Energy efficiency and clean heat are a triple-win for energy security, climate goals and fuel poverty targets. The UK has recognised this but needs to ramp up nationwide delivery. With the right set of signals and investments, the UK can move ahead in the global race for green industries and technologies. Levelling up unequal access to support, skills, and subsidies is key.

The Spring Budget is an opportunity to smooth the path for energy efficiency and heat pumps at scale. The government can provide confidence and address key issues that currently make access to warm, healthy homes a postcode lottery. Key recommendations include:

> A ten-year funding and policy pledge for climate and fuel poverty targets, fulfilling the outstanding £2.1bn Conservative Manifesto pledges and addressing the climate investment gap.

> Replace competitive funding mechanisms with fair distribution and availability of public investment in energy efficiency and clean heat across the whole country.

> Cross-departmental efforts to ensure effective delivery of retrofit schemes, pragmatically navigating the barriers holding back action at scale.

> Level up access to supply chains and consumer support – with an emphasis on skills and training, consumer awareness and advice.

> Support new financing options and incentives, including through the UK Infrastructure Bank and tax incentives like Stamp Duty.
Long-term commitments to underpin green growth

Decarbonising our inefficient buildings is essential for bringing down energy bills and inflation and meeting statutory climate and fuel poverty targets, as well as the new target to reduce energy demand by 15% by 2030. In the global race to spur investment in clean industries, the UK can gain a competitive edge through ramping up long-term support for this vital sector by providing the right set of policies and economic incentives. Getting on track requires scaling up action by industry, households and local bodies. Years of boom–bust policy making have left the supply chain decimated, industry cautious of investing, and households confused by the plethora of often short-lived schemes.

The Net Zero Review highlighted the need for long-term climate investment, and emphasised that “clarity, certainty, and consistency” is needed to unlock private investment and jobs.¹ Major industry groups have echoed this, including the CBI, who warn that the UK risks falling behind as the US and EU race ahead.² Labour has made a long-term commitment to invest £6bn per year on retrofit. The Conservative Chancellor announced £6bn between 2025 and 2028 in the 2022 Autumn Statement, but more clarity is needed on how this will break down.

Currently, the UK is underinvesting in green homes and the supply chains needed to deliver them. Strong foundations need to be set in stone this parliament to scale up the market for the long-term, to get on track to plug the climate investment gap.

The 2019 Manifesto pledged a total of £9.2bn to 2030, of which £6.6bn is due this parliament. Over £2.1bn of public investment promised in the Conservative manifesto for energy efficiency and heat decarbonisation this parliament remains unallocated (Figure 1, next page).

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¹ UK Government, 2023, Mission Zero Independent Review
² CBI, 2023, Green Growth: The UK is falling behind
These commitments are welcome and should be fulfilled, but more is needed to get on track for carbon budgets set out by the Climate Change Committee. The Energy Efficiency Infrastructure Group previously found that this parliament will require public investment of £12.7bn for energy efficiency and £5.1bn for heat pumps. E3G calculations show that existing commitments fall short by £8.58bn (Figure 2, next page) if the UK was to get on track for climate targets.

While recognising the delivery challenges associated with rapidly scaling supply chains, this multi-billion figure represents the scale of the challenge associated with getting on track for the UK’s statutory climate and fuel poverty targets.

In Table 1 (next page), we suggest increases to the UK’s major retrofit programmes, and an additional investment of nearly £3bn in soft incentives in the form of concessional loans, tax incentives and stamp duty rebates to stimulate the market. These should be complemented by regulations and policies to support the take-up of energy efficiency improvements and clean heat technologies across different housing tenures.

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3 E3G, 2021, *Investing in British homes and communities*

4 See the Annex to this briefing for full costings and sources.
Figure 2. An additional £8.67bn for home decarbonisation is needed this parliament to meet the UK’s carbon budgets.

Table 1. Spending for remainder of parliament for climate alignment (£bn)

<table>
<thead>
<tr>
<th>Scheme and commitment</th>
<th>What it does and why increased investment is recommended</th>
<th>Total committed 2020/25</th>
<th>Top up required to 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO4 (Energy Company Obligation)</td>
<td>The fourth version of ECO, delivering insulation and heat measures to fuel poor households.</td>
<td>3.00</td>
<td>None</td>
</tr>
<tr>
<td>ECO Plus</td>
<td>A new, parallel scheme to ECO4, worth £1bn over 2023–26. Additional investment in ECO Plus is recommended based on industry insight which shows there is capacity to increase installations, delivering further energy demand reduction measures and lowering bills.</td>
<td>0.66</td>
<td>1.33</td>
</tr>
<tr>
<td>Social Housing Decarbonisation Fund</td>
<td>Upgrading social housing stock below EPC C with funding allocated in a competition to social housing owners and operators. Additional funding is recommended to meet commitments in the 2019 Conservative Manifesto.</td>
<td>1.04</td>
<td>0.18</td>
</tr>
<tr>
<td>Boiler Upgrade Scheme</td>
<td>A grant offering £5,000 towards an air source heat pump, and £6,000 for a</td>
<td>0.45</td>
<td>1.32</td>
</tr>
</tbody>
</table>

Sources: Total investment needed: EEIG, 2021. Investing in British homes and communities. Investment gap: Own calculations, see Annex to this briefing. Investment committed includes manifesto pledges and subsequent programmes.

5 Gemserv, 2022, Proposed Energy Efficiency Scheme – Supply Chain Market Research Key Findings
<table>
<thead>
<tr>
<th>Scheme and commitment</th>
<th>What it does and why increased investment is recommended</th>
<th>Total committed 2020/25</th>
<th>Top up required to 2025</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground source heat pump. Installers apply for the grant on behalf of customers. Additional investment recommended for scaling up the market in line with climate targets.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sustainable Warmth competitions (Local Authority Delivery schemes and Homes Upgrade Grant)</strong></td>
<td>The Sustainable Warmth competition provides funding to Local Authorities on a competitive basis to upgrade energy inefficient homes of low-income households in England. Its focus is on upgrading the worst insulated owner occupier and private rented homes. Further investment is recommended to level up deployment of retrofit projects at the local level.</td>
<td>1.81</td>
<td>2.79</td>
</tr>
<tr>
<td><strong>New support provided through incentives and subsidies</strong></td>
<td>Additional support could be provided through concessional loans, tax incentives and stamp duty rebates. Additional funding is required to create incentives to increase uptake among those able to pay to get on track for climate targets.</td>
<td>N/A</td>
<td>2.96</td>
</tr>
<tr>
<td><strong>Total investment</strong></td>
<td></td>
<td>8.58</td>
<td></td>
</tr>
</tbody>
</table>
Levelling up delivery of existing schemes

Achieving energy savings nationwide means ending unequal access to public investment. Currently, a number of cornerstone retrofit schemes are allocated on a competitive basis to local authorities. These include the Homes Upgrade Grant for low-income households living in off-grid areas, and the Social Housing Decarbonisation Fund. Since local authorities who are already engaged and competent are most likely to successfully apply for these schemes, households living in areas already struggling to get on top of the retrofit challenge are left further behind, with nationally available schemes unable to plug these gaps.

Addressing this unfair way of allocating public funding will be essential to level up access to affordable warm homes and spur investment across the whole country. We encourage the government to move away from competitive funding lotteries and towards nationally available, long-term commitments which can be drawn down everywhere – with needs-based allocation for local authorities.

Government-backed retrofit schemes are currently struggling to achieve their full potential, with several challenges holding back delivery at scale. Overcoming these will be essential to ensure effective use of government spending, and build a sustainable, long-term market. Table 2 lists the challenges and potential solutions for the main programmes. Key themes include:

> **Keep talking to industry and consumer groups** to overcome challenges and identify workable solutions.

> **Streamline requirements and processes**, moving to a more pragmatic approach that works for installers, households and local authorities.

> **Support installers to build the skills, competencies and capacity** to deliver programmes to a high standard across the country – providing long-term funding with sufficient timelines to deliver local training programmes.

> **Build capacity and competence among local authorities** to launch and deliver schemes in their areas, providing resources for hiring project staff.

> **Boost household awareness of schemes and their benefits** to encourage more take-up and self-referral.

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*For more information see UK 100, 2022: *End the wait, Insulate.*
Table 2. Challenges and potential solutions to improving delivery of man schemes for heat decarbonisation and energy efficiency.

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Challenges and how they can be overcome</th>
</tr>
</thead>
</table>
| ECO4 and ECO Plus                           | > Difficulty finding properties that meet eligibility criteria. Search costs are high, and the Partial Project Scores scoring system has resulted in greater training needs and complexity. Installers report that most homes they have treated for ECO4 so far have tended to be large, off-gas houses. There are difficulties in proving how higher EPC bands and on-gas properties can meet the minimum requirements.  
> Meeting minimum requirements is too hard for most properties. The above has led to lower band properties being in scope. However, the requirement to raise the property’s Standard Assessment Procedure (SAP) score by two bands means higher investment in the heating system is needed, leaving these properties out of scope. Addressing these challenges requires a pragmatic approach to widen the eligibility.  
> Boost skills and qualifications. Support installation companies to get up to speed with PAS 2035 requirements to ensure the supply chain is ready to deliver ECO4.  
> Costs of compliance. Cover the cost of TrustMark lodgement fees for installers to boost cost-effective compliance.  
> Installer risk of meeting requirements. Given the high risk involved in meeting current requirements, installers who previously relied upon ECO are not investing in the programme. |
| Social Housing Decarbonisation Fund; Sustainable Warmth competitions; Public Sector Decarbonisation Funds | > Provide long-term, regular and consistent waves of funding on a non-competitive basis.  
> Build capacity and competence at a local level to apply for and deliver the schemes.  
> Provide support and guidance for installers applying for tenders to support more successful and streamlined processes. Also provide support with PAS 2035 and open up Local Authority Frameworks to new applicants on a continuous basis. |
| Boiler Upgrade Scheme                        | > Increase subsidy for fuel poor to cover full costs of a heat pump.  
> Introduce a rural uplift for those living in off-grid homes, in recognition of higher costs.  
> Boost public awareness of the scheme through communications.  
> Continue to improve the application process for installers. |
Boosting supply and demand

Driving British businesses
Recent major green economic interventions in the US and EU have proven that favourable fiscal and policy conditions play an important role in supporting clean tech investment and jobs. Supporting the whole retrofit supply chain – from manufacturers to installers – will be key to meeting energy demand reduction targets. The UK must seize this moment to build up the research, productive capacity and skills needed to race forward.

Ultimately, this must be linked to long-term certainty. Industry needs to know there will be a long-term payback for investing in UK plc. Building up a nationwide workforce of skilled installers and engineers will be critical to establishing a sustainable mass-market. Research shows access to skilled installers can currently be a postcode lottery, with rural areas and those in the North most likely to miss out.7

Recommendations to build up the workforce and supply chain include:

> Tax incentives for manufacturing quality insulation and clean heating, to incentivise investment in local skills, employment and supply chains.

> An Olympic-style academy to act as a hub to kickstart training at scale, with regional training centres to provide local provisions.

> A national recruitment drive to encourage more people to enter the retrofit industry (with targeted, local campaigns), with financial and non-financial incentives to boost uptake of training opportunities.

> Ensuring that government-backed green skills programmes provide learners with skills that are immediately transferable to the workforce.

> Joint initiatives with the Department for Education, with local colleges and secondary school leavers.

> Consider how tax incentives could encourage companies to hire new recruits, for example through reducing National Insurance contributions.

> Support energy efficiency apprenticeship opportunities, for example through the apprenticeship levy.

7 IPPR, 2022, Train Local, Work Local, Stay Local
The consumer journey

Home retrofits need to be straightforward for households to drive demand. However, access to high quality advice is unequal across the UK. While Scotland has the comprehensive Homes Energy Scotland offer, support is patchy at best across the rest of the UK – resulting in low awareness of appropriate home retrofit solutions and support. 54% of homeowners do not believe they need more insulation. This is made up of 41% who think they have already had all the insulation measures they need fitted and 12% who have not had insulation fitted but still don’t think they need it. Some local authorities – such as Greater London Authority – are taking the initiative to roll out information, but attention is needed to level up access to quality, trusted information across the country.

The return on investment for supporting information and advice could be enormous. The Energy Saving Trust estimates that a £20 million investment in public awareness raising and advice could spur £1 billion in private investment over one year. As well as a nationwide awareness campaign, the government can support the roll-out of trusted and tailored local advice. This could build on and replicate the Home Energy Scotland service, which acts as a “one stop shop” to smooth the consumer journey.

Attractive green finance offers and fiscal incentives

To date, the government has rightly prioritised retrofit support to the most vulnerable households. However, this means that the majority of owner occupiers – representing the largest share of energy consumption and emissions from homes – have no access to support, nor are they incentivised to act. E3G has previously calculated that 80% of mid- to low-income households have no access to nationally available funding. While ECO Plus has partially addressed this, significant gaps remain. Accessible and attractive green finance offers, backed up by fiscal incentives, will be vital.

> Concessional loans to households offered through the UK Infrastructure Bank via retail banks, inspired by the successful KfW German development bank. Projects that lead to the most efficient homes can access the most

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8 Home Energy Scotland, 2023, Home Energy Scotland
9 Social Market Foundation, 2022, Energy Bill Support
10 Government for London, 2022, Energy Londoners
12 Energy Saving Trust, 2022, Home Energy Scotland
13 E3G, 2021, Response to the UK gas crisis
attractive rates and subsidies – incentivising greater ambition and promoting additional economic activity.

- **Support innovations in green financial products and services, as well as innovative business models, to help spur additional private finance.** Models under development by the Green Finance Institute – including the Property-Linked Finance and Demand Aggregation Financing models – could be supported to market, and the government could look to accelerate the roll-out of “heat as a service” models.

- **Incentivise energy efficiency at the point of sale by an energy saving stamp duty.** More energy efficient homes pay an adjusted lower rate, with a rebate paid to new homeowners who improve the energy efficiency of their home within two years of purchase. An enhanced rebate level which tapers out as property value increases could be set to give greater support to those buying lower-value homes. The incentive principle could be announced immediately, sending a message of intent to the marketplace.

- **Consider reintroducing a Landlords Energy Saving Allowance (or similar) to encourage landlords to undertake energy efficiency measures, with up to £1,500 per property available to claim against tax each year.**

### About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

More information is available at [www.e3g.org](http://www.e3g.org)

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14 UKGBC, 2022, *Green Stamp Duty*