

## **Independent** advice to government on building a low-carbon economy and preparing for climate change

**Building Safety Regulator** c/o Ministry for Housing, Communities & Local Government 2 Marsham Street Westminster London SW1P4DF

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## The Building Safety Regulator and climate change

Dear Dame Judith

Congratulations on your appointment as chair of the board to oversee the establishment of the new building safety regulator.

Climate change is a building safety issue, both in terms of the health and safety of residents and users and because of the contribution buildings make to emissions and hence to the health and safety of the wider population. It is essential that climate change adaptation and mitigation are covered by building regulations in an integrated manner, to ensure that we have a resilient built environment which supports the health and well-being of our population. We hope these issues will be high on the agenda of the new regulator.

MHCLG's review of building regulations presents an opportunity to make a lasting impact on emission reductions and climate change adaptation measures in homes. We understand that the second part of this consultation will be published this year, and we welcome the fact that it will include proposals for a new overheating standard for homes, public and commercial buildings. However, overheating, ventilation, air quality and energy efficiency must be dealt with holistically.

As you know, the CCC is the Government's independent advisor on preparing for climate change and reducing emissions. In February 2019 we published a report on housing in the UK and made a number of recommendations to Government to improve the quality and safety of both new and existing homes. Key areas of concern are:

- **Overheating**: research carried out for MHCLG indicates that almost all new build homes are likely to overheat. This problem will increase markedly as the climate continues to warm. The CCC's UK Climate Change Risk Assessment Evidence Report indicates that heat related deaths are expected to more than triple by 2050 without additional measures to reduce the
- **Inadequate insulation**: high levels of insulation are critical to reducing cold-related deaths and ensuring we can meet net zero emissions from buildings. Cold is thought to contribute to 30,000-40,000 deaths per year across the UK. Only small reductions are projected by 2050 due to a warming climate, as the benefits of this will be offset by an ageing population, increasing the number of vulnerable people.
- Poor ventilation and air-tightness: poorly designed and implemented approaches to address insulation can lead to inadequate ventilation, damp and poor indoor air quality, leading to health impacts and increased pressure on the NHS. The health costs to the NHS of

- conditions exacerbated by poor housing are currently estimated to be between £1.4 and £2 billion per year in England.
- **Building impact on the environment:** measures to reduce emissions from buildings, such as insulation, and measures to reduce the carbon footprint of buildings, such as replacing steel and other high carbon materials with wood, will help achieve the UK's net zero ambitions.
- **Drought resilience**: as rainfall patterns change, avoiding water shortages and the use of standpipes, and ensuring we have enough water for agriculture and wildlife will require highly water efficient buildings. Avoiding drought is another area where our buildings must support the safety and welfare of the nation.
- Flood resilience: buildings in areas at risk of flooding, whether on the coast, near rivers or at risk from surface water, must be designed, as far as possible, to protect occupants from both physical and mental harm. Where appropriate, property level flood resilience measures should be a requirement, with green space, porous paving and sustainable urban drainage systems to manage surface water as short duration intense rainfall becomes increasingly common.

It will be extremely difficult to tackle these problems unless fundamental issues around compliance and building performance are also addressed. The current buildings safety work programme needs to be broadened beyond its current focus on fire safety, to include addressing the risks of climate change.

The construction sector must be made accountable for delivering outcomes, rather than the current design-for-compliance approach. This could be achieved by building on proposals in MHCLG's Building Regulations consultation for tightening planning loopholes, making it a requirement for the 'as-built' performance of homes to comply with the latest standards, evidenced by improved documentation and widespread testing. To make this work, adequate funding for Building Control Bodies will be essential.

The COVID-19 crisis reminds us of the importance of preparation and the dangers of a resilience deficit. Ensuring our buildings are safe and are part of the solution, not the problem, as we address the risks of the changing climate, is critical to addressing that deficit.

We would be happy to meet to discuss these issues and the wider challenges of ensuring our homes and buildings are prepared for climate change. Please ask your office to contact James Lees, Private.Secretary@theccc.org.uk

With best wishes

Baroness Brown of Cambridge Chair, Adaptation Committee

Prof. Mike Davies

M. Danie

Member of the Adaptation Committee