



# Insulation Nation

The roadmap to a future of affordable energy bills

**citizens  
advice**

# Introduction

**Gas prices have risen to unprecedented levels, making energy bills increasingly unaffordable. With little end in sight, we need to make sure households are protected against continuing volatility in the gas market.**

War in the Ukraine and global pressures on the gas markets led to August gas prices peaking at 20 times higher than the same day in 2020<sup>1</sup>. Predictions suggest prices could remain high for the next few years and households are bearing the brunt. Our research indicates that the average consumer will only have around £200 left for unexpected expenses after accounting for additional energy costs<sup>2</sup>. The government has announced plans to freeze average energy costs at £2,500 for the next 2 years, at an estimated cost of £130 billion. While this is essential support for consumers struggling through the cost of living crisis this winter, it does little to prevent us being in the same position in winters to come.

**Consumers in the UK use more gas for heating their homes than almost all other countries in Western Europe<sup>3</sup>.** This has left the UK particularly exposed to fluctuating gas prices, and has significantly contributed to economy-wide inflation. To protect households from the knock-on effects of future price hikes we need to drastically improve the energy efficiency of our homes.

Years of low home insulation rates have left us ill-prepared for a winter of high energy prices. Successive energy efficiency policies have failed to enable people to invest in energy efficiency in their homes. **Making our homes more energy efficient has never been more crucial, with those in the least efficient homes able to save nearly £950 a year<sup>4</sup>.** Insulating homes will be essential to prevent the government from needing to subsidise bills for winters to come.

**This report will outline how households across England and Wales can benefit from energy efficiency measures and weather the cost of living crisis. \***



\*Energy efficiency policy in Scotland is devolved.

# Recommendations

## We need a response that is proportionate to the scale of the problem to protect households from future decades of inflated bills.

The government should implement a Great British Energy Efficiency scheme to rapidly upgrade the least efficient homes, and protect households from the instability of global gas markets.

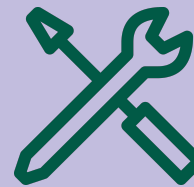
If all homes were upgraded to EPC C this would save UK households nearly £8.1 billion a year at current prices, and continue to save households money for decades to come<sup>5</sup>. Acting now to improve will protect consumers from future gas price volatility and reduce the need for further crisis payments.

As households continue to struggle with the cost of living crisis, the upfront costs of insulation and other energy efficiency measures have become unaffordable for many. For those who don't qualify for existing schemes, there is little help available. A scheme of grants and partial subsidies would remove this barrier and help bring our leaky homes up to scratch.

Increasing the energy efficiency of homes would save those in the least efficient properties over £950 per year<sup>6</sup> as well as reduce national fuel consumption and the amounts borrowed to make up the difference between the £2,500 price cap and actual energy costs.



**£8.1 billion** savings per year if all homes were EPC C<sup>7</sup>



**£3,800** average investment required to bring draughty homes up to government target EPC C<sup>8</sup>



**£951** household savings per year by increasing the energy efficiency of the leakiest homes<sup>9</sup>

# Energy costs are spiralling out of control

## The UK's reliance on gas has left households exposed to volatility in global markets

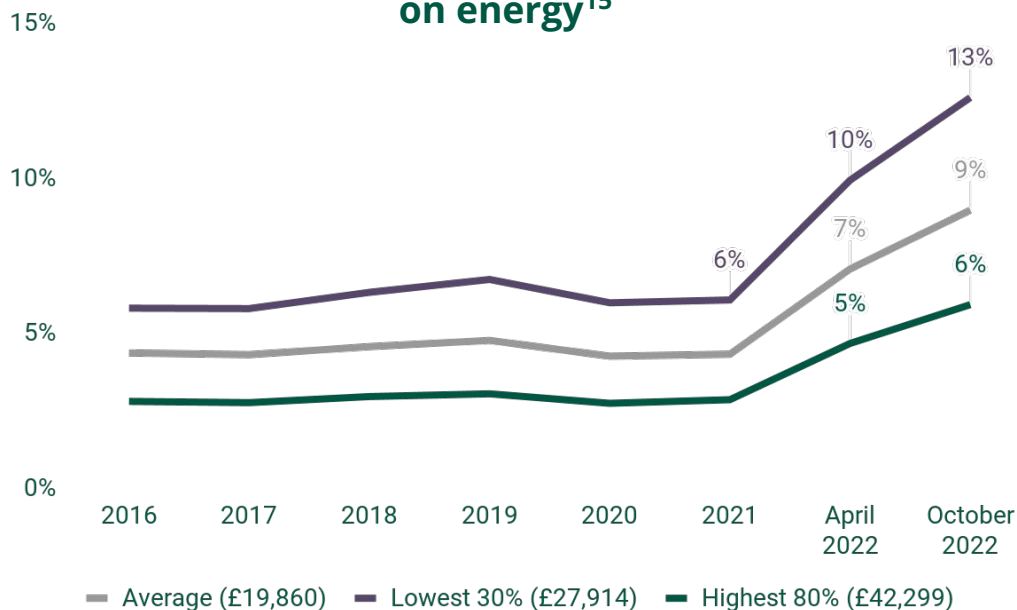
Homes in the UK lose heat nearly 3 times faster than homes in other parts of Europe<sup>10</sup>. This has left the UK particularly exposed to the fluctuating gas prices brought about by the war in Ukraine. With wholesale energy prices predicted to remain high until at least mid-2024 and beyond<sup>11</sup>, this has significant implications not only for energy bills but also for inflation, which is predicted to reach up to 14% this year before starting to come down<sup>12</sup>.

## The risk of fuel poverty is increasing

The increase in bills to the £2,500 price cap could see half the population spending 9% of their disposable income on energy bills, with those in the bottom 30% of earners spending 13%<sup>13</sup>. In reality, this means many will be making difficult choices between heating and eating.

Even at the current price cap of £1,971 energy costs are still unaffordable for many, with almost 1 in 10 (9%) unable to afford their energy costs without cutting back elsewhere or falling behind on other bills<sup>14</sup>.

## Percentage of annual household income spent on energy<sup>15</sup>



### Olivia's story\*

"I got paid on the 23rd April and 2 days later I had nothing left, after all my bills had gone out and the food shopping. I had to wait until the following week when my PIP came in, which I'm not supposed to do, to top up the food shopping. In effect it's a backward cycle. I'm having to be really tight. "

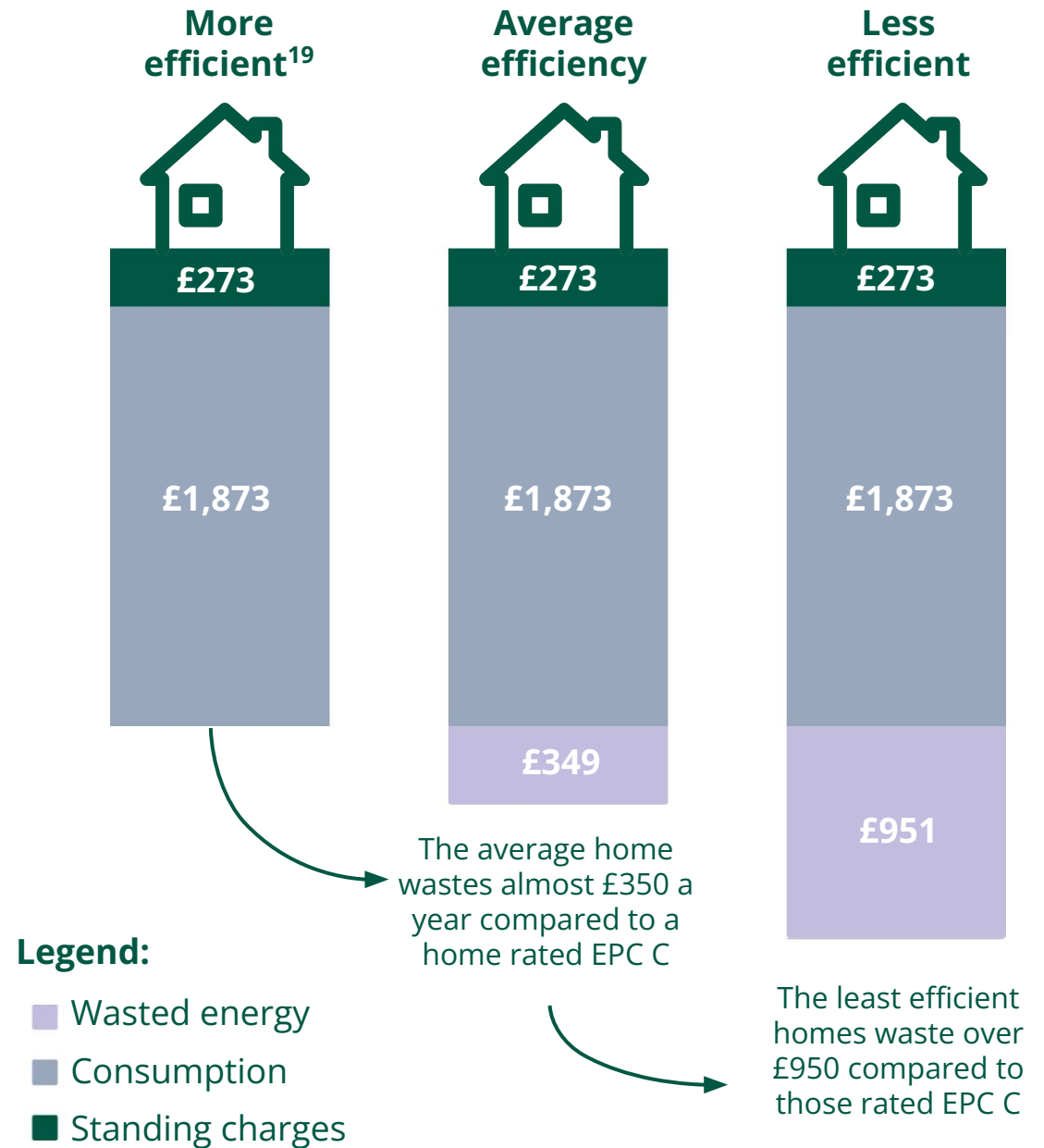
# Leaky homes are wasting money

## The UK's poorly insulated, leaky homes are exacerbating the problem of rising gas prices

A significant contributing factor to the UK's current energy crisis is the inefficiency of our homes. This means that a substantial proportion of the energy consumers use for heating escapes through their walls, roofs and windows.

As energy prices continue to increase the savings that can be made become even greater. **The average home pays almost £350 a year in an 'inefficiency penalty'**<sup>16</sup>. Those in the worst insulated homes could be spending over £900 too much, representing 31% of their annual energy bill<sup>17</sup>. As energy prices continue to increase, the savings that can be made become even more substantial, and pay-off periods will be far quicker.

For example, the inefficiency penalty for the average home has increased by £90 from £261 under the April 2022 price cap of £1971, and for those in the least efficient homes by more than £270 from £727<sup>18</sup>.





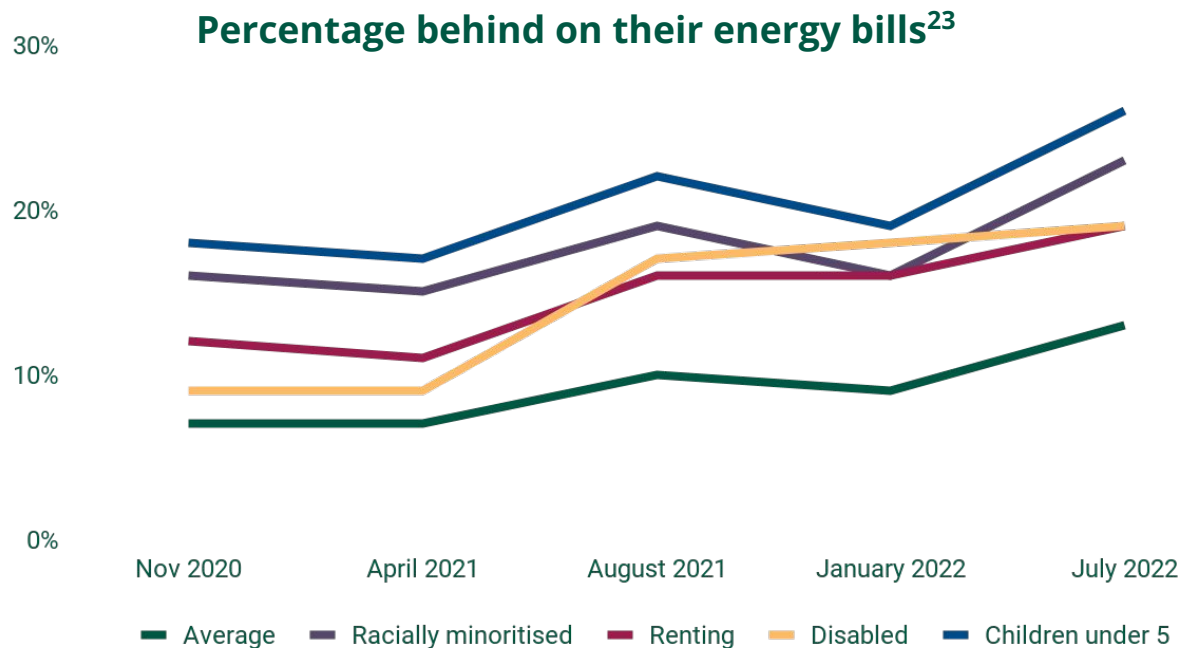
# Some are harder hit than others

## While over 9 in 10 homeowners are concerned about their energy costs<sup>20</sup> some groups are being particularly affected by rising costs

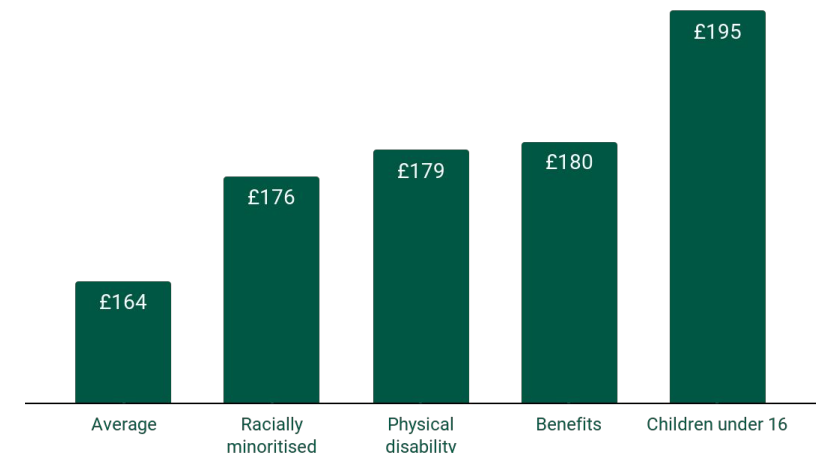
Our research found that 45% of disabled people are already cutting back or stopping spending on energy after the April price increases, compared to 37% of those without a disability or long-term health condition<sup>21</sup>. This has serious health and wellbeing implications as many disabled people have higher energy use, as they may need electrical equipment to help manage their condition or need to make sure their house is warmer.

While some have attempted to reduce costs by rationing their energy, many have no option but to forgo payment. The number of those in debt is rising, with 1 in 4 consumers with young children now behind on their energy bills, an almost 50% increase on the numbers in November 2020<sup>22</sup>.

So while a price cap freeze is essential to support households through this winter and beyond, for many bills will remain unaffordable, despite the government's £37 billion targeted cost of living package. We will need additional interventions to bring down bills in the long term as well as temporary financial support.




### Monthly energy costs, August 2022<sup>24</sup>





# The scale of the problem

## The majority of people around England and Wales are living in energy inefficient homes

The government aims to have as many homes as possible with an energy performance rating of C or above by 2035. However, our research suggests that almost two thirds (60%) of homes, across England and Wales are currently failing to meet this standard<sup>25</sup>. There are several contributing factors to the poor energy efficiency of our homes:

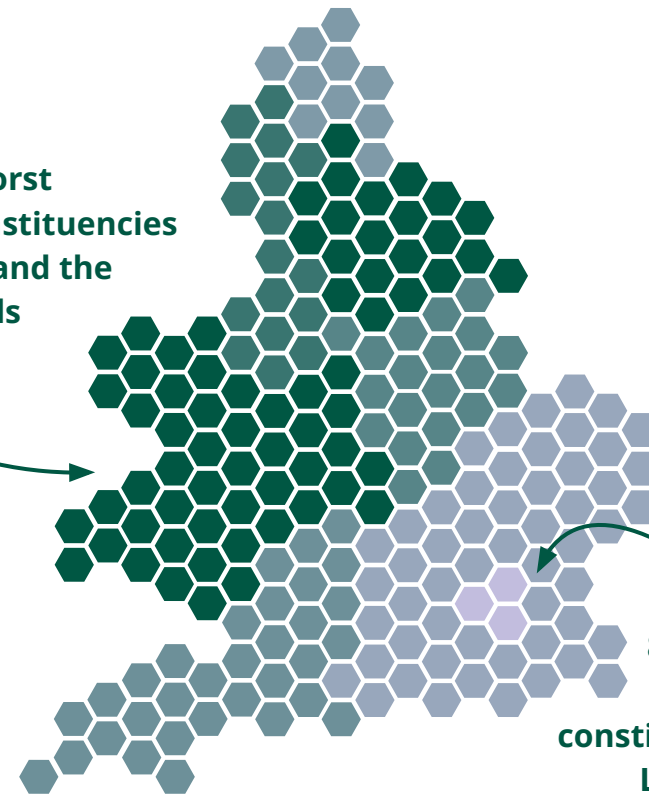
 **Old housing stock with low turnover.** Over 1 in 10 (11%) homes in England and Wales were built before 1900<sup>26</sup> and low turnover means that 80% of the buildings we will use in 2050 have already been built<sup>27</sup>.

 **Low rates of construction** mean fewer efficient homes. 98% of homes built after 2012 have an EPC of C or above, compared to the average figure of 40%<sup>28</sup>.

 **Cutting back energy efficiency schemes** in 2013 led to a significant decrease in the number of lofts and walls being insulated. Levels of installations have never recovered<sup>29</sup>.

Poor energy efficiency is wasting consumers' money, as inefficient properties require more energy to heat up and keep warm, at a total of nearly £8.1 billion a year<sup>30</sup>.

6 of the 10 worst insulated constituencies are in Wales and the West Midlands



8 of the 10 best insulated constituencies are in London and the South East

Homes with an EPC rating below C <sup>31</sup>			
Wales	63%	South West	59%
West Midlands	63%	North East	58%
Yorkshire and The Humber	63%	East of England	57%
North West	61%	South East	57%
East Midlands	60%	London	55%

# The solution is better energy efficiency

## Consumers are caught between a rock and a hard place. They can't afford their energy bills or the improvements necessary to reduce them.

Even with energy prices capped to £2,500 for average usage many consumers will still be struggling to pay their bills. The government's intervention protects consumers from further price rises, but it doesn't address key contributing factors to the current crisis - our reliance on gas and the amount of energy wasted due to leaky, inefficient homes.

Increasing the energy efficiency of our homes reduces energy consumption and therefore reduces exposure to volatile global gas prices. The average EPC rating in England and Wales is D, with homes in this bracket wasting almost £350 per year due to poor energy efficiency<sup>32</sup>.

Almost half (44%) of homeowners are actively considering improving the energy efficiency of their homes. For those who are not considering changes, upfront cost is the main reason<sup>33</sup>.

The average cost to upgrade homes to an acceptable level is estimated to be £3,800<sup>34</sup> which is already unaffordable for many. Almost 1 in 4 (23%) of homeowners have £1,000 or less in savings<sup>35</sup>. And for those living in harder to treat homes, such as those with solid walls, costs could be significantly higher.



Almost two thirds (62%) of homes in England and Wales are classed as high heat demand, meaning they could benefit from additional insulation<sup>36</sup>.



Over 1 in 10 (11%) homes in England and Wales were built before 1900 and are likely to have solid walls. These homes may require additional permissions to alter and be costly to treat<sup>37</sup>.



1 in 4 homes in the North West and North East have low efficiency ratings and are located in deprived areas, meaning households may require additional support to fund works<sup>38</sup>.



## Cost of energy efficiency measures<sup>39</sup>

<b>Draught proofing</b>	£225
<b>Loft insulation</b>	£530
<b>Cavity wall insulation</b>	£1,200
<b>Floor insulation</b>	£1,300 to £2,700
<b>Double glazing</b>	£7,500
<b>Solid wall insulation</b>	£10,000 to £14,000



# Existing support is not sufficient

## Awareness of energy efficiency schemes is low and many are being left behind

There are a number of existing energy efficiency schemes, but awareness is poor. Almost two thirds (64%) of homeowners had not heard of the Energy Company Obligation (ECO) scheme<sup>40</sup>. And in Wales, 41% of homeowners had not heard of the Nest scheme<sup>41</sup>. Of homeowners that had heard of ECO almost three quarters (74%) of those on benefits either didn't know whether they were eligible or incorrectly stated that they weren't eligible<sup>42</sup>. This means thousands of households are unaware of, and missing out on, available support.

ECO was devised for those on the lowest incomes, but with the cost of living crisis shrinking household budgets, those who aren't eligible have little available support. The Boiler Upgrade Scheme (BUS) requires significant up-front investment, and even with the temporary removal of VAT, other energy efficiency measures remain out of reach of many.

There is public approval for additional support. 49% consumers believe that people struggling with their energy bills should get free insulation measures<sup>43</sup>. And 1 in 2 consumers believe that the UK government is responsible for improving the efficiency of poorly insulated homes<sup>44</sup>.

## Energy efficiency schemes and regulations in England & Wales by housing tenure:

	Private renters		Homeowners		Social housing	
	Benefits	No benefits	Benefits	No benefits	Benefits	No benefits
ECO	✓	×	✓	×	✓	×
Boiler Upgrade Scheme	×	×	✓	✓	×	×
Minimum Energy Efficiency Standards	✓	✓	×	×	✓	✓
Social Housing Decarbonisation Fund	×	×	×	×	✓	✓

# Lessons learned

## Any new energy efficiency scheme should learn lessons from past mistakes

The last large-scale government energy efficiency scheme, the Green Homes Grant, was scrapped after being widely criticised as a failure<sup>45</sup>. Only 47,500 homes were treated out of a planned 600,000<sup>46</sup>. There were 3 key reasons for its failure:

### Too complicated and unrealistic timetables

The Green Homes Grant scheme was rushed out to unrealistic timetables, with only 12 weeks to implement the scheme. The design of the scheme was complicated and required consumers to find their own installers, which led to many poor experiences. By the time it closed, 52% of homeowners had their vouchers rejected or withdrawn, and 48% of installer applications had failed<sup>47</sup>.



### 'Boom and bust'

Despite warnings, the quick ramping up and abrupt closing down of the Green Homes Grant followed a similar pattern to previous schemes<sup>48</sup>. Installers reported having to make redundancies<sup>49</sup> and it created mistrust in the industry for consumers, even among those who had not even considered using the scheme<sup>50</sup>.



### Scams

Like the Green Deal before it, the Green Homes Grant was marred by scams. The biggest issue related to the scheme dealt with by our Consumer Service was concern about being scammed<sup>51</sup>. Rogue traders took advantage of people's confusion, offering to make grant applications on their behalf (with costly upfront payments) or promising free gas boilers along with insulation.



# Principles for an energy efficiency scheme

In 2020, we outlined how learnings from previous schemes can inform future energy efficiency programmes<sup>52</sup>. Building on this with consumer research and client insights, we have highlighted 4 principles for the next much-needed energy efficiency scheme:



## Simple

Overly complicated schemes cause problems, and can lead to consumers dropping out of the process. Strong central oversight helps cut complexity, making it easy for consumers to access the scheme, get advice about their options, as well as provide simple routes to redress if something goes wrong.



## Engaged

Consumer awareness is key to success. Awareness-raising campaigns help make sure as many people benefit from measures as possible. Design of the campaign must also take into account different ways of getting to hard-to-reach groups, such as the digitally excluded and those with English as a second language.



## Supported

Consumers will need to be supported to make the necessary changes to their homes. Part of this is financial support for those who are not able to meet the upfront costs. This should be provided alongside a comprehensive advice offer and strong consumer protections as outlined in our report 'The Net Zero Protections Puzzle'<sup>53</sup>.



## Sustainable

Long term policy support gives consumers the confidence to engage, as well as encouraging reputable businesses to invest and grow the market to meet demand. Funding must be set at a sustainable level that can be maintained throughout the lifetime of the policy to ensure a widespread consumer benefit.

# A Great British Energy Efficiency scheme

## A bold, long-term, strategy is needed to protect consumers from sky-high energy bills

The government has already committed to spend £130 billion to freeze the price cap at an average £2,500 for the next 18 months. Whilst it is uncertain how long this gas crisis will last, a long term approach to tackling energy demand and improving the country's energy security is essential to avoid expensive annual top-ups for households and businesses.

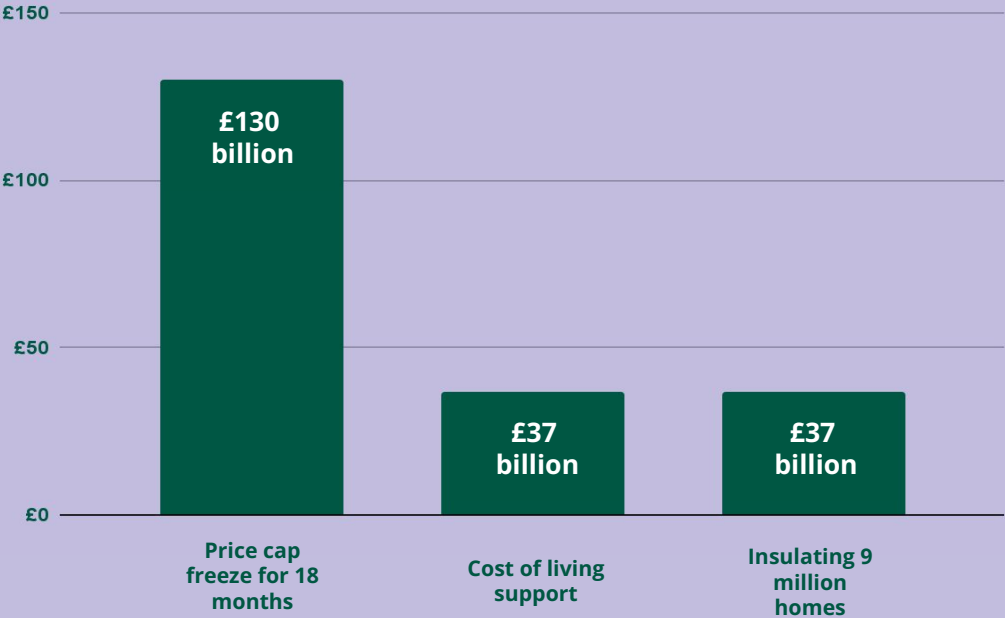
The government should implement a Great British Energy Efficiency scheme to provide the financial support necessary to rapidly upgrade the least efficient homes.

Homes upgraded to an EPC C can expect, at current prices, to save over £900 per year per household as well as staying warmer in winter and cooler in summer<sup>54</sup>. Nationally this reduction in costs would equate to an annual saving of £8.1 billion per year<sup>55</sup>.

The scheme should deliver fully funded grants up to £10,000 to improve the energy efficiency of those on the lowest incomes in the leakiest homes. Partial grants should then be awarded on the basis of a sliding scale according to household income. This would take into account the wide impact that unprecedented energy price rises are having on different groups.

If the government matched the funding of its cost of living support (£37 billion), it could upgrade nearly one third of the UK's homes over the next few years, protecting millions from years of high energy bills<sup>56</sup>.

Cost of different energy cost support options, £'s billion<sup>57</sup>

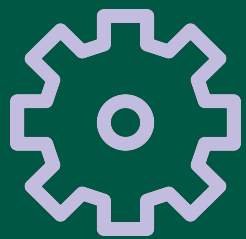


# Building a sustainable energy efficiency market

A Great British Energy Efficiency scheme would help grow the retrofit market to meet the challenge of helping people future proof their homes and improve the nation's energy security. Grants could provide the market stimulus necessary to develop accessible financial products to support households outside of the eligible groups.

There are also opportunities to scale up existing energy efficiency schemes, including ECO, through widening the eligibility criteria to more households. This would be easier to implement, in the short term, as the delivery structures are already in place, and would provide a boost to demand for energy efficiency, enabling supply chains to expand.

The energy efficiency market has been in decline for the last decade. Supply chains will need long term guarantees to have the confidence necessary to invest and expand their capacity to meet the demand needed to upgrade all our homes. The stimulus provided by a Great British Energy Efficiency Scheme would create a robust market where more people are supported to invest in upgrading their inefficient homes, reducing bills, and making them more comfortable, through different financing options.



The energy market of today is unrecognizable from the same market less than two years ago. Due to record wholesale energy prices, the government has announced an unprecedented intervention to cap prices to help people weather the current storm.

Turbulence in the energy market is expected to continue and we need a clear strategy that will improve the energy efficiency of our homes, increase the nation's energy security and support households struggling with the cost of living crisis.

People need help to make these changes to their homes. A Great British Energy Efficiency Scheme would provide the necessary support for households to retrofit their homes and help the public do their part to address the UK's energy crisis.

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