

## **Appendix 2      Background documents**

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# **1 The impacts of fuel poverty**

## **Adult Health**

The Marmot Review states that living in a cold home has a negative impact on the occupants' health. The health impacts can be summarised as exacerbating many long term heart, circulatory and pulmonary conditions. Cold homes are also linked to depression and anxiety.

## **Children's Health**

For infants, living in fuel poor homes is associated with a 30% greater risk of admission to hospital or primary care facilities when other contributory factors have been accounted for. For children, living in fuel poor homes is associated with a significantly greater risk of health problems, especially respiratory problems. Poorer weight gain and lower levels of adequate nutritional intake have also been found – a "heat-or-eat" effect. Adolescents living in fuel poor homes are at significantly greater risk for multiple mental health problems when other contributory factors have been accounted for.

## **Older Peoples Health**

Older people are more vulnerable to the health impacts of cold homes. In older people cold homes increase the risk of stroke and circulatory problems, respiratory problems, admission to hospital and lower strength and dexterity leading to an increase in falls and accidental injuries. Public Health England estimates that that 10% of excess winter deaths are attributable to fuel poverty. Item 4 in the background documents shows Kent and local data for excess winter deaths.

## **Education**

Children living in cold homes are more likely to have lower educational attainment. This may be due to a higher rate of absence due to ill health and also lacking a quiet warm place to study. Lower educational attainment can reduce the individual's employment opportunities and levels of income and therefore impact their future access to good housing.

## **Social Isolation**

Cold, and the associated mould growth, has a negative impact on mental health with some occupants feeling ashamed of their home and being less likely to invite people to visit which can lead to social isolation.

## **Work Absences**

Poorer health related to fuel poverty may lead to an increased level of work absences.

## **Local Economy**

Households with high fuel bills have less money to spend on all other items. Heating an energy inefficient home properly can cost many hundreds of pounds more than heating an energy efficient home of the same size. The local economy could benefit if residents were spending less to keep their home warm.

## **2 The drivers of fuel poverty**

### **The energy efficiency of the home**

Interventions that improve the energy efficiency of the home are likely to reduce energy bills if the occupants heat the home to the same temperature. Energy efficiency in homes is measured using a Standard Assessment Procedure (SAP) rating with A rated homes being very efficient down to G which are very inefficient. These ratings are shown on the Energy Performance Certificate (EPC) of the home. Homes that have been sold or rented since 2008 have an EPC but some housing stock does not have an EPC. In 2012 just 1% of homes were rated G, 5% rated F and 25% rated E. Fuel poverty is common in homes rated E, F and G and rare in homes rated A, B and C. SAP ratings are strongly influenced by the main fuel type used with 73% of homes heated by gas having a SAP rating of a A-D but less than 40% of homes heated with oil or solid fuel rated A-D.

Homes rated E, F, and G are likely to have solid walls, lack sufficient loft insulation, be heated by oil or solid fuel, have inefficient heating systems with poor controls and have single glazed windows. Homes with more external surfaces will lose more heat than those with more party walls so detached homes and bungalows tend to have a lower SAP rating than terraced homes. There was significant investment to bring socially rented homes up to the Decent Homes standard and they generally are more energy efficient with owner occupied homes being slightly more energy efficient than privately rented homes.

The energy efficiency of homes has gradually increased since 1919 and then more steeply over the last 2 decades as new homes are designed to be more energy efficient and by existing homes being improved. Many homes have been retrofitted with loft insulation, cavity wall insulation, modern heating systems and double glazing. It is easier and cheaper to insulate cavity walls than solid walls and easier to insulate unoccupied lofts than rooms in the eaves.

### **Changes in legislation**

Regulations made under Section 43 of the Energy Act 2011 will make the provision that landlords will not be allowed to let a property that has a rating of F or G on the EPC from 2018. From April 2016 landlords may not unreasonably refuse their consent to making energy efficiency improvements to the home helping tenants who wish to access the Green Deal to do so. The Green Deal is a government scheme that allows the occupier to have works including insulation, e.g. solid wall, cavity wall or loft insulation, heating, draught-proofing, double glazing and renewable energy generation, e.g. solar panels or heat pumps carried out. The work is paid for by putting a cost onto the electricity bill which equals or is less than the amount the energy bills will reduce by due to the works carried out.

### **The cost of heating fuel**

Fuel prices have increased at more than the rate of inflation over the last 10 years. Increases in fuel prices have not been uniform with some fuels, including

oil, moving from being a cheaper fuel to being a comparatively much more expensive fuel.

Mains gas is currently the cheapest fuel but many urban blocks of flats and rural homes are not on the mains gas network. The English Housing Survey estimated that 34% of rural homes are off the main gas grid. See background documents item 5 for a description of the Help to Heat scheme that pays for vulnerable households to be connected to the mains gas.

Oil is more expensive to use than gas, but may be the cheapest option in areas off mains gas. The CPRE states that just over a third of rural households in England use oil heating. Oil cannot be bought in quantities of less than 500 litres and households on low incomes can struggle to budget for the less frequent but larger bills associated with oil use. Oil clubs can save their members 3-5 pence per litre and residents can join online clubs or other local clubs.

On peak electricity tends to cost more than using oil but as it can be paid for by monthly direct debits or a pre-payment meter it may be better for those households that want to control the payments. Off peak electricity, or Economy 7 electricity, is much cheaper than peak electricity and can be used to run storage heaters and immersion heaters. Economy 7 can heat a well-insulated home comfortably but may run out of heat in the evening in poorly insulated homes. Homes that do not use more electricity at night than day should not use Economy 7 as the day time rates are higher on this tariff. Households should contact their current energy supplier to discuss changing their meter.

When wood is burned in an open fire most of the heat is lost up through the chimney and a significant amount of particulate matter is released, reducing air quality. Wood burners and stoves are more efficient than open fires, and produce far less particulate matter, with some efficient models available that can heat a room, a room and hot water or the whole house via a heating system. Households using wood need sufficient space to store the wood, an able bodied person to carry the wood and clean the stove, and the ability to pay for wood in larger, less frequent, payments. Wood is sometimes used as a secondary fuel in smaller wood burners to heat one room in rural and urban areas.

A small number of homes, including park homes, use LPG in either large tanks or small bottles at highly variable prices broadly similar cost to oil.

### **Household income**

Households with lower incomes are much more likely to experience fuel poverty. They may be in receipt of income related benefits for unemployed or employed people but some low income households are not eligible for, or do not claim, benefits. The superseded Warm Front Scheme, and the current Home Heating Cost Reduction Obligation and the Carbon Saving Communities Obligation parts of the Energy Company Obligation, are targeted at households including a child, a disabled person or a person over 60 and receiving a narrow range of means tested benefits. Nationally fuel poverty is common in single person working households and it is likely that this picture is mirrored locally.

There are 30,000 people of pension age in the borough. Nationally it is estimated that around 1/3 of pensioner households entitled to Pension Credit are

not claiming it and 2/5 of all pension households entitled to council tax reductions are not claiming it. It appears that owner occupiers are less likely to take up pension credits as they are less likely to be in contact with their local authority as they do not claim housing benefit.

### 3 Legislation and National and local policy context

- Energy Act 2011 <https://www.gov.uk/government/publications/energy-act-2011> (introduced Green Deal, provides for powers to restrict tenancies from 2018 in homes rated F or G on their EPC, and creates ECO funding)
- Climate Change Act 2008 [http://www.doeni.gov.uk/index/protect\\_the\\_environment/climate\\_change/climate\\_change\\_bill.htm](http://www.doeni.gov.uk/index/protect_the_environment/climate_change/climate_change_bill.htm) (introduces a legally binding target to reduce greenhouse gas emissions by at least 80% by 2050 and a progress reporting system)
- The Home Energy Conservation Act 1995 <https://www.gov.uk/government/publications/2013-home-energy-conservation-act-heca-reports> (introduced the requirement for local authorities to submit a report to the Department of Energy and Climate Change DECC every two years until 2027 setting out the measures the authority will take to improve the energy efficiency of the homes in their area.)
- Cutting the cost of keeping warm; A fuel poverty strategy for England, released in March 2015 [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/408644/cutting\\_the\\_cost\\_of\\_keeping\\_warm.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/408644/cutting_the_cost_of_keeping_warm.pdf) (introduces targets to reduce the numbers of fuel poor households in the least fuel efficient homes from now to 2030 and indicates ways to reduce fuel poverty).
- The Housing Health and Safety Rating System (Housing Act 2004) <https://www.gov.uk/government/publications/housing-health-and-safety-rating-system-guidance-for-landlords-and-property-related-professionals> (a risk based system to help local authorities identify risks to the health and safety of the occupants of the home from any deficiencies in the home).
- Public Health England released the report, Local action on health inequalities: Fuel Poverty and Cold Home related health problems. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/355790/Briefing7\\_Fuel\\_poverty\\_health\\_inequalities.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/355790/Briefing7_Fuel_poverty_health_inequalities.pdf) (This reviews interventions and suggests that the most effective way of tackling fuel poverty is to take a holistic approach that balances home efficiency measures, such as insulation provision and energy-saving techniques, with wider welfare benefits take-up and other interventions to improve the health of vulnerable people.)

#### In Kent

- Kent Child Poverty Strategy 2013 [http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCwQFjAAahUKEwiWtoCJ7YfGAhVGStsKHeWsAL4&url=http%3A%2F%2Fwww.kent.gov.uk%2F\\_data%2Fassets%2Fpdf\\_file%2F0008%2F13310%2Fchild-poverty-strategy.pdf&ei=P5t5VdaaCMaU7Qbl2YLwCw&usq=AFQjCNEndrI3fGVLCMerw\\_fFcmeDhfe4jQ&bvm=bv.95277229,d.ZGU](http://www.google.co.uk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCwQFjAAahUKEwiWtoCJ7YfGAhVGStsKHeWsAL4&url=http%3A%2F%2Fwww.kent.gov.uk%2F_data%2Fassets%2Fpdf_file%2F0008%2F13310%2Fchild-poverty-strategy.pdf&ei=P5t5VdaaCMaU7Qbl2YLwCw&usq=AFQjCNEndrI3fGVLCMerw_fFcmeDhfe4jQ&bvm=bv.95277229,d.ZGU)
- Kent Environment Strategy 2013-2015 Growing the Garden of England: A strategy for environment and economy in Kent July 2011

<http://www.kent.gov.uk/about-the-council/strategies-and-policies/environment-waste-and-planning-policies/environmental-policies/kent-environment-strategy/> (includes the aim to make Kent homes energy efficient and led to the development of the Kent and Medway Sustainable Partnership and the Kent Retrofit Programme).

- The sustainability chapter of the Joint Strategic Needs Assessment for Kent recognises fuel poverty as contributing to health inequalities.  
<http://www.kmpho.nhs.uk/jsna/sustainability/>
- We anticipate that a Kent Wide Fuel Poverty Strategy will be agreed in spring 2016.

## 4 Excess winter deaths

The excess winter death ratio is a measure of how many people die each year in the winter compared to the summer. We have known for many years that older people are more likely to die in the cold winter months and that hospital admissions rise in winter.

The level of excess winter deaths in Maidstone has fallen from 30.1% in 2002-2004 to 18.3% in 2011-2013. The average level in Maidstone from 2002-2013 was 18.9%, a little higher than the 17.5% found in Kent as a whole for the same time period.

The excess winter death ratios are given in three year aggregated periods as the numbers are very low and emphasis should be placed on trends not one individual figure.

<b>Time period</b>	<b>Maidstone ratio</b>	<b>Kent ratio</b>
2002-2004	30.1	17.7
2003-2005	31.4	18.6
2004-2006	24.3	17.3
2005-2007	13.1	14.1
2006-2008	12.9	16.6
2007-2009	15.7	18.8
2008-2010	14.4	20.8
2009-2011	9.3	16.3
2010-2012	13.8	17.6
2011-2013	18.3	17.5
<b>2002-2013</b>	<b>18.9</b>	<b>17.5</b>



## **5 The help to heat scheme**

SGN administers a long running scheme, Help to Heat, which helps those in receipt of certain means tested benefits, households including a person aged 70 or older, households living in fuel poverty as measured by the high cost and low income criteria and those living in a LSOA which is deemed as being in the 20% most deprived when measured by the IMD. The map on the next page shows the homes in the borough that are eligible for this scheme under the deprivation criteria.

This scheme provides enough funding to run approximately 23metres of gas pipe from the gas main to the home and can be used to extend the gas main when the pipeline is very close to the home. It cannot help rural communities where no part of the community is connected to gas.

The Council sent SGN's letter describing the scheme to each parish council that has some housing off the mains gas network but as residents self-refer we do not know whether this resulted in any new connections.

Households in poverty may struggle to make the most of being connected to gas as they may struggle to afford to install a new heating system or convert their heating systems to mains gas and may need further support to use gas to reduce their fuel poverty.

The map on the next page shows the areas in the borough where all homes are eligible for the scheme.

Homes eligible for the Help to Heat Scheme  
within the most deprived areas based on IMD score



