

# RIBA Response

## The Labour Party's Green Recovery Consultation

**The Royal Institute of British Architects champions better buildings, stronger communities and higher environmental standards through the practice of architecture and our 40,000 members. We provide the standards, training, support and recognition that put our members – in the UK and overseas – at the peak of their profession. With government and our partners, we work to improve the design quality of public buildings, new homes and new communities.**

The Royal Institute of British Architects (RIBA) welcomes the opportunity to help shape the Labour Party's policies on green recovery to help rebuild the UK's economy post COVID-19.

The built environment is responsible for around 40% of global carbon emissions and architects have a significant role to play in reducing UK greenhouse gas emissions. The RIBA joined the global declaration calling an environment and climate emergency on 29 June 2019; just two days after the UK Government passed a law stipulating the UK end its contribution to global warming by 2050, by bringing all greenhouse gas emissions to net zero.

The RIBA believes that there is a need for greater ambition if we are to significantly improve the energy efficiency and reduce the environmental impact of the built environment.

The RIBA suggests that green recovery should include a mix of public investment and policies that support private sector investment. The key areas of focus should focus on improving the energy efficiency of the UK's existing homes with complementary policies on the energy efficiency of new homes and the promotion of Post Occupancy Evaluation.

## **Improving the energy efficiency of existing homes**

The UK has the least energy efficient housing stock in Europe, and it is expected that 85% of the current stock will still be in use in 2050.<sup>1</sup> In the UK 19% of carbon emissions come from heating buildings, 77% of which comes from heating homes.<sup>2</sup>

There are currently at least 19 million homes to be retrofitted in the UK.<sup>3</sup> Retrofitting these homes to improve energy efficiency must become a national infrastructure priority. A combination of public investment and proactive policies to retrofit these 19 million homes can help stimulate the UK economy whilst addressing the climate emergency.

Energy efficiency stimulus is an opportunity to incentivise investment, increase consumer spending, create jobs, upskill workers, and alleviate demand on the NHS whilst mitigating climate risks.

## **Stimulating investment and consumer spending**

There is currently a lack of clear retrofitting policies and public investment. A clear National Retrofit Strategy, which includes public investment that unlocks private capital, utilises green finance measures, and creates incentives for those in the “able to pay” market, is essential to improving the energy efficiency in our homes.

Improving energy efficiency reduces energy bills which increases a households’ disposable income. Even with ‘direct rebound’ effects considered<sup>4</sup> improving energy efficiency, over the long-term, secures cost savings which leads to an increase in consumer spending, aiding economic recovery.<sup>5</sup>

## **Creating skilled employment opportunities across the country**

Retrofitting homes to improve energy efficiency also creates skilled employment opportunities. Research highlights that investment in energy efficiency measures will support over 150,000 skilled and semi-skilled jobs by 2030.<sup>6</sup>

Some regions in the UK, for example the North East and West Midlands, have both a high volume of energy inefficient homes and high levels of unemployment.<sup>7</sup> Investing in energy efficiency will create jobs across the country, often in areas that need it the most – providing local jobs for local people.

Young people are likely to be disproportionately affected by the economic impact of COVID-19, however, investing in education and training for school leavers provides an opportunity for a highly skilled, well paid job for life.<sup>8</sup>

For employees unable to return to sites due to pandemic health and safety, they should be encouraged to undertake training and education on net zero construction and retrofit, for example, training to become a retrofit coordinator. This is an opportunity to drive the upskilling of the workforce and create a high quality, professional, cost competitive construction sector.

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<sup>1</sup> UK Green Building Council, *A housing stock fit for the future: Making home energy efficiency a national infrastructure priority*, <https://www.ukgbc.org/sites/default/files/A%2520housing%2520stock%2520fit%2520for%2520the%2520future%2520-%2520Making%2520home%2520energy%2520efficiency%2520a%2520national%2520infrastructure%2520priority.pdf>, pg. 5

<sup>2</sup> House of Commons Business, Energy and Industrial Strategy Committee, *Energy efficiency: building towards net zero*, <https://publications.parliament.uk/pa/cm201719/cmselect/cmbeis/1730/1730.pdf>, pg. 6

<sup>3</sup> House of Commons Business, Energy and Industrial Strategy Committee, *Energy efficiency: building towards net zero*, pg. 13

<sup>4</sup> Direct rebound effects could include a family choosing to keep their home warmer with reduced energy bills, for example.

<sup>5</sup> EEIG, *Rebuilding for Resilience*, pg. 15

<sup>6</sup> EEIG, *Rebuilding for Resilience*, pg. 2

<sup>7</sup> EEIG, *Rebuilding for Resilience*, pg. 10

<sup>8</sup> Energy and Climate Intelligence Unit, *Britain’s homes hold the key to rebooting the economy*, <https://eci.net/blog/2020/britains-homes-hold-the-key-to-rebooting-the-economy>

## Health benefits

The five-year moving average of excess winter deaths in Great Britain is 35,600 per year. Of these, over 10,000 were attributable to living in a cold home and one in ten excess winter deaths are directly linked to fuel poverty.<sup>9</sup>

It is difficult and expensive to keep an energy inefficient home warm and the risks of respiratory and circulatory problems are exacerbated. Investing in energy efficiency can minimise risks to health and wellbeing, at the same time, easing the burden on the NHS. In England alone, it is estimated that the cost to the NHS of health conditions made worse by poor housing is between £1.4 and £2 billion each year.<sup>10</sup>

In a time where people are spending more time in their home, it is imperative that our homes are safe, healthy and affordable to run.

## Recommendations

- Improving the energy efficiency of homes must become a national infrastructure priority.
- A National Retrofit Strategy, including incentives to stimulate private capital and funding for training and education, must be set out.

## Ensuring new homes are sustainable and safe

There is a housing crisis in the UK, hundreds of thousands new homes are urgently needed. However, these new homes must be sustainable and safe.

## The importance of operational energy

In 2019, the RIBA launched the [2030 Climate Challenge](#). The Challenge asks architects meet net zero (or better) whole life carbon for new buildings by 2030 by reducing operational energy, embodied carbon and potable water usage.

Operational energy, or energy measured from the meter, accurately measures the energy usage of a building. Operational energy must become the principal metric for measuring energy efficiency, and introducing performance-based operational energy targets is key for improving the energy efficiency of new homes. Operational energy targets should be in line with the RIBA 2030 Climate Challenge targets.

It is vital that the Building Regulations support the intention of improving the energy efficiency in new homes. Currently, there are loopholes in the Building Regulations which allow housing developments to be built to energy efficiency requirements that have been superseded more than twice. These loopholes must be closed, and more stringent transitional measures implemented.

Setting specific operational energy targets and closing the loopholes in the Building Regulations will help demonstrate that the UK is a leader in green building design and architecture. This can support export opportunities in these areas.

Energy efficient homes save home users hundreds of pounds annually which can then be spent in other areas of the economy.

## New homes must also consider embodied carbon

Embodied carbon refers to the carbon emitted from the processes associated with sourcing materials, fabricating them into products and systems, transporting them to site and assembling them into a building. It also includes the emissions due to maintenance, repair and replacement, as well as final demolition and disposal.

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<sup>9</sup> EEIG, *Rebuilding for Resilience*, pg. 13

<sup>10</sup> EEIG, *Rebuilding for Resilience*, pg. 13

To help address the levels of embodied carbon in new homes, the UK should introduce embodied targets. Setting targets for embodied carbon will increase the demand for low carbon materials – stimulating growth in low-emission manufacturing of traditional materials and promote new innovative low carbon materials. Actively considering embodied carbon will also encourage the use of local materials, driving the built environment to source products from the UK where possible. These performance-based targets should be in line with the RIBA 2030 Climate Challenge.

**Recommendations:**

- Use operational energy consumption as the principal metric for measuring energy efficiency of buildings.
- Introduce operational energy and embodied carbon targets for buildings which are in line with the RIBA 2030 Climate Challenge.
- Close loopholes in the Building Regulations which allow homes to be built to energy efficiency requirements that have been superseded more than twice.

**Understanding how your building works through Post Occupancy Evaluation**

It is vital that building owners and users gain a better understanding of how their buildings are performing compared to the design intention. Even when a building's design has energy efficiency at its heart, the promised energy efficiency standards are not always met.

Undertaking Post Occupancy Evaluation (POE) is key to ensuring that a building is as energy efficient as intended. POE is the process of obtaining feedback on a building's performance in use after it has been built and occupied. POE accurately measures factors such as energy consumption, water usage, maintenance costs and user satisfaction.

If POE is not carried out, the building user is unaware of the energy efficiency improvements that could be made. POE also highlights where a building can be improved, allowing for a process of continuous improvement, and lessons learnt, in the construction industry.

POE must be required as a condition of procurement of public funding for building projects. This is essential for transparency of how public money is spent, but also provides data that can be shared and learnt from, allowing for continuous improvement on energy efficiency within the built environment.

As POE is a service, there is a cost associated. Whilst this cost is very small to the building user, research shows as a proportion of a project's cost POE costs an additional 0.1% - 0.25%<sup>11</sup>, POE requires a professional to undertake the work, providing employment opportunities. At the same time, the cost of undertaking the POE is injecting capital into the economy, whilst any issues discovered during the evaluation provide further opportunities for capital to be invested to make a building more energy efficient.

**Recommendations:**

- The Labour Party must endorse and promote POE.
- POE should be required as a condition of procurement of public funding for building projects.

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<sup>11</sup> This figure includes the cost of post-occupancy surveys as well as the extra time required to address any identified issues in the post-handover stage ([Building, 17 June 2011](#)).