Factsheet: Insulation in the UK
20th June 2017

- Heating homes is one of the major causes of fuel poverty in the UK, with **overall space heating costing the country more than £30 billion per year** while accounting for half of total energy use and one-third of greenhouse gas emissions.

- It is estimated that more than four million UK homes are affected by fuel poverty. **From 2010-2015, cold homes caused around 47,660 deaths**. In 2013, four times as many people died due to cold homes than in road and traffic accidents. **The health effects of fuel poverty are calculated to cost the UK £3.6 million per day**, while ill-health due to cold homes is expected to cost the NHS upwards of £20 billion over the next 14 years.

- As energy costs have risen in recent years – driven mainly by the increasing cost of gas – the benefits of cutting energy consumption through efficiency measures have also increased. Installing 25cm thick loft insulation can cut heating bills by a quarter, with governmental estimates showing **effective domestic insulation retrofits could save around 5% of total energy consumption across the country**.

- More than 12 million UK homes have received some form of energy efficiency retrofit since 2000, with double glazing and loft insulation the most popular forms. Wall insulation – either in the form of solid wall or cavity insulation – can dramatically cut the amount of heat lost from a building – **almost halving heating energy demand in a solid-walled home**. Compared with more modern cavity walls, solid walls are leakier and more difficult to insulate. The heterogeneity of UK homes renders them more difficult to insulate at scale than homes in other parts of the developed world, with old properties up and down the country often the least efficient.

- Built in the decades following the Second World War, tower blocks are overwhelmingly solid-wall construction, with inefficient designs leaving residents with disproportionately high energy bills. When coupled with the fact that less affluent families make up a higher proportion of tower block residents, the social case for insulation grows. In addition to lower energy bills, insulation can cut maintenance costs, improve building security and maintenance and improve the health of residents, with research showing that low educational attainment is also linked to raising children in cold homes. **Compared with a typical household, a low income family in an inefficient home can pay an extra £1,345 per year to keep warm – virtually doubling the average energy bill.**

- **Solid wall insulation can save more than £450 from an annual energy bill**. However, higher costs compared with other insulation methods have limited its rollout. Just 8% of applicable UK homes have solid wall insulation in place, with more than 7.5 million residences in their original state.

- **The average fuel poverty gap – the extra money that a fuel poor household needs to pay their energy bills – in England is £371 per home, a cumulative total of nearly £900 million**. Cutting the amount of energy used in homes is the easiest way to close this gap.

- Cutting energy waste also opens the door to reduced reliance on imported energy in the long term. **UK gas imports cost the country £30 million per day**, in addition to exposing consumers to the volatility of international commodity markets. Insulation also limits the

effects of cold weather shocks, which increase the cost of fuel for all homes, rather than just those with insulation installed. Cutting demand reduces the influence of these markets on household outgoings, giving families greater control of budgets and making planning ahead easier.

- **Since the turn of the millennium, the amount of gas we burn in our homes has fallen by 21%,** despite a growing population and a trend for larger houses. This is in part due to effective energy efficiency measures, which allow houses to be kept at comfortable temperatures while burning less fuel. Energy efficiency remains popular, with two-thirds of the public backing it as the best way to tackle rising energy costs and **80% of the population supporting subsidies for measures that reduce energy waste.**

- Research carried out by the CBI has shown that **increased focus on energy efficiency could add 1% to UK GDP and support a £17.6bn product and service market**. Further, cutting the amount of energy consumed will reduce infrastructure spending – as reduced electricity consumption means fewer power stations are needed, and will ease the transition to the smart, flexible grid of the future that will allow more energy to come from renewable sources and for bills to be kept low.