



# **Affordable Warmth Policy**

**2008 - 2010**

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## **Executive summary:**

Cambridge City Council adopted a Home Energy Strategy in November 2006. This outlined the Council's plans in the form of objectives and tasks to "Increase the efficient use of energy in existing homes in Cambridge and reduce the emissions of carbon dioxide (and other greenhouse gases) associated with this use of energy in order to mitigate climate change."

As part of this strategy and also to satisfy Home Energy Conservation Act requirements we now require a specific Affordable Warmth Policy. This is also a result of the recent rises in fuel prices that have put additional strain upon the finances of local residents. The term affordable warmth has become a more acceptable term when referring to fuel poverty and will often be used in place of fuel poverty in this policy.

It is private residents that are most likely to live in cold, damp homes that they cannot afford to heat to a level sufficient for health and warmth. This can result in discomfort, fuel debt and ill health. Households spending more than 10% of their income on fuel are defined as being 'fuel poor', i.e. living without access to affordable warmth. The inability to access affordable warmth impacts upon quality of life and also places increasing demands upon health, housing and other services.

Through this policy the Council will endeavour to offer advice, guidance and (if eligible) financial assistance to all local residents on ways of achieving affordable warmth. Residents in council owned homes will have affordable warmth provided via the Decent Homes programme. Residents in the private sector will be actively encouraged to undertake energy efficiency measures and take up grants to achieve affordable warmth within their own homes and private landlords will be encouraged to improve their dwellings via the landlord accreditation scheme in particular.

Cambridge City Council is committed to improving access to affordable warmth for all local residents. This policy sets out the Council's plans for the provision of affordable warmth. The Council supports the Government's aim to eradicate fuel poverty in vulnerable households where reasonably practicable by 2010, and in all households by 2016. In addition, this policy will aim to improve the health and quality of life for vulnerable households by assisting them in accessing affordable warmth.

# 1. What is fuel poverty?

## 1.1. Introduction

Fuel poverty occurs when a household is unable to afford to heat their home to the level required for health and comfort. The generally accepted definition of a household suffering from fuel poverty is when more than 10% of the household income would need to be spent on heating the house to a comfortable level.

The Decent Home Standard requires that a property provides a reasonable degree of thermal comfort. A property is required to have both efficient heating and effective insulation.

The Housing Health & Safety Rating System was introduced under the Housing Act 2004 and replaces the old fitness standard for determining the condition of a property. It is a risk-based approach and rates the likely hazards to the occupier of a property. One of the most common hazards is excess cold.

A healthy indoor temperature is 21<sup>0</sup> C. Below 19<sup>0</sup>C there is a small risk of health effects. Below 16<sup>0</sup>C there are serious health effects for the elderly. Below 10<sup>0</sup>C there is a great risk of hypothermia especially for the elderly.

## 1.2. Causes of Fuel Poverty

Fuel poverty arises from the combination of fuel prices, low incomes, poorly insulated homes and expensive or inadequate heating systems.

Very often those on low incomes live in the oldest and least efficient housing. Under occupation is also a factor contributing to fuel poverty, especially for older owner-occupiers. The cheapest heating systems to buy and install are generally the most expensive to run. The situation is made worse especially for low income households who pay for fuel on pre-payment meters. This is due to pre-payment meter tariffs being higher than other forms of payment.

## 1.3. Who are the vulnerable groups?

There are certain groups more at risk than others and include:

- Those in receipt of benefits;
- The elderly;
- Single parent families;
- Those with long-term illness;
- Those with certain disabilities;
- Single householders;
- Those reliant on expensive heating systems.

In addition to the fuel poor there are a large number of residents that are vulnerable to the effects of poorly insulated properties.

Based on 2003 English House Condition Survey data, the level of fuel poverty in Cambridge is approximately 5.6% (2379 households). With rising fuel prices this figure is quite likely to have at least doubled – meaning that over 5000 households are now likely to be in fuel poverty.

#### **1.4. Health, financial and social impacts**

During the winter months, especially December to March, the number of deaths recorded exceeds the average death rate for the rest of the year. This phenomenon is known as excess winter deaths. Between 20,000 and 40,000 excess winter deaths occur each year in the UK [UK Fuel Poverty Strategy 2001].

This figure is very high compared to many other European nations, including those that suffer more severe winter conditions than the UK. In part this is due to the poor heating systems and lack of thermal efficiency in British homes which mean that levels of affordable warmth are difficult to maintain when outside temperatures fall. Cold homes are linked to these high rates of winter deaths, especially amongst older people. Heart attacks and strokes are also exacerbated by the cold.

Cold and damp homes are likely to promote mould and fungal growth and to be linked to conditions such as asthma and bronchitis. Domestic accidents also tend to be more common in cold homes. The annual cost to the NHS of energy inefficient houses is estimated to be as high as £1 billion [UK Fuel Poverty Strategy 2001].

Cold houses can lead to social exclusion, as householders may be unlikely to invite friends home, resulting in an overall decline in quality of life. In some cases householders face a choice between heating their homes adequately and spending their money on other needs, such as a healthy diet. Where children live in cold homes educational attainment can be adversely affected.

#### **1.5. Obstacles to providing affordable warmth**

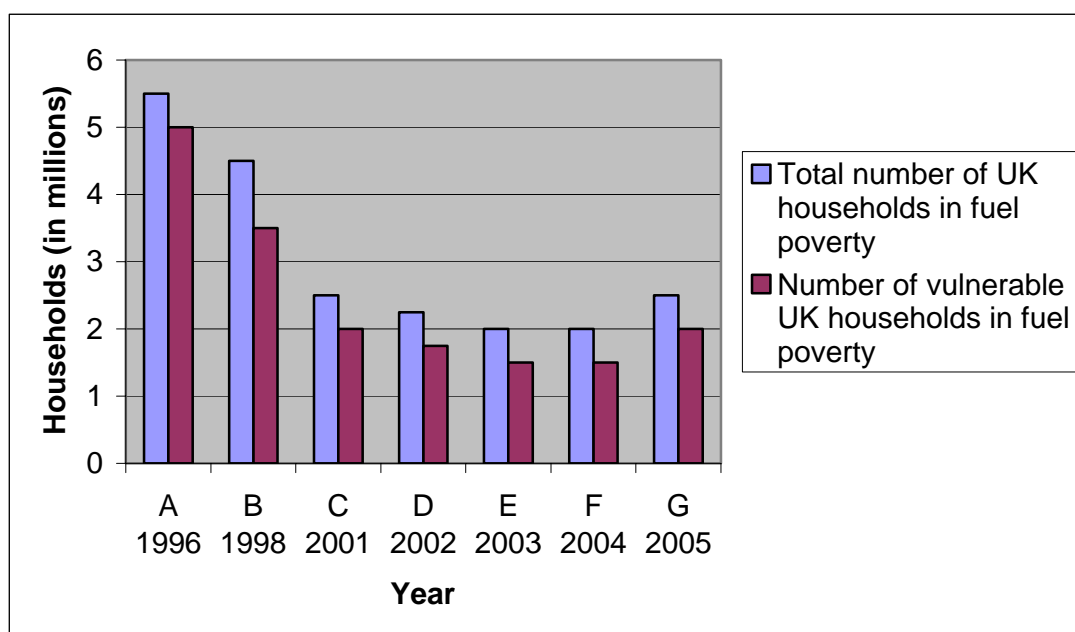
Many of those in fuel poverty are unaware of the assistance that is available to provide affordable warmth. Equally those agencies that are able to provide help are often unaware where those in fuel poverty are located. Some residents may need assistance to maximise their income or to access grants and discount schemes. Others may need reassurance that modern heating systems will not increase their fuel bills or advice on fuel suppliers or payment options.

## 2. Background

### 2.1. National summary

As of 2005, total UK fuel poverty figures stood at approximately 2.5 million households, of which 2 million of those are vulnerable (see Fig.1 below). Due to recent fuel price rises this figure will likely have risen when the new figures are announced (perhaps doubled by 2008).

The UK government have committed to eradicating fuel poverty in England, as far as reasonably practicable, in vulnerable households by 2010, with a vulnerable household deemed to be one containing children or those who are elderly, sick or disabled. Fuel poverty in all other households will be eradicated, as far as reasonably practicable, by 2016.



**Fig. 1 - Estimated number of vulnerable households in fuel poverty compared to the UK estimate.**

Domestic fuel bills have been rising over the past few years and the rate of increase in particular has caused major problems for householders. This increase is a result of the dramatic rise in crude oil prices (see Fig. 2 and Fig. 3). Many people have entered fuel poverty for the first time and even the most affluent of households are taking note as their bills increase.

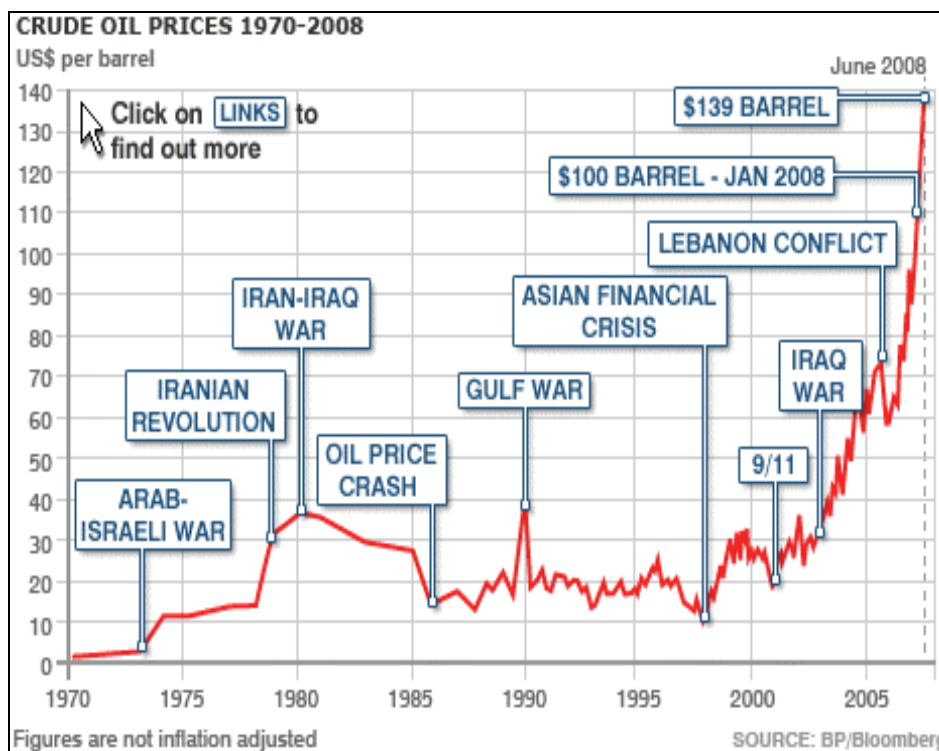


Fig. 2 – Crude price of oil from 1970 to current day.

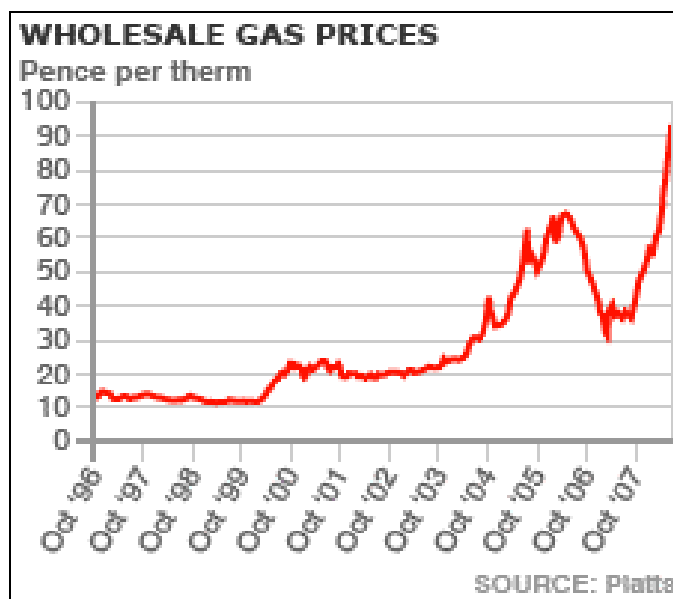


Fig. 3 – Wholesale price of gas over the past 12 years.

## 2.2. Key legislation

Key pieces of legislation and central government commitments that will be used to drive the Affordable Warmth Policy:

- **Home Energy Conservation Act (HECA) 1995** - Requires all local authorities in the United Kingdom to assess the energy performance of their housing stock (in terms of energy consumption and carbon

dioxide (CO<sub>2</sub>) emissions) and to develop strategies to achieve a 30% improvement over a 10 - 15 year period as well as tackling fuel poverty.

The first Cambridge City Council HECA report was produced in 1997 in response to the 1995 Act. The HECA makes all Unitary Authorities, Metropolitan Boroughs, and District Councils 'Energy Conservation Authorities'; it instructs the provision of a report on an annual basis to the Secretary of State; it ensures that Local Authorities measure the actions carried out in their area; and it ensures that Local Authorities promote the ethos of energy efficiency to their populace.

Since 2000 local authorities have been required to report on plans to reduce fuel poverty as a result of subsequent additional guidance.

- **The Decent Homes Standard** - In 2000, the Government made a commitment to bring all public sector homes up to a decent standard and, through its Public Service Agreement (PSA 7) 2002, extended its focus to vulnerable households in the private sector, with the aim of no more than 30% of vulnerable people living in non-decent homes by 2010.
- **The Utilities Act 2000** - This Act imposes obligations on energy suppliers to make energy savings. Through these obligations considerable sums are being invested in energy efficiency measures across all domestic housing tenures. It is often referred to as the Energy Efficiency Commitment.
- **The Warm Homes and Energy Conservation Act 2000** - This Act committed the Government to work towards the eradication of fuel poverty for all households where "reasonably practicable." The Warm Homes and Energy Conservation Act 2000 required Government to prepare and publish a strategy setting out how it proposed to ensure affordable warmth for all households. This led to the development of the UK Fuel Poverty Strategy 2001.
- **Local Government Act 2000** - Every local authority are to have power to do anything which they consider is likely to achieve any one (or more) of the following objects: (a) the promotion or improvement of the economic well-being of their area; (b) the promotion or improvement of the social well-being of their area, and (c) the promotion or improvement of the environmental well-being of their area. This includes power for a local authority to: (a) incur expenditure; (b) give financial assistance to any person; (c) enter into arrangements or agreements with any person; (d) co-operate with, or facilitate or co-ordinate the activities of, any person; (e) exercise on behalf of any person any functions of that person, and (f) provide staff, goods, services or accommodation to any person.
- **The UK Fuel Poverty Strategy 2001** - The goal of the Government's Fuel Poverty Strategy is to seek an end to the problem of fuel poverty.

In particular, they will seek an end to the blight of fuel poverty for vulnerable households by 2010. Fuel poverty in other households will also be tackled once progress is made on the priority vulnerable groups.

- **Energy White Paper 2003** - There are four goals for the government's energy policy: (i) cutting carbon dioxide emissions; (ii) maintaining the reliability of energy supplies; (iii) promoting "competitive markets in the UK and beyond" and (iv) ensuring that every home is adequately and affordably heated.
- **Sustainable Energy Act 2003** - Under this act local authorities may be issued with a direction requiring them to take action to improve energy efficiency in residential accommodation by a certain date. The Secretary of State is under a duty to report on the reduction in the number of persons in the UK who are living in fuel poverty.
- **Housing Act 2004** – Requires a 20% improvement in energy efficiency by 2010 (from a 2000 baseline). Under the Housing Health & Safety Rating Scheme (HHSRS) we also need to improve all homes with a Standard Assessment Procedure (SAP) energy rating of less than 35. The rating scheme offers an evidence-based approach for assessing hazards within a domestic property. This takes into account the effects on health of cold, damp homes.
- **Climate Change and Sustainable Energy Act 2006** – This act will have statutory implications for local authorities in reducing the emissions of greenhouse gases, promoting micro-generation, alleviating fuel poverty and enabling electricity produced by domestic micro-generation to be sold.
- **Part L, the Building Regulations, 2006** - Under the new legislation a more holistic approach to the energy efficiency of buildings will be taken. Buildings will be required to have an Energy Performance Certificate that will need to be updated when buildings are sold or let. New buildings will be required to meet minimum energy efficiency requirements, and CO<sub>2</sub> emissions will be reduced by at least 20% from the previous standards.
- **Energy Efficiency Commitment (EEC) 2005 – 2008** This is part of the Government's Climate Change Programme and sets targets for energy suppliers to achieve improvements in energy efficiency by providing energy efficiency measures to households across the UK. The main types of measures available are insulation, lighting, heating and appliances. In addition to helping consumers to use less energy, reduce their fuel costs and enjoy greater comfort, the energy efficiency measures stimulated through the EEC contribute to lower carbon dioxide emissions and to the achievement of the United Kingdom's Climate Change Programme.

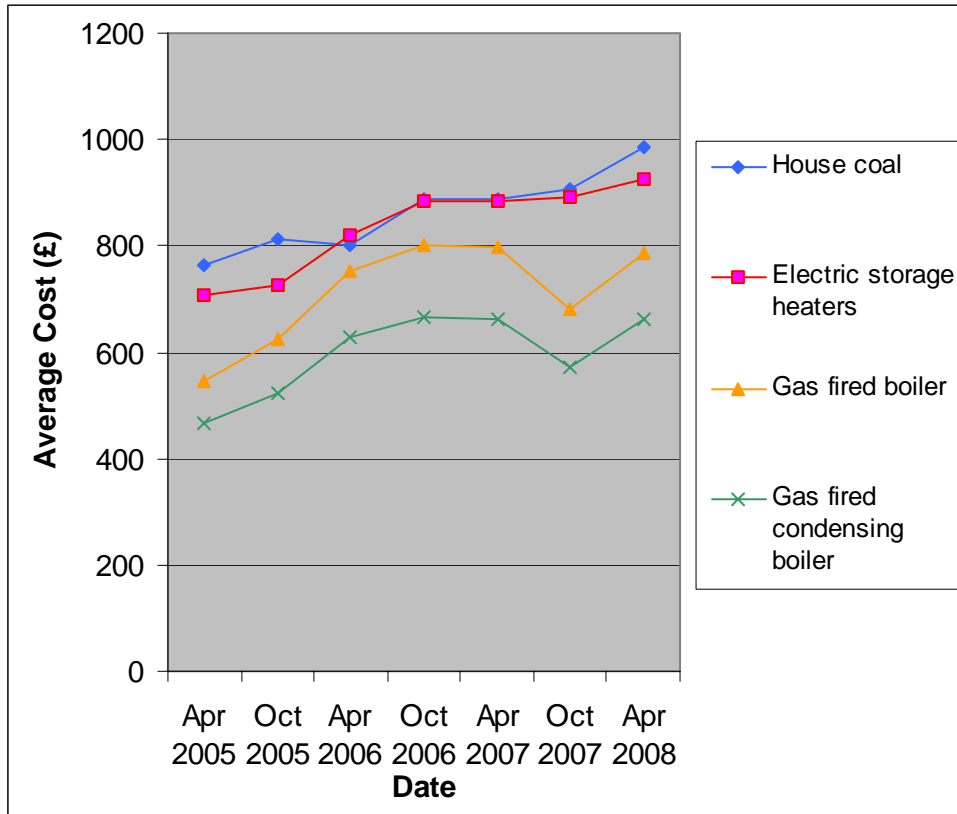
- **Kyoto Protocol** – This commits the United Kingdom to reduce our emissions of greenhouse gases (GHG) by 12.5% from a 1990 level by 2008-12. In the longer term the Government has accepted that far more significant cuts in GHG emissions will be required, and the need to cut emissions by at least 60% by the middle of this century is now agreed.

### 2.3. Corporate context

- **Nottingham Declaration** – In September 2006 Cambridge City Council signed the Nottingham Declaration on Climate Change. This acknowledges that climate change is occurring and that it will continue to have far-reaching effects on the UK's people and places, economy, society and environment. In signing the Declaration Cambridge City Council welcome the opportunity to lead the response to climate change at a local level. It also commits us to contribute towards delivery of the various central government commitments and to progressively address the impacts of climate change (according to our local priorities, securing maximum benefit for our communities).
- **Medium Term Objective** – The new Medium Term Objectives include the commitment to: “Promote Cambridge as a sustainable city, in particular by reducing carbon dioxide emissions and the amount of waste going into landfill in the City and sub-region”. This will partially be done by “Working with national, regional and local partners to promote sustainability and agree targets for carbon dioxide reduction; taking practical steps towards promoting sustainability and reducing carbon dioxide emissions and waste in the way the council operates; improving the energy rating of housing, offices and other buildings in the city; working with local communities, organisations and businesses to help people understand how they personally can make changes to live more sustainably and contribute to carbon reduction.”
- **Housing Strategy 2004 – 2007** – This strategy states that “Promoting energy efficiency is important in helping people to afford to heat their homes; this contributes to good health. It also addresses a corporate objective of protecting the environment”. “Improve energy efficiency in all tenures” is listed as a key priority.
- **Home Energy Strategy** - Cambridge City Council adopted a Home Energy Strategy in November 2006. This outlined the Council's plans in the form of objectives and tasks to “Increase the efficient use of energy in existing homes in Cambridge and reduce the emissions of carbon dioxide (and other greenhouse gases) associated with this use of energy in order to mitigate climate change.”

## 2.4. Local information

Annual average domestic heating costs in Cambridge have increased by up to 44% in the past three years (see Fig. 4).



**Fig. 4 – Average heating and hot water running costs for a 3-bed home in Cambridge City.**

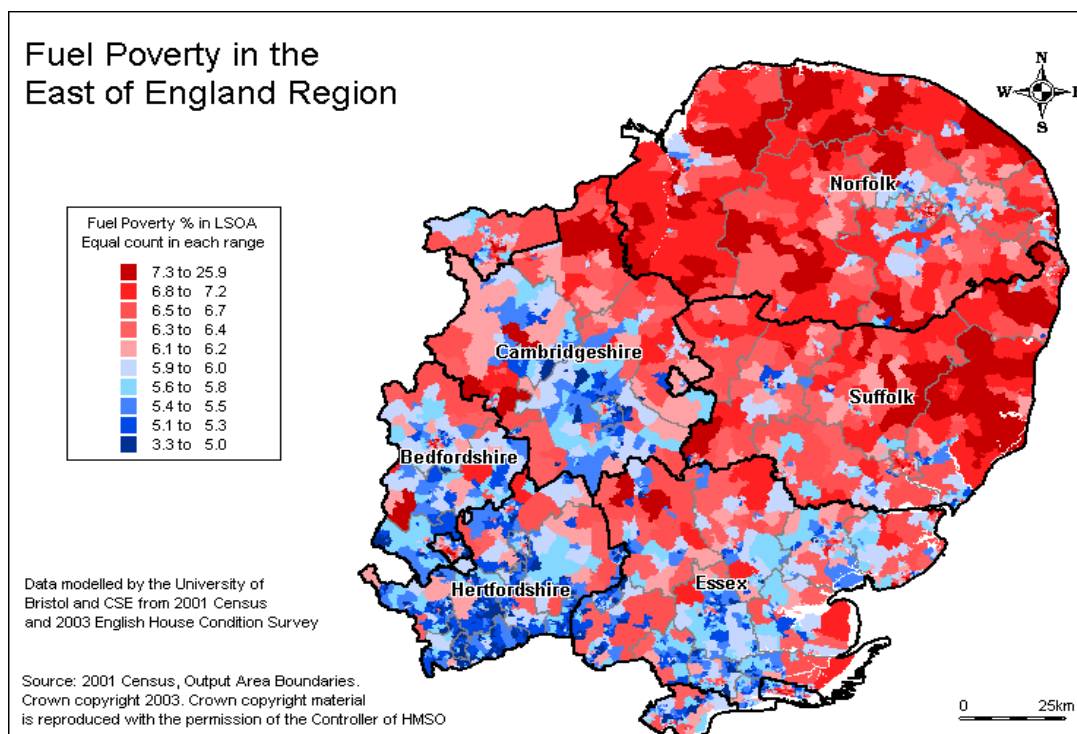
Cambridge City Council has powers (constrained by finances and the Decent Homes remit) to improve the insulation and heating systems of the council owned housing stock, but we can only facilitate improvements in the private sector (with the exception of our Home Improvement Agency). We obviously have no control over fuel prices but can refer residents to ‘benefit entitlement checks’ to help ensure they are claiming all that they are entitled to.

Cambridge City Council introduced a Home Energy Strategy in 2006 that outlined the Council’s plans in the form of objectives and tasks to “Increase the efficient use of energy in existing homes in Cambridge and reduce the emissions of carbon dioxide (and other greenhouse gases) associated with this use of energy in order to mitigate climate change.” With the introduction of a new Home Energy Efficiency Officer post in May 2008 it became possible to deliver this strategy more effectively. In light of this development and changes in the domestic energy field a review of the Home Energy Strategy will be undertaken. This Affordable Warmth Policy forms an important part of this strategy.

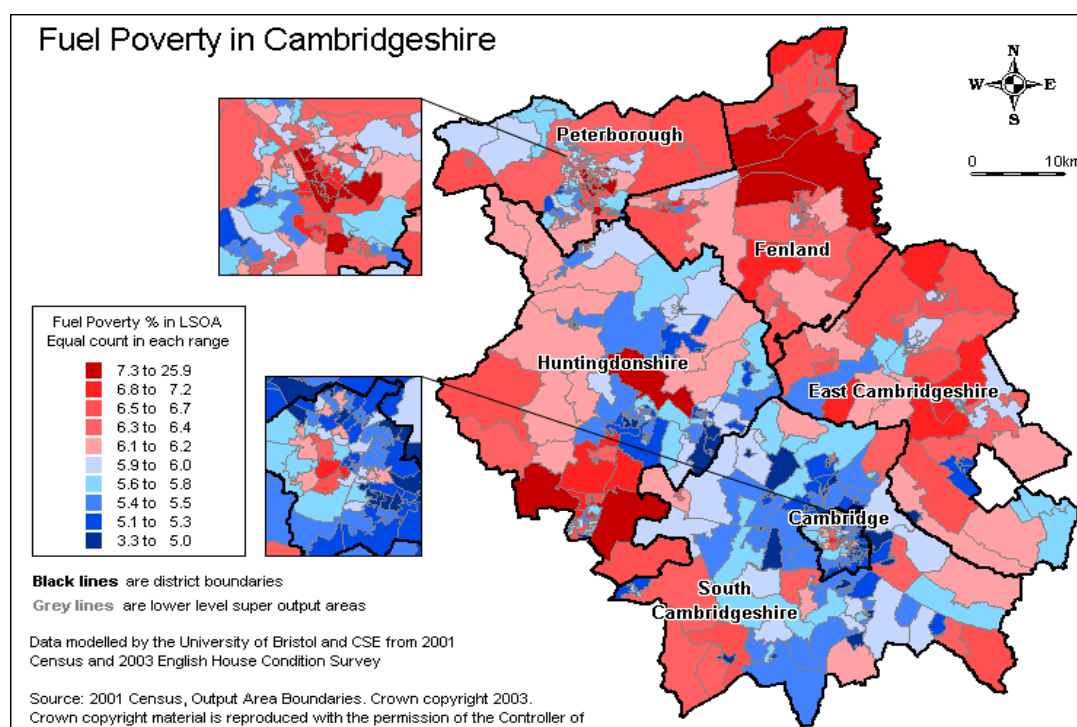
Based on 2003 English House Condition Survey data, the level of fuel poverty in Cambridge is approximately 5.6% (2379 households). As shown in Fig. 5

and Fig. 6, Cambridge City generally has a higher incidence of fuel poverty in central areas.

With rising fuel prices this figure is quite likely to have at least doubled – meaning that over 5000 households are now likely to be in fuel poverty. Further work is required to develop a more up to date reflection of the true picture so that limited resources can be targeted.



**Fig. 5 – Fuel poverty indicator for the East of England.**



**Fig. 6 – Fuel poverty indicator for Cambridgeshire.**

## **3. Action plan**

### **3.1. Existing initiatives**

Achieving affordable warmth requires a wide range of initiatives to ensure that all households are being helped out of fuel poverty. Achieving this will require a partnership approach and the involvement of the health, housing and social services, voluntary sector and other community agencies to identify those in need and provide appropriate solutions.

#### **Warm Front**

The Government's Warm Front scheme offer grants for insulation and heating of up to £2,700 (or £4,000 if the property has oil-fired heating) to qualifying private households in order to improve the energy efficiency of their homes.

#### **Decent Homes Programme**

All council owned homes must have efficient heating and effective insulation. Cavity wall insulation is installed as standard and we are upgrading all homes with less than 150mm of loft insulation.

#### **Carbon Emission Reduction Target (CERT)**

Funding is available from the utility companies under the Carbon Emission Reduction Target (CERT) to improve the energy efficiency of social housing and privately owned homes for qualifying householders.

#### **Cambridge City Council Home Energy Grant**

In 2007 Cambridge City Council adopted a new Home Energy Grant for owner-occupiers who have an income of less than £20,000 and savings of less than £20,000 and have owned their own home for more than 3 years. This is a grant of up to £1000 for energy efficiency improvements to the home.

#### **A free-phone energy efficiency helpline**

Supported by a multi-agency partnership, offering advice on: Council and Government grants for heating and insulation; the best suppliers of electricity and gas; no cost and low cost energy saving tips and renewable energy.

#### **Targeted mail shots**

Targeting of direct mail-shots and information on energy grants in wards with high deprivation indicators.

#### **Working with local media**

e.g. Press articles with local newspapers;  
e.g. Articles and adverts in the council's Cambridge Matters magazine;  
e.g. Free Energy Efficiency Guide to all residents.

#### **Promotional events**

e.g. Attendance at local flu clinics;  
e.g. Energy Saving Week activities;  
e.g. Local displays and presentations to community interest groups.

#### **Partnership Working**

The Home Energy Officer has developed partnerships with organisations such as Warm Front, energy companies, the Energy Saving Trust, Energy

Efficiency Advice Centre, Age Concern and other external organisations. Using external funding has greatly improved marketing and awareness raising initiatives.

### **Home Energy Officer (HEO)**

Over the past three years the HEO has attracted external funding for the council housing stock of approximately £100,000. This money has been spent on increased insulation and energy efficiency measures within the council stock.

In addition to this expenditure the development of partnerships by the HEO has led to other organisations funding initiatives on our behalf (such as mail shots). Additional grants through EEC funding (and now CERT funding) have been made available to residents through various insulation schemes. Free gifts such as CFLs from energy suppliers have been distributed to residents. This has led to financial savings and increased activities at no extra cost to the Council.

## **3.2. Action plan**

The main aim of this strategy is to ensure access to affordable warmth for all residents within the Cambridge City Council area. The key priorities to achieving this will be:

1.	Identify “at risk” households and target energy awareness advice and assistance towards these.
2.	Improve the energy efficiency of council owned housing stock by continuing to invest via the Decent Homes programme and external funding.
3.	Develop partnerships with external organisations to assist with the delivery of affordable warmth in the private sector.
4.	Raise the profile of affordable warmth and general home energy efficiency to all Cambridge City Council staff, particularly front line.
5.	Provide free and impartial energy efficiency advice to all local residents.

## **3.3. Further details**

### **1. Identify “at risk” households and target energy awareness advice and assistance towards these.**

The new National Indicator 187 - Tackling Fuel Poverty will report on the percentage of people receiving income based benefits living in homes with a low and high-energy efficiency rating. As part of the collection process for this indicator we will have to contact at least 2500 of the most vulnerable

households. This will be an excellent time to target promotional work. Targets for this indicator will be set once the baseline position has been reported in December 2008.

**2. Improve the energy efficiency of council owned housing stock by continuing to invest via the Decent Homes programme and external funding.**

Cambridge City Council has powers (limited by finances and the Decent Homes remit) to improve the insulation and heating systems of the council owned housing stock. Approximately £1.1 million per year is currently spent on improving heating systems within council housing. Energy efficient, A rated condensing gas boilers are installed as standard. Approximately £50,000 per year is currently spent on improving the insulation of council housing. The majority of this is currently spent on loft and cavity wall insulation. Further funding will be sought and additional and increasingly innovative energy efficiency work (such as solid wall insulation and renewable energy) will be carried out over the next two years.

**3. Develop partnerships with external organisations to assist with the delivery of affordable warmth in the private sector.**

A lot of work is already done with external organisations such as Warm Front, the Energy Saving Trust, Age Concern and various funding bodies and contractors. These relationships require further development to ensure uptake of relevant grants in the private sector. We obviously have no control over fuel prices but can refer residents to 'benefit entitlement checks' to help ensure they are claiming all that they are entitled to.

**4. Raise the profile of affordable warmth and general home energy efficiency to all Cambridge City Council staff, particularly front line.**

Energy efficiency awareness training should be provided to all front line Cambridge City Council staff as soon as possible. This will be of particular importance so that the anticipated increase in enquiries (as a result of the new Energy Performance Certificates for the rented sector) can be properly handled. Further training will be required for all staff - partly to assist with their own home energy efficiency and partly so that they can provide assistance to local residents.

**5. Provide free and impartial energy efficiency advice to all local residents.**

We currently provide free and impartial energy efficiency advice to all local residents via the Energy Saving Trust Advice Centre. This will continue and be developed to ensure adequate access to relevant and useful information. Promotional activity within Cambridge City will increase as a result of the new Home Energy Officer post.

**3.4. Potential new initiatives**

The Council's aim to ensure access to affordable warmth for all residents within the Cambridge City Council area cannot be achieved without long-term

commitment of the Council through adequate resources, initiatives and direct actions. These should be integrated with other council plans and strategies.

### **National Indicator 187 (NI 187)**

The new National Indicator 187 (NI 187) – Tackling Fuel Poverty, reports on the percentage of people receiving income based benefits living in homes with a low and high energy efficiency rating. Once the methodology for this indicator has been confirmed it is hoped that it can be used to report on progress in this area.

### **Home Energy Strategy**

The Home Energy Strategy is scheduled for renewal this year. This will bring the figures and action plan contained up to date and take into account the rapidly changing home energy climate. This Affordable Warmth Policy will form an important part of this over-arching strategy.

### **Energy Efficiency Action Zone**

The Pilot version of the Energy Efficiency Action Zone was launched in October 2007 and is due for completion in October 2008. This scheme was designed to focus promotional activity and provide targeted information to residents in one specific area of Cambridge (approximately 200 homes). Further action zones are planned and these could focus on providing affordable warmth.

### **Additional HEO – more events/promotion etc.**

As of May 2008 there are two Home Energy Officers (HEOs). One will have overall responsibility for the council owned housing stock, whilst the new position will take over responsibility for the private sector.

The recently appointed additional Home Energy Officer will enable the Council to further develop relationships with other organisations and improve performance of existing practices. It should also increase uptake of the Home Energy Grant scheme.

### **Referral network**

Health and care professionals and community workers could identify vulnerable and socially excluded householders who would benefit from improved housing conditions. They could then refer them to Cambridge City Council who would provide the appropriate support.

If the Council want to set up such a scheme no additional resources would be required but it should be included as one of the tasks of the Local Strategic Partnership. This will assist in overcoming difficulties experienced in the past when establishing a referral scheme with Health Services.

### **Hard to treat (HTT) homes**

'Hard to treat' (HTT) properties are those that cannot accommodate the usual energy efficiency measures offered under schemes such as Warm Front in England.

They may include homes with:

- solid walls;
- no loft space;
- no connection to low cost fuel such as oil or gas.

Because of high heating bills associated with HTT homes, families who would otherwise cope relatively well in a more energy efficient home could find themselves in fuel poverty. Additional work is required to improve this type of housing.

## 4. Have your say

This policy is regularly reviewed and updated - please tell us your views on the policy and include any comments or questions you have for us via email:

[Sam.griggs@cambridge.gov.uk](mailto:Sam.griggs@cambridge.gov.uk)

Or

[Justin.smith@cambridge.gov.uk](mailto:Justin.smith@cambridge.gov.uk)

Or please write to the following address:

Sam Griggs  
Home Energy Officer  
Cambridge City Council  
Technical Services  
Mill Road Depot  
Mill Road  
Cambridge  
CB1 2AZ

Or

Justin Smith  
Home Energy Officer  
Cambridge City Council  
Housing Standards  
Mandela House  
4 Regent Street  
Cambridge  
CB2 1BY

## 5. Glossary of terms

### **Affordable Warmth**

The ability to heat your home without incurring excessive fuel bills or developing a debt as a result.

### **Carbon dioxide (CO<sub>2</sub>)**

A gas produced when fossil fuels are burned and is one of the 'greenhouse gases'. UK energy policy aims to cut carbon dioxide emissions.

### **Carbon Emission Reduction Target (CERT)**

Replacing the EEC scheme for 2008-11, with an expanded range of energy efficiency measures.

### **Central heating**

A heating system that provides heat to the whole home from a central source (such as a boiler).

### **Climate change**

A change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural variations in climate.

### **Condensation**

A change of state from gaseous to liquid (e.g. from water vapour to water).

### **Decent Homes standard**

In 2000, the government made a commitment to bring all public sector homes up to a decent standard, establishing a ten-year target and an interim target to: "ensure that all social housing meets set standards of decency by 2010, by reducing the number of households living in social housing that does not meet these standards by a third between 2001 and 2004, with most of the improvement taking place in the most deprived local authority areas".

### **Dry lining**

Insulation of a wall (usually a solid wall) from the inside by lining the room with plasterboard and insulation.

### **Energy efficiency advice centre (EEAC)**

The network of 52 EEACs provide energy advice to the public and promote energy efficiency all around the UK.

### **Energy Efficiency Commitment (EEC)**

An obligation placed on gas and electricity supply companies as a condition of their licence. EEC places targets for energy savings to be achieved (by energy supply companies) in domestic residences. This means the supply companies deliver schemes to encourage take up of insulation and efficient electrical items. Schemes are delivered by the company itself or in partnership with other organisations or local authorities. 60 per cent of the energy savings achieved under EEC must be in vulnerable households.

### **Energy ratings**

An energy rating is a measure of the energy efficiency of a dwelling under standard occupancy conditions. It is designed to help compare the energy efficiency of different homes on a common basis, much like the mileage per gallon figures used to compare the energy efficiency of cars.

### **Fuel poverty**

A fuel poor household is one that needs to spend more than 10 per cent of their income on all fuel in order to heat their home to an adequate standard.

### **Housing stock profile**

A graphical representation of the numbers of properties in a housing stock with different levels of energy efficiency. Stock profiles provide an immediate visual indication of overall performance.

### **Insulation**

Material which is a very poor conductor of heat, used to minimise the rate at which heat is lost from inside a warm building to a cold environment outside.

### **Mould**

A type of fungus propagated by spores that grow on some surfaces where dampness is present.

### **Renewable Energy**

Energy production using natural resources in an inexhaustible manner.

### **Solar energy**

The energy from the sun is used in different ways in domestic buildings. These are passive solar heating, solar water heating and solar photovoltaics.

### **Solid wall**

An external wall without a cavity, usually brick or stone (plus internal plaster and sometimes external render).

### **SAP**

The SAP energy rating compares the energy efficiency of different homes regardless of their location in the country. It is based on the estimated annual cost of heating and hot water per square metre and is expressed on a scale of 1 to 120 (with 120 being the highest). The version of SAP will be changing during 2006; it will revert to a 1-100 scale.

### **Wet central heating**

A central heating system which uses hot water to distribute heat through the home in pipes and radiators (or sometimes under the floor).