



FILLING THE GAP: TRANSFORMING ENERGY EFFICIENCY IN BRITAIN'S HOMES

© Ewelina W / Shutterstock



Accelerating solutions together to fight climate change

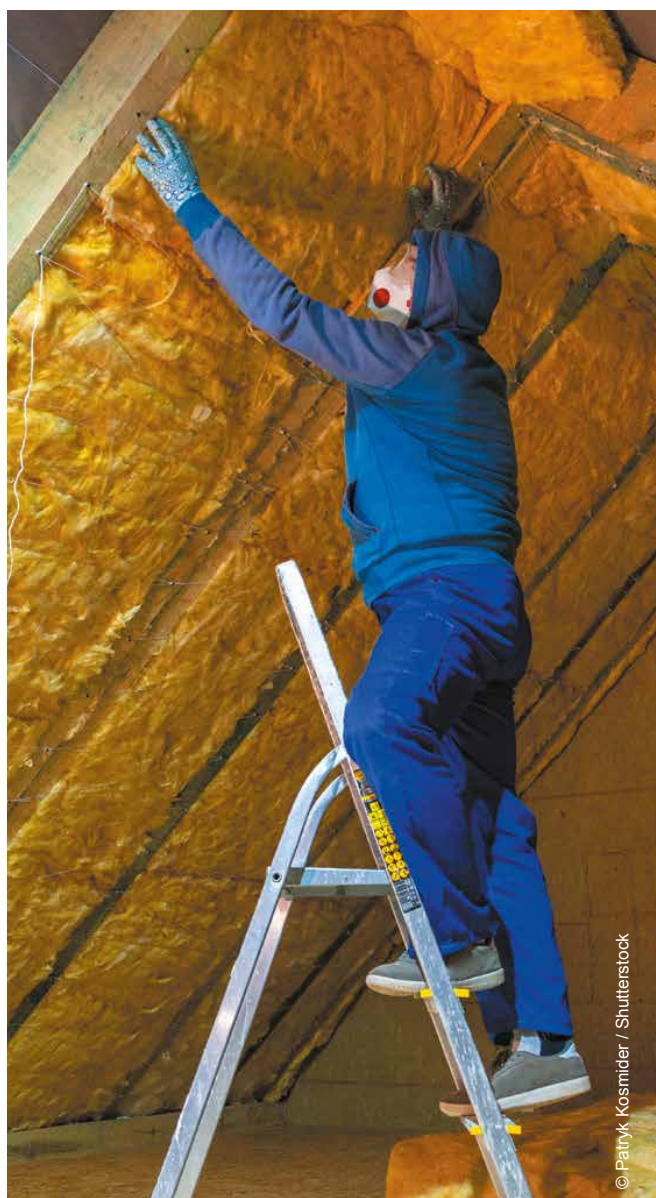
HELPING HOUSEHOLDS TACKLE ENERGY BILL PRESSURES

Concern about the cost-of-living continues and, despite energy wholesale prices falling, average energy bills are still forecast to be much higher than before the global energy crisis. Indeed, according to some estimates, energy bills for a typical household in the upcoming period are expected to be nearly twice the rate seen in the years before 2021. The best way to address this cost challenge over time is to transform our energy system into one based on cheaper low carbon power, through homegrown renewable generation such as offshore wind, onshore wind and solar, in order to end the country's over-dependence on more expensive fossil fuels. At the same time, we can do more to improve the energy efficiency of homes in Britain, saving costs on energy bills and increasing home comfort. As well as measures like loft and cavity wall insulation, this includes installing low carbon technologies such as solar panels and heat pumps, both of which are proven technologies capable of reducing a home's overall energy demand.

AT THE TIME OF THE 2022 AUTUMN STATEMENT, THE GOVERNMENT SET OUT A LONG-TERM AMBITION TO REDUCE THE UK'S FINAL ENERGY CONSUMPTION FROM BUILDINGS AND INDUSTRY BY 15% BY 2030 (MEASURED AGAINST 2021 LEVELS)

As part of our ongoing partnership to promote the public policy debate, **ScottishPower and WWF-UK commissioned Frontier Economics to assess how far current policies and plans might take us in meeting the Government's 15% energy efficiency goal in the domestic housing sector, and to look at what additional policies might be needed to complete the journey.**

This indicative analysis from Frontier Economics, including further information on the methodology used, can be found [here](#) and we highlight some key findings in this pamphlet.



© Patryk Kosmider / Shutterstock

ASSESSING THE ENERGY EFFICIENCY “DELIVERY GAP”

In its 2021 Heat and Buildings Strategy, the Government recognised that households can benefit significantly from taking steps to improve the energy efficiency of their homes; and it has put in place important schemes to promote energy efficiency such as ECO4, the Home Upgrade Grant and the Social Housing Decarbonisation Fund, as well as the Boiler Upgrade Scheme to promote the uptake of heat pump installations in households.

With the launch of the Great British Insulation Scheme, which runs until March 2026, the Government has taken further steps in recognising the key role that energy efficiency improvements can play. The 2022 Autumn Statement also committed to investing an additional £6 billion in schemes aimed at promoting energy efficiency improvements between 2025 and 2028.

In their analysis, Frontier Economics estimated the scale of deployment of energy efficiency measures (such as home insulation, the installation of heat pumps and, in some circumstances, household connections to heat networks) needed to meet the 15% reduction in consumption target, with a focus on the residential buildings sector in Britain. The analysis also estimated the kind of deployment needed to meet a more ambitious 20% reduction target by 2030.

Frontier Economics then considered the existing policy landscape and how far delivery under the current suite of policies and plans would enable Britain’s housing stock to meet the respective 15% and 20% targets. This enables the “gap” between projected delivery under existing policies and plans to be estimated and, in light of this, the Frontier report sets out some high-level thoughts on the kind of additional policies needed to “fill the gap”.

There are a number of different pathways to meeting the 15% and 20% targets, based on different mixes of technology installations and home fabric improvements. The Frontier Economics analysis uses the technology deployment associated with the Climate Change Committee’s ‘Net Zero

Balanced Pathway’, set out in its recent advice to the Government, and then scales this to provide an illustrative pathway under the 15% and 20% targets*.

**THE FRONTIER ECONOMICS ANALYSIS
FOUND THAT THERE IS A SIGNIFICANT
DELIVERY GAP TO REACHING THE
15% TARGET, AS WELL AS THE
20% STRETCH TARGET**

There is a significant delivery gap even on the assumption that all policies currently in place (“committed policies”), as well as those in the pipeline (“planned policies”), are fully implemented and deliver as intended. The analysis also assumes that the full £6 billion announced for energy efficiency policies between 2025-28 in the 2022 Autumn Statement is allocated to improving the energy efficiency of the domestic building stock, rather than being used in other policy areas such as the non-domestic sector or the public sector. These are two very important assumptions to note.



* The analysis done by Frontier Economics is focussed on estimating the delivery gap in meeting these energy consumption targets for 2030. However, it is worth noting that the 20% stretch target is closely aligned to the overall projected deployment under the Climate Change Committee’s Net Zero Balanced Pathway, which is designed to be a cost-effective pathway for decarbonising Britain’s homes in a way that is consistent with meeting the Net Zero target for carbon emissions by 2050.

THE SCALE OF THE “DELIVERY GAP”

The two charts below illustrate the scale of this “delivery gap” under the two energy consumption reduction targets for 2030. **Figure 1** shows the “gap” to meeting the 15% target, once committed and planned policies are taken into account. **Figure 2** shows the level of the gap under a 20% stretch target.

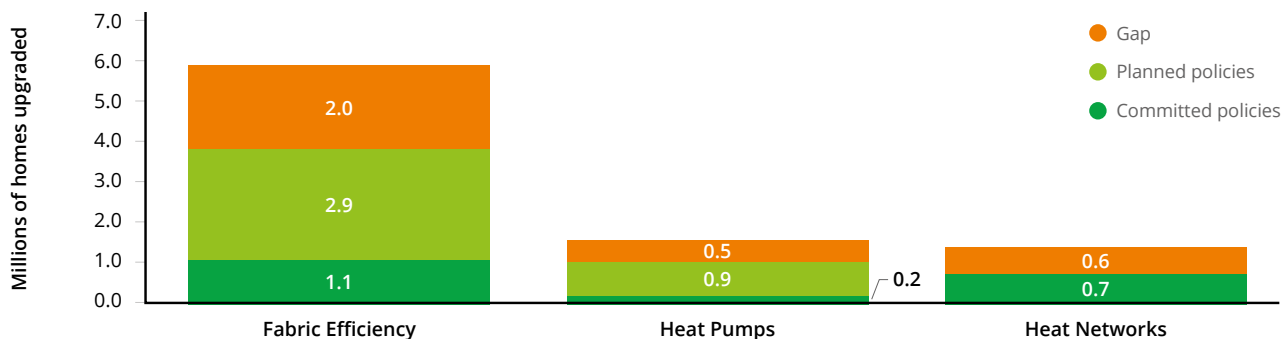


Figure 1 - Gap relative to committed and planned policies (15% target)

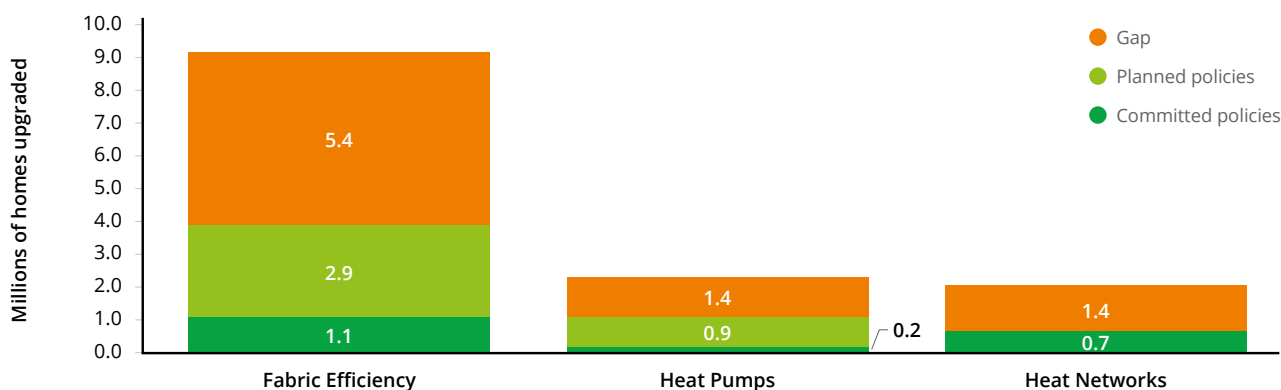


Figure 2 - Gap relative to committed and planned policies (20% target)

Any differences between values shown in these charts and values in the Frontier Economics report are as a result of rounding.

Frontier Economics also analysed the deployment gap relative to individual energy efficiency measures. This shows that taking into account both ‘committed’ and ‘planned’ policies, there are gaps in meeting the 15% target across all measure types, most notably in the deployment of loft insulation (3.4 million installations) and floor insulation (1.2 million installations). The analysis also showed that the category of ‘planned’ policies are responsible for driving substantial deployment of a number of key measures such as solid wall insulation and air source heat pumps.

THE “POLICY GAP”: ADDITIONAL POLICIES NEEDED TO MEET THE TARGETS

This Frontier Economics report is the first major “gap analysis” to determine the scale of energy efficiency measures needed this decade to meet the Government’s new 15% energy demand reduction target (and a 20% stretch target) in the residential housing sector by 2030. Frontier Economics relate this to an assessment of the kind of policies needed over time to get on track with closing the gap. There is a strong focus in this “policy gap” analysis on options that can be delivered at pace, by building on existing tried and tested policies. Drawing on the Frontier Economics analysis, we highlight some key policy perspectives below.

SIX KEY PERSPECTIVES ON SCALING UP POLICIES TO MEET THE “POLICY GAP”:

PROMOTING ENERGY EFFICIENCY IMPROVEMENTS

1 SCALING UP DELIVERY

With most of the Government’s current energy efficiency support schemes for households ending in 2025/26, there is a need to start planning the scaling up of support for households in additional waves of schemes such as the Energy Company Obligation (ECO) and the new Great British Insulation Scheme (GBIS). The Government should start planning now for a new and bigger single integrated scheme, which will step up the scale of delivery compared to existing schemes. Indeed, the Government should also look at ways of scaling up existing schemes, such as the GBIS, in the later years of this scheme, for instance in 2024/25 and 2025/26.

2 TARGETED GOVERNMENT FUNDING

The Government should allocate public funding for this scale-up from the already announced £6 billion of investment in energy efficiency schemes for 2025-28. Shifting the funding of such energy efficiency schemes from consumer bills to public funding over time will help avoid these costs falling on energy bills and reduce the negative, regressive impacts of such a funding approach. This is consistent with recognising the need to deliver energy efficiency improvements in communities across the country as a major infrastructure investment challenge for this decade.

3 CONSUMER ADVICE AND GREEN FINANCE

The Frontier Economics report highlights the important role of the provision of consumer advice and support regarding energy saving measures, which will be vital in helping to drive uptake. This was an important theme of the report that ScottishPower and WWF published last year, *‘Better Homes, Cooler Planet’*. Likewise, the Government should continue to support the development of green finance products that expand the current market.

PROMOTING THE UPTAKE OF HEAT PUMPS

4 BOOSTING SUPPORT TO HOUSEHOLDS FOR HEAT PUMPS

It will be important to look at how to scale up funding support for households wanting to install heat pumps under initiatives such as the Boiler Upgrade Scheme and the Home Upgrade Grant. In this context, there is a particular need to look at how to ensure that those on low incomes are sufficiently supported, especially in off-gas grid locations where heat pumps can be a good alternative to fossil fuel boilers using oil. The Government has already announced that it plans to use some of the £6 billion public funding for energy efficiency schemes for 2025-28 to extend the Boiler Upgrade Scheme, but further detail is needed on this, while the Government should also consider how it might improve the support available before then.

5 REBALANCING POLICY COSTS FROM ELECTRICITY TO GAS

Over time, and as we move beyond the worst of the current global energy price crisis, the Government needs to take steps to re-balance policy costs between electricity and gas, so as to address current distortions and improve the relative running costs of heat pump technologies versus traditional fossil fuel boilers.

6 GROWING THE HEAT PUMP INDUSTRY

Government should set an ambitious future trajectory for the new Clean Heat Market Mechanism. The Mechanism will require boiler manufacturers to scale up their output of heat pumps over time, thereby reducing product costs through economies of scale, innovation, and learnings.

FINAL THOUGHTS

By setting a long-term target for significantly reducing energy consumption in the housing sector by 2030, the Government has, rightly, recognised the importance of energy efficiency improvements in saving energy bill costs for households, whilst reducing carbon emissions. However, the analysis from Frontier Economics shows that there is a need for the Government to significantly step up its plans to accelerate the delivery of such improvements to get on track with meeting its ambition.

In making progress, the Government also needs to follow through on plans and policies in the pipeline which have not yet been implemented. A number of plans trailed in the Government's Heat and Buildings Strategy have seen slow progress and there is a risk of steps forward being postponed.

For example, a key theme the Frontier Economics report highlights is the important role for targeted and proportionate smart regulation in driving progress in delivering energy efficiency improvements, particularly with regards to the private rented sector. In this context, the Government and the Devolved Administrations have already consulted on plans for strengthening minimum energy efficiency standards in the private rented sector, but there is currently limited visibility on a future implementation plan for taking this forward (with appropriate incentives or support as needed). The gap analysis from Frontier Economics identifies policy in this area as a key driver of progress; if plans are not delivered upon then the delivery gap will grow even wider.

Now is the time to drive forward a transformation in the energy efficiency of Britain's homes.

