

Congestion, Capacity, Carbon: Priorities for national infrastructure

UKGBC response

The UK Green Building Council (UKGBC) is an industry network with a mission to radically improve the sustainability of the built environment, by transforming the way it is planned, designed, constructed, maintained and operated. As a charity with over 400 member organisations spanning the entire sector, we represent the voice of the industry's current and future leaders who are striving for transformational change.

Carbon targets for the infrastructure sector

We strongly welcome the recognition of carbon as a key challenge facing the future provision of infrastructure. But as well as reducing emissions with new low carbon technologies such as renewable energy and electric vehicles, it is also vital to ensure that the wider infrastructure pipeline contributes towards cutting emissions.

UKGBC is therefore calling for the introduction of a sector-wide target for infrastructure covering capital and operational carbon¹. A long term target should be set based on climate science and in line with the Climate Change Act and the carbon budgets, and this would build on the Industrial Strategy construction sector deal with its commitment to reduce emissions from the built environment by 50% by 2025. A target would provide the infrastructure sector with confidence about the future direction of travel and will help to inform target-setting for organisations and for individual infrastructure projects.

The key action for setting the target will be to update the Green Construction Board's Low Carbon Routemap to include specific targets for the infrastructure sector. A framework will also be needed to support ongoing progress towards the target, which has not been the case so far with the Construction 2025 target. This will require clear ownership of the target, shared between both government and industry, and ongoing monitoring of progress. A joint government and industry infrastructure task group should be established to increase awareness of the targets, report on overall progress towards the sector target, and ensure the appropriate tools are available for the industry to measure and report in a consistent manner

This target must then sit at the heart of the NICs assessments, informing recommendations about the provision of infrastructure based on the impact of its construction and operation on emissions levels. Equally, the target should be fully integrated into the existing infrastructure pipeline, ensuring that government procurement is used to drive emissions reductions on individual projects.

Energy efficiency in buildings

UKGBC has long campaigned for energy efficiency to be made a national infrastructure priority. We are therefore delighted that the NIC has designated the ending of emissions from power, heat and waste as one of seven priority areas for UK infrastructure investment – and recognised that the first priority for achieving low-cost low carbon is to improve the energy efficiency of the UK's old and leaky buildings.

We strongly endorse the findings of Frontier Economics' *Affordable Warmth, Clean Growth* report² to the Energy Efficiency Infrastructure Group, of which we are a member. We therefore welcomed the aspiration set out in the Government's recent *Clean Growth Strategy* to get as many homes as possible to an EPC rating of C by 2035, and to regulate for rented housing to achieve the same standard by 2030. We believe that this is the right level of ambition and the right timeline.

¹ UKGBC (2017) <https://www.ukgbc.org/ukgbc-work/delivering-low-carbon-infrastructure/>

² Frontier Economics (2017) [Affordable Warmth, Clean Growth: Action Plan for a comprehensive Buildings Energy Infrastructure Programme](#)

The Government must now move swiftly to translate these ambitions into reality. As recommended by Frontier Economics, this should be achieved by means of a coherent, cost-effective and consumer-focused infrastructure plan, consisting of a governance architecture, subsidies for low income households, regulation, incentives and finance mechanisms designed to unlock maximum private investment on the part of those that can afford it by focusing on driving demand.

Frontier Economics estimate that £5.2bn of investment per year is needed to bring all homes up to EPC C by 2035. This breaks down into £1.7bn public investment (mostly geared towards low income households) and £3.5bn private investment (including that by social housing providers). It is critical to note that the required level of private investment will not happen without Government investing in infrastructure capital. Analysis by the International Energy Agency has consistently found that *'the greatest energy efficiency gains have been led by policy, and greatest untapped potentials lie where policy is absent or inadequate'*.³ A stable regulatory environment, fiscal signals and infrastructure capital investment are required to lever in significant private investment and avoid 'boom and bust'.

In terms of next steps, we believe that the immediate priority is to develop and commence a demonstration programme – potentially modelled on Scotland's Energy Efficiency Programme (SEEP) pilots – to test the combinations of incentives and regulation needed for a national buildings energy infrastructure programme. The aim must be to confirm infrastructure funding for at-scale demonstration at Budget 2018 (November) and launch the first wave of demonstrations in 2019, aiming for national rollout to commence from the end of 2020.

³ IEA (2016) [Energy Efficiency Market Report 2016](#)