a supply and extract ventilation system in their effectiveness in providing better internal air quality for occupants. For very low infiltration dwellings the design of supply and extract air will help the designed performance to be achieved without having to rely on other factors that might not be installed correctly e.g. trickle vents.

Question 47 –

We would also like to hear your views on whether heat recovery should be mandated for packaged supply/extract systems

Any form of energy saving technology that is now more easily obtained, reliable and cost effective should be encouraged. Providing heat recovery at the installation stage will reduce any costs should an upgrade in the system be necessary at some time in the future.

Question 48 –

Do you support the incorporating of this additional guidance into the Technical Handbooks?

Yes

No

Question 49 –

We would be grateful for comment on the content of the proposed Annex and whether there are elements absent from guidance or which would be better presented within guidance to standard 3.14 itself.

No comment.

Question 50 –

Are there other elements of the commissioning of ventilation systems that you consider are both practical to implement and useful in providing additional assurance of performance in practice?

Yes

No

If yes, please provide a summary of the topics which should also be considered.

Question 51 –

We welcome your thoughts on these or broader topics which would merit consideration as part of the planned review. Please set out your thoughts below, including citation of relevant supporting evidence, where relevant.

No comment.

Question 52 –

We welcome any other comments you wish to make on proposed changes to ventilation standards for domestic buildings.

Where practical, please with a reference to any particular issue in the context of the Domestic or Non-domestic Handbook (or both if applicable) and cite any standard or revised guidance clause relevant to the topic.

The City of Edinburgh Council support the proposed changes in the guidance to support the ventilation requirements for buildings. Improvements in air quality within domestic buildings is essential in an era where more people are choosing to work from home.

Part 5 – Overheating risk in new dwellings and other new residential buildings

Question 53 –

Do you agree with the proposed introduction of a requirement to assess and mitigate summertime overheating risk in new homes and new non-domestic buildings offering similar accommodation?

Yes

No

Please provide a summary of the reason for your view.

Global warming is an issue for all nations and with improvements in energy standards the likelihood of over-heating in new homes could become an issue that should not have to rely on mechanical means e.g. air-conditioning to overcome the problem.

Natural solutions are cheaper to build in at the construction stage. The life-cycle costs for a new build are approx. 20% on construction and 80% for the rest of the building's life. Any reduction in the latter has to be seen as beneficial.

Question 54 –

If you consider that proposals should be extended to non-domestic buildings which provide other forms of residential accommodation (which are not 'self-contained residential units'), we welcome your views on such provisions, including if the same or an alternate approach to assessment is recommended?

The City of Edinburgh Council would recommend that the proposals should be extended to other non-domestic residential buildings. A similar approach could be adopted. Energy consumption in this sector should also be examined for reduction to levels as low as possible.

Question 55 –

Do you agree with the proposal that an initial assessment of dwelling characteristics should be undertaken to help inform design choices and the delivery of new homes which provide better thermal comfort in the summer months?

Yes

No

Please provide a summary of the reason for your view.

The guidance within the draft document succinctly captures the main reasons for the introduction of such requirements.

Question 56 –

We would also seek the views of respondents on other sources of good practice guidance which have been implemented by developers and the outcome (no reports of significant summertime overheating) evidenced through feedback from residents.

No comment.

Question 57 –

Are there circumstances where you consider specific characteristics of a dwelling should trigger a need for TM59 assessment rather than application of a simple elemental approach?

Yes

No

Please provide a summary of the reason for your view.

The CIBSE TM59 should be provided as a reference document for designers who may wish to consider an alternative design to any prescriptive level of requirement and still achieve the same overall performance of a building.

Question 58 –

Recognising the level of risk identified in the published research paper, do you agree with the above proposals as a suitable means of mitigating summertime overheating in new homes through prescriptive actions?

Yes

No

Please provide a summary of the reason for your view.

The consultation document's content captures the risks and highlights the ease at which the projected problem can be addressed by building dwellings to the newer standards. This shows foresight in the proposals for new regulations to address a phenomenon that, whilst is known to exist, it is difficult to achieve an accurate projection of the problem.

Question 59 –

Do you consider that such an approach will provide adequate assurance that ventilation measures provided to mitigate summer overheating can be used safely and conveniently in practice?

Yes

No

Please provide a summary of the reason for your view.

The provision of a simple user guide will help occupants understand the design philosophy of their building and ensure safe use of the facilities to achieve thermal comfort in use.

Question 60 –

We welcome any other comments you wish to make on these proposal to introduce provisions to mitigate the risk of summer overheating new homes and new residential buildings.

No further comment.

Part 6 – Improving and Demonstrating Compliance

Question 61 –

Do you have any experience of successful design or construction quality assurance regimes which you consider may be useful to consider in the context of this 'Compliance Plan manual' work for section 6 (energy)?

Yes

No

If yes, please share any relevant information.

Question 62 –

Do you have any comments on the above themes and any other actions you consider would be useful in supporting improved compliance with requirements for energy and emission performance.

Yes

No

If yes, please provide a summary of your views.

Question 63 –

Are there particular aspect so building design and construction which you consider should be prioritised as part of the development of a detailed compliance manual for section 6 (energy)?

Yes

No

No view

If yes, please provide further details, including any evidence you are aware of that supports such emphasis.

Question 64 –

We welcome any other comments you wish to make on these topic of improving compliance of building work with the provisions within section 6 (energy) to better align designed and as-built performance.

The introduction of thermal imaging of completed new buildings would help identify areas of an external envelope where there hidden errors in construction that have occurred earlier in a build project e.g. possible thermal bridges or areas of higher heat loss where insulation could be missing (or swapped for a lesser quality product).

Part 7 – Electric Vehicle Charging Infrastructure

Question 65 –

What are your views on our policy goal to enable the installation of Electric Vehicle (EV) charge points and ducting infrastructure (to facilitate the future installation of EV charge points) for parking spaces in new residential and non-residential buildings parking?

Edinburgh's City Mobility Plan states the sustainable transport hierarchy prioritises walking and wheeling, then cycling, then public transport, and shared transport including taxis. The use of private cars is lowest in the hierarchy. Investment must continue to support the hierarchy by focusing on enhancing the quality, range and integration of our sustainable travel options. The most significant of these travel options is public transport. However, the Council recognises that some EV infrastructure will be needed. Therefore, any policy taken forward should support a growth in infrastructure but should not presume a like for like substitution from diesel and petrol cars to electric vehicles.

Question 66 –

What are your views on our preferred options for EV provision in new and existing buildings?:

As above concerning the sustainable transport hierarchy priority and recognition that EV infrastructure is required. The city's transport system must evolve and in a sustainable way, to cater to a rapidly growing population and to support the city becoming net zero carbon by 2030. Edinburgh's approach to land use planning remains focussed on supporting the development or repurposing of brownfield (previously developed) land in higher densities rather than lower density development on greenfield sites.

Question 67 –

Do you agree with the Scottish Governments preferred options for the exemptions as set out in section 7.6.1?

Yes

No

If you disagree, please explain why?

Question 68 –

What are your views on how our preferred option relating to existing non-residential buildings with car parks with more than 20 spaces could be properly monitored and enforced, given that the Building (Scotland) Regulations will not apply?

Local assessors for business rates could be used for data collection from all commercial properties in scope. Occupants are asked to provide the details of the facilities associated with their property. Penalties for providing false information should be as severe as possible to deter avoidance of providing the relevant accurate information.

Question 69 –

What are your views on the proposed provision for charge points for accessible parking spaces? Do you have examples of current best practice for the provision of charge points for accessible parking spaces?

No further comment.

Question 70 –

Do you have any other views that you wish to provide on the EV section of the consultation (e.g. the minimum standard of EV charge point or safety within the built environment)?

On the minimum standard of EV chargers at existing non-residential buildings.

The proposal for one-in-ten spaces allocated to EV charging is appreciated but will have limited value in delivering the necessary reduction in transport related emissions.

The City of Edinburgh Council commissioned research by Energy Saving Trust in early 2021 to model the necessary changes in EV chargers required to meet future EV demand in the city. One of the assumptions of this model included existing non-residential buildings allocating 10% of their parking spaces to EV charging, identical to the proposal by the Scottish Government. If this was applied to the top 55 largest non-residential premises in Edinburgh this would supply a further 1,175 EV chargers by 2026.

The model also estimated this would involve a capital expenditure of £26 million. These costs were provisional and will depend on a variety of factors, type of charger for example. It will also not include any additional grid capacity investment for example. demand and supply both on number of vehicles and EV chargers. Encouraging this level of investment from businesses will be challenging in a period following a global recession and a period of uncertainty over supply chain and import fees. Suitable match funding or favourable loans and grants should be considered to support businesses to make this transition.

While City of Edinburgh Council welcome the intent of the proposal to upgrade the building standards to support better provision of EV chargers in existing non-residential buildings this will still fall short of enabling a real change.

In the model the additional 1,175 EV chargers based on the 10% of spaces being allocated will meet the demand for 21,775 EVs (13,436 BEVs and 8,339 PHEVs) by 2026. While this is an increase from around 5,500 EVs in Edinburgh for 2020, EVs will still only account of just over 10% of all licensed vehicles in Edinburgh. Using BEIS GHG fuel conversion factors the overall annual CO₂e emissions will decrease from 517,143 tonnes in 2020 to 470,917 in 2026. These estimates do not include the life cycle CO₂e emissions from vehicle manufacturing and disposal. Nor do they include emissions associated with fuel refining and distribution.

The additional quantum of EV chargers in Edinburgh by 2026 would also only meet on a per capita basis the same EV charger provision as the whole of the Netherlands in 2018. The standards should therefore be set higher or with room to increase over time.