Scottish Building Regulations: Proposed Changes to Energy Standards, including ventilation, overheating and electric vehicle charging provision

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X Yes

☐ No

Consultation Questions

Consultees are encouraged to submit their views in electronic format via https://consult.gov.scot/local-government-and-communities/building-regulations-energy-standards-review/ .

If you are unable to complete the consultation online, please feel free to provide your views and comments on this form and return the completed document to: buildingstandards@gov.scot. Alternatively, your response may be completed and posted to:

2021 Energy Consultation
Building Standards Division
Denholm House
Almondvale Business Park
Livingston
EH54 6GA

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 x

No ☐

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

The energy generated on site is assumed to be zero carbon. The energy delivered shall have a component of carbon dioxide generation associated with its production. It appears sensible that the energy consumed within the dwelling is a reflection of the emissions element of energy consumed, as opposed to the total usage.

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) X

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

Another level of uplift ☐

Please provide a summary of the reason for your view.

The Council recognises the need to reduce carbon emissions associated with homes, especially with rising prices of gas and electricity and the fuel poverty implications of this. Fuel poverty is already a significant concern in East Dunbartonshire, affecting an estimated 28% of households, and is exacerbated where lower-income households lack access to preferential fuel tariffs, e.g. due to having prepayment meters. There are increasing concerns among local communities that the current rise in fuel prices will create more fuel poverty and that it will have knock-on effects on food poverty. The installation of measures to reduce energy consumption and to reduce reliance on fossil fuels will be of particular benefit in such instances. The Council would therefore prefer the implementation of the 'Advanced' standard. However, there are concerns that the existing national infrastructure has not matured to the level required to support this increased electrical demand, and that the industry lacks the capacity to deliver the necessary scale of air source heat pump installation in new developments. In order to support the proposed 'Advanced' standard option, there should be clear evidence to provide confidence that the grid is capable of supporting this scale of uplift. In addition, there needs to be clear evidence that initiatives to support a major upscaling in the skilling of qualified personnel to install air source heat pumps and other technologies, including delivery of the measures contained in the Climate Emergency Skills Action Plan, are deliverable in a short timescale as a prerequisite for adoption of the 'Advanced' standard.

With that said, there is an overwhelming need to take early and effective action in order to meet the 75% reduction of carbon by 2030. If we delay the uplift to the 'Advanced' standard, this only serves to make the challenge of retrofitting existing builds and the development of new builds to zero direct emissions sources even more challenging in the future in terms of time and resources, as well as the financial burden. In regards to the grid capacity, it is unclear whether this issue can be overcome in the short term in accordance with the vision set out in 'Scotland's Electricity and Gas Networks: Vision to 2030' which sets out a vision to decarbonise heat and transport systems. Lastly, it is recognised that the cost of materials in a post pandemic context are more difficult to acquire. The installation of air source heat pumps, which are approximately a few thousand pounds more expensive when compared to gas boilers, seems a marginal increase in price when viewed in the context of a large housing development, and the importance of the subject matter being discussed, which is recognised by the Government in the consultation document.

While the installation of heat pumps will entail additional cost, these should be compared to the increasing costs of fuel bills where conventional fossil fuel based heating is in use, and the expected costs of retrofitting further down the line. The use of solar PV panels in conjunction with heat pumps can deliver further savings.

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) X

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

Another level of uplift ☐

Please provide a summary of the reason for your view.

While the Council would prefer an uplift to the High standard, the points that have been detailed in the previous question in relation to skills, infrastructure and supply and cost of materials are equally applicable to this question, therefore the Medium standard is more appropriate. The higher standard of emissions reduction does not appear to provide a significant improvement in emission reductions against the medium standard based on the information in table four. Further to this, the application of the medium standard appears to be in compliance with the original intention of gradually improving standards over a number of years. While gradually improving the standards may technically and practically be a more attractive approach, recent developments in understanding of the urgency and magnitude of the change required over the next two decades to effectively tackle climate change have emphasised the need for ambitious and quick action.

Non domestic buildings, which tend to be larger than domestic dwellings may offer greater opportunities to install solar PV on roofs to provide power to ASHP. This could also enable them to contribute low carbon energy into the grid through selling surplus energy to become a net energy producer, instead of a consumer.

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 X

No ☐

If yes, please provide your comments.

Whilst it is appreciated that this relates to the notional building, some designers will follow this as their benchmark. Where the higher standards are identified new and improved skill sets will be required. Ambitious targets should be set to demonstrate commitment to sustainability, and the new standards should be achievable. However, training events for designers and installers to make them aware of the requirements prior to their adoption would assist in this process. For example, radiators sized to a flow for 45 degree water temperature. Most installers use a standard radiator calculator based on HTHW.

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.

As stated in response to question 4.

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 reduction of five fuel types to two appears consistent with future guidance. This arrangement also allows suitable variations to fit the proposed services available where the dwelling is constructed.

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.

N/A

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.

For low water use in smaller commercial buildings, it is expected that this arrangement will provide a more accurate reflection of the energy use as it uses a demand based model as opposed to generic assumptions made in relation to their occupancy and use, which tend to be more accurate for larger conditioned buildings.

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.

The heat network should be a high performance energy efficient system however, currently this is not necessarily the case. A heat network will always involve some energy loss, but by adopting solar PV, this will help offset some of those loses. Classing the building as a gas heating system will mandate the provision of solar PV.

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.

It is agreed that the amount of electricity should be representative of the actual savings it will realise to the end user. The example of domestic flats would financially benefit social housing users, as opposed to housing authorities as is the current situation. In schools the greatest electrical generation is at a time of year when most schools are unoccupied as a result of the summer break. However, this doesn't prevent the school from selling the surplus energy produced back into the grid, as detailed in question 4. This may be of greater benefit as over the summer period schools can become a substantial net energy producer and benefit from the income from energy generation. Other types of premises such as call centres on the other hand, which can be occupied seven days of the week, should be able to exploit the power generated all year round. The ability to sell this energy back to the grid could play a crucial role in offsetting the fuel poverty within communities, especially if the 'Advanced' standard is not going to be adopted.

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

In relation to electrical generation on site, a figure too low may dissuade some designers from using certain technologies. It is also noted that solar thermal is not discussed. Dwellings in Argyll have used this technology and found it to be very efficient. In larger dwellings with a hot water store, the evacuated tube solar thermal system could prove to be very efficient and would reduce electrical demand.

Question 11 –

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 X

Please provide a summary of the reason for your view.

The removal of the TER will result in benchmark values being sought to demonstrate compliance. Section 6 currently utilises a holistic approach which allows designs that may include a high number of windows or a dwelling located in a remote setting where insufficient capacity exists in the electrical infrastructure to install a heat pump to look at alternative systems. There is also concerns storage heaters may be installed initially and removed when the running costs are realised. The inclusion of the TER allows flexibility on the part of the designer.

Question 12 –

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 X

No ☐Please provide a summary of the reason for your view.

It is agreed that this should be enabled, however, more information and detail is required to understand how this could be done or what adaptations would be required. Given the post pandemic climate where there are skill and material shortages, as detailed above, it is important to enable flexibility on behalf of the designers. With that said, it is fundamental in order to achieve net zero targets that this is not used as a means to avoid achieving high sustainability standards and to continue using carbon based heating technology sources.

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?

As stated previously, more information is required to provide clarity on what simple adaptations would entail. At present a number of systems and hybrid systems exist. The information will vary depending on the system that is proposed to be installed. For new

builds, a more tailored and building specific approach is applied, such as using the U values in calculations, which provides a much more accurate heating demand assessment. It would be expected that a competent installer would recognise what these requirements would be, as well as be able to design and cost a system based on this and their experience.

Question 13 –

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.

The elemental approach is recognised and understood by the majority of persons who submit building warrant applications. The total space heating demand for the dwelling should also be straight forward, provided it is carried out by a competent person. As the insulation values increase, the heat demand decreases allowing for sufficient trade-offs where required.

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.

Whist the heat loss values are challenging, extensions to dwellings routinely achieve these values when a compensatory calculation is required. Occupiers generally state how comfortable and cheap the houses are to run. These points should be promoted when the challenging U values are being opted for.

Question 14 –

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.

As the move away from HTHW systems is realised, the need to reduce heat loss through air movement is more important. Further to this, the need to identify the correct ventilation system will become more relevant as the level of insulation increases. The EPC currently adds 2 m3/m2h to the tested permeability rate. For dwellings that are not tested, it could possibly result in an inaccurate EPC being fixed to the dwelling. The testing of all new

dwellings is supported to ensure the services provided within the dwelling are sized correctly and fit for purpose.

Question 15 –

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.

The improved testing on non-domestic buildings appears proportionate and will not affect those where heating and cooling are not required.

Question 16 –

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.

This allows for a consistent approach across the UK of a recognised system.

Question 17 –

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

Yes ☒

No ☐

Please provide a summary of the reason for your view.

The pulse testing system provides results consistent with the current testing approach, and therefore there is no reason to discount an alternative means of displaying compliance.

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

The existing system of testing is good at identifying heat loss through the use of smoke candles or a thermal imaging camera due to the higher negative pressures created within the building. The pulse system may be more problematic for identifying air leakage due to the lower internal pressures which may prove a problem as the insulation values improve.

Question 18 –

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 X

No ☐

Please provide a summary of the reason for your view.

Modular units should be subject to refurbishment on a reasonably regular basis to ensure they are fit for purpose. These recommendations comply with that ethos.

Question 19 –

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.

As the energy regulations develop and become more complex, the use of certifiers of construction should be encouraged.

Part 3 – Energy, all buildings

Question 20 –

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 X

No ☐

Please provide a summary of the reason for your view.

Has no significant impact to businesses other than charging facilities for vehicles.

Question 21 –

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 values should be consistent with new build targets as a minimum and these values achieve that.

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.

The various heat loss values as defined in different parts of the guidance causes confusion for some people, so one sets of standards would improve ease of understanding. Further to this, having different U values for similar houses carrying out the same work on the same street based on the age of a dwelling was non sensible.

Question 22 –

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

Yes ☒

No ☐

Please provide a summary of the reason for your view.

The values should be consistent with new build targets as a minimum and these values achieve that.

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.

Consistency of application.

Question 23 –

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.

As consultation document states. As the insulation levels improve it becomes more difficult to separate the various work types. Standardisation of approach appears to be sensible.

Question 24 –

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 X

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.

The current arrangement allows for significant volumes of pertinent information to be located within one specific document that is free to download. Re integrating the information or adding as annexes may result in a significant sized document being difficult to navigate.

Question 25 –

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 X

No ☐

Please provide a summary of the reason for your view.

Whilst the building construction techniques vary slightly throughout the UK due to the local climate building services follow national guidelines, and as such makes sense for this document to align with UK level standards.

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

N/A

Question 26 –

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 X

No ☐

Please provide a summary of the reason for your view.

Building services follow national guidelines and as such makes sense for this document to align with UK level standards.

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

There is a significant emphasis on community heating for future years based on information available for proposed legislation. This document has two paragraphs in relation to the subject. This guidance should be expanded or the reader directed to alternative documents relevant to this legislation.

Question 27 –

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 X

No ☐

Please provide a summary of the reason for your view.

We are not aware of anyone following this guidance in relation to controls etc. and reducing the efficiency of the boiler as a result. The guidance was complicated for the occasional user of the guide and the removal of the credits system would be supported.

Question 28 –

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 X

Please provide a summary of the reason for your view.

Whilst this arrangement should be viable in new and modern dwellings, it may be problematic in older buildings. Due to the way older buildings were constructed and designed, it may prove impossible - or at least unattractive from a cost benefit ratio point of view - to retrofit older buildings up to modern standards. Uninsulated ‘no fines’ buildings, more generally known as ‘Hard to Heat’ buildings, which include tenements and or steel framed with brick facings built before the 1980’s are all classed as hard to heat. Radiators for low temperature systems are roughly twice the size of normal radiators for HTHW systems and may prove problematic to install in such dwellings.

Question 29 –

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.

The more control over the heating within a dwelling the more efficiently it can be used.

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

A significant number of existing radiators have the control valves placed at the base of the radiator. To comply with accessible guidance these should now be located above 400mm and not more than 1200mm from finished floor level. If this aspect is to be followed this could lead to significant additional costs for homeowners.

Question 30 –

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.

In new buildings the cost of installing this technology should be minimal and pay for itself over the longer term.

Question 31 –

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.

Due to the complexity of this subject and the different aspects that affect the energy efficiency of buildings, the use of certifiers of design when applying for a building warrant should be encouraged.

Part 4 – Ventilation

Question 32 –

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.

Consistent with air tight buildings and energy efficiency.

Question 33 –

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.

The guidance in relation to purge ventilation allows various means to satisfy requirements based on local environments. This should improve living conditions for persons living in various environments where smaller openings can be installed provided the same ventilation rates are achieved.

Question 34 –

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.

As both systems will require design by a competent person the actual extraction units will have advantages and disadvantages over each other. Therefore the reference to dMEV or central is irrelevant.

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

To allow calculations and assessments to be carried out by self-employed designers, suitable guidance should be available to allow this to be carried out in standard non complicated dwellings.

Question 35 –

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.

The various background ventilation rates are detailed in the various paragraphs describing the ventilation system to be employed. It may be easier for the reader to refer to a single table where all scenarios are noted with extract rates and background ventilation requirements.

Question 36 –

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.

For continuous extraction systems to operate correctly they require a supply of replacement air. Dwellings with an air permeability of less than 3m3/m2h will have no background ventilators installed. Therefore this ventilation system would be deemed inappropriate for this type of dwelling.

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

Heat recovery in supply/ extract systems should be mandatory in Scotland. The facility increases the efficiency of the system and aids the results in the SAP calculation document. As the building nears an air permeability rate of 1 m3/m2h the heat from the equipment used within the dwelling shall be capable of providing useful heat to the occupants.

Question 37 –

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

Yes ☐

No ☒

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.

The separate documents are useful and detailed. When incorporated into the technical handbook their size may be reduced and some useful content could be lost. The technical

handbook is already a significant sized document. A simple reference for the reader should be provided.

Question 38 –

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.

The name of the technician and the company employed by the person carrying out the ventilation testing in the report submitted to the verifier. Detail of any competencies relevant to this role.

Question 39 –

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.

As the ventilation of buildings has a strong link with section 6 energy, would it not be more sensible to move this section into part 6? This way a certifier of design could review as part of their remit and issue a certificate of design covering section 6 including ventilation arrangements.

Question 40 –

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.

Due to the complexity of this subject and the different aspects that affect the energy efficiency of buildings, the use of certifiers of design when applying for a building warrant should be encouraged.

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

Question 41 –

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 X

No ☐

Please provide a summary of the reason for your view.

With the preference for larger windows the possibility for overheating is growing. However,

larger windows in wintertime can exploit direct sunlight even though external temperatures are lower.

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?

In residential accommodation where persons are likely to reside for lengthy periods such as care homes, this process should be carried out. In other accommodation such as hotels where persons occupy rooms for short periods, and not likely to be in rooms during the day, assessments are not required.

Question 42 –

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 X

No ☐

Please provide a summary of the reason for your view.

The initial assessment is a basic review and should not prove to be an excessive burden to designers unless the dwelling is complicated.

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.

N/A

Question 43 –

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 X

No ☐

Please provide a summary of the reason for your view.

Where more is more than one room, or were a recognised percentage of the dwelling, that are noted during the basic assessment, could overheat. This should trigger the dynamic assessment.

Question 44 –

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 X

No ☐

Please provide a summary of the reason for your view.

For the majority of dwellings, a simple assessment shall satisfy the needs of the regulation. Where dwellings are complicated, exposed to significant risk of overheating or have external factors that may affect the ventilation strategy, the dynamic simulation should provide direction.

Question 45 –

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 X

No ☐

Please provide a summary of the reason for your view.

The vast majority of applications will not require additional facilities. Those that do should be able to address the risk through simple passive measures. It will be very rare for a mechanical cooling system to be employed. The guidance regarding safe cleaning of windows etc. should be extended to cover this aspect also.

Question 46 –

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.

Due to the complexity of this subject and the different aspects that affect the energy efficiency of buildings the use of certifiers of design when applying for a building warrant should be encouraged.

Part 6 – Improving and Demonstrating Compliance

Question 47 –

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 X

If yes, please share any relevant information.

N/A.

Question 48 –

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 X

No ☐

If yes, please provide a summary of your views.

The points discussed in relation to this question are valid. However, the skills required to carry out this function are varied. There needs to be a clear definition of competency in relation to energy in order to clearly establish how individuals can demonstrate their suitability for undertaking such a role, and to ensure that the work carried out has been implemented as required.

Question 49 –

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 X

No view ☐

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

N/A.

Question 50 –

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.

Due to the complexity of this subject and the different aspects that affect the energy efficiency of buildings, the use of certifiers of design when applying for a building warrant should be encouraged.

Part 7 – Electric Vehicle Charging Infrastructure

Question 51 –

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?

The Council supports this policy approach. It is helpful to have a national standard to help guide local planning authorities, particularly as this is an emerging topic which isn't covered in significant detail within current Scottish Planning Policy. The Council's Proposed LDP2 is currently undergoing examination and Policy 11 within the Proposed LDP2 includes a section on electric vehicles. The approach taken in Policy 11 is similar to the preferred option set out by the Scottish Government, e.g. requiring all dwellings to have access to at a minimum 'slow' charge point. The preferred option within this consultation sets out a minimum for a 7kW 'fast' charger and it is welcome to see the overall local policy approach reflected in national policy. The additional policy positions set out for residential developments are also welcome. Similarly, the approach in Policy 11 also requires infrastructure to be provided in non-residential settings and while some of the detail varies, the overall approach is again welcome from a national level.

Question 52 –

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

The approach is welcomed, however the following points are noted.

Further detail is required on communal residential parking. The consultation document states that 'All dwellings with a parking space to have at least one EV charge point socket' however it is not explained how this should apply to communal residential parking, for example flats. This is a particular issue for new build flats but will also apply to existing buildings. The consultation document notes that not all of the population have access to off-street parking at home, however it is unclear how this relates to flats. It does not seem

in keeping with the proposed changes that car parks for flatted developments do not require to have any EV charge points.

With regards existing buildings, further detail is required on how this will be implemented in practice. New development will be regulated through current development management practices, including enforcement, if required, but widening requirements to cover existing buildings will be a big task in terms of measuring compliance and carrying out enforcement action if required. This is discussed further in response to Question 54.

Question 53 –

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?

The rationale for including/excluding the listed exemptions appears to be a reasonable and proportionate approach, while ensuring that implementing electric vehicle charging infrastructure will be the norm.

Question 54 –

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?

Question 55 –

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?

This approach is supported.

Question 56 –

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)?

Within Policy 11 of the Proposed Local Development Plan 2, the Council currently has a minimum requirement for ‘slow’ chargers to be provided for all housing sites. The preferred approach within this consultation document is for ‘fast’ to be the minimum. The rationale for the Council’s approach was that it is likely that home charging would be over a longer time frame as it is estimated that the average car is parked at home 80% of the cars

lifetime (Marsden, 2014). A slow charger was therefore deemed a reasonable requirement for this purpose, with fast chargers required for other purposes (non-residential), as people would generally spend a lower amount of time here (e.g. charging while at the shops or going to leisure facilities). However, the strengthening of this requirement is welcomed, in preparing the Proposed Local Development Plan 2 in early 2020, given Scottish Planning Policy dates to 2014; the Council used the best evidence available.