



Stern Review on the Economics of Climate Change

Submission by Hambleside Danelaw Ltd

Executive Summary

- Half of the UK's carbon output is emitted from buildings, but non-compliance with the Building Regulations, which is recognised by the Government as a significant issue, means that little progress is being made to rectify matters.
- Recently announced amendments to the Building Regulations and measures to enforce them will, in Hambleside Danelaw's view, have only a limited impact on the level of emissions.
- A more effective measure to encourage the building industry to comply with the Regulations may lie in HM Treasury introducing financial incentives for the construction of more carbon efficient buildings.
- A priority should be to target the builder whose responsibility ends after construction (typically a nine-month period), yet who plays the key role in sourcing and installing the building materials.
- For buildings and structures, the Review may consider that the Government should build on its Enhanced Capital Allowances (ECAs) scheme that enables businesses to claim 100% first-year capital allowances on their investment in designated energy-saving plant and machinery in the year in which the expenditure is incurred.
- The Review may wish to explore the scope for providing an incentive in the business rate structure for businesses to occupy buildings that comply fully with Part L of the Building Regulations.
- The end-result should be more people working and living in day-lit spaces in energy efficient buildings with improvements, for example, in health recovery times, student performance levels and retail sales – all having a positive impact on productivity and the economy.

1. About Hambleside Danelaw Ltd

Hambleside Danelaw Ltd manufactures rooflights and other building materials in Daventry and Inverness. Its turnover is currently £11 million a year and it employs almost 100 people. The company's Insulator rooflight range was a finalist in the Carbon Trust Innovation Awards 2005 which recognised that the product was

providing a typical industrial building with a saving on energy consumption of 13.1%. In 2004, Insulator received a regional commendation for the Highlands and Islands in Scotland's VIBES awards and Hambleside Danelaw won a Green Apple award for its efforts to reduce the environmental impact of the factory at Dalcross.

Hambleside Danelaw is committed to developing rooflights that help advance sustainable development while enabling people to conduct their working lives in natural light. The company's current R&D covers the use of new raw materials which will considerably enhance the tensile strength of a rooflight, exploring the possibilities of a self-clean material and the use of solar energy for power generation.

2. Introduction

Hambleside Danelaw wishes to respond to the fourth point in the Stern Review's terms of reference, namely:

"The impact and effectiveness of national and international policies and arrangements in reducing net emissions in a cost-effective way and promoting a dynamic, equitable and sustainable global economy, including distributional effects and impacts on incentives for investment in cleaner technologies".

It is estimated that approximately a quarter of Britain's carbon output is emitted from non-domestic buildings. Hambleside Danelaw believes that policy designed to encourage greater use of 'safe rooflights' and other thermally efficient materials by architects and builders in industrial and commercial buildings will lead to:

- a significant contribution to efforts to reduce the UK's CO₂ emissions which, as widely reported, have actually been increasing since 2002
- more people working and living in day-lit spaces with improvements, for example, in health recovery times, student performance levels and retail sales
- improved roof safety standards.

As an example of the impact that could be made, research by De Montfort University's Institute of Energy and Sustainable Development in May 2003 found that by increasing a building's roof area covered by insulated rooflights from 10% to 20%, carbon emissions from the building could be reduced from 17 tonnes per annum to 3-4 tonnes per annum. This could be achieved through the use of less power as a result of the increase in natural light and without risk of solar overheating.

3. Better Regulation and Financial Incentives for Industry

Hambleside Danelaw has been making representations to the UK Government, the Scottish Executive and the company's local MPs on this issue since June 2005. It believes that more carbon efficient buildings would be built if there were:

- i. easily understood improvements to the Building Regulations that were also being properly enforced and
- ii. the introduction of financial incentives by HM Treasury to encourage the building industry to comply with the Regulations.

One of the most recent tests for the Government to demonstrate the seriousness of its commitment on climate change was the publication on 13 September 2005 of draft amendments to Part L of the Building Regulations in England. However in respect of rooflights, the Office of the Deputy Prime Minister (ODPM) has only created a recipe for confusion by allowing architects and builders to choose between three different U-value limits according to the method they follow for limiting the carbon emissions for

the whole building. This lack of clarity might provide an excuse, however flimsy, for non-compliance and makes enforcement more difficult, especially when enforcement itself will rely heavily on self-compliance.

A subsequent Parliamentary written answer dated 11 October 2005 (Hansard reference: column 440W) from the Minister of State, Yvette Cooper MP, to Tim Boswell MP on measures to encourage compliance only served to strengthen our view that the introduction of financial incentives for the industry may be more effective than concentrating on the enforcement of the regulations.

4. Building on Existing Tax Incentives

Hambleside Danelaw hopes that the Pre-Budget Report will act as a starting point for the Treasury to bring forward incentives for the building industry to limit emissions from new buildings.

We note that in August, the Treasury published a 'green landlord scheme' consultation paper to encourage energy efficiency in the private rented sector. It considers the introduction of tax deductions for landlords who join the scheme, building on the Wear & Tear or Renewals Allowance. The consultation paper points out that domestic energy consumption accounts for approximately a quarter of Britain's carbon emissions. We recognise that the Treasury has to start somewhere, but the private rented sector only represents a small proportion of domestic consumption whereas non-domestic buildings account for another quarter of the emissions.

Hambleside Danelaw wrote to the Financial Secretary to the Treasury on 30 June, urging him to look at more ways to incentivise financially the construction of energy efficient buildings. The company made it clear that the Government deserved credit for introducing Enhanced Capital Allowances (ECAs) that enable businesses to claim 100% first-year capital allowances on their investment in designated energy-saving plant and machinery in the year in which the expenditure is incurred. Unfortunately, buildings and structures do not qualify for these allowances.

We recognise that in the case of buildings, the issue is complicated by the question of who should benefit from the incentive: the property developer, the building owner (sometimes the same organisation), the construction company and/or the occupant (sometimes the same as the owner). Nevertheless, available options include reviewing the ECA scheme to explore whether it is feasible to extend it to cover buildings and structures.

The Review and the Government might also wish to see if there is scope for providing an incentive in the business rate structure for businesses to occupy buildings that comply fully with Part L of the Building Regulations.

Overall, a major priority should be to target the builder whose responsibility ends after construction (typically a nine-month period), yet who plays the key role in sourcing and installing the building materials.

5. Why Financial Incentives are Necessary

As a British manufacturer of rooflights that comfortably meet current and anticipated regulations in respect of U-values, Hambleside Danelaw was very encouraged that the ODPM consultation document of July 2004 on Part L stated that improving enforcement of the Building Regulations was an issue that the Government wished to pursue. This commitment seemed to confirm a widely-held belief that non-compliance with the regulations was rife throughout the building industry in the UK.

In our view, both non-compliance and non-enforcement in respect of roofs have been significant contributing factors in the increase in the UK's carbon output since 2002.

Hambleside Danelaw clearly has a commercial interest in seeing the regulations enforced. Nevertheless, up to an extra 24.2 tonnes of CO₂ savings could be made each year in a typical industrial or warehouse building with only 10% of the roof area using a clear insulant product in comparison with a rooflight that is just compliant with the current regulatory limit of a 2.2 U-value, but has no material benefit to energy savings. We would therefore hope that climate change considerations alone should be reason for the ODPM and the Treasury to look closely at our proposed solutions to the issue of non-compliance:

Action is necessary because builders often source materials that do not comply with the required U-value performance of a building in order to cut costs. We believe that most architects design a specification that complies with Part L, but many developers, builders and property owners/tenants do not share this commitment to sustainable development when there are significant sums of money involved. For example, a non-compliant rooflight will sell for around £17 per metre whereas a compliant unit will start at £21 per metre.

Part L currently allows for individual elements of a building, e.g. the roof and the walls, to exceed their target U-value provided that their poorer performance is compensated for by better performance of the other elements. This 'trade-off' provision is a highly flawed concept for two reasons: firstly, it cannot work without strict enforcement which is not possible with the limited resources available for building control officers in local authorities; and secondly, as we all know from needing proper loft insulation in our homes, warm air rises and tends to escape through the roof. Therefore with respect to CO₂ emissions, the U-value compliance of the other elements is of little consequence if the roof itself is non-compliant. Because of this, we firmly believe that the Government should completely remove this provision from the Building Regulations.

However, as the outcome of the ODPM's consultation suggests that this is not going to happen, this provides a further reason for policymakers to look more in the direction of financial incentives rather than regulation and enforcement. We hope that the Stern Review will assist in this process.

For further information on this submission, please contact Paul Wilkinson at Hambleside Danelaw Ltd (tel. 01327 701900; email paul.wilkinson@hambleside-danelaw.co.uk).

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