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“Buildings are in the spotlight and it’s industry’s time to shine”

1 year ago

Insight from UKGBC

The Climate Change Committee (CCC) has published its 2024 Progress Report to Parliament, and buildings are one of the top items on the agenda, representing a major opportunity for the industry.

The Climate Change Committee (CCC) newest Progress Report to Parliament saw buildings emerge as a priority item on the agenda, representing a crucial opportunity for our industry.

This couldn’t be more timely, as buildings are the second highest emitting sector in the UK and yet there has been a lack of effective and consistent policy conducive to decarbonising at the scale and pace required. In the absence of Government leadership, the industry has stepped up, including through collaborating to produce an industry-led Net Zero Carbon Buildings Standard. However, industry cannot do this alone, we also need greater ambition from Government to drive action forward, as highlighted by the CCC.

The report shows we have successfully weaned ourselves off coal, and now the focus on oil and gas is bringing buildings to the forefront of discussion. The report confirms the next three carbon budgets will place greater emphasis on buildings, with emissions reductions in buildings needing to triple by 2030.

This could have a significant impact on many built environment businesses, so this blog explores how the solutions being developed across industry could help to deliver the CCC’s recommendations.

Electrified Heating

One of the CCC's key recommendations is to make electricity cheaper through various mechanisms, thereby improving the return on investment for installing heat pumps. Another is the relaxation of planning restrictions to enable heat pumps to be installed within 1m of the property boundary, which will also expand the potential market for heat pumps. Reversing recent policy rollbacks is also recommended including the exemption of 20% of households from the phase out of fossil fuel boilers by 2035, delaying the oil boiler ban to 2035 and scrapping the 2028 EPC C target for properties.

Due to their critical role in building decarbonisation, heat pump technology has been developing in recent years including improvements in efficiency and design. Quilt has developed a whole-home heat pump solution with room-by-room control, and Kensa has solutions ranging from a 'shoe-box' heat pump that can fit in cupboard, to a "Heat the Streets" project, which installed a communal network of ground source heat pumps to create a model for street-by-street heat decarbonisation. Ecoforest has developed a ground source heat pump using natural refrigerants which can be installed in homes without any restrictions.

If all the CCC's recommendations were adopted by Government, we would need rapid upskilling in the heat pump installation and home retrofit space. Many organisations are working on this, including The Retrofit Academy, Get Zero, Greenworkx and Supply Chain Sustainable School. Last year the Government also introduced the Heat Training Grant to incentivise heating engineers to become heat pump installers.

Although heat pump costs are anticipated to fall, the upfront cost can be a challenge for homeowners and landlords. The Government's Boiler Upgrade Scheme goes some way to support this, but there are also other mechanisms to incentivise uptake, like Zero Bills, Octopus Energy's Cosy Tariff and Heat as a Service.

Energy Efficiency in Buildings

Heat pumps work best in well-insulated homes, yet UK homes lose heat up to three times faster than European Neighbours. Innovators have consequentially developed more efficient ways to improve the building fabric and reduce heat loss, for example Comfort Frame's innovative Internal Wall Insulation, VundaHaus' prefabricated insulation kits, Q-Bot's robotic installation of underfloor insulation and Airex's smart airbricks to reduce heat loss through intelligent airflow control.

There has also been a significant increase in the number of organisations offering "one-stop-shop" models for retrofit which assess a home's energy performance, support householders with the prioritisation of retrofit measures and connect them with installers and contractors. For home retrofit, examples include those focused directly on householders like Furbnow, People Powered Retrofit, Snugg, and Retrofitworks, while others focus more on helping businesses engage with their customers on retrofit, like PropEco and Energy Saving Trust's HEET. Some target specific housing types, for example social housing like NetZed and Tallarna which translates the technical risks of retrofit into financial risks enabling energy savings to be guaranteed with an A-rated insurer.

The CCC's recommendations will also mean retrofitting our commercial buildings at scale (with an emphasis placed on electrification of industrial heat) and developing a proper strategy on the decarbonisation of public buildings. These will both require strategic retrofit planning for building owners.

Many innovators are already developing solutions to support building owners understand the risks and priorities for retrofit in their portfolio and plan the process. Examples of solutions in this area include Map Mortar, Perse, Optiml and Skenario Labs.

Climate Adaptation and Resilience

Prioritising and reorganising government adaptation policy is also highlighted as a recommendation, which would have a direct impact on the built environment. There are a range of measures we can deploy as an industry to reduce climate hazard risks like flooding and overheating. Priority should be given to passive measures to minimise demand on the grid and nature-based solutions to minimise embodied carbon and maximise co-benefits. Industry is already making progress in this area, collaborating on the UK Climate Resilience Roadmap.

Built environment organisations should be ready to deploy these measures, as well as ensuring the resilience of shared facilities and infrastructure. Building owners should also seek to understand the risk associated with their portfolios, and various platforms like Climate X, Intensel and EarthScan exist to support with that.

This seminal report proposes a critical step change in Government's focus on the built environment.

We would urge full adoption of the recommendations which would lead to more home and commercial retrofits, more public building projects and more works to adapt our buildings to climate change."

This presents a major opportunity for the industry to step up and make an impact towards creating a more just and sustainable future.