

**PROPOSAL TO INTRODUCE SECTION 7 :
SUSTAINABILITY (SUSTAINABILITY
LABELLING) INTO THE SCOTTISH
BUILDING STANDARDS**

FINAL CONSULTATION REPORT

BUILDING STANDARDS DIVISION

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EXECUTIVE SUMMARY

During 2010 a working party drawn from industry was convened to assist in the development of a proposed new Section 7: Sustainability to the Technical Handbooks which support the Scottish building regulations. In September 2010 a much wider stakeholder group was invited to help shape the proposals followed by a public consultation which was carried out between 01 November 2010 and Christmas 2010. Consultation proposals were placed on the Building Standards Division (BSD) website and over 500 key stakeholders were invited to respond. Consultees were encouraged to respond on any aspect of the proposals but were specifically invited to comment on targeted issues.

There were 60 responses to the consultation. An analysis of the content of all the responses has been carried out by BSD of the Scottish Government and the key points have recently been discussed with the sustainability working party. The Division has considered the wide range of both general and detailed comments from consultation respondents.

The key feature of the proposals is that all new buildings submitted for building warrant must have a label that includes a statement of sustainability. The entry level for this label would be compliance with the 2010 technical standards and above this there would be at least two higher aspirational options

The majority of respondents' comments are in agreement that the approach set out and the technical areas addressed can effectively further the achievement of sustainable development through the Scottish building regulations. There was recognition that the detailed guidance for domestic buildings to achieve the higher levels is well balanced within the terms of what building standards can achieve. The extent of how far building standards can further sustainable development should be more tightly defined as well as the links of this system with local authority planning. Consultation responses combined with life-cycle (running) and capital (construction) cost research completed for Scottish Government means some of the detailed guidance to meet the higher levels for some aspects (such as energy for water heating) will be reviewed.

The analysis of comments did not identify strong barriers or objections to the proposals, though some stakeholders questioned the introduction of proposals for non-domestic buildings that are only defined as higher levels in the aspect of carbon dioxide emissions at this stage. Scottish Government accept that a commitment to more development on sustainability for non-domestic buildings is required but introducing the system for all new buildings now still has many benefits. Because the higher levels are optional, no objections were given to introducing a monetary burden on development, an important positive point for these proposals in the current financial climate.

Scottish Government intends that the new regulation is introduced to further embed sustainable design and construction within the Scottish building regulations. Work will continue in the immediate future to clarify and improve the guidance that will be made available to prospective warrant applicants in advance of 01 May 2011 when the regulation to allow applicants to aim for higher levels of sustainability is due to be in force.

1. INTRODUCTION

1.1 Scottish building regulations set standards for the health, safety and welfare of persons in and around buildings. They also further both the conservation of fuel and power and the achievement of sustainable development. Building regulations apply to new buildings and to the alteration, extension and conversion of existing buildings. The regulations and their mandatory functional standards are supported by guidance, published in the Building Standards Division Technical Handbooks.

1.2 Sustainability has been added into the standards over recent reviews but this proposal goes further by defining optional higher levels of sustainability that applicants can meet if they choose. If a higher level is verified then a label affixed to the building would display this achievement. The proposed sustainability standard would only apply to new buildings, not alterations, extensions or conversions.

2. THE CONSULTATION PROCESS

2.1 Before making or amending building regulations, Scottish Ministers are required to consult the public and construction industry stakeholders as are considered necessary to inform on the matters under consideration. This exercise has been carried out through a working party and discussions have taken place with local authority verifiers and industry. The working party commenced whilst the Building Standards Advisory Committee (BSAC) was operational. This statutory committee was wound up during the working party's meetings in 2010 but the members of the working party remained in place to input into the evolution of the proposals. Following consideration by the sustainability working party, the guidance contained in Section 7: Sustainability of the Technical Handbooks, for public consultation was prepared.

2.2 The consultation on adding a new section on Sustainability to the technical guidance within the Building (Scotland) Regulations 2004 aims to contribute to the Scottish Government's Purpose of sustainable economic growth. It also supports the Climate Change Programme through the introduction of improved standards and guidance on carbon dioxide emissions and energy performance under building regulations. In the optional higher levels within the standard, reference is made to recommendations within the Sullivan Report – 'A Low Carbon Building Standards Strategy for Scotland'.

2.3 The consultation sought views on adding a new section into building standards that, within the limitations of the building standards system, aims to further the achievement of sustainable development within the scope of the Building (Scotland) Act 2003.

2.4 Consideration by the working party of the introduction of a new Section 7: Sustainability was spread across meetings held during 2010 and into 2011. Working party members were drawn from BSAC members, a local authority verifier, a local authority planner, private sector organisations representing the construction industry,

an architect with expertise in sustainability and government officials. They were able to consult at times with close colleagues or members of organizations they represented.

2.5 In advance of the launch of the public consultation, BSD held two stakeholder consultation events attended by 37 invited key stakeholders' representatives, (29 from outside Scottish Government). These events provided an overview and explanation of the proposals and the discussions that happened in these groups helped to inform and shape the draft proposals that the consultation paper included. Attendees were also encouraged to submit written responses to the forthcoming consultation.

2.6 The public consultation was issued on 01 November 2010. Views and opinions on the proposals were sought from over 500 key stakeholders and users of the building standards system in Scotland. Public, private and third sector organisations, NDPB's and individuals were advised of the consultation by letter and that the documents were accessible on the Building Standards website. E-mail notification of the consultation was also made to around 2000 organisations and individuals who have registered to receive the BSD newsletter. All were invited to submit comments by 24 December 2010.

2.7 The Consultation Paper sought comments on the general approach and framework of the proposals that fit within the existing building regulations and building warrant system. A number of questions were also asked on specific issues related to the detailed guidance that would define the optional upper levels of sustainability. Questions 1 to 8 were on specific topics whilst Question 9 allowed respondents to offer comment on any aspect.

2.8 Consultees were encouraged to respond on any aspect of the proposals but Scottish Ministers welcomed comments specifically on the issues that have been targeted. It was recognised that a 'yes' or 'no' may not always a satisfactory answer to the question. Consultees were therefore encouraged to add comments to expand their opinions, particularly when they disagreed with the approach proposed.

3. THE CONSULTATION RESPONSES

3.1 Given the aspirational nature of the proposals, it was encouraging to note that the number of responses made to the consultation proposals was 60 with many of the wide range of stakeholders being key stakeholders representing membership organizations, trade associations or institutions with expertise in design and construction. This is understandable, due to the growing general interest in sustainable development, understanding of low carbon buildings developed from the Sullivan Report recommendations and from the stakeholder awareness seminars held just before the formal consultation period. This provides sufficient information to allow a good assessment on the comprehensive range of topics addressed within proposals.

There were 60 responses from the following consultees:

Professional Organisations/Trade Associations	13	22%
Local Authority	8	13%
Designer/Consultant	8	13%
NDPB or Agency	6	10%
Individual	6	10%
Research & Development (R&D)/ University	5	8%
Manufacturer	4	7%
Utility/ resource supplier	3	5%
Contractor/Developer	2	3%
Other	2	3%
Interest Group	2	3%
Housing Association	1	2%

- 5 respondents wished their details to remain confidential.
- 31 respondents provided general comments on the proposals.

3.2 A summary table of responses by question is noted below. This indicates both the percentage split of those respondents giving a view and the percentage of all respondents offering comment.

3.3 In analysis of the responses, it should be noted that there are similarities in a number of responses received, from some industry, manufacturer and interest groups and from some local authorities. Whilst this fact is noted here, it is not proposed to apply any corrective factor to analysis in response. This is simply taken to indicate generally similar views from a range of connected stakeholders, which is to be anticipated. Accordingly, where duplicate comments are received from different organisations, these are counted separately but may be identified as such within commentary text.

Summary responses to questionnaire	Yes	No	Comment made	No response
Issues relevant to all buildings				
1	34 (76%)	10 (22%)	45* (75%)	15 (25%)
2	32 (70%)	14 (30%)	46 (77%)	14 (23%)
3	30 (67%)	14 (31%)	45* (75%)	15 (25%)
4a	30 (67%)	15 (33%)	45 (75%)	15 (25%)
4b	36 (80%)	9 (20%)	45 (75%)	15 (25%)
5a	40 (85%)	7 (15%)	47 (78%)	13 (22%)
5b	26 (60%)	17 (40%)	43 (72%)	17 (28%)
Issues relevant to domestic buildings				
6	42 (95%)	2 (5%)	44 (73%)	16 (27%)
7a	35 (85%)	6 (15%)	41 (68%)	19 (32%)
7b	36 (81%)	7 (19%)	43 (72%)	17 (28%)
7c	37 (97%)	1 (3%)	38 (63%)	22 (37%)
7d	31 (94%)	2 (6%)	33 (55%)	27 (45%)
7e	27 (69%)	12 (31%)	39 (65%)	21 (35%)
Issues relevant to non-domestic buildings				
8a	31 (78%)	9 (22%)	40 (67%)	20 (33%)
8b	25 (69%)	11 (31%)	36 (60%)	34 (40%)
Issues relevant to all buildings				
9	31 (91%)	3 (9%)	34 (57%)	26 (43%)
General comments				
	-	-	31 (52%)	29 (48%)

* Includes one additional comment only, no or yes not indicated

3.4 A detailed analysis of issues raised by the consultation and recommended action is provided under items 4 to 8 of this paper.

4. QUESTIONS COMMON TO ALL BUILDINGS - ANALYSIS AND RESPONSES

4.1 The following is a summary of the general trends and main issues raised by respondents. Whilst not every comment is represented in summary, all relevant issues are noted for discussion and consideration. A course of action in response to issues was raised with the Working Party and is set out following the analysis for each question and is the Scottish Government response. Numbers shown in brackets indicate number of response comments on a particular topic.

4.2 In a few cases, comments have been moved to the most relevant box. For example, there were some comments placed in the box after question 1 that are more appropriate for later comment areas or for the general comments at the end, so these may have been moved to the most relevant place.

4.3 Question 1

Q 1. Background

Buildings that are designed more sustainably have positive impacts on the potential for sustaining human wellbeing, whilst minimizing carbon dioxide emissions and reducing the use of finite resources. For a building to earn a sustainability label, it must demonstrate that a wide range of factors have been considered in its design, and that these factors are achieved in its construction.

Section 7 intends to make sustainable design within reach of all new buildings and not just within a niche market. Demanding sustainability standards are encouraged to be taken up by those who opt to demonstrate their green credentials by complying with upper levels.

Sustainability labelling aims to encourage consistency between planning authorities that use supplementary guidance to promote higher measures of sustainable construction in their areas. By making reference to this standard, local aspirations can be met by selection of clear national benchmarks.

Do consultees think the introductory text in section 7.0 adequately describes the aims, the scope and the terminology?

Comments Summary:

There was a lot of support for the introductory text, described as clear, helpful and user friendly. There were some helpful suggestions on clarity or scope that should be considered to make some minor revisions to the text in the following areas:

- Stress the limitations of how far the building standards can at present cover the scope of sustainable development and how some areas are more appropriate to be dealt with at other times in the development process such as planning, or are not mature enough to be checked at a fairly simple level by the present building standards verification system. For the latter there is some disagreement, in particular on the aspect of materials (see question 7e). These limitations in scope of the concept of sustainable buildings should to be placed in the context of the scope of other tools or indicators. (6 including local authority, R&D/ university, manufacturer, professional/ trade Association, NDPB/ agency and designer/consultant)
- Use a roadmap to illustrate a path towards a potential ultimate minimum standard of zero-carbon that makes reference to Sullivan recommendations.
- Consider that reductions in hot and cold water use will reduce carbon emissions. (1 NDPB/ agency)
- Be more explicit in how this can meet local authority obligations under section 72 of the Climate Change (Scotland) Act 2009. Are the upper levels possible to use in planning conditions? (1 local authority)

- Make reference to international work and standards including TC 350 and ISO work. (1 R&D/ university)

One other point:

- A reference to the Energy Efficiency Action Plan (EEAP) should be added in the text (1 NDPB/ agency)

Scottish Government response

Revisions will be made to the introductory text to give more clarity on scope and emphasise that other broader sustainability measures are available if a developer chooses. Section 7 optional higher levels have broad consistency with Sullivan recommendations including an intermediate level as considered appropriate that already sets out a direction of evolution of tighter standards

The text on links with local authority planning will be reviewed with regard to Section 72 of the Climate Change (Scotland) Act. Scottish Government will consider adding a more explicit link between water use and carbon emissions.

References to European Directives or international standards will be considered where relevant.

A programme of awareness and dissemination of the standard and guidance will be carried out.

4.4 Question 2

Q 2. Approach

Section 7 would be a new section of the Technical Handbooks containing a single standard that is mandatory for all building warrant applicants when proposing new buildings in Scotland. To comply with standard 7.1 there would need to be a label of a specified level of sustainability fixed to the building, in a similar way that an EPC needs to be fixed; for example in meter cupboard or utility space. The entry level, known as 'bronze' would be compliance with all the other standards, therefore the standard does not pose an additional burden on development. Only if an applicant chooses to aim for a higher level would there be a potential impact on the costs of building.

Do consultees consider that this approach offers a sensible and practical route to enable the building standards system to further the achievement of sustainable development in Scotland?

Comments Summary:

Responses were broadly positive, with support for a sensible, logical approach that allows developer choice whether to go further than the minimum standards and receive official credit for achieving higher benchmarks.

However some respondents (6 including 2 designer consultants, 2 R&D/ universities, 1 professional/ trade association and 1 contractor/ developer) questioned whether building standards is the best place for aspirational higher levels to be defined. Instead is reference to an externally controlled, more flexible, more comprehensive set of standards, codes or checklists a better way of meeting the objectives? This

point was more strongly made for non-domestic buildings than for domestic (see question 8). Other points:

- Local authorities to see section 7 as integral to duties related to their verification role of the building regulations, therefore parallels with procedures related to EPCs should be avoided. Questions were raised about buy-in by planning authorities as it was recognized they are important for the proposal to succeed. (1 professional/ trade association)
- Concerns raised that planning authorities may enforce higher levels through planning conditions thereby making them in effect mandatory at local level (1 other)
- For 'sustainability' to really result, more emphasis to be placed on performance monitoring/ post-occupancy evaluation. (1 R&D/ university)
- A cost-benefit analysis on additional time spent by applicant and verifier in implementing the system was recommended. (1 local authority)
- If this section and other sections become certified then verifier fees could reduce by 70%, impacting on the resources required for reasonable enquiry. Fees regs may need to change, to allow for more than current 60% max. in the regulations. (1 professional/ trade association and 1 local authority)
- Review text to explain that the entry level could be ratcheted up across the broad range of aspects, following subsequent reviews of mandatory standards.
- Suggest that the text is altered so that location of fixed level may be more prominent than a meter cupboard; feel free to take pride in displaying the award.
- If guidance is too prescriptive then experience shows this can stifle innovation (1 R&D/ university)
- More detail on the role and control of certification schemes related to section 7 (1 professional/ trade association)
- A sustainability standard in BSD, using certifiers, is less objective than an external system. They are too close to the process to judge fairly. (1 designer/consultant)
- Instead of an incomplete non-dom sust label with only CO₂, align with English Energy Performance Certificate (EPC) carbon-index system. UK approach not a separate devolved one. (1 designer/consultant and 1 contractor/developer)

Scottish Government Response

Guidance will state that other tools and indicators are available and that these may better suit some developers who wish to prove ambitions related to sustainability that go beyond the built form, but these other tools would not entitle a Building Standards label to be used.

Reference should be made to the analysis within the Business Regulatory Impact Assessment (BRIA) that estimates proposals are a more cost-effective way of setting aspirational optional standards for developers than adapting other voluntary indicators of sustainability. It is not considered that further cost-benefit analysis is required due to the process of verification being kept reasonably close to the procedures involved in an existing warrant application.

Post occupancy monitoring is outside the scope of building standards as the verification process is not able to resource continuing involvement with completed buildings.

Certification schemes have formal safeguards of auditing to favour a fair approach. Scottish Government would review the fees reductions associated with certification if more sections become covered by certification schemes. Only two certification schemes exist at present.

In the final review of draft guidance, efforts will be made to reduce the risk that meeting upper levels may not allow innovation in design. Scottish Government's view is that nationally consistent higher benchmarks should, overall, encourage innovation in design and construction. Scottish Government continue to engage with local authority planning to maximize buy-in, and accepts a degree of autonomous decision-making means levels asked for may vary due to local policy ambitions.

Separate legislation covering EPCs will be reviewed under the recast of the Energy Performance of Buildings Directive (EPBD) during 2011. The duties related to EPCs are entirely separate to those related to this proposal.

4.5 Question 3

Q 3. Scope and balance

Building Standards Division of the Scottish Government has explored what aspects of the design and construction of domestic buildings related to sustainable development would be appropriate within the optional upper higher levels of sustainability. The aspects defined aim to be pertinent at the building warrant stage of development process when applicants are looking at the details of buildings. They aim to be broad, covering not only energy and carbon. They address issues that can be fairly controlled and simply verifiable within the building standards system, so they tend to be directed towards technical environmental performance issues of design. The eight aspects are:

1. Carbon dioxide emissions
2. Energy for space heating
3. Energy for water heating
4. Water use efficiency
5. Optimising performance
6. Flexibility and adaptability
7. Wellbeing and security
8. Material use and waste

Are consultees content that the defined aspects for domestic buildings reflect a balance of sustainability issues that can be delivered by the building standards system?

Comments Summary:

In general the list is viewed as reasonable, deliverable, well-rounded, containing issues that can be controlled and verified through building standards. But some respondents felt other aspects may be as important. The most significant area needing further work was felt to be around the materials that a building is constructed from, including the following subjects:

- Embodied energy and embodied carbon via life cycle analysis (LCA) using BRE Green Guide data. (4 including interest group, designer/ consultants and other)
- Give credit to off site manufacturing (OSM), in particular to its links with ensuring skills in the supply chain remain in Scotland and supporting the of sourcing Scottish materials such as timber.(2 including a manufacturer and a R&D/ university)
- Recycled materials.
- Recognizing the contribution that ISO 14001 accreditation can make to greening the supply chain. (2 including a manufacturer and interest group)
- Durability (1 local authority)
- Toxicity of materials (1 designer/ consultant)
- But, one small contractor suggests keeping all materials issues at EU level.

Other possible aspects mentioned:

- Indoor air quality (1 professional/ trade association and 1 designer/ consultant)
- Carbon Monoxide (CO) detectors
- Biodiversity (1 designer/ consultant)

- Room in roof (adaptability) and service voids (1 local authority)

There were other suggestions for inclusion such as location and orientation indicating again that the section 7 introduction must clearly explain the limitations of the building standards verification system. This system must form part of a joined up 2-stage local authority sustainability assessment process moving seamlessly between planning and technical standards. (1 professional/ trade association and 1 designer/ consultant)

The question of the gap between modelled and actual performance was raised, some suggesting a move towards an adoption of actual performance testing (2 including a manufacturer and a R&D/ university).

Scottish Government Response

Operational performance and/or post occupancy evaluation is something to consider for a platinum level. In the meantime the optimizing performance aspect should form a bridge between design/ installation and understanding how performance can be optimized. Providing appropriate information to occupants should narrow the performance gap. The introduction of any testing regimes is more likely to be a result of revisions to mandatory building regulations rather than at voluntary higher levels.

Life cycle analysis (LCA) of construction materials along with other matters associated with material use and waste are clearly flagged up for potential inclusion within a platinum level in the system, following future review of a more robust evidence base with an even-handed approach to all sectors and supply-chains of the construction product industry. A future review of including LCA in optional standards will also need to look deeper into European and international regulatory frameworks.

Service voids are proposed within the gold level for material use and waste because they are consistent with an approach that favours ease of adaptability of new homes rather than re-use of materials following future demolition

Indoor air quality is kept under review as ventilation standards require updating alongside increased minimum energy standards.

Biodiversity is identified as a subject that has more impact at a building level for non-domestic. For domestic it is a matter more appropriate at a masterplanning level and therefore outwith the scope of the building standards.

4.6 Question 4

Q 4. Levels and names

The bronze level is a building that complies with the 2010 standards. The next two upper levels, called silver and gold, have been defined for domestic buildings and the criteria to meet the upper levels in an aspect are intended to be fixed once defined. This should avoid regular redefining of baselines and subsequent confusion. But the system will have room to grow because a third upper level is identified as platinum, although this level has not been fully defined.

To achieve a bronze star level a new building must include some low or zero carbon generating technology ('LZCGT') within the compliance calculation. This links with the obligations of local authorities' under Section 72 of the Climate Change (Scotland) Act. It is the existence of an LZCGT that differentiates bronze star from the bronze level. In practice buildings to a bronze level that do not have LZCGT will often have a higher fabric specification than a bronze star level building because they do not exploit a generating technology that could be used to offset higher heat losses through the building fabric in the carbon compliance calculation.

Do consultees think the naming of the levels is clear and appropriate?

and

Do consultees agree with the principle of fixing the levels within the aspects?

Comments Summary:

Despite a majority in favour of the proposed naming of the levels, there were a number of responses objecting to the term 'Bronze Star' because it is perceived as better than the initial Bronze level only by the inclusion of LZCGT. There were no clear positive comments in favour of the 'Bronze Star' term with around 17 written objections, saying for example:

- A high performing fabric must be the first consideration.
- It is mistaken for it to seem better to offset building-in robust fabric efficiency with technology that may lack appropriateness, longevity or be tokenistic.
- As set out it seems to not favour passive strategies.
- The hierarchy is misguided because an efficient fabric could then be upgraded with technology, but the other way around is very difficult.

(Manufacturers, designer/ consultants, a local authority, a professional/ trade association, a R&D/ university, a NDPB or agency, a contractor/ developer, a housing association, individuals and 1 other)

An NDPB/ agency and one individual suggested ideas:

- a bronze plus approach where LZCGT is additional to a compliant fabric building; or,
- set a slightly lower fabric backstop (via the DER/ TER calculation) but then make the overall target more challenging, suggest 25% lower; or,
- explicitly name different ways of complying, e.g. 'bronze power'/ 'bronze energy plus'.

There were concerns about the limits of naming levels after metals (2 R&D/universities and 1 professional/ trade association) and that the existing LEED¹ tool uses metals and thus this system could be seen to favour LEED over other tools such as BREEAM². Other ideas:

- A suggested level to go beyond platinum is 'diamond'
- Stars
- Leagues (first division, premier league, champion building etc.)

There was also a question on what interaction there was (if any) between the S7 metals and 'A' to 'G' on EPCs.

There were objections to the minimum being recognized as 'bronze' suggesting a 'pass' level instead (2 designer/ consultants, 1 R &D/ university and 1 manufacturer), but in contrast a respondent said 2010 should be 'silver' to recognize how far the standards for new homes have come.

On the question of fixing or flexibility of levels, several (5) warn that a review cycle should be built-in as an option because technological solutions and priorities to meet low carbon targets tend to shift quickly, when it comes to building performance.

Scottish Government Response

Despite a few other suggestions the metallic notation will remain for the level names. The working party has reviewed the star suffix so that an LZCGT solution is not perceived as better and the change will be from 'Bronze Star' to 'Bronze Active'.

More emphasis should be placed on recognizing how far building standards already includes sustainability and that the Scottish carbon/ energy standard is now very demanding. So on balance awarding a bronze award to 2010 compliance is correct.

The text on fixing the levels will be revised to accept that some review of guidance may be necessary, staying within constraints of technological evolution. This will avoid the risk of shifting comparable baselines during the life of the standard and guidance.

The sustainability standard is not connected to the process of producing an EPC. The DER/ TER calculation within section 7 is identical to that within section 6 and should not be confused with the EPC scale.

¹ LEED = Leadership in Energy and Environmental Design, a sustainability indicator originating in the United States of America

² BREEAM = Building Research Establishment Environmental Assessment Method, operated by BRE Global; a sustainability indicator originating in the United Kingdom

4.7 Question 5

Q 5. Methodology and label

In order to move towards a more sustainable model of design and construction, a holistic approach is proposed. Together with the desire to keep the process simple and avoid bureaucratic procedures, this broad thinking has informed how an applicant would reach an upper level. Only once all the aspects comply with the upper level criteria would the overall higher level be awarded. No scoring or trade-off would be allowed. The design of the label still allows credit to be clearly illustrated in an individual aspect that has been verified as compliant with an upper level. Proposed coloured labels for domestic and non-domestic buildings are shown **in the annexes of the proposed domestic and non-domestic consultation guidance** at: <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubconsult>

**Are consultees content with the method of reaching the upper levels?
and,
Are there any comments to be made on the design of the label?**

Comments Summary:

Respondents indicated that BSD proposals tread a fine balance between simplicity and not 'dumbing down' sustainability. Some suggestions point to aspects that are beyond the standard's scope such as locational issues (2 designer/ consultants). As with previous questions, the scope may need more explanation.

The proposal that all aspects must reach an upper level for an overall level to be awarded was mainly supported with a positive point being that it avoids bureaucracy. Trade-offs were preferred by a few (5 including 3 designer/ consultants and 1 R&D/ university) who feared a simplistic route could stifle innovation and/ or unfairly penalize a minority. A middle-way simple scoring was suggested (1 designer/ consultant). However if a more complex scheme results and then certification tends to take over (1 R&D/ university)

The label design was liked. The ability to display achievement in some aspects that are verified as above an overall level was praised. Positive comments included:

- Like a 'prize'
- Innovative
- Clear and easily understood

Some asked for more consumer testing and market research (2, 1 NDPB/ agency and 1 professional/ trade association) and some criticized it is as not dynamic; suggesting the use of colour should be reviewed. Upper levels could be presented as 'scaled' rather than 'partly met was one suggestion to fine-tune the display of a higher level.

A disclaimer on the label was suggested to recognize that it is self-generated and resources for reasonable inquiry at completion are limited so full compliance is not guaranteed (2 local authorities).

The limitations of the Building Standards system was recognized (1 professional/ trade Association), and BSD was urged to concentrate on compliance with Section 6 first, before bringing in S7 (1 designer/ consultant).

Scottish Government Response

The benefits of a non-traded or non-scoring scheme outweigh the pitfalls. If the scheme became more complex then it becomes more professionalized and less transparent, shifting the focus away from an accessible system of verifying sustainability for all new buildings.

Scottish Government will review the design and colours on the sample label. Partially completed segments will be avoided as this would add an inappropriately high level of complexity.

The label does not need a disclaimer because Section 7 sits alongside the existing standards and in the same way, a completion certificate is presented by an applicant for acceptance, or not, by a verifier.

4.8 Question 6

Q 6. Conversions

The system of the optional upper levels has been designed for new domestic buildings. However it is recognised that when considering sustainable development it is often a good option to re-use or revitalize the existing building stock of our towns, cities and smaller communities. Building Standards Division does not propose to offer sustainability labelling to conversions at this stage however applications for verifiers to assess the criteria of the upper levels of sustainability, in some if not all of the aspects, in relation to an existing building converted into dwellings could be explored.

Do consultees consider a similar sustainability label should be made available for existing buildings that are dwellings following conversion?

Comments Summary:

Yes, there was considerable support for BSD to continue to pursue this in due course. However it is a significant task (a professional/ trade association) and the system for new buildings should be bedded-in first (4 including 2 local authorities, 1 R&D/ university and 1 professional/ trade association).

Some stressed the system should be as close as possible to the proposals for new buildings, perhaps making use of the phrase 'reasonably practicable' for upgrades (1 local authority). Others stressed more flexibility would be needed (2 including 1 other and 1 NDPB/ agency) as there can be very big differences in approach and results when converting, and that there should be a clear difference to any label (1 local authority). A R&D/ University thought the proposal may be too inflexible and a designer/ consultant thought this could ultimately supersede the Scottish Housing Quality Standard.

As well as conversions some respondents brought up the subject of alterations + extensions as worthy of considering. (1 local authority)

Scottish Government Response

The many useful comments to this question will help launch the direction and scope of future work in this area.

4.9 Question 9

Q 9. Proposed revision to model form to apply for a building warrant.

Appendix A of the partial Regulatory Impact Assessment (RIA) contains a proposal for a revised model form that would be used by all applicants for building warrant. The model form has been amended to include the sustainability standard rather than a separate form being created. A text box has been added that allows applicants to indicate if new buildings have been designed to achieve any of the optional upper levels as defined in the section 7 guidance. This should allow verifiers to focus their procedures relevant to section 7 on submitted plans and specification information where it is requested.

Do consultees consider this revised model form is a clear way for applicants to indicate their design proposals with regards to section 7?

Comments Summary:

The comments were generally that the model form made sense, with the following points made:

- Traceability would be desirable such as status/ qualifications of author(s) of design (2, including 1 professional/ trade Association and 1 designer/ consultant).
- There are some doubts whether the system can fully determine if what is specified equals what is built via the process of reasonable enquiry at completion stage (2 local authorities and 1 NDPB or agency).
- Upper levels require Certifiers of Design rather than just verifiers (1 R&D/ university).
- Create a checking template for verifiers. For multi-plot sites, move tables to addendum. (1 local authority)

Scottish Government Response

The verification process gives a degree of traceability at present.

Scottish Government will clarify with verifiers during dissemination that the evidence of a design at a higher level will be as with normal warrant application, i.e. drawings, specification and calculations.

An issue to monitor as the system gets underway is compliance. Although an awarded label can be displayed for commercial marketing advantage, a higher level application justifies the same level of scrutiny at completion certificate stage as an application that only claims minimum standards compliance.

A Certification scheme may become available but the system is designed to allow it to function with verifiers.

The tables will be moved to an annex in the model form.

5. QUESTIONS ON DOMESTIC BUILDINGS - ANALYSIS AND RESPONSE

5.1 Question 7

Q 7. Contents of upper levels in the aspects for domestic buildings

Aspect of Carbon dioxide emissions

The labelling system's optional upper levels should balance the aspects of sustainable design and should not be overly carbon focussed. The 1st aspirational level (silver) beyond minimum standards sets a 45% reduction in carbon emissions for dwellings compared to 2007 standards. The Sullivan Report¹ recommendation of 60% features as the 2nd aspirational level (gold). A 3rd upper level (platinum) in this aspect would be net zero carbon.

a) Do consultees agree that to treat 'sustainability in the round', the proposed upper levels in the critical aspect of carbon dioxide emissions are appropriate?

a) Comments Summary

There were varying degrees of emphasis of responses, within support to the holistic approach proposed.

- Carbon and energy should be paramount as far as building standards' scope is concerned at present, or
- A sustainability standard should not be so overly carbon focussed as is proposed (1 manufacturer).
- Some view that the silver should be 60% with gold at 100% compared to 2007 levels (1 interest Group, 1 R&D/ university).
- It is positive that it differs from EPC methodology (i.e. not an absolute scale) (1 designer/ consultant, 1 local authority)

'Allowable solutions' need to be defined to get to zero carbon (ZC), but ZC may be counterproductive, increasing toxic load and embodied energy in construction (1 professional/ trade association).

Waste heat and communal CHP should be included in LZCGT to reflect the investment in connecting to a district heating system (1 designer/ consultant).

Scottish Government Response

On balance the proposed higher levels for the aspect of carbon dioxide emissions are pitched correctly. The question of allowable solutions is one to be reviewed along with the Section 6 energy standards.

Waste heat could be a valid low carbon heat source if permitted through the same methodology to comply with section 6. It would appear unlikely to meet the definition of low and zero carbon generating technology, unless the technology has a generating element.

Aspects of energy and water (resource use)

The energy for space heating aspect sets backstops to ensure that a dwelling's fabric and form are designed efficiently regardless of the fuel source for heating. The water use efficiency and energy for water heating aspects combine the following: lowering use of water and energy through a simple fittings based approach; and a renewable contribution to heated water via tried and tested technologies such as solar water heating. The optimising performance aspect offers an opportunity to standardize the role that giving appropriate and targeted information to occupants can play in increasing the chances of efficient operation. Feedback and communication with occupants is important in raising awareness of consumption. Model guidance and display devices should show how to make the best of the dwelling's design and any technologies included.

b) Do consultees consider these aspects together offer a straightforward approach to encouraging a more efficient use of energy and water resources?

b) Comments Summary

Splitting energy for space and water heating is supported to focus on efficient systems in very low heat demand homes (1 NDPB/agency)

Energy for space heating: The thresholds proposed will drive homes to require MVHR (1 professional/ trade association) and suggest 39 and 46kWhr/m²/annum rather than 30 and 40kWhr/m²/annum.

Energy for water heating: Criticised for being unduly prescriptive and the level proposed is too high (60%) (designer/ consultant). This will result in over-sized panels and dumping heat – not the best technical solution.

Water use efficiency: The fitting based approach is well-supported with the levels proposed as correct (1 NDPB/ agency) or the proposed levels should be more challenging (2 NDPB/ agencies). On the other hand high restrictions on water use, for example 8l/m for a shower, may not be appealing to the public and may deter people from purchasing these homes (1 local authority). The rebound effect of

people showering for longer if a low flow shower head is fitted was mentioned (1 R&D/ university). More on water:

- The accuracy of existing labelling schemes is doubted by one.
- The average bar pressure on the distribution network should be taken into account. Flow rates should be measured at a defined pressure such as 3 Bar.
- Verification of low rates is difficult under reasonable inquiry (1 local authority)
- Water efficiency, in particular water butts, cannot be properly assessed until post-occupancy (1 R&D/ university).
- There are potential problems with drainage systems as a result of low-flow WC's (1 professional/ trade association).
- Several respondents (5) ask for water meters to come in at silver level but an NDPB / agency would support metering until a trial is completed.

Real-time information on performance is widely supported (5 including designer/ consultant, professional/ trade association, local authority and R&D/ university) and it is suggested that feedback should be given to building control or industry design groups). Guidance should stay with the home and be reviewed if occupants change, i.e. sold, re-rented (1 NDPB or agency). Consumer education is paramount in societal aspects of sustainable occupancy of buildings (1 professional/ trade Association). General comments:

- Rethinking this approach and these aspects would be needed for non-domestic buildings.
- Energy thresholds should be operationally based, not just on construction models (1 contractor/ developer)

Scottish Government Response

The approach of the aspects related to carbon, energy and water use is viewed as clear and complimentary. The thresholds in the aspect of energy for space heating have been reviewed following research and most dwellings types when compliant with the 2010 standards for section 6 carbon emissions will meet the kWhr/m²/annum thresholds. The thresholds present an achievable, reasonable level.

Research indicates that the comments regarding the proposals resulting in the potential over-sizing of solar collectors and associated storage are valid. As a result of reviewing the recent research data the thresholds in this aspect will be amended.

The levels proposed for the aspect of water use efficiency come under some criticism for lacking ambition. However as there is no standard at present for water use efficiency in the minimum standards, a review of water within Section 3 of the Technical Handbooks is planned. There may be some consumer resistance to low flow devices if introduced too quickly so on balance the levels are appropriate.

Aspects of Flexibility and adaptability; and Well-being and security

Since 2007, Scottish building regulations have incorporated demanding regulations that increase accessibility and the varying needs of occupants for all new dwellings. As a next step in the aspirational upper levels of sustainability, the proposed focus is on lifestyle issues that are relevant for all. Homes should support patterns of more sustainable communities thus the defined aspects encourage conditions for occasional home working plus stronger considerations of daylighting and outside space in the design of new buildings. The issues of acoustic privacy and of home security are also addressed.

c) Regarding the upper level proposals on flexibility and adaptability, do consultees support the general approach to focus on design issues that are relevant to the wider public rather than the needs of particular groups?

d) Are the calculations for daylighting in the silver and gold aspects simple enough to easily verify; and meaningful enough to encourage better daylit spaces in homes?

c) Comments Summary

Inclusion of this topic within Section 7 will help to streamline a multitude of local authority sustainability checklists. The response that a mobility approach for all people is preferred (1 professional/ trade association) was balanced with a view for a more specialist approach (1 interest group) for people with mobility problems. There was one voice against the concept of regulating for more space (professional/ trade association). Particular points:

- Consider structural flexibility by replacing loadbearing walls with beams and providing services on external walls (1 local authority)
- Home offices (HO) need to be defined as an apartment. If not box rooms may be proposed. Protected enclosures may not be appropriate for home offices.
- HO should not be part of a larger room but could be a conservatory or garden building (1 local authority)
- The mobility space should be at the silver level (3 including a designer/ consultant, -professional/ trade association and interest group)
- Align bicycle storage with Edinburgh standards (Interest group and several individuals with some duplication). Adequate storage in homes is needed to achieve the target of 10% of journeys by bike by 2020 contained in Scottish Government Cycling Action Plan. Strengthen guidance on communal bike stores (Interest group and several individuals with some duplication).

d) Comments Summary

Aspect of Well-being and security:

- As proposed it should be simpler and quicker to verify (1 local Authority)
- Daylight factor calculation should be set for the silver level (1 local Authority)
- Ignore frame material and input glass size
- Allow more detailed calc if applicant wants to (2 including 1 professional/ trade association)
- Avoid naming rooms as 'bedrooms'. Keep 'rooms' flexible as adaptability is the goal.
- Re-introduce daylight into kitchens (1 local authority)

- Link daylit space designated for HO with additional daylight in bedrooms (1 designer/ consultant)
- Daylighting should be stand-alone aspect in non-domestic buildings (1 R&D/ university)
- Noise levels: mistakes pointed out (1 R&D/ university) and some upper levels viewed as too onerous
- Broadband (related to home office), Private Outdoor Space, bike storage and 'nominated' person all had detailed suggestions (2, including 1 local authority and 1 professional/ trade association).

Scottish Government Response

Guidance in the aspects of: flexibility and adaptability and supporting well-being will be reviewed following comments on matters of:

- *The level that the mobility space would apply and cycle storage. Consider strengthening the standard to align with existing local authority guidelines within Scotland and SG targets in cycle use.*
- *Broadband*
- *Daylighting*
- *Noise – some adjustments required*
- *Defining a Home Office (HO) within a dwelling*

Aspect of Material use and waste

The following matters related to material use in buildings were investigated in forming the proposals:

	Propose for 1 st upper level	Propose for 2 nd upper level	Flag as possible for 3 rd level
Sustainable materials including embodied energy			√
Responsible sourcing of materials			√
Recycled materials			√
Waste of the built form		√	
Provision for solid waste material recycling during use	√		

Sorting waste is an activity that occupants can make everyday contributions towards. It helps balance the technical design focus of many of the other aspects because it is part of an adaptive solution to a sustainable future. Reducing wastefulness of the built-form through encouraging demountable construction offers a practical route towards sustainable development via a long-life, loose-fit approach. The environmental, sustainable or ethical sourcing of materials is too complex at present to be simply verified at building warrant stage, but it is envisaged that the platinum level offers the ability to increase the scope for this aspect. Subject to European Construction Products Regulations, a third aspirational upper level could contain proposals (details to be determined) on the embodied energy of construction components, the responsible material sourcing, or the use of recycle.

e) Are consultees content with the evolutionary approach proposed for defining aspects within the material use and waste aspect ?

e) Comments Summary

It is too early to commit much on material use without more information and further consultation. Presently it is a minefield for specifiers and verifiers but it is something to aspire towards (3, including 2 professional/ trade associations and 1 local authority)

A research strategy to champion industry knowledge in this field should be committed to and BSD is urged to go further, faster on material sourcing such as FSC timber (2 professional/ trade associations).

CEN TC 350 can already robustly support embodied energy and recycle (1 R&D/ university) and the BRE's life cycle analysis data and methodology could be used for materials now allowing some alignment with CfSH³ that would be positive for UK-wide suppliers (1 R&D/ University, designer/ consultant). More guidance could be

³ CfSH = Code for Sustainable Homes. An indicator that is referred to by Communities and Local Government for new homes in England and Wales. It has evolved from Ecohomes, an indicator still referred to in Scotland by some local authorities and funding organizations.

issued now (1 designer/ consultant) but there are doubts as to when and by whom standards will evolve.

A lack of consensus on this complex subject area is mentioned (2, including 1 designer/ consultant and 1 professional/ trade association). Other points:

- Encourage OSM as a percentage of a building to meet upper levels. This encourages the development of the Scottish timber frame manufacturing industry and results in less waste/ greater efficiency (R&D/ university)
- Waste of the built form should be more prominent (NDPB or agency)
- The sustainable benefits of demountable construction is also in its infancy (Other)
- Enforcement difficulties
- Increase the thresholds for waste receptacles during operation (local authority)
- The evaluation tool known as ENVEST is suggested for assessing embodied energy in new buildings.

Scottish Government Response

Following varied responses of respondents on the material use and waste aspect the guidance on demountable construction and storage of recycling materials will be reviewed. An appropriate suggestion is for Scottish Government to develop a research based strategy, based on reviews of existing studies by others to supplement the present limited proposals in this aspect for domestic. This should align with work on Sullivan Report recommendations for whole life zero carbon buildings by 2030. It is recognized material life cycle analysis is an area of increasing importance as operational emissions from new buildings reduce

6. QUESTIONS ON NON-DOMESTIC BUILDINGS - ANALYSIS AND RESPONSE

6.1 Question 8

Q 8. Non-domestic buildings

Defining measurements of sustainability that can be competently verified within the building standards system for non-domestic buildings presents a greater challenge due to these buildings' relative variety and complexity. Building Standards Division intends to progress work on defining upper levels of sustainability in non-domestic buildings in due course. At the outset of the standard it is proposed that as well as the baseline 'bronze' there will be a 'bronze star' level to recognize the inclusion of a LZCGT and link to the obligations of local authorities' duty under Section 72 of the Climate Change (Scotland) Act 2009.

Aspect of Carbon dioxide emissions

For non-domestic buildings the only upper levels defined are in the aspect of carbon dioxide emissions. The criteria make reference to the recommendations of the Sullivan Report with the 1st aspirational level (silver) at a 50% reduction in carbon emissions compared to 2007 standards and the 2nd aspirational level (gold) being a 75% reduction. A 3rd upper level (platinum) in this aspect would be net zero carbon. The presentation of the label would clearly show whether applicant complies with an upper level in this aspect.

a) Do consultees view this approach for non-domestic buildings as clear and useful at the outset of the proposed section 7?

and,

b) Do consultees agree that the proposed upper levels in the aspect of carbon dioxide emissions only, for non-domestic buildings are appropriate?

a) Comments Summary:

There is wide support for the intent to follow a similar path and mechanism for non-domestic buildings with the same principles as for domestic buildings (with positive supporting comments from 6 including 2 NDPB and agencies, 2 professional/ trade associations, 1 R&D/ University and 1 interest group).

There are suggestions to widen the aspects to include recycle and indoor air quality (IAQ) (2 professional/ trade Associations and 1 designer/ consultant). NDPB or Agencies propose the same fittings standards as set out for domestic and would like to propose standards for urinals to complete the aspect of water use efficiency for non-domestic buildings.

But there are some concerns expressed about the non-domestic approach with several responses saying it appears premature with 'more effort is required here' (2 including 1 designer/ consultant and 1 R&D/ university). Some support is provisional on the basis that sustainability in-the-round should be satisfactorily defined for non-domestic, therefore introduce domestic system now and proceed with resolving aspects and levels in non-domestic (3 including 1 professional/ trade association, 1 developer/ contractor and 1 local authority).

There is an objection that the present non-domestic proposal could duplicate EPCs and a sustainability label based solely on CO₂ would be confusing. In fact, revising the EPC from an absolute scale to improvement over TER would be preferable to a 'halfway-house' Section 7 for non-domestic (3 including 1 developer/ contractor, 1 designer/ consultant and 1 professional/ trade association) – as question 2 response.

There is a view that existing voluntary standards should be endorsed instead (2 including 1 designer/ consultant and 1 R&D/ university). In addition, SG/ BSD role is questioned in devising then managing a complex range of sustainability measures to cover all new non-domestic buildings, as there are many versions of voluntary standards such as BREEAM,. Recommended that a new assessment method (that could be seen as weaker than BREEAM) is not devised given the resource cost to the Scottish Government and industry (3 including 1 interest group, 1 designer/ consultant and 1 R&D/ university). One problem raised is that building classifications are not agreed within the industry, although in contrast: if education, health and industrial are differentiated, should it be much more complex than that? (2 R&D/ universities)

There are further objections, similar to the domestic view, that 'Bronze Star' gives the wrong message, seeming to prefer technology over fabric first approaches (2; 1 professional/ trade association and 1 manufacturer). Bronze star needs a percentage of LZCGT contribution to prevent developer lip-service (1 local authority). Appropriate technology is key (1 professional/ trade association).

Different and varied measures of sustainability for non-dom makes more case for trade-off here due to heterogeneity of types (1 designer/ consultant).

b) Comments Summary:

Some say the levels should be higher (1 R&D/ university), a few say less. Most say yes with comments such as 'appropriate' (1 designer/ consultant).

Scottish Government Response

If the system is only available for domestic buildings then the opportunity for local authorities to refer to Building Standards Section 7 to meet their obligations under Section 72 of the Climate Change (Scotland) Act 2009 is diminished and there is an increased risk of separate local sustainability tools or indicators. With regards to linking the system to Section 72, there are benefits in making section 7 proposals at the outset of the system available for all new buildings, both dwellings and non-domestic. These benefits include

- *differentiating all new buildings that include LZCGT in their energy standard compliance calculation by use of the approach labelled as 'bronze star' (or the new name, 'bronze active');* and,
- *defining optional higher benchmarks that are nationally consistent across local authority boundaries, albeit initially only in the aspect of carbon emissions for non-domestic buildings.*

A broad timescale for work to develop an equivalent well-rounded section 7 for non-domestic will be outlined.

Because many different types of non-domestic buildings exist, there is potential for a system to emerge that is too complex for the building standards system to manage. It will be necessary to address this risk. Any set of sustainability non-domestic guidance should as far as possible, concentrate on a set of core criteria that are common to all new buildings.

In the development of sustainability in-the-round for non-domestic buildings, aspects/ levels should be checked for consistency with other tools including BREEAM.

Scottish Government will consider the presentation of the label for non-domestic buildings.

On balance, upper levels in the aspect of CO₂ emissions are pitched correctly following feedback.

7.0 GENERAL COMMENTS FROM RESPONDENTS – ANALYSIS AND RESPONSES

In addition to the 9 specific questions posed, general comments on proposals were welcomed. 31 respondents out of 60 (52%) offered comment either in this box or in attached text. This is particularly welcome, given the specific nature of many of the other consultation questions. Reporting on these comments will be included within the consultation report, to be published in due course.

Comments Summary:

It is well-considered, refreshingly clear and because of its relative simplicity, the scheme will get more buy-in and result in more consistency (Several including a professional/ trade association, local authorities and a NDPB or agency). It is

supported as long as the scheme evolves and widens (2 including a professional/ Trade Association and NDPB or agency). But alternatives were described:

- Sustainability should be adapted into sections 1-6, rather than a new section (local authority)
- Adapt BREEAM/ CfSH to Scottish standards (3 including a designer/ consultant, R&D/ university and developer/ contractor) or give equivalent credit to BREEAM + Ecohomes (1 R&D/ university).
- However a different view is that an equivalence approach would lead to verification difficulties and inconsistency (local authority)
- BREEAM/ LEED are familiar to commercial investors. Do not see these labels as adding value. Operational ratings for buildings are preferred. (professional/ trade Association)
- The proposals are premature, needing further R&D (designer/ consultant)
- Reference should be made to European Passivhaus convergence (R&D/ University)

Doubts were expressed about the competency of verifiers to assess sustainability and about the competency of SG/ BSD to operate a scheme (2 including 1 designer/ consultant and 1 developer/ contractor). The following were suggested:

- Extensive training for industry, technical guidance and explanation of the verification process, and public education (5 including 3 local authorities, R&D/ university, professional/ trade Association and 1 NDPB or Agency)
- An NDPB or Agency propose using HEED for recording label information

Could reasonable inquiry check if an application is a higher level at building warrant stage, but subsequently the aspiration reduces during construction? Should a higher level be reviewed if there is a subsequent extension and a building log-book kept? (1 local authority). Consider a penalty system to help prevent fraud and abuse of system (NDPB or agency)

Discussions with BSD to progress Section 7 are offered by several respondents and finally some alternatives to tightening the mandatory energy standards in 2013 and 2016 are presented.

Scottish Government Response

On balance, there are no significant disadvantages to further embedding sustainability in the building standards and providing optional higher levels within the standards instead of the alternative of endorsing voluntary codes. The accompanying BRIA assists in coming to this preferred view.

Scottish Government will continue to be open to discussions with key stakeholders in the final development and subsequent evolution of section 7. A period of dissemination will run in parallel with the timing of the introduction of the standard. A degree of contact has already taken place with verifiers and these discussions will continue with the purpose of assisting the accurate introduction of verifying higher levels of sustainability within the building standards system.

The Building (Scotland) Act already contains sections on compliance and enforcement and aspects of fraud.

Engagement with stakeholders will continue with forthcoming reviews of the minimum energy standards

8.0 NEXT STEPS

The Business and Regulatory Impact Assessment BRIA assists in determining that this proposal is the most effective of the current options in meeting the objective of furthering sustainable development by use of the Scottish building regulations. The consultation responses do not alter this view. Because the higher levels are optional no objections were made concerning additional monetary burden on development, an important positive point for these proposals in the current financial climate.

Scottish Government welcomes the responses to the consultation which are broadly consistent with the proposals to introduce sustainability into the Building (Scotland) Regulations.

Scottish Government recommends that the new regulation 7.1 is introduced to further embed sustainable design and construction within the Scottish building regulations. Work will continue in the immediate future to clarify and tailor guidance that will be made available to prospective warrant applicants in advance of 01 May 2010 when the regulation allowing applicants to aim for higher levels of sustainability would be due to come into force.

**Building Standards Division
February 2011**



The Scottish
Government