

# **Energy Security and Net Zero Select Committee Inquiry: Retrofitting our homes for a net zero future**

## **Response submitted by the Centre for Energy Policy**

### **About the Centre for Energy Policy**

Established in 2014 and based at the University of Strathclyde, the Centre for Energy Policy (CEP) works with government, industry and other partners to understand and address the pressing public policy challenge of ensuring transitions to net zero deliver sustainable and more equitable prosperity. Over the last decade, CEP's research has helped shape UK and Scottish Government policy across the areas of industrial decarbonisation, energy efficiency, low carbon heating and transport and energy infrastructure. Read more at: <https://www.strath.ac.uk/humanities/centreforeenergypolicy/>

### **Response**

Linked to the CEP response<sup>1</sup> to the Heating Homes inquiry undertaken by the committee in the last parliament, and drawing on our most recent research as part of the Energy Demand Research Centre (EDRC)<sup>2</sup> and the UK Energy Research Centre (UKERC)<sup>3</sup> programme, we wanted to highlight the following in response to three of the five questions that the committee will be exploring in its one-off session on retrofitting homes on 4 December 2024.

### **Q1. What factors are contributing to the under-delivery of government retrofit schemes?**

Our research highlights several factors that are contributing to the under-delivery of government retrofit schemes. Action in the following areas could help address these challenges:

#### **1.1 Investing long-term**

Our analysis<sup>4,5</sup> suggests that investing long-term in a 15-year retrofitting programme aiming to bring most UK households to EPC band C by 2035 could support:

- 10% energy efficiency gains across UK homes.
- 0.07% sustained GDP gains per annum.
- 19,500 FTE jobs.
- 0.41% increase in real household spending.
- 0.3% reduction in total energy use.

#### **1.2 Action on ensuring a skilled workforce**

Our research<sup>6,7</sup> highlights that GDP gains from investing in a 15-year retrofitting programme could be considerably greater (up to 0.25%) and jobs supported increase to 64,700 FTE (more than 200%) if action is taken on developing a skilled workforce. Failure to act could mean the price and cost impacts of current labour supply constraints and competition for resources limit positive economic outcomes/economic growth opportunities. For example, research undertaken as part of EDRC<sup>8,9</sup> suggests that rolling out loft and cavity wall insulation in as many households living in fuel poverty as a £9 billion pot allows, will lead to demand for 13,000 new jobs in the construction sector by 2030. Without adequate policy action to develop the necessary workforce, this could lead to a triggering of pressures on the cost of living and doing business.

#### **1.3 Planning and sequencing of projects**

Steady action on energy efficiency projects over a sustained period smooths out the labour requirements and the wider economic impacts.<sup>10</sup> This will be particularly important given the number and scale of different net zero projects taking place at the same time and competing for resources such as labour, which could drive up the cost of the overall net zero bill unnecessarily.<sup>11</sup>

## **1.4 Decisions on who pays**

Our recent research has shown that funding retrofitting programmes through public spending as opposed to households covering the cost could have more positive economy-wide outcomes.<sup>12</sup> Previous research shows that across the duration of a long-term 15-year large scale energy efficiency programme, the provision of grant finance could enable GDP gains up to twice as large as they would be under any private spending approach.<sup>13</sup>

## **1.5 Reducing the complexity of funding schemes**

Ensuring the accessibility of funding schemes, particularly for vulnerable households who are likely to benefit most, is critical. Our research<sup>14</sup>, highlights a lack of awareness of the schemes which are perceived as involving difficult and lengthy processes with a stigma attached to applying.

## **Q2. How will the public afford the switch to low carbon heating?**

### **2.1 Targeting support at low-income households.**

Our analysis<sup>15</sup> as part of the UKERC programme suggests that high energy prices could erode GDP, triggered by a drop in public spending due to cost-of-living pressures. Low-income households are likely to be hit hardest. Research<sup>16</sup> shows that the 20% of UK households on the lowest incomes are being hit by a 50% larger increase in the cost of the average basket of goods and services due to rising electricity and gas prices, and the higher proportion of their income that they spend on energy and food. Moreover, this effect is spreading beyond those on the lowest-incomes, with our results suggesting that 40% of UK households are facing cost-of-living increases at least 25% higher than the UK average in 2023.

If households are expected to cover the costs of energy efficiency schemes, our research suggests that disposable incomes could be reduced, and the greatest impacts of this felt by those on the lowest incomes. Therefore, consideration should be given to targeting grant financing at supporting retrofitting for the lowest-income households.<sup>17</sup>

Analysis undertaken as part of EDRC highlights that by focusing public spending on supporting a programme of retrofitting for those households living in fuel poverty, the right long-term policy signals could be put in place to encourage industry to expand and develop the necessary supply chains and the private sector to commit funding that could enable a wider rollout covering all households.<sup>18 19</sup>

### **2.2 Determining energy prices**

CEP's work<sup>20</sup> as part of the UKERC programme looking at the widespread rollout of heat pumps in the UK underscores the need to reduce the price of electricity relative to gas to maximise the potential economic gains and ensure bill savings. Our analysis found that there is a breakeven point in the price difference ratio of electricity to gas, and anything higher erodes the effects that the energy savings from using heat pumps have on households' energy bills, real income gains and spending power.

## **Q4. How can we equip the workforce with the skills required to upgrade UK homes?**

### **4.1 Understanding demand and displacement**

As highlighted in 1.1 and 1.2, the rollout of energy efficiency schemes could create significant levels of jobs and will lead to demand for jobs in particular sectors such as construction. Moreover, our research within the UKERC programme on a heat pump rollout suggests that this activity could support job creation and income boosts in the regions where

construction and manufacturing activities are concentrated. Although, this analysis also suggests that employment gains from heat pump installation programmes could favour southern regions. It also highlights the potential for job losses in sectors such as finance and hospitality due to wage pressures from increased labour demand in manufacturing and construction.<sup>21</sup> Understanding the timing and location of demand, as well as displacement will be key to investing in, designing and implementing policies to develop the necessary skilled workforce.

## References

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