essential materials
sustainable solutions

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MPA submission to Request for input to the UK Climate Change Risk Assessment Evidence Report

Thank you for inviting the Minerals Products Association respond to the request for input to the UK Climate Change Risk Assessment Evidence Report.

The Mineral Products Association (MPA) is the trade association for the aggregates, asphalt, cement, concrete, dimension stone, lime, mortar and silica sand industries. With the recent addition of The British Precast Concrete Federation (BPCF) and the British Association of Reinforcement (BAR), it has a growing membership of 450 companies and is the sectoral voice for mineral products. MPA membership is made up of the vast majority of independent SME companies throughout the UK, as well as the 9 major international and global companies. It covers 100% of GB cement production, 90% of aggregates production and 95% of asphalt and ready-mixed concrete production and 70% of precast concrete production. Each year the industry supplies £9 billion of materials and services to the £120 billion construction and other sectors. Industry production represents the largest materials flow in the UK economy and is also one of the largest manufacturing sectors.

As our Membership and representation covers a number of areas I have presented our response in sections, according to the product group. If you would like any further information on the products below (or others represented by the MPA but not included in this response) please do let me know.

Although we have presented our response in sections according to the product groups, it should be noted that the most important aspect is the join up between them, i.e. the supply chain. Without the ability to extract the mineral the production of the dimension stone, cement, silica sand etc. would be at risk. The determination of one aspect of the supply chain as "at risk" to climate change could result in an entire supply chain being deemed "at risk".

Quarrying

Last year MPA provided input into the project, run by the Adaptation Sub-Committee of the Committee on Climate Change, "Managing climate risks to well-being and the economy: ASC progress report 2014". The main focus of the report was on water use within the industry and whether the predicted reduction in water available would affect the minerals industry ability to supply aggregate to the market. As this has already been reported to the Committee we feel no need to reiterate the consequence of this climate-related risk

However, it is important to note that minerals can only be dug where they lie. There is no option to relocate a quarry to an area where water is more available- this is simply not an option. The determination of site locations throughout the UK is controlled through the planning system and it is essential that this remains the main "decision process" for where a quarry should be located.

Increased regulation has led to further costs when developing and restoring quarries. Indeed, quarries can provide beneficial habitats for endangered species once restored. On this point increased regulation has seen operators struggling to restore their sites utilising inert wastes. This in turn hinders the development of the site in a suitable after-use. The use of restored quarries to create habitats has the potential to assist in the protection of species that may be at risk due to climate change.

Cement

In response to the UK parliamentary Energy and Climate Change select committee inquiry into consumption based emissions MPA highlighted research that suggests consumption based calculation of the UK's GHG emissions shows quite a different picture to the inventory of emissions originating from UK based sources. In order for the environmental risk of greenhouse gas emissions to be fully understood, the UK must move towards reporting the greenhouse gas emissions in products that are consumed and not just those produced in the UK. Focussing only on emissions produced in the UK will miss the broader impact and risk to the environment.

As well as the environmental risk, the economic risk must also be considered. Unilateral UK and unilateral EU climate change and energy policies and globally unequal carbon pricing is increasing pressure on UK manufacturing installations and 'carbon leakage' threatens to increase the rate of manufacturing loss from the UK. Over the period 2001 to 2010 sales of cement have decreased by 26% but imports by non GB manufactures have increased by 10%. As a result the market share of non GB manufacturer imports has risen from only 3% in 2001 to 13% in 2010. At present the UK GHG statistics would translate this into a reduction of emissions. Clearly this would misrepresent the UK's GHG 'footprint' emissions and lead to potentially false claims about the UK's contribution to the mitigation of climate change. Consumption based emissions reporting would more closely reflect the carbon footprint of the UK. It will encourage locally based manufacture and help secure UK manufacturing jobs. It will improve security of supply for strategically important materials such as cement used for construction and lime used for drinking water treatment and steel manufacture. It will help to prevent the migration of skills outside of the UK.

Concrete

Whilst the link between a warming climate and the risk of overheating is well understood, its impact on new, highly-insulated homes that are already susceptible to overheating, has only recently been recognised and is noted in several new studies, most notably from the DCLG (July 2012) and the NHBC Foundation (Nov 2012). These highlight the reduced ability of new dwellings to reject heat as a consequence of their enhanced fabric performance. Evidence suggests that the provision of adequate ventilation is the single

most effective design measure that can be applied to address the problem, although this can be difficult and costly to achieve in urban environments where noise, pollution and security issues must be overcome. This points to an opportunity to develop new design techniques and products to address these issues. However, at present very little is happening to tackle the problem in new build homes and this is unlikely to change without improved legislation requiring developers to apply specific design measures. This in turn will require a more widely accepted definition of overheating and the introduction of national limits.

Whilst government policy is to avoid new legislation as it may restrict economic growth, in reality it is likely to have the opposite effect in respect of the overheating issue. We believe it will drive innovation in the pursuit of new, low cost solutions to the problem (as it has in respect of low/zero carbon technologies in housing). This will also reduce future costs arising from expensive remedial measures to tackle the problem.

Following-on from this point, we believe that legislation can also drive opportunity and innovation at a broader level, with some climate change adaptation measures in buildings being tackled collectively. This is certainly true for many of the heavyweight construction products produced by our sector, which can provide unparalleled levels of durability, flood resilience and thermal mass (which can help mitigate overheating). Whilst these qualities are nothing new, they are currently in the ascendance, with a growing recognition that buildings and the materials from which they are constructed cannot be considered as truly sustainable if they are not also resilient. This way of thinking is particularly notable in the 2014 version of BREEAM assessment scheme for new UK construction, which now awards specific credits for resilience and adaptation to climate change. The forthcoming housing version of BREEAM is also going to include a new category on overheating. In general, our sector sees climate change adaptation as a potential opportunity for many of its products, but is constrained to some extent by outdated market-driven thinking that results in a 'material neutral' government approach to policy. This should be led more strongly by an engineering-led approach to the adaptation that is more specific about the design measures that need to be adopted in response to climate change.

I hope you find our comments constructive, please do let me know if I can be of further assistance.

Yours sincerely,

Nicola Owen
Environment and Waste Policy Executive
Mineral Products Association