

CIBSE Scotland Response to the Scottish Government Consultation

Delivering a Scottish Equivalent to the Passivhaus Standard (Stage 2)

Introduction

CIBSE Scotland welcomes the opportunity to respond to the Scottish Government's Stage 2 consultation on proposed changes to energy and environmental standards within the Building (Scotland) Regulations.

CIBSE supports the overall direction of travel towards low-energy, high-performance buildings and welcomes the significant progress made since the Stage 1 consultation. In particular, we support the emphasis on reducing energy demand, improving fabric performance, increasing airtightness, enhancing compliance processes and improving transparency around building energy performance.

However, CIBSE believes that achieving the intended outcomes will require not only more ambitious design standards, but a greater focus on construction quality, commissioning, operational performance, user engagement and post-occupancy evaluation to address the well-documented performance gap between design intent and actual building performance.

In particular, CIBSE welcomes the proposed move away from traditional notional building methodologies towards outcome-based target rates and performance metrics. We consider this one of the most significant and positive reforms proposed within the consultation.

We also encourage future consideration of overheating, ventilation, whole life carbon, climate resilience and the application of similar principles to existing buildings as part of Scotland's pathway to net zero by 2045.

CIBSE Scotland also hosted an industry discussion event as part of the consultation process. Whilst attendees were broadly supportive of the direction of travel and the emphasis on improved energy performance and compliance assurance, several recurring themes emerged including concerns around overheating and climate resilience, implementation of multiple compliance methodologies, operational performance, district heat network recognition, and the need to consider how similar principles might be applied to Scotland's existing building stock.

Question 1

With reference to the Partial Business and Regulatory Impact Assessment (BRIA), are you able to provide any information that could aid in production of the final BRIA?

CIBSE Response

CIBSE would be pleased to support the gathering of further evidence from industry and members relating to:

- Capital and operational costs associated with enhanced building fabric standards.
- Airtightness and thermal bridge mitigation measures.
- Ventilation and heat recovery systems.
- Commissioning and performance verification.
- Post-occupancy evaluation.
- Building user engagement and operational outcomes.

The final BRIA should consider not only capital costs but also:

- Reduced operational energy costs.
- Carbon reductions.
- Improved occupant health and wellbeing.
- Increased resilience to future climate conditions.
- Reduced performance gap risk.

Question 2

Do you have any comments on the merits of introducing the standard on a mandatory basis through a phased implementation?

CIBSE Response

CIBSE supports phased implementation.

A phased approach would:

- Allow industry and supply chains to adapt.
- Support skills development and training.
- Enable software tools and methodologies to mature.
- Provide time for local authority verifiers and practitioners to gain experience.
- Reduce the risk of disruption during implementation.

However, CIBSE considers that the proposed transition period should be as short as reasonably practicable.

Given the urgency of reducing energy demand and improving building performance, we believe a transition period of approximately one year would provide sufficient time for industry preparation whilst maintaining momentum towards implementation.

Prolonged transition periods risk delaying delivery of the intended energy and carbon reduction benefits.

Any phased implementation should include clearly defined milestones and a transparent roadmap towards full adoption.

Question 3

Do you have any comments on the merits of introducing the proposed standard initially on a voluntary basis?

CIBSE Response

CIBSE supports a limited voluntary introduction period to allow testing and familiarisation with the new methodologies and compliance processes.

However, prolonged voluntary adoption may limit market transformation, create inconsistency across projects and delay the wider benefits associated with improved building performance.

If a voluntary implementation stage is adopted, CIBSE recommends that it should be limited to a maximum of one year and followed by a clearly defined programme for mandatory implementation. This would provide an appropriate balance between industry familiarisation and timely delivery of policy objectives.

Question 4

Do you agree with the proposal to present unregulated loads as information within reported outputs from the compliance calculation?

CIBSE Response

Yes.

CIBSE strongly supports the inclusion of unregulated energy use within reported outputs.

This approach:

- Increases transparency.
- Improves understanding of whole-building energy use.
- Better reflects actual operational performance.
- Supports future operational energy monitoring.
- Helps reduce the performance gap by enabling comparison between predicted and measured energy consumption.

Question 5

Do you agree with the proposal to introduce a target space heating rate that only includes elements of the specification related to fabric performance?

CIBSE Response

Yes.

CIBSE supports the introduction of a fabric-based space heating target.

This reinforces a fabric-first approach and promotes long-term energy efficiency independent of specific heating technologies.

A high-performance building fabric remains one of the most reliable means of reducing operational energy demand throughout a building's lifecycle.

However, fabric performance targets should be considered alongside overheating risk.

As buildings become increasingly airtight and highly insulated, care should be taken to ensure that compliance strategies do not inadvertently increase reliance on active cooling.

Designers should be encouraged to adopt passive overheating mitigation measures including solar control, external shading, appropriate glazing design and effective ventilation strategies so that reductions in heating demand are not achieved at the expense of increased cooling energy consumption.

The notional thermal bridging allowance should also be stated for each option. As fabric U-values improve, junction heat loss becomes a proportionally larger share of total fabric loss, and it should not remain the least rigorous element of the calculation. CIBSE recommends that calculated psi values, derived in accordance with BS EN ISO 10211 and BR 497, become the expected approach for both dwellings and non-domestic buildings. The default values available where no calculation is undertaken be set at a sufficiently onerous level to make calculation the commercially rational choice.

Question 6

Do you have any comments on the roof U-value proposals across the Good and Best Practice options?

CIBSE Response

CIBSE notes that the proposed roof U-values represent a relaxation compared with current assumptions.

We would welcome further evidence demonstrating the rationale for reducing the level of ambition for roof performance.

Where practical and cost-effective, stronger fabric standards should continue to be encouraged given the long-term benefit and permanence of building fabric improvements.

Consideration should also be given to the interaction between elemental U-values and thermal bridging.

Improvements in elemental fabric performance can be undermined by poor junction design, and therefore fabric standards should continue to promote both low U-values and robust thermal bridge mitigation measures as part of a holistic fabric performance strategy.

Question 7

What uplift to the current energy standards for new dwellings do you consider appropriate?

CIBSE Response

CIBSE supports the adoption of an ambitious but practical and deliverable uplift in energy standards for new dwellings.

On balance, feedback received through industry engagement suggests that the Good Practice option provides the most appropriate balance between improved building performance, cost effectiveness and deliverability. This option promotes significant reductions in energy demand and emissions without imposing requirements that may adversely impact viability or housing delivery.

The proposed specification is not overly restrictive and encourages the deployment of highly efficient building services, including heat pump technology where appropriate, whilst recognising practical delivery constraints.

CIBSE considers that this represents a proportionate step forward and provides a realistic pathway for industry adoption.

Standards should continue to drive meaningful improvements in energy performance whilst remaining achievable across a wide range of dwelling types and development contexts.

Question 8

Do you support an approach to enable recognition of higher efficiency generation within a development regardless of whether it takes place within individual buildings or a communal heating system?

CIBSE Response

Yes.

CIBSE supports recognition of higher-efficiency generation at development scale.

However, the proposals should be broadened to ensure they do not disadvantage developments connecting to district or citywide heat networks which may offer equal or greater carbon benefits than communal systems located solely within the development boundary.

Question 9

Are you currently designing or building dwellings to the February 2023 standards and able to share cost information?

CIBSE Response

No specific cost evidence is provided at this time, although CIBSE would be happy to facilitate engagement with members who may be able to provide such information.

Question 10

Do you support the proposal to allow target rates for dwellings to fluctuate based only on location, orientation, archetype and heat source?

CIBSE Response

Yes.

CIBSE supports simplifying the factors which influence target-setting.

This should improve transparency, consistency and user understanding whilst maintaining flexibility to reflect genuine performance differences between building types.

Question 11

Do you agree with the proposal to present target rates for dwellings within a target range table?

CIBSE Response

Yes.

CIBSE welcomes the proposed move away from the notional dwelling approach.

The use of target range tables should improve transparency and make compliance targets easier to understand and communicate.

This represents a significant and positive change in the methodology.

Question 12

Do you agree with the proposal to set an upper limit to the declared design air infiltration rate?

CIBSE Response

Yes.

CIBSE strongly supports the introduction of an upper limit.

However, achieving low infiltration rates depends upon:

- Good design.
- Quality construction.
- Appropriate testing.
- Effective site supervision.

The proposed limit should therefore be accompanied by robust quality assurance and verification processes.

CIBSE also considers that an air permeability target of $5 \text{ m}^3/\text{hr}\cdot\text{m}^2$ at 50Pa should become a common expectation for new dwellings. This level of performance is widely achievable using established construction techniques and would help drive greater consistency in delivered building performance.

Question 13

Do you have any views on the development and usability of the consultation version of HEM/Scottish Wrapper?

CIBSE Response

CIBSE welcomes the development of the HEM methodology.

Key considerations include:

- Ease of use.
- Transparency of assumptions.
- Interoperability with design workflows.
- Consistency with operational outcomes.
- Appropriate guidance and training for industry users.

CIBSE is supportive of the overall direction of the Home Energy Model and recognises the significant development work already undertaken.

Particular attention should be given to user guidance, training requirements and validation of outputs to support confidence in the methodology during implementation.

Question 14

Do you agree with the proposal to recognise a modified version of PHPP as an additional compliance tool for new dwellings?

CIBSE Response

CIBSE supports the recognition of PHPP as an alternative route to demonstrate compliance.

However, outputs should remain consistent with HEM to ensure comparable compliance outcomes irrespective of the software selected.

Feedback from industry highlighted concerns around the potential complexity associated with operating multiple compliance methodologies in parallel. Consideration should therefore be given to governance arrangements, software version control, training requirements, verifier competency and the interaction between PHPP, EPC production and wider compliance processes.

Care should also be taken to ensure that introducing additional methodologies does not create unnecessary administrative burden for either practitioners or verifiers.

Appropriate training and competency requirements for verifiers should accompany the introduction of any additional compliance methodology.

CIBSE also notes that, where PHPP is used as a compliance methodology, additional assessments may still be required to support EPC production and other regulatory requirements.

If parallel modelling exercises are required, this could result in duplication of effort, increased project costs and greater potential for inconsistencies between assessment outputs.

The implementation strategy should therefore seek to minimise unnecessary duplication and provide clear alignment between compliance modelling, EPC generation and wider regulatory processes.

Question 15

Do you have any comments on the cooling efficiency proposals across the Medium and High options?

CIBSE Response

CIBSE has concerns regarding any reduction in cooling performance expectations.

Feedback received through industry engagement consistently identified overheating and climate resilience as key issues requiring further consideration.

Whilst reducing heating demand remains important, many stakeholders felt that overheating risk is becoming an increasingly significant challenge as buildings become more airtight, better insulated and are exposed to warmer future weather conditions.

Industry experience shows that the proposed higher Seasonal Energy Efficiency Ratio (SEER) values are achievable using currently available technologies and are already being delivered on a number of projects, particularly where systems maximise opportunities for free cooling during periods of favourable outdoor conditions.

Given the increasing importance of overheating resilience and the anticipated impacts of climate change, reducing minimum cooling performance requirements risks locking in unnecessary future energy consumption.

CIBSE therefore considers that cooling efficiency standards should remain ambitious whilst continuing to encourage passive design measures that minimise the need for mechanical cooling in the first instance.

Question 16

What level of uplift to the current energy standards for new non-domestic buildings should be introduced?

CIBSE Response

CIBSE supports an ambitious but practical and deliverable uplift to energy standards for new non-domestic buildings.

On balance, feedback received through industry engagement suggests that the Medium option represents the most appropriate balance between improved performance, technical feasibility and cost effectiveness.

Whilst the Higher option would deliver additional carbon savings, concerns were raised regarding the proportionality of some measures relative to the benefits achieved. In particular:

- Demand controlled ventilation may introduce significant additional capital and maintenance costs.
- The proposed extent of roof-mounted PV provision may prove difficult to accommodate alongside plant space, access requirements and safe maintenance arrangements.
- Some highly performing developments may become less viable despite relatively modest additional carbon savings.

Feedback also highlighted ongoing concerns regarding the notional building assumptions for ventilation system specific fan power (SFP). For systems where heating is not provided via the air distribution system, the assumed SFP values can be challenging to achieve using commercially available air handling equipment, and any continuation of these assumptions should be carefully reviewed and justified.

CIBSE therefore considers the Medium option provides a proportionate and achievable improvement whilst supporting widespread adoption across the sector.

Question 17

Do you support an approach to enable recognition of higher efficiency generation within a development regardless of whether it takes place within individual buildings or is communal?

CIBSE Response

Yes.

CIBSE supports the proposal but recommends extending recognition to wider district and city-scale energy networks to avoid unintended barriers to future low-carbon infrastructure development.

Question 18

Do you agree with the proposal to allow building target rates to fluctuate based only on location, building type, activity type, heat source and orientation?

CIBSE Response

Yes.

CIBSE supports a simplified approach to target-setting as this improves transparency and consistency while retaining appropriate flexibility.

Question 19

Do you agree with the proposal to present target rates for non-domestic buildings within a target range table?

CIBSE Response

Yes.

CIBSE supports the proposal.

However, given the greater complexity and diversity of non-domestic buildings, comprehensive guidance and worked examples will be important to support adoption.

Question 20

Do you agree with the proposal to set an upper limit to the declared design air infiltration rate?

CIBSE Response

Yes.

CIBSE supports the introduction of an upper limit to the declared design air infiltration rate.

Achieving low air permeability is dependent on design quality, workmanship, testing and verification rather than design-stage declarations alone. Robust quality assurance procedures should therefore accompany any proposed limit.

CIBSE also considers that an air permeability target of $5 \text{ m}^3/\text{hr}\cdot\text{m}^2$ at 50Pa should become a common expectation for new buildings. Whilst some building types may be capable of achieving significantly better performance, a consistent baseline target would help improve overall building quality and reduce the performance gap between design intent and operational outcomes.

Question 21

Do you have any views on the development and usability of Scottish SBEM v7?

CIBSE Response

CIBSE welcomes development of Scottish SBEM v7 and supports ongoing refinement.

Key areas for consideration include:

- Improved usability.
- Improved representation of low-carbon technologies.
- Alignment with future climate conditions.
- Transparency of assumptions.
- Correlation with operational building performance.

Usability should remain a key priority in the continued development of Scottish SBEM v7.

Industry feedback consistently highlights the importance of intuitive workflows, transparent calculation methodologies and minimising unnecessary administrative burden.

CIBSE also recommends continued recognition and promotion of Dynamic Simulation Modelling (DSM) as an alternative compliance route. DSM provides a more detailed hourly analysis of building performance and has been shown to offer a more accurate representation of energy use, overheating risk and building operation than simplified monthly assessment methodologies.

Given its established role within the compliance framework, any reduction in the recognition of DSM would require clear technical justification.

Question 22

Do you agree with the proposal to recognise a modified version of PHPP as an additional compliance tool for non-domestic buildings?

CIBSE Response

Yes.

CIBSE supports recognition of PHPP as an additional route to compliance provided equivalent outcomes are delivered and consistency across approved methodologies is maintained.

Particular consideration should be given to complex non-domestic building types where building operation, internal gains and occupancy characteristics may be more difficult to represent through simplified methodologies.

Industry feedback also highlighted the importance of ensuring that any future amendments to PHPP remain subject to appropriate governance and transparency if the methodology is adopted within the Scottish regulatory framework.

Appropriate training and competency requirements for verifiers should accompany the introduction of any additional compliance methodology.

Similar to the residential sector, consideration should be given to the interaction between PHPP-based compliance assessments, EPC production and other regulatory requirements.

Requiring separate modelling exercises may increase project costs, create duplication of effort and introduce opportunities for inconsistencies between assessment methodologies.

Any implementation framework should therefore seek to minimise unnecessary double handling and provide clear alignment across compliance processes.

Question 23

Do you agree with the proposal to accept any ventilation system/solution capable of achieving the performance sought in Standard 3.14?

CIBSE Response

Yes, in principle.

CIBSE supports an outcome-based approach rather than mandating particular technologies.

However, ventilation performance is critical in increasingly airtight buildings and further guidance will be required to ensure adequate indoor air quality, occupant health and comfort.

Question 24

Do you have any views on additional guidance for MVHR systems?

CIBSE Response

CIBSE would welcome further guidance covering:

- System sizing.
- Installation quality.
- Commissioning requirements.
- Acoustic performance.
- Maintenance and access.
- Filter replacement.
- User guidance and building handover.
- In-use performance evaluation.

Particular consideration should be given to lifecycle costs and long-term maintenance burdens.

Poorly maintained systems may create affordability issues and potentially undermine building performance outcomes.

Whilst MVHR systems can offer significant benefits in highly airtight buildings, consideration should also be given to long-term maintenance responsibilities, replacement costs, user understanding and affordability. If poorly maintained, system performance may deteriorate, potentially affecting indoor air quality and increasing the risk of moisture-related issues.

Care should therefore be taken before creating any de facto requirement for widespread MVHR adoption without fully considering these factors.

Question 25

Do you have any views on the proposal to decouple the link between fabric air infiltration and ventilation solution?

CIBSE Response

Yes.

CIBSE supports this proposal.

Uncontrolled air leakage should not be relied upon to provide ventilation. Ventilation systems should be designed to meet indoor air quality requirements independently of fabric leakage performance.

Question 26

With regard to the proposal to reference PHPP as an additional overheating risk assessment methodology, do you know of any risks and opportunities?

CIBSE Response

CIBSE Scotland recognises both opportunities and risks associated with the use of PHPP as an overheating risk assessment methodology.

Opportunities

- Greater alignment between compliance assessment and established Passivhaus design methodologies.
- Improved integration between energy demand and thermal comfort considerations.
- Encouraging earlier consideration of overheating risk within the design process.
- Promoting a more holistic approach to building performance through the consideration of both winter energy demand and summer comfort.

Risks

- Simplified methodologies may not adequately capture overheating risks in all circumstances, particularly for more complex buildings or sites subject to significant solar gains, urban heat island effects, or challenging operational patterns.
- There is a risk that overheating may be underestimated if assessments rely solely on PHPP outputs without appropriate consideration of future climate conditions or building operation.
- As buildings become increasingly airtight and highly insulated, overheating risk is likely to become a more significant concern unless accompanied by appropriate passive mitigation measures and ventilation strategies.
- There is a risk that excessive emphasis on reducing heating demand may inadvertently result in design choices that increase overheating risk if not carefully managed.

Feedback received through CIBSE Scotland's consultation discussion event identified overheating and climate resilience as some of the most significant areas requiring further consideration. Whilst attendees were generally supportive of the overall direction of the proposals, many felt that overheating risk may warrant greater emphasis within future standards and guidance.

CIBSE would caution against sole reliance on PHPP for overheating assessment and recommends that draft guidance should also consider:

- The use of future weather files to assess resilience under projected climate conditions.
- The application of dynamic thermal modelling where appropriate.
- Consideration of CIBSE TM52 methodologies for non-domestic buildings.
- Extension of the principles of Standard 3.28 (Overheating Risk) to relevant non-domestic building types.
- Recognition of the importance of passive overheating mitigation measures, including external shading, solar control glazing, appropriate façade design, natural ventilation strategies, and opportunities for occupant adaptation and control.
- Consideration of external noise constraints similar to those addressed through Approved Document O in England, recognising that occupants may be unable to rely on opening windows for overheating mitigation where external noise levels are excessive, particularly at night.

The consultation notes that ventilation standards will be the subject of further research. CIBSE is concerned that ventilation, indoor air quality, overheating, airtightness and climate resilience are inherently interrelated issues and should not be considered in isolation. Given the interaction between increasingly demanding fabric performance standards, reduced air leakage, changing climate conditions and occupant wellbeing, we recommend that future research considers these topics holistically and explicitly assesses the potential unintended consequences of proposed energy efficiency measures.

More broadly, CIBSE believes that future standards should seek to achieve an appropriate balance between reducing heating demand, maintaining good indoor environmental quality and ensuring resilience to future climate conditions.

As Scotland's climate continues to warm, overheating prevention should be treated as a core component of building performance rather than a secondary consideration.

CIBSE further recommends that overheating assessments align with relevant CIBSE guidance including TM52: *The Limits of Thermal Comfort: Avoiding Overheating in European Buildings*, TM59: *Design Methodology for the Assessment of Overheating Risk in Homes*, and the principles contained within TM51 and other climate resilience guidance documents.

Consideration should also be given to extending the principles of Standard 3.28 beyond domestic buildings to ensure that overheating risk is consistently addressed across a wider range of building types.

Question 27

Do you have any comments on the structure of the proposed Building Standards Energy and Environmental Compliance Handbook?

CIBSE Response

CIBSE welcomes the Handbook and considers it has the potential to become a valuable framework supporting compliance throughout the design and construction process.

Greater emphasis on commissioning, operational performance and post-completion verification would further strengthen the document.

Question 28

Do you have any comments on the presentation of the principle of communication and collaboration throughout the Handbook?

CIBSE Response

CIBSE strongly supports the emphasis on communication and collaboration.

The successful delivery of high-performance buildings relies upon close cooperation between clients, designers, contractors, specialist subcontractors, commissioning specialists, building operators, facilities management teams and maintenance personnel throughout the project lifecycle.

Particular emphasis should be placed on engaging facilities management teams at an early stage, as these stakeholders play a critical role in ensuring that buildings operate as intended and continue to deliver the energy, environmental and comfort outcomes anticipated during design.

Question 29

Do you have any comments on how the Handbook could help mitigate the risks associated with achieving compliance?

CIBSE Response

The Handbook has the potential to significantly reduce compliance risks through:

- Early-stage coordination.
- Clearly defined responsibilities.
- Structured evidence collection.
- Improved quality assurance.

Additional focus should be placed on operational readiness and performance verification.

Question 30

Do you have any comments on the emphasis on robust evidence gathering and effective process management?

CIBSE Response

CIBSE strongly agrees with this emphasis.

In addition to the proposals, consideration should be given to:

- Seasonal commissioning.
- Soft Landings principles.
- Building tuning.
- User engagement.
- Post-occupancy evaluation.
- In-use energy monitoring.

These measures can play a significant role in reducing the performance gap.

Industry feedback consistently highlighted operational performance as being as important as compliance modelling.

We recommend the Handbook's schedules require, as a minimum:

- photographic evidence of insulation continuity, the airtightness layer and service penetrations before closing up
- as-built compliance calculation re-run using the tested air permeability and the products actually installed
- air permeability test certificate to CIBSE TM23 from an accredited tester
- commissioning records produced in accordance with industry recognised Commissioning Codes

This evidence should be collected through standard templates issued with the Handbook, not left to each project team to format. Templates reduce verifier effort by replacing variable evidence bundles with a consistent submission and give design and site teams certainty at warrant stage about what will be required. Evidence should be gathered during construction rather than assembled at completion with reviews at each BCO site visit to prevent issues at handover.

The default template scope should cover every element affecting heating performance: fabric insulation, junctions and thermal bridging, the airtightness layer, windows and doors; and plant.

Each record should name the person responsible and their competence. The verifier's role should be to confirm the submission is complete and signed by a competent person, with risk-based sampling for depth, rather than to re-assess technical content. Responsibility for accuracy should rest with the relevant person and the signatory.

CIBSE would welcome the opportunity to work with the Scottish Government and LABSS on developing the templates.

Question 31

Do you agree with the roles and responsibilities of the actors identified within the Handbook?

CIBSE Response

CIBSE generally supports the proposed allocation of responsibilities.

CIBSE supports the allocation of responsibilities but considers it insufficiently specific on commissioning. Where commissioning is required, a named commissioning manager should be identified in both the design and construction statements, appointed early enough to influence design rather than at handover.

Consistent with our response to Question 30, each record should be signed by the person who carried out the work and their competence stated, not signed solely by the designer. This is what allows the verifier to check that a submission is complete and competently authored without re-assessing its technical content.

Without named accountability, the construction statement risks becoming a self-declaration that verifiers have no practical means of testing.

Question 32

The Handbook focuses on five energy and environmental considerations. Do you have any comments?

CIBSE Response

CIBSE supports the five themes:

- Airtight construction.
- High-performance insulation.
- Thermal-bridge-free design.
- Ventilation.
- Optimised energy use.

These provide a logical structure for the Handbook.

However, future revisions should consider expanding the themes to incorporate:

- Overheating resilience.
- Climate adaptation.
- Commissioning.
- Controls optimisation.
- Operational performance.
- User engagement.
- Whole-life carbon.

Whilst the current consultation is appropriately focused on operational energy performance, future iterations of the framework should consider the role of whole-life carbon assessment in ensuring that measures intended to reduce operational energy demand do not inadvertently increase embodied carbon emissions.

Question 33

Do you have any comments on the actions identified to prove compliance with the standards?

CIBSE Response

CIBSE broadly supports the proposed actions.

However, stronger emphasis should be placed on measures that help demonstrate actual building performance, including:

- Air-tightness testing.
- Commissioning records.
- Seasonal commissioning.
- Building handover information.
- User guidance.
- Post-occupancy evaluation.
- Building performance monitoring.

A particular focus should be placed on reducing the performance gap between design intent and actual operation.

CIBSE would also highlight that evidence requirements are only effective if the evidence is reviewed and there is a consequence where it is absent. We recommend the guidance state that a completion certificate will not be accepted where the specified evidence has not been provided and that verifiers apply risk-based sampling of submitted evidence.

We note that local authority verification resources are already constrained and that the Compliance Plan Manager role remains dependent on future legislation. CIBSE would be willing to work with the Scottish Government on competency requirements and on a certification of construction route for Section 6, enabling verifiers to review certified evidence rather than inspect every project directly.

Further Information on our response

CIBSE Scotland's response has been informed through a combination of member engagement, industry discussion and expert review.

To support development of this response, CIBSE Scotland hosted an interactive consultation webinar attended by members from across the building services, engineering, sustainability, design, construction and building standards sectors. The event provided an opportunity to discuss the Stage 2 proposals, identify key areas of support and concern, and gather views from practitioners actively involved in the design, delivery and operation of buildings in Scotland.

In addition, a series of working group discussions was undertaken involving members of the CIBSE Scotland Committee and subject matter specialists. These discussions enabled more detailed consideration of specific technical topics including energy performance modelling, airtightness, ventilation, overheating risk, compliance processes, operational performance and verification.

A number of common themes emerged through this engagement process, including broad support for the overall direction of travel towards low-energy, high-performance buildings, alongside a desire for greater emphasis on:

- Closing the performance gap between design intent and operational performance.
- Overheating risk and climate resilience.
- Commissioning, verification and post-occupancy evaluation.
- Practical implementation and industry competency.
- Alignment between compliance methodologies and operational outcomes.
- Consideration of existing buildings and retrofit as part of Scotland's wider net-zero transition.

CIBSE Scotland welcomes the significant progress made since the Stage 1 consultation and particularly supports the move towards outcome-based performance metrics, improved compliance assurance and greater transparency around building energy performance.

As the professional body for building services engineering, CIBSE would welcome continued engagement with the Scottish Government, Building Standards Division and LABSS as proposals are developed. CIBSE and its members are well placed to support further work on technical guidance, competency frameworks, compliance verification, operational performance and the development of practical implementation approaches that can help ensure the intended outcomes of the proposed standard are successfully delivered in practice.

Additional Strategic Comment

Whilst the consultation focuses on new buildings, CIBSE Scotland notes that much of Scotland's 2045 net-zero challenge lies within the existing building stock.

Feedback received through industry engagement highlighted concerns that, whilst improvements to new-build standards are welcome, the majority of buildings that will be occupied in 2050 already exist today. We therefore encourage the Scottish Government to consider how the principles underpinning the Passivhaus Equivalent Standard may be adapted or translated into future guidance and standards for refurbishment and retrofit projects.

CIBSE Scotland also encourages early consideration of whole-life carbon assessment within future iterations of the Building Standards framework. Whilst operational energy remains a critical priority, stakeholders highlighted the importance of understanding embodied carbon impacts and adopting a more holistic assessment of building performance.

This will help ensure that measures intended to reduce operational energy demand do not result in unintended increases in embodied carbon and aligns with emerging UK and international policy developments. Consideration should also be given to the embodied carbon implications of specification choices, enabling designers and clients to make informed decisions based on whole-life environmental performance rather than operational energy alone.

We particularly welcome:

- The move away from traditional notional building compliance approaches.
- The adoption of target-based performance ranges.
- Increased emphasis on compliance assurance and verification.
- The inclusion of unregulated energy use within reported outputs.
- The recognition that operational building performance is a critical outcome.

Overall, CIBSE Scotland believes the proposals strike a sensible balance between ambition and deliverability and represent a significant opportunity to improve the design quality, operational performance and resilience of Scotland's future buildings.

However, successful implementation will depend upon maintaining a strong focus on closing the performance gap, addressing overheating risk, ensuring practical delivery across the industry and supporting continuous improvement in operational outcomes.