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HOMES FOR SCOTLAND

RESPONSE TO BUILDING STANDARDS DIVISION'S REVIEW OF ENERGY STANDARDS 'CALL FOR EVIDENCE'

14 SEPTEMBER 2018

ABOUT HOMES FOR SCOTLAND

Homes for Scotland is ***the*** voice of the home building industry.

With a membership of some 200 organisations together providing 95% of new homes built for sale in Scotland each year as well as a significant proportion of affordable housing, we are committed to improving the quality of living in Scotland by providing this and future generations with warm, sustainable homes in places people *want* to live.

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PROCESS

Homes for Scotland represents members on a wide range of issues affecting their ability to deliver much needed homes.

Our views are endorsed by committees and advisory groups utilising the skills and expertise of key representatives drawn from member companies.

This consultation response has been discussed, drafted and approved by members of the Technical Group.

HFS Response to Building Standards Division's Review of Energy Standards 'Call for Evidence'

Building Type	Domestic Building ☒ Non-domestic Building ☐ Both ☐
Nature of Work	New Build ☒ Extensions ☐ Alteration ☐ Conversion ☐ All Construction Work ☐
Subject	

The Development and Publication of the Energy Standards and Importance of In-Built Flexibility Looking Ahead to 2032

Commentary

It was envisaged that publishing the energy standards a year in advance would provide the industry a year to prepare for their implementation in 2015. On reflection, this transition period did not account for the lead-in time required by SAP providers to update their software packages and ultimately limited the sectors ability to prepare for forthcoming changes to the standards. Whilst manual calculation approaches were available, industry noted their restricted capacity to undertake such robust research and development assessments without such tools being available and queried the accuracy and reliability of such calculations to inform design and procurement decisions.

SAP providers, as commercial entities, highlighted that without confirmation of the calculation methodology and fixed dates set for the release of such information they were unable to plan and allocate resources to the development of software updates in addition to the ongoing updates made to software being made available in England and Wales. This resulted in the earliest release of updated SAP only six-months out from the implementation date.

In that context, it is clear that the lead-in time from publication to implementation needs to be extended. This should enable developers and their supply chains to robustly assess the impact of revised standards and provide feedback on any unintended consequences changes to the calculation methodologies are having on design and specification. HFS would welcome the establishment of a development programme which engages wider stakeholders in the process of developing such standards, providing greater insight as to what is required to be achieved, what the impact may be, and ultimately provide the sector with more time to prepare for change.

In addition, in light of the Scottish Government's Energy Strategy, Climate Change Plan and other related work on energy decarbonisation, HFS believes that there will be need for Building Standards to become flexible and allow for greater adaptation of SAP calculation methodologies. Work currently being undertaken by UK and

Scottish Government's as well as Scottish Gas Networks into the feasibility of distributing hydrogen safely into the existing gas network and existing domestic appliances suggests that underlying embodied emissions from fuel sources is likely to changes significantly over the next decade. As a result, this will likely transform the way in which the industry views domestic energy supply and encourage supply chains to bring forward cost-effective low carbon energy technologies to market such as micro-CHP.

It will be vital for the energy standards, calculation methodology and SAP providers to be able to adapt quickly to change, accommodating the decarbonisation of the distribution network, helping enable developers to adopt new technologies as the become mainstreamed and cost-effective. Delays in such processes, we believe, will only go to discourage wider innovation in the sector.

Additional Evidence

Homes for Scotland would welcome any opportunity to discuss the above comments in more detail.

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Achieving Further Carbon Abatement & Alignment of Scottish Government Policy Objectives

Commentary

<u>Carbon Reduction Targets</u>

The consultation paper rightly notes that new homes constructed to 2015 standards represents a 75% reduction in carbon emissions from equivalent 1990 baseline levels (a 45% improvement on 2007, and 21% improvement on 2010 standards). In the context of wider targets set out by the Climate Change (Scotland) Act of a 42% and 80% reduction in emissions by 2020 and 2050 respectively, this highlights the significant progress the new build sector has made in meeting abatement targets within a challenging political and economic environment. Relating this to energy use, HFS has previously undertaken research utilising sample EPC data across a range of house types which indicated that the average estimated energy cost for a new home equated to roughly one third of the national average energy bill.

A key challenge for the Scottish Government in meeting its ambitious climate change targets will be the need to tackle the energy efficiency of the existing

housing stock. To illustrate the scale of the challenge, new build housing output totalled 16,209 units for the year 2014-15. With Scotland's total domestic housing stock estimated at 2.56 million for the same year, new build output represented only around 0.63% of the existing housing stock. Estimating that around 80% of the current housing stock will be in use by 2050, and by forecasting a modest 4% annual growth in output until it reaches pre-2007 levels of around 25,000 units per annum, it can be estimated that around 70% of the housing stock (around 2 million homes) will require some form of retrofitted energy efficiency measure by 2050. In that context, the Scottish Government should consider how Building Standards better supports carbon reduction from existing homes to meet its climate change policy objectives.

It would be impossible to respond to this consultation without addressing the potential impact Brexit may have on the regulatory framework surrounding the Energy Performance of Buildings Directive. With there continuing to be great uncertainty around what type of deal and relationship the UK will have with the EU following March 2019, it would be helpful for the Scottish Government clarify its position on whether they will continue to align with the regulatory principles and targets mandated by EU directives post-Brexit. For the home builders and supply chains operating across UK borders we would encourage a degree of consistency in approach to carbon abatement across devolved areas, ensuring that regulation in Scotland does not deter future investment in much needed housing.

Achieving Further Carbon Abatement

Achieving further abatement will undoubtably be challenging for the sector as the cost-benefit of incorporating new technologies diminishes. As a result, we believe that future proposed levels of reduction should be considered in conjunction with the recommendations made within the Sullivan Report 2013 Update as well as the principle of calculating cost-optimality that underpins the Energy Performance of Buildings Directive (EPBD).

A core component of the Sullivan Report (2013) highlighted the need for the Scottish Government to investigate whether proposed carbon abatement levels, as originally recommended, would meet the definition of 'nearly zero energy' as set out within the EU Directive. As far as we are aware, no such research has been undertaken or published to provide an indication of where current standards are situated in relation to this target. Producing such information is vital to enabling the sector to prepare for and mitigate against any challenges in meeting future energy standards. The Energy Performance of Buildings Directive also sets out an obligation for Member States to consider energy efficiency requirements alongside what is identified as being a cost-optimal level of regulation. The last available report on cost-optimality was published in May 2013 by the UK Government which indicated that requirements applicable to new residential units were a 22% betterment than cost-optimal levels at that time.

This supports our members concerns of the additional costs applied to the construction of new homes in Scotland compared with England, where requirements represented only a 16% betterment at that time. As well as making it costlier for small developers to enter the market or grow their businesses, it also makes it harder for those businesses operating across the UK to compete for investment that would support growth of mainstream housing delivery.

Alignment of Scottish Government Policy Objectives

Further recommendations from the Sullivan Report (2013) cites the need for the Scottish Government to align emissions abatement aspects of both the Planning and Building Standards systems. A common frustration experienced by the sector is that policy is frequently developed in isolation from other related departments in government. Once implemented, these tend to have unintended consequences on businesses, placing additional burdens on the sector. One such example is the operation of Section 72 (s72) of the Climate Change (Scotland) Act and subsequent obligations under Section 3F (s3F) of the Town and Country (Planning) (Scotland) Act. In practice this has resulted in planning authorities developing policies regarding the use of low and zero carbon energy generating technologies and building performance standards which often go above and beyond cost-optimal levels identified with Building Standards. Given that no Business and Regulatory Impact Assessment is undertaken for such policies, it is questioned whether this further deviates from the EPBD principles in relation to cost-optimality. This is of particular concern where planning authorities are specifying enhanced levels of energy performance from low and zero carbon energy generating technologies, requiring new development to meet enhanced sustainability standards; and placing requirements to deliver non-mainstream energy infrastructure such as district heating. In terms of the latter, this comes at a time where the Scottish Government is in the early stages of formulating national policy, guidance and regulation around the decarbonisation of heat energy and heat networks. Subsequently, driving forward a single approach to the decarbonisation of heat energy fails to acknowledge concurrent work undertaken by the Scottish and UK Governments as well as network operators in assessing the potential for the decarbonisation of the gas network through hydrogen. This could in practice make it more difficult to mainstream new technologies such as micro-CHP which may, in the long term provide a most effective solution than the delivery of wholescale heat network infrastructure.

In conclusion, we would encourage the Scottish Government to acknowledge that meeting further abatement targets will be challenging for mainstream and small-scale developers alike and in that context consider future targets in conjunction with wider recommendations outlined in the Sullivan Report (2013). It would be helpful for the Scottish Government to set out a detailed 'action plan' developed in partnership with industry and wider supply chains to help illustrate the pathway to 2050, taking a longer-term view to the role that Building Standards in reducing carbon emissions from new buildings. Defining and benchmarking 'nearly zero' and 'net zero' carbon targets will help provide confidence to the industry as to what will

be expected of them enabling businesses to plan for the longer term, and ensuring such requirements are set within cost-optimal levels will enable businesses to incorporate new technologies more readily as they are mainstreamed. Finally, the Scottish Government must reconsider how it aligns carbon abatement principles across the Planning and Building Standards systems. Growing use of policies stemming from s72 of the Climate Change Act simple seek to duplicate and/or increase the standards set by Building Standards, with it having a significant impact on the viability of new residential development. Removal of such requirements would be welcomed by industry, conversely where requirements are developed they should be required to undertake a Business and Regulatory Impact Assessment and comply with the principle of cost-optimality implied by the EU Directive.

Additional Evidence

Homes for Scotland would welcome any opportunity to discuss the above comments in more detail.

Building Type	Domestic Building ☒ Non-domestic Building ☐ Both ☐
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Subject	

Constraints Affecting Further Emissions Reduction

Commentary

As previously noted, the Scottish Government should take a more holistic approach reducing carbon emissions from new buildings, considering not just what the regulatory environment can deliver but also what support and interventions are required to help Scotland transition to a low carbon economy.

A vital component not often considered by Building Standards is skills, and whether the industry has the appropriate skills available to deliver new homes to the proposed standards. It is widely recognised that the industry is faced with a skills crisis, with reports from public and private stakeholders highlighting concerns regarding skilled labour shortages over the short and medium term. This comes at a time where there is significant pressure to deliver more homes and competition to recruit skilled labour on housing sites across Scotland. The shortfall in labour not only affects the traditional onsite trades where it impacts build costs but is also understood to affect planning and building control professions where resources are stretched and causing delays in turning permissions into homes. The quality of skills available may also have an impact on aspects already under consideration including the as-designed, as-built performance gap.

As the construction of new homes becomes more complex, broader consideration should be given to whether there is an adequate skill base available to deliver them. In that context, we would encourage the Scottish Government to also consider undertaking a Skills Impact Assessment when considering future changes to building standards.

The Scottish Government should also consider what support and incentives they can offer businesses to encourage further carbon reduction and importantly help mainstream innovation and new technologies in the market. This would help provide confidence to the industry and its supply chains to invest in low carbon technologies going forward. However, this must be part of a development of a clear vision for new buildings, developed in partnership with industry and consumers.

Additional Evidence

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Review of Section 7 Sustainability Standards

Commentary

Achieving further performance improvement from new residential buildings will undoubtably be challenging for the sector, with UK Government reporting in 2013 that standards applicable in Scotland at that time representing a 22% betterment on cost-optimal levels and standards increasing once more in 2015. The Sustainability standards, as set forward by Section 7 of the Technical Handbooks, provides a set of aspirational standards that in light of the above, are extremely unlikely to be cost-effective to deliver within the realm of mainstream housing.

<u>Perception of Building Standards and Use of Standards within Planning Authorities</u>

The inclusion of standards that go above and beyond baseline levels, suggests two things. Firstly, that baseline standards do not go far enough, and secondly, that improving upon baseline standards would be simple. This is what is often expressed to HFS where enhanced standards are discussed, something that we would argue is clearly not the case.

As noted in a previous response, some planning authorities in Scotland are adopting policies that seek to go above and beyond benchmark standards, referencing Section 7 requirements. Given these standards go above and beyond what has been recognised as a cost-optimal level, imposing such standards will simply make many developments unviable.

In that context, HFS believe that now is the time to undertake a wholesale review Section 7 standards and assess whether a new framework could be developed to replace the current aspirational approach to one that provides confidence in the direction of travel for building standards and encourages developers and supply chains to bring forward solutions.

A 2050 Framework

Section 7 could set out a timeline and route map to how Building Standards will seek to meet 2050 Climate Change Targets. This should include outlining key dates for step-changes in standards as well as indicate what requirements could/would be expected at each of these stages. This would provide greater certainty for developers to plan and prepare for future change, evolve their designs and specifications as well as enable supply chains to test and mainstream new technologies for use in future developments.

Minimum Requirements for a Review

Outwith more radical change as indicated above, as a minimum it would be extremely helpful for aspects of Section 7 to be reviewed and considered in terms of gaining a better understanding of whether the levels set are consistent with the availability of mainstream technologies and design thinking as well as indicating the extent to which each standard goes above and beyond cost-optimal levels.

Additional Evidence

HFS would welcome the opportunity to work with the Scottish Government to review the current requirements of Section 7 or to develop the scope of more radical changes to the standard.

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