

## Written evidence submitted by The National Insulation Association (NIA)

### About the National Insulation Association

The National Insulation Association (NIA) represents the insulation industry in the UK with a member base comprised of installers, system certificate holders, and manufacturers who provide a wide range of insulation solutions for homes and buildings. The NIA and its members are fully committed to maintaining and raising standards within the insulation industry.

### Our response to the Call for Evidence

The NIA believe that a fabric first approach to home decarbonisation will provide the best outcomes for residents and best long-term value for money for government. A fabric first approach is the only way to ensure a just transition to net zero homes which does not result in higher energy bills for residents.

Heat pumps are expected to be the main low carbon heating technology for households going forward. In practice, the efficiency of heat pumps is receptive to the fabric efficiency of the home. A fabric first approach which ensures that the home is well-insulated prior to the installation of a heat pump will increase the system's efficiency and reduce its running costs. Higher levels of insulation should also allow a smaller, cheaper heat pump to be installed that will have lower operating costs. Hence, a fabric first approach to decarbonisation is crucial to protect residents from overly high running costs and ensure that the switch to heat pumps is as affordable as possible for residents.

Since electricity is currently four times more expensive than gas per kWh<sup>1</sup>, there is a significant risk that, without energy demand reduction measures like insulation, households will be subject to higher energy bills when moving from a gas boiler to an electrified low carbon heating system. With an estimated 6 million households in fuel poverty, according to National Energy Action<sup>2</sup>, and 41% of all energy bill payers struggling to afford payments<sup>3</sup>, it is absolutely critical that the transition to decarbonised home heating does not result in higher energy prices for residents. Electricity prices are expected to remain well above pre-crisis levels for the rest of the decade<sup>4</sup>, therefore a sustainable long-term solution which reduces energy demand is needed in order to make the switch to electrified heating affordable for residents.

In the context of the ongoing energy crisis, the primary concern of the Government must be to make sure that residents are protected from higher energy prices. A fabric first approach to home decarbonisation is the best way to guarantee this in the long-term, as insulation measures reduce energy demand and bills for residents. This approach led to 145,000 households being lifted out of fuel poverty by energy efficiency measures between 2021 and 2022<sup>5</sup>. Increased investment in energy efficiency measures will lift even more households out of fuel poverty in future and ensure that the transition to net zero homes is as affordable as possible for residents. This will make sure that the most vulnerable residents are protected throughout the transition to net zero. As the National Audit Office report points out, the Government has a legal commitment to both reduce emissions and meet its statutory fuel poverty targets<sup>6</sup>. By taking a fabric first approach to home decarbonisation, the Government can meet both of these legal obligations.

Short term investment in insulation measures not only delivers much-needed financial benefits to residents, it can also save the Government money in the long-term. It is expected that the decarbonisation of homes will be dominated by electrified low carbon technologies, meaning a vast expansion of the electricity network will be required to facilitate the roll out of electrified heating to the majority of homes. There is an enormous capital cost associated with developing more renewable generation capacity and expanding the electricity network to meet this increased demand. According to Ofgem and the Government, £170 billion – £210 billion will need to be invested in the grid by 2050 to achieve our net zero targets<sup>7</sup>. Therefore, demand reduction measures like

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<sup>1</sup> Ofgem (2024). Energy price cap. Available [here](#).

<sup>2</sup> National Energy Action (2024). What is fuel poverty? Available [here](#).

<sup>3</sup> Office for National Statistics (2024). Cost of living insights: Energy. Available [here](#).

<sup>4</sup> Jillian Ambrose (2023). 'Higher energy bills forecast for UK households next year', *The Guardian*. Available [here](#).

<sup>5</sup> Department for Energy Security and Net Zero (2022). Fuel poverty factsheet: England, 2022. Available [here](#).

<sup>6</sup> National Audit Office (2024). Decarbonising home heating. Available [here](#).

insulation are vitally important to ensure that our homes use as little energy as possible to run. Investment in insulation in the short term could save the Government and taxpayers billions in the long run by reducing the extent to which we will need to expand the electricity network and build additional renewable energy capacity.

Insulation upgrades in the short term will also future-proof government and households against future energy crises. With a properly insulated housing stock, the Government will not need to spend billions on subsidising household energy bills in the event of future energy price shocks. For instance, in 2013, the Government decided to cut support for home insulation, which saw installation rates fall by around 90%<sup>8</sup>. Had the Government maintained 2013 levels of support for home insulation, this could have saved taxpayers £18 billion over the course of the Energy Price Guarantee, according to analysis conducted by the Energy & Climate Intelligence Unit<sup>9</sup>. Energy prices are set to remain high for the foreseeable future<sup>10</sup>, therefore, without increased investment in insulation, it is possible that the government may have to step in again with a very expensive support package should prices rise to unaffordable levels again. A fabric first approach to home decarbonisation would avoid this costly outcome and deliver value for money for government in the long term. Insulation measures offer a more cost-effective and permanent solution to high energy bills than nationwide energy bill support schemes. In this way, increased support for insulation now has the potential to save government and residents a significant amount of money in the future.

In addition to the significant financial savings it provides, insulation also has substantial health benefits for residents and wider society. Living in cold, damp homes can increase the risk of a number of illnesses, such as strokes, heart attacks, and respiratory diseases<sup>11</sup>. For instance, poorly insulated and ventilated homes can double the risk of children developing asthma<sup>12</sup>. Unfortunately, many homes are in this poor state, with 1 in 5 children in the UK currently exposed to damp and mould at home<sup>13</sup>. This highlights the urgent need to improve insulation and ventilation across our housing stock, thus helping to eliminate the scourge of damp and mould from homes along with the associated health issues they bring for residents which, as we have seen with the tragic case of Awaab Ishak, can be fatal<sup>14</sup>.

The direct personal health benefits delivered by a fabric first approach to decarbonisation are also translated into wider public health and economic benefits to society. According to the Local Government Association, the NHS spends an estimated £2.5 billion per year on treating illnesses linked to cold, damp and unsafe homes<sup>15</sup>. This represents a significant burden on a health service which is already under significant funding pressures. A fabric first approach to home decarbonisation will create warmer, healthier homes and alleviate pressure on the NHS. Findings from the Energy Systems Catapult's Warm Homes Prescription project found that enabling residents to live in warm, well-insulated homes reduced pressure on NHS services, with fewer hospital and GP appointments booked by those who had taken part in the trial<sup>16</sup>. The preventive health benefits it delivers makes insulation an excellent value for money investment for Government and taxpayers – investing £1 in retrofit is estimated to save £0.42 in direct health costs<sup>17</sup>. Most importantly, a fabric first approach to decarbonisation will improve the personal health and wellbeing of residents, and enable people up and down the country to live in warmer, healthier and decarbonised homes.

Robust quality assurance is also crucial to ensure that public money is spent on high-quality installs which deliver the financial and health benefits outlined earlier without any unintended consequences. The

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<sup>7</sup> Regen (2023). Building a GB electricity network for net zero. Available [here](#).

<sup>8</sup> Rt Hon Chris Skidmore MP (2022). Mission Zero: Independent Review of Net Zero. Available [here](#).

<sup>9</sup> Energy & Climate Intelligence Unit (2022). Taxpayers facing £18 billion bill for failure to insulate UK homes. Available [here](#).

<sup>10</sup> Jillian Ambrose (2023). 'Higher energy bills forecast for UK households next year', *The Guardian*. Available [here](#).

<sup>11</sup> Public Health England (2014). Minimum temperature threshold for homes in winter – A systematic literature review. Available [here](#).

<sup>12</sup> Greater Manchester Combined Authority (2022). retrofitGM: Accelerating the Renovation of Greater Manchester's Buildings. Available [here](#).

<sup>13</sup> UNICEF (2022). Over-consumption in the world's richest countries is destroying children's environments globally, new report says. Available [here](#).

<sup>14</sup> Sky News (2023). Awaab Ishak: Toddler's death from mould triggers review of landlord guidance. Available [here](#).

<sup>15</sup> Local Government Association (2019). The cost of unhealthy housing to the NHS. Available [here](#).

<sup>16</sup> David Blackman (2023). 'NHS warm homes trial boosts appetite for energy efficiency', *Utility Week*. Available [here](#).

<sup>17</sup> Greater Manchester Combined Authority (2022). retrofitGM: Accelerating the Renovation of Greater Manchester's Buildings. Available [here](#).

Government must continue to ensure that public money is only spent on home decarbonisation projects that are delivered in accordance with the thorough quality assurance frameworks set out in PAS2030/35 and MCS. This is vital to protect consumers from harm. Without stringent quality assurance and consumer protections in place, there is a risk that the Government will open itself up to an increased number of legal complaints and compensation claims regarding sub-standard installs and property damage. As we rapidly increase the quantity of retrofit measures delivered over the coming years, it is imperative that we do not lose sight of the importance of quality. The race to net zero cannot become a race to the bottom in terms of quality standards. Any dilution in quality standards risks fatally undermining the net zero transition and irrevocably damaging consumer confidence in the home decarbonisation industry. Effective quality assurance is important to ensure that home decarbonisation measures deliver quality and value for money for government and residents.

Delivering home decarbonisation at scale without compromising on quality will require a significant increase in the size and skill level of the retrofit workforce. This represents a significant challenge, but also a huge opportunity. With sufficient targeted investment in retrofit skills and training, the Government has the opportunity to create thousands of high-quality, sustainable jobs in local communities across the UK. Based on the Climate Change Committee's (CCC) projections, 120,000 to 230,000 jobs could be created across the UK construction sector in order to retrofit and insulate the UK housing stock – an 11% increase relative to the current size of the sector<sup>18</sup>. Importantly, these are also high-quality, skilled trades that pay well. According to Indeed, the average salary for an insulation worker in the UK is £37,178<sup>19</sup> – above the national average. Most jobs in the insulation sector do not require a Level 6 qualification (undergraduate degree or equivalent), so employment in this sector will help to level up communities by providing high-skilled and well-paid technical employment for school leavers without a degree.

In addition, most energy efficiency work tends to be localised; therefore, installations will likely be carried out by local installers and businesses, thus ensuring that employment and growth opportunities remain within the local area where they are needed. Which's recent *Priority Places for Insulation Index* report shows that many of the places most in need of future insulation upgrades are in deprived areas, for example former coalfields or coastal communities in the north of England<sup>20</sup>. As such, investment in insulation has the potential to support the Government's levelling up mission by directing investment and jobs to areas that need it most. In this way, spending on insulation and wider retrofit skills represents a cost-effective investment for government because it creates well-paid, high-quality and sustainable jobs in local areas.

Despite the clear long-term benefits of insulation measures, we recognise that the upfront investment required can be costly for government. To mitigate this, we would like to see the Government provide more support for the development of innovative green finance mechanisms, which will make sure that home decarbonisation policies are cost-effective for government and taxpayers. The CCC estimates that retrofitting all of the UK's housing stock will cost £250 billion by 2050<sup>21</sup>. It is not reasonable or realistic to expect that government will provide fully funded grants to cover this cost. Neither can most households, many of whom have very limited savings<sup>22</sup>, be expected to fund the full upfront cost of retrofit without some form of support. Therefore, innovative green financing solutions which effectively mobilise private investment into the retrofit market and spread out the upfront cost of retrofit will be needed to ensure a net zero transition that is cost-effective for government. The Green Home Finance Accelerator represents a welcome start in this area, but the Government urgently needs to work with financial institutions and private investors to develop a range of effective green finance solutions that can be rolled out across the country. This is critical to create long-term, organic consumer demand for decarbonisation measures which is not reliant on expensive government subsidies.

In conclusion, a fabric first approach to decarbonising our homes represents the most effective way to fairly distribute the costs of the net zero transition. Short term investment in insulation will provide a number of longer term savings: reducing the cost of expanding the electricity network, avoiding the need for expensive energy bill support packages during future energy crises and providing significant public health savings, thereby reducing

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<sup>18</sup> The Climate Change Committee (2023). A Net Zero workforce. Available [here](#).

<sup>19</sup> Indeed (2024). Insulator salary in England. Available [here](#).

<sup>20</sup> Which (2023). Priority Places for Insulation Index: Mapping the UK's Home Insulation Needs. Available [here](#).

<sup>21</sup> Business, Energy and Industrial Strategy Committee (2022). Decarbonising heat in homes – Report Summary. Available [here](#).

<sup>22</sup> Citizens Advice (2023). Demand: Net Zero – Tackling the barriers to increased homeowner demand for retrofit measures. Available [here](#).

pressure on the NHS. Most importantly, a fabric first approach will enable residents to benefit from clean and affordable heating, along with improved health and comfort. Insulation is vital to ensure a just transition to net zero homes which protects the most vulnerable households in society.

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