Diagnosis of causes and consequences of fuel poverty in Belgium, France, Italy, Spain and United Kingdom

EPEE project
WP2 - Deliverable 5

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PREAMBLE

The present synthesis is issued from the European project EPEE.

EPEE is an EEI project, co-financed by the European commission, which aims to increase knowledge and understanding of fuel poverty, to quantify the households in this situation and to devise some effective operational mechanisms to tackle it.

The present report is one of the first outputs of the EPEE project. It synthesizes the studies of causes and the consequences of fuel poverty led in each of the partner countries (Belgium, France, Italy, Spain and United-Kingdom).

Fuel poverty is an interaction of three different policy areas: energy, housing and incomes. Understanding and evaluating fuel poverty phenomenon entails an understanding of these areas and their interactions.

The study is limited by the data available. In some cases we would have liked to have done further analysis, but because of a lack of data we were only able to make a rudimentary start.

Synthesis of studies on causes and consequences of Fuel Poverty of the 5 countries studied.

Presentation

Poverty is not a recent research topic. Researchers, sociologists and psychologists have been studying it for years.

Poverty is a highly subjective and relative notion, for its definition is linked to our conception of an "acceptable situation". Meaning that our perception of a household's particular poverty depends on situations such as full or part time employment, on the labour market generally, but also on society values, the cultural and social background (a fuel-poor household from one of our countries will probably not be considered as one in a developing country). The notion of fuel poverty is just starting to emerge in most European countries as a particular kind of poverty.

Poverty, as a concept, may be considered as living with a high level of uncertainty of being able to reestablish or to maintain an adequate financial situation.

We have defined fuel poverty as a household's difficulty, sometimes even inability; to adequately heat its dwelling, at a fair price.

This notion of fuel poverty is not clearly defined yet in most of the participating countries (the United Kingdom is the only country with an official definition). The first part of the EPEE study looks at the causes and consequences of fuel poverty.

Studies conducted by EPEE project partners in their own countries are summarized below. The aim is to start a global understanding of this concept, and also to highlight that fuel-poverty is an international issue..

I. Fuel-poverty: Multiple causes, but some similarities between the studied countries

Five partner countries were involved: Belgium, France, Italy, Spain and the United Kingdom.

A lot of similarities were found in the factors affecting fuel poverty. It would not be surprising if we found out that the same causes produce the same effects in a wider range of countries. Nevertheless, we cannot consider the five partner countries to be representative of the EU: there is no Scandinavian nor eastern European country involved where climate conditions are more extreme in the winter. It would be useful to continue this work in those countries, in order to complement the present and following results.

1: 1st cause: Low incomes

According to our study, being on a low income is the factor that gives the highest probability for a person to live in fuel-poverty.

Having a low-income forces people to consume less and live more modestly. But there are essential needs, and energy is one of them. The need to reduce overall energy consumption in order to fight climate change is not disputed, but the fact that energy is essential for all, poor and less poor, in everyday life should be recognised.

In most cases the profile of fuel poor people are those who receive social security payments, work part time and/or are in debt. The deep-rooted unemployment rates in some countries, growing job insecurity (part time employment, short-term jobs) lead a lot of people to live below the poverty threshold (data per country are given later).

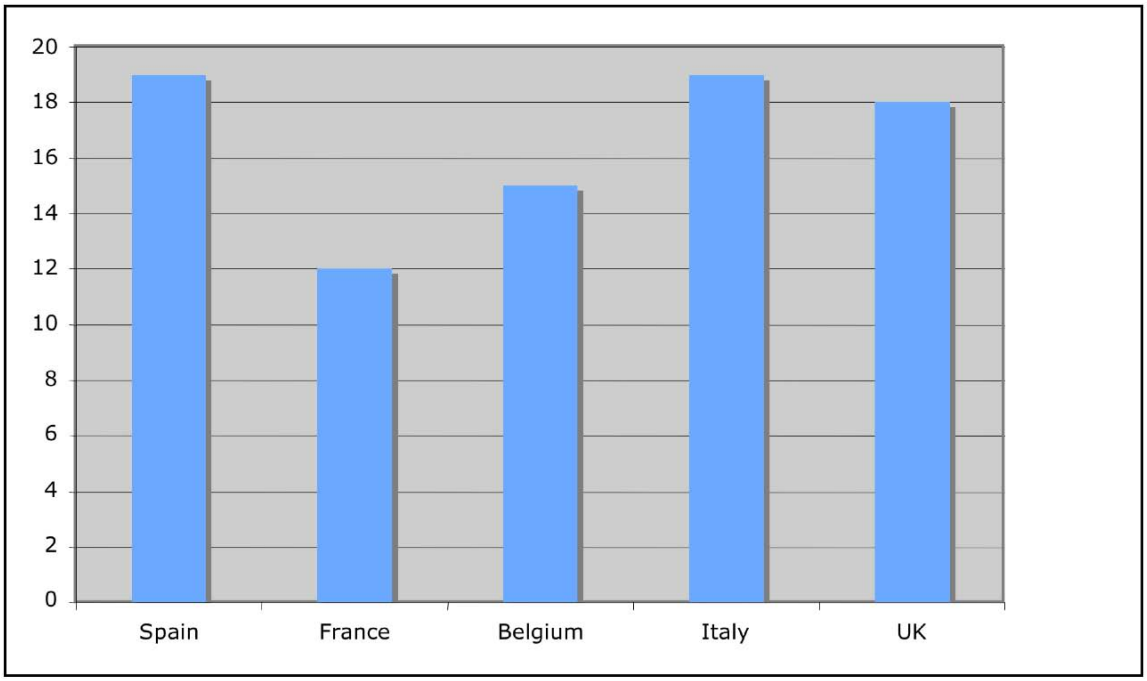
The countries studied do not use the same method to calculate the poverty threshold. The levels in each country are indicated below. In the following chart, made from Eurostat data, the threshold value is based on 60% of the median income, for all countries.

Poverty thresholds:

- **Belgium:** 9864 €/ (year. person) (calculated at 60% from the median)
- **Spain**: 6278 € / (year. person) (calculated at 50% from the median)
- **Italy:** 6743 € / (year. person) (calculated at 50% from the median)
- **U.K:** 7200 €/ (year. person) (available incomes, calculated at 60% from the median)
- **France:** 7740 € / (year. person) (calculated at 50% from the median)[1]

[1] Site Internet 'Observatoire des inégalités'

% People living below poverty-threshold (60% of median income)



Source Eurostat sept 2005

Moreover the rising standard of living, and especially the increase in rents (in France average 6.2% per year over the last 20 years; in Italy 100% between 1999 and today; and in Belgium 10.6% average value between 1996 and 2001) have affected the quality and comfort of life of those on low incomes. They are frequently forced, by lack of means, to rent "low energy performances" dwellings.

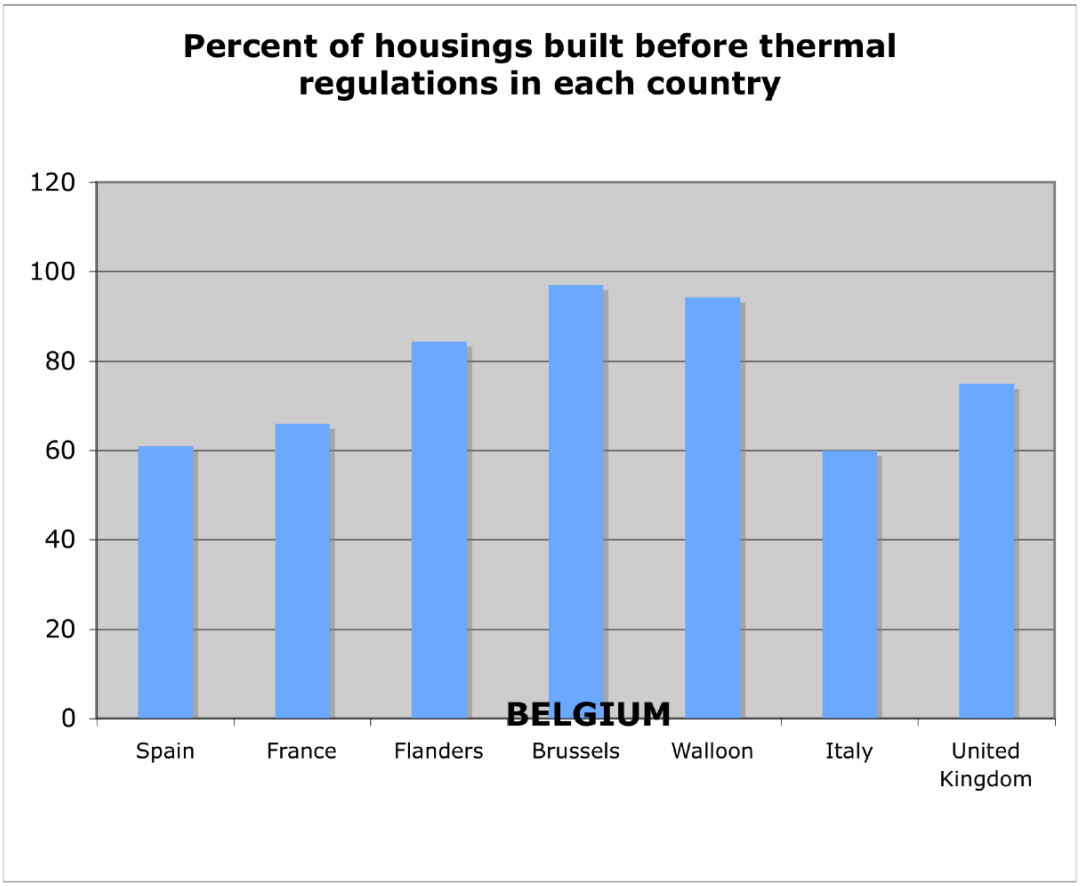
Their incomes don't allow them to live in "decent" dwellings, and in most cases they end up in dwellings requiring significant refurbishment and energy efficiency improvements.

2: 2nd cause: The dwellings

Thermal efficiency regulations were established in different periods in all the five studied countries:

- Spain: 1980
- France: 1974
- Italy: 1973
- UK: 1965 (but really effective since 1974)
- Belgium:
  - Flanders: 1992
  - Brussels: 1999
  - Walloon: 1984

The chart below shows the large amount of dwellings constructed before the thermal regulations were introduced, and therefore believed to be heavy energy consumers



Usual characteristics of low performances dwellings inhabited by low income households are:

- No central heating systems
- Defective insulation (Windows, roof, walls)
- Humidity

A dwelling badly insulated with no central heating system, like an old electric heating appliance, cannot easily or cheaply be made 'decent'. The heat produced by the heating system is immediately lost if there is no insulation.

In those circumstances fuel poor households make two distinct choices of life:

- They try to heat their dwelling anyway, using extra heating like an oil-burning stoves, and run the risk of not being able to pay the bills and end in debt.
- They decide not to heat their dwellings (or heat it just a little), even if it means living in a cold dwelling.

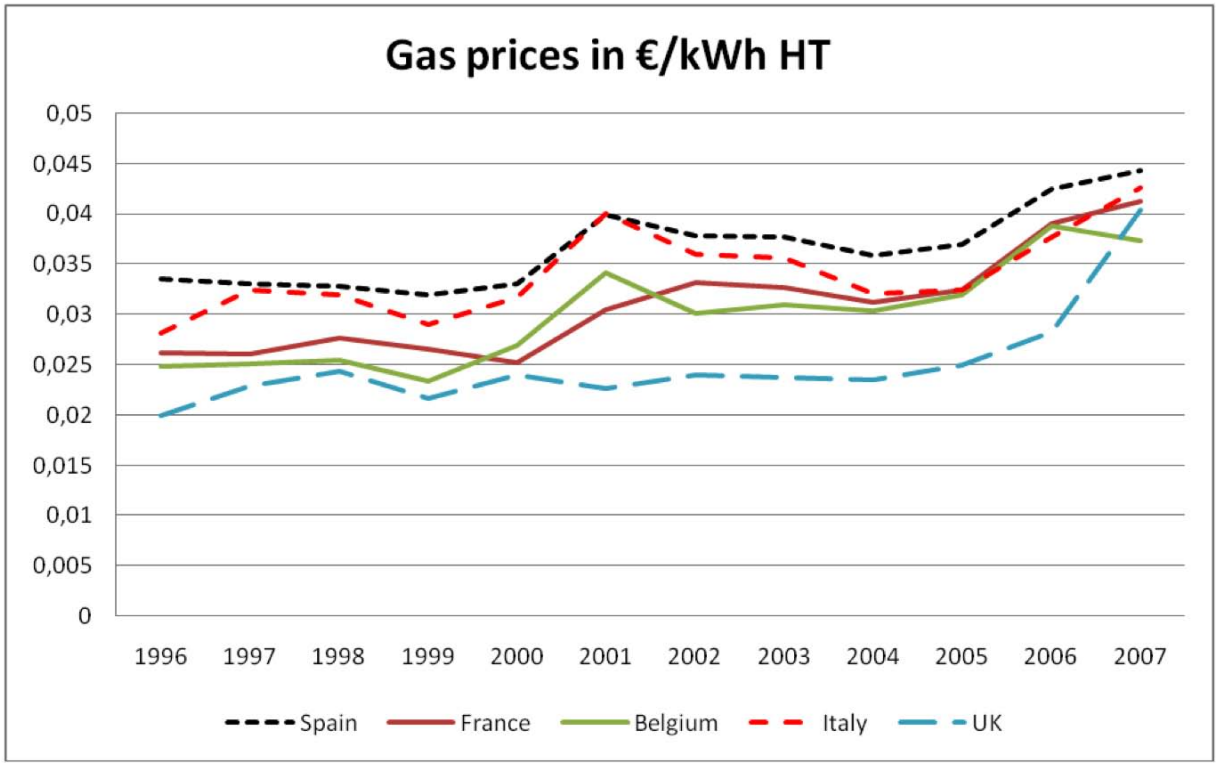
3: 3rd cause: the energy price

As the oil crisis of the 1970s receded, states began to abandon their energy saving policies which had begun and which would have been tools to both fight against climate change (widely unrecognised at the time) and fuel poverty. In France, a strong commitment to use electricity to fulfil thermal needs lead to a situation where electricity is now one of the main systems to heat a home, yet electricity remains the most expensive means to do so.

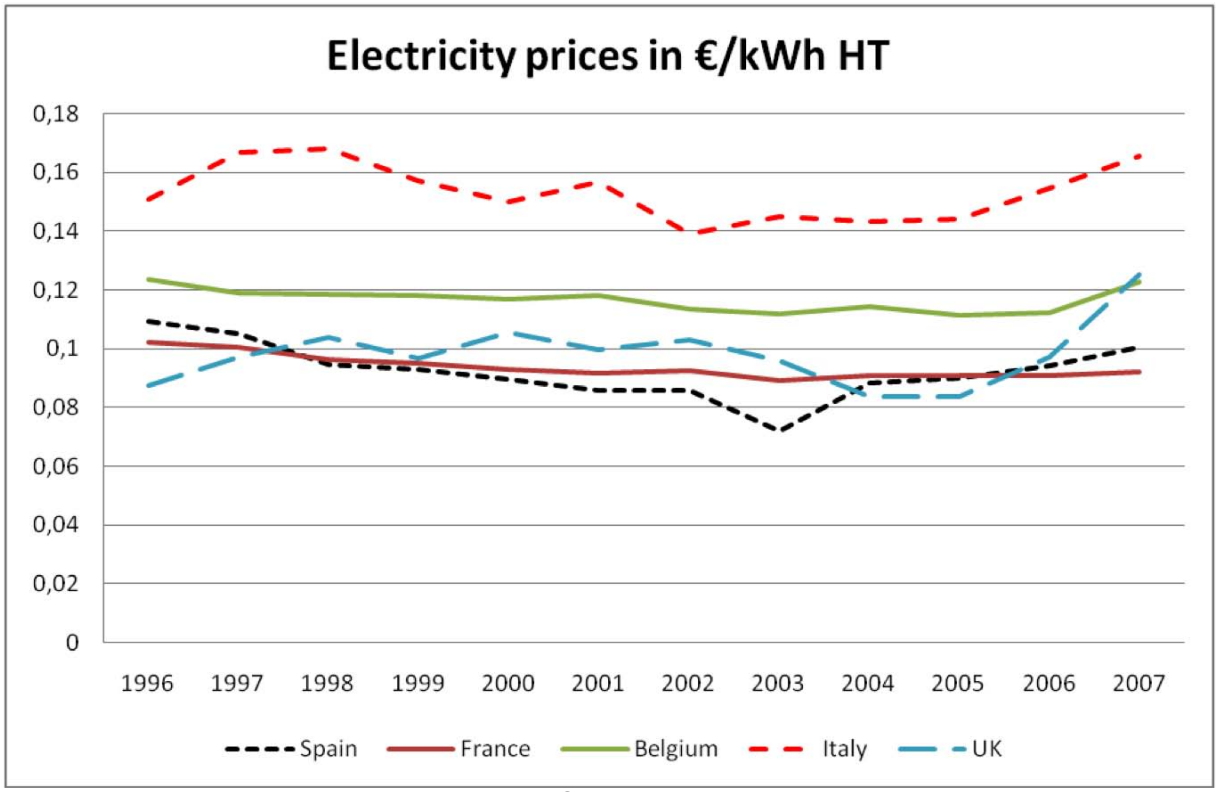
Over the past ten years, and in each of the studied countries, gas prices have strongly increased. Electricity prices were stable for the last ten years but slightly increased during the last two years.

Mechanisms to pay energy bill arrears are very different from one country to another. These kinds of mechanisms are almost non-existent in Italy and Spain. In France, the mechanism is precisely defined since it became compulsory with the last "decentralisation law". In the UK, because of the pre-payment systems, the problem of arrears is not as great as in other countries although it is still estimated that around £1 billion of debt is owed to energy suppliers by consumers. New mechanisms to tackle fuel poverty need to be set up including financial support directly addressed to help those who need it according to age and health criteria.

The following table allows us to compare gas and electricity prices in the different partner countries. It shows important differences in electricity prices and a tendency towards harmonised gas prices.



Source : Eurostat



Source: Eurostat

Fuel poverty usually results in a continuous vicious circle.

Poverty forces poor households to live in bad quality hard to heat dwellings.
Moreover the recent rise of energy prices (and further expected rises) will make it more and more difficult for this category of people to pay the bills.

II: Fuel Poverty: The consequences

1: Physical health risks and impact

The national studies established a relationship between fuel poverty and impacts on physical health, which affect firstly vulnerable people, such as children, elderly people and people with chronic health conditions. For example, in the UK, where data and research findings on mortality caused by bad housing conditions are available, it appears that an average 25 000 to 40 000 people die each year, depending on the severity of the weather. In the other countries, there is no such data collected.

The permanent cold and the humidity in a dwelling can lead to respiratory problems, such as asthma, bronchitis, etc. And in order to find an alternative and less expensive way for heating the dwelling, people choose to install auxiliary heating. However these alternative heaters don't solve humidity, still have an impact on health and may cause accidents and/or carbon monoxide poisoning. Despite these dangers, the auxiliary heating is perceived as a reliable, immediate and manageable means of heating by many people in fuel poverty and agencies working with them.

Moreover, some "low performance" dwellings may have also defective electrical devices, which represent major fire hazard.

2: Mental health risks and impacts

In each country, people in fuel poverty are susceptible to mental health problems. Bad dwelling conditions can cause anxiety, lead to social exclusion and isolation and have a negative impact on self-esteem and the capacity to manage.

3: Degradation of dwellings

Humidity in dwellings can lead very quickly to the degradation of the building. It causes changes to the properties of the walls, doors and windows, increasing thermal loss. The more a dwelling deteriorates, the more it is difficult to keep it warm and to stop humidity. A vicious circle is launched.

Tenants in fuel poverty, reporting the material degradation of the dwelling may find their landlord reproaches them for not heating it adequately and thus contributing to the deterioration.

This can lead to tensions between owners and tenants. However, owners are usually responsible for maintenance and retrofitting works of their properties and bad relations make it more difficult to negotiate for retrofitting works.

4: Excessive debt

Households on low incomes finding it difficult to pay their energy bill often start to accumulate debts. Paying high energy bills may lead to much lower disposable income for other essentials such as food and transport.

The possibility of financial assistance for the fuel poor is specified in WP3, whose objective is to underline the different mechanisms and infrastructures that intervene in the issue of fuel poverty.

5: CO2 emission

The low energy performance of dwellings and their degradation cause an increase in the energy consumed to keep an adequate heating standard.

Addressing fuel poverty should be integrated into the global fight against global warming with actions targeted to households with low income.

Conclusion

The analysis of causes and consequences of Fuel Poverty allows us to see the differences and similitaries between the five countries studied. It enables us to check the difficulties of the people living in this situation, and to reflect on their needs and on a suitable strategy to eradicate this phenomenon.

We are now seeking to engage with Veronique Ezratty from EDF/GDF and David Ormandy from the University of Warwick who are working on the health consequences of fuel poverty.

This study has revealed the lack of data and of other relevant studies (except in United Kingdom) on this theme.

We perceive that there are differences in the specific causes and consequences not only between countries but within regions of each country. (For example, North/South of Italy; the four countries of the UK; Flanders, Walloon and Brussels in Belgium). It would be interesting to study more closely those disparities within the different countries.

National report on causes and Consequences of Fuel Poverty in the 5 countries

BELGIUM

Causes and consequences of Fuel Poverty in Belgium

Before detailing causes and consequences of fuel poverty in Belgium, we should highlight that the rate of poverty risk was about 15% in 2005[2], with substantial differences between Regions:

- 11% for Flanders
- 18% for Walloon
- 27% (estimate) for Brussels-Capital Region.

Otherwise, no definition of fuel poverty exists at present in Belgium.

I: Causes of Fuel Poverty

The first two causes of fuel poverty in Belgium are:

- Lack of income; today, 15% (60% medians) of Belgium lives under the poverty threshold. (9864 Euros/ a year).

For people on low incomes, the principal debts are:

- Unpaid health care bills (especially, hospital expenses);
- Delay in payment of school expenses.

In Belgium, today there is another type of debt called “the other debts” for essential living. Debts concerning the right to housing in a broad sense are part of them.

[2] *EU-SILC 2004-2005 + banks of national data + Statistical General Direction and Economic Information /SPF Economy, Eurostat quoted in PANincl 2006-2008: Indicators, p. 44*

The other causes of fuel poverty are:

- Increase of gas prices (In 1996: 0.025 Euros/ kWh HT and in 2007: 0.042 Euros/ KWh HT)
- Increase in rents. Poor people are more often constrained to renting and not purchasing a house. Over the period 1996/2001[3], rents recorded an average rise of 10.6%. Crucial element: the increase in rents are more important in the social-rented sector (+ 19.8%) and, in the private market, in the lower categories of housing (up to 14.5%). In other words, the increase in rents, for all the categories of dwellings, mainly concern people in precarious situations.
- Lack of training and information about the rational use of energy. People on low incomes often have a low level of education. The rate of poverty risk for people having a low level of education is 22.5%[4].

- Poor general state of dwellings. In Belgium, there are three regions and three separate dates when thermal efficiency building standards were introduced. (The thermal regulations require that the building be built with a minimum of thermal standard):
    - Flanders, 1992
      84,4% of the building in Flanders have been built before the first Thermal regulation.
    - Walloon: 1984
      94,3% of the buildings in Walloon have been built before the first Thermal regulation.
    - Brussels: 1999
      97% of the buildings in Brussels County have been built before the first Thermal regulation

- Unfortunately, damp or cold dwellings are easily rented because demand is greater than supply.
- Lack of coordination between professionals in the fields of health, housing and welfare when damage to housing quality or deterioration in occupants' health are observed[5].
- Landlord's bad practices. Indeed, landlords don't hesitate to announce an all-inclusive price and then set up an account in the tenants name with the energy supply company.

[3] "The right to a decent housing : 10 years after the general report on Poverty", Service for the fight against poverty, insecurity and social exclusion, April 2005
[4] " Facts and figures : is the risk to fall in poverty higher for the low qualified people?", Service for the fight against poverty, insecurity and social exclusion
[5] " Health and Housing. Possible solutions for an integrated field approach", Tomas Mainil, Dr. Sara Willems, Research Unit on general Medicine and health care under the management of Pr. Jan De Maeseneer, University of Gand, february 19, 2007

Failures of energy companies managers that increase fuel poverty problems raised by stakeholders include:

- Presence of a automatic call centre and then absence of a contact person who understands consumer issues;
- Lack of competences. People answering the phone don't know consumer law and regulations and give wrong advice to consumers;
- Slowness to react (sometimes one year after the unpaid bills!). The arrears to pay are then too high for low income households;
- Lots of mistakes in billing. (Bills not sent to the right consumer or not corresponding to consumptions);
- Bills not clear enough;
- Impossibility to have an idea of the whole debt because different departments in the company are in charge of the un-paid bills;
- An independent company has to read meters but it takes place by phone. So, consumers give wrong figures to pay less and then arrears are claimed later.

II: Consequences of Fuel Poverty

The consequences of fuel poverty are:

- The notional energy element of a low income household budget doubled since 1996[6].

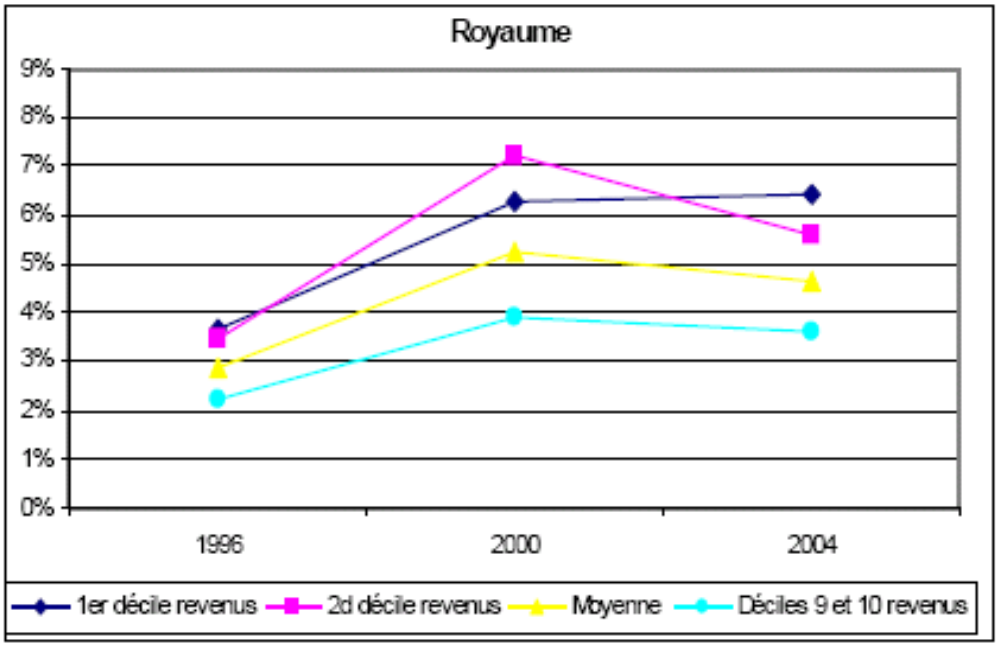


Figure 1: Evolution of the "energy element" in household consumption for low and high incomes (deciles 1 and 2) (deciles 9 and 10) in Belgium

[6] *"Comparative Study of the social policies as regards energy", Cédric Dumortier, Sandrine Meyer, Dr. Walter Hecq (CEESE - Université libre de Bruxelles) and Barbara Demeyer and Kris Bacchus (HIVA - Katholieke Universiteit Leuven), August 2006*

- Because of the lack of training and information, low income households have a tendency to buy “cheap” electric appliances with poor energy efficiency performance which involves an increase in energy consumption;
- Increased access to credit facilities generates an increase in the number of electric appliances;
- Low-income households rent dwellings in a very poor state of condition (moisture, single glazing, low levels of insulation);
- The great difficulty low income households have is in affording to insulate or renovate their dwelling;
- The link between the state of heath of low income households and housing quality isn’t clearly understood;
- According to a note written by the ‘service for the fight against poverty’, insecurity and social exclusion[7], the lifestyle of people living below the poverty threshold and the others is extremely different. In general, it is clear that people living below the poverty threshold limit are systematically more destitute than people living not in poverty.

<u>The most important differences are revealed in the following points:</u>

- Inadequately heated housing due to financial problems: 10% against 6%
- Ability to pay, in a week a sudden 750 € expense: 57% against 24%
- Possibility to go on holiday for one week every year: 56% against 24%
- Difficulties in balancing a budget: 43% against 14%
- No participation in sporting, social or cultural outside activities: 76% against 60%
- Lack of space (less than one room by person): 13% against 4%

- More particularly, because of the lack of information related to the liberalization of electricity and gas markets, many low income households have several supply agreements and, therefore, the expense of cancelling contracts is sometimes an excessive drain on their budget;
- People move house a lot. It may appear to be a solution to avoiding paying bills, but In fact, it’s just the opposite because when the company tracks them down they have to pay more (reconnection charges, interest, fines).

[7] “Facts and figures : how many people live in poverty in Belgium?”, Service for the fight against poverty, insecurity and social exclusion

III: People concerned by energy poverty

As a result of a study realised at the time of the energy guidance implementation by CPAS of the Walloon Region[8], several beneficiaries are defined as being at risk and as priority consumers.

- Economically weak households
- One-parent family (especially women)
- Low incomes households
- Tenants with all included expenses rents
- Over-indebted households
- People living in non-decent dwellings
- People using defective or unsuitable appliances
- Households who don't really know their consumption
- People socially isolated
- Households with a very high rent compared to their incomes

[8] "Energy guidance in the social sector, training and set up of a didactic tool", final report, Walloon Institute, Centre for training and psycho-sociological Intervention and the interdisciplinary centre for trainers training from University of Liege on behalf of Ministry for the Walloon Region, May 24, 2002

Other sources consulted as part of this work package:

- "Dossier: fuel poverty: a new social challenge", Florence Loriaux, Director of and the Research Animation Center in Working and Popular History, Supplement of the review "au Regard" N°42, December 2004
- http://www.observatoire-credit.be

Overview of the documentation available on Fuel Poverty related issues in Belgium

Author	Source	Year	Up-date	Subject	Available data
INS (*)	Socio-economical general survey	2001	-	Households' equipment and Inheritance	- Oldness (more than 20 years) and refurbished dwellings - amount of rent's dwellings - fuels used in heating - dwellings' insulation - …
King Baudouin Foundation	Report on poverty	1995	2005	Poverty	- Analysis of the poverty's issue in Belgium - Poverty's development by province in 2005
INS	Eu-Silc 2004	2004	-	Income and living conditions	
INS	Households' Incomes and remunerations	2004	-	Details of available income composition	Statistics on available income according to the economical activity, inheritance, social allocations and others
INS	Survey of households' expenses	2004	-	Details of households' expenses	Development of households' expenses according to the rent's dwelling, the fuels used in heating and others
Service for the fight against poverty, insecurity, and social exclusion	Inventory of the Belgium legislation on social measures in the fields of energy	2006	-	Description of the social legislation	Inventory of the different social measures by Region

(*) National Institute of Statistics in Belgium

FRANCE

Causes and the consequences of fuel poverty in France

Fuel poverty is a wide notion that in France has no precise definition.

In our opinion, a person is in fuel poverty, when he experiences difficulties in heating his home to an adequate (safe and comfortable) temperature owing to low income and poor, energy inefficient, housing. Nowadays, numerous people are in this situation. It is thus essential to ascertain the causes and consequences. This will help us to understand this notion in a clear and precise way and will allow us to better identify people in such a situation.

To analyse the causes and consequences of fuel poverty, we have carried out, in addition to having consulted existing literature on the subject, interviews with two groups, firstly householders experiencing fuel poverty on low or modest household incomes, and secondly professionals with on the ground knowledge of the issue: the social workers.

I: Fuel poverty: accumulation of difficulties

Often, people in fuel poverty will have a number of problems and needs and face disadvantage across a range of areas. These people have multiple and complex problems and find themselves overwhelmed by the increase in energy prices.

1: Low incomes

According to social workers, backed up by the characteristics of the householders in fuel poverty that we interviewed, in the majority of most cases, people who are in fuel poverty will be on low incomes (benefit recipients, part time job etc). This is the first factor of fuel poverty and it will determine the rest. Households have difficulties because they are restricted by low incomes. Most people in fuel poverty we interviewed consider that their situation would change if they had more money. "*For a better life, I need to have more money."*

In France more than 2 million people are unemployed. (In fact, it seems to be clear that the actual figures are higher because lots of people are not registered at the employment agency and do not appear in official statistics). Officially, 8.5% of the population is deemed to be unemployed. What is more worrying is that 25% of under 25 year olds are looking for work, underlining that in France, there is currently a real employment crisis.

Moreover the standard of life has considerably increased over recent years for the general population and so life, by contrast, is more and more difficult for people on low incomes.

Rent increases in recent years have been high. In 2005, according to INSEE (National institute of statistics), prices have increased in Île-de-France (Paris and its outer and inner suburbs) by 14.8% and in the provinces (French territory except Paris and his suburbs) by 14%; 14.3% on average across the whole of the country.

According to INSEE, housing became the main household budget expenditure. In 2004, housing corresponded to 21% of a household's budget and nourishment, 12%. In the beginning of the 80s, those expenses correspond respectively 14% and 15% of their budget. House expenditure has increased by 5.2% per year on average over 20 years.[9]

Today the poverty threshold is fixed at €7740 per year per person (calculated at 50% medians) [10]. So, in 2005, in France, 12% of people live below the poverty threshold.[11]

[9] *INSEE, C.Plateau. «* Vingt ans de dépense de logement » www.insee.fr/fr/ffcdocs_ffc/DONSOLO
[10] « Observatoire des inégalités » www.inegalites.fr

2: Dwellings and energy performance of dwellings

Often, people on low-incomes are obliged to "choose" low cost dwellings. However, often, low cost dwellings have lots of problems: bad insulation, dampness, poor heating systems etc. This type of dwelling is typically built before 1948 or at least before 1974, the date of the first building regulations for thermal efficiency. Before this date, there was no rule regarding energy performance of dwellings. In France, 66% of the housing stock has been built before the first thermal building regulation was introduced[12].

Therefore, most pre 1974 houses would need to be refurbished. Owners on low-incomes don't necessarily have the appropriate income to engage in this type of work. And tenants depend on the landlords to make the improvements.

Social housing can be a solution for modest/low-income households, but there is a housing shortage crisis in France, and the waiting list is long for social housing. France has a law that obliges towns of more than 3500 habitants in an urban zone, to have at least 20% of the stock in the social housing sector. So, most low-income households are liable to live in private housing and which does not attain a 'decent' standard. "*90% of the fuel poor are in private housing stock because social housing is inaccessible for our users (Social worker).*"

Often, the low energy performance of a building is combined with an inefficient heating system.

It is doubly difficult to heat this type of housing correctly for these two reasons: the heating is inadequate and there is heat loss because of the bad insulation.
To be more precise, low-income housing is often equipped with electric heating. This type of heating is well known to be expensive for the user and at the price per kWh for heat output, especially when the housing is poorly insulated. The consequence is a high energy bill for the householder.

Social workers notice that modest/low-income households in fuel poverty have two main types of behaviour with regards to energy:

- Households that heat their dwelling adequately and then get into debt with unpaid bills.
- Households that are afraid of high-energy bills, and under heat their dwelling

Fuel poverty can have important consequences on physical and mental health as a result of either of these two behaviours.

[11] *Source : Eurostat, September 2005.*
[12] Une réglementation thermique des bâtiments existants…un premier pas timide, www.*amisdelaterre.org*

II: Consequences

1: Shared between feeling of inability and shame

When low-income households receive high-energy bills, which they cannot pay, they have to meet social workers to ask for help, because if they don't pay they can be disconnected from their supply of energy. "*It is often difficult for the person to take the steps to contact a social worker. (Social worker)"*. Asking for help means admitting to having financial problems some people feel ashamed about and it may result in psychological problems.

2: Isolated persons

The social workers interviewed said that these households struggling to pay their energy bills are often isolated. "*The fuel poor are relatively isolated, even if they maintain relationships with their families. They don't invite people to their home, and lose friendship networks. (Social worker)"*

However, the fuel poor themselves, when interviewed, didn't mention this feeling. Certain studies support the social worker statements. According to the French national observatory against poverty and exclusion "*in the majority of cases, the low income household has contact with their close relations. However 1 in 4 people on low incomes feel isolated"*[13]

When a person recognises difficulties, there are "*numerous factors which may lead a person to develop psychosocial adaptation difficulties"*[14]

3: Weakened health

The study shows that the living conditions of people in fuel poverty can affect their health: respiratory problems linked to low energy performance building (cold and humidity). Low-income households often use oil stoves to heat their house. But this system of heating causes damp housing and results in mould growth which can add to poor respiratory health.

[13] "Le rapport de l'observatoire national de la pauvreté et de l'exclusion sociale, 2003-2004" *Observatoire national de la pauvreté et de l'exclusion sociale*

[14] "Précarité et vulnérabilité psychologique" *P. Tap et M. De Lourdes Vasconcelos, Ed. Eres, 2004, Ramonville*

CONCLUSION

People living in precarious circumstances are at risk of falling into fuel poverty, adding to other hardships.

We notice that when a person lives in a difficult social and economic condition, he modifies his behaviour. Fuel poverty is a concrete illustration of it. Such a person will either be in debt and seeking financial help, or will reduce the amount of energy necessary for health and comfort. Fuel poverty has an impact on physical and psychological issues.

The increase in fuel poverty affecting low-income households is a subject more and more worrying and urgent. At least 300,000 households in France are applying annually for financial help for the payment of their bills. [15]

[15] http://www.unaf.fr/article.php3?id_article=3493

Overview of the documentation on Fuel Poverty available in France

Title (In original language)	Title (In English)	Year of publication	Authors	Short description of the authors (Public Institution, University, NGO, social / energy specialists, …)	Short description of the document
"L'état du mal logement en France, rapport annuel 2006",	"Housing's poor state in France"	2006	Fondation Abbé Pierre pour le logement des défavorisés	This is a report which is edited every year and realised by a well-known foundation in France: Abbé Pierre's Foundation. This foundation acts so that the most discriminated find accommodation with dignity and durably.	The report indicates that it becomes difficult to manage to pay rent and energy because prices increase continually. This study denounces also the lack of local authorities effort in favour of housing.
Le rapport de l'observatoire national de la pauvreté et de l'exclusion sociale - 2003-2004",	"National observatory of poverty and social expulsion report"	2004	l'observatoire national de la pauvreté et de l'exclusion sociale	National observatory of poverty and social expulsion report is a NGO. The observatory collect the data relative to the situations of poverty, lack of job security(precariousness) and of exclusion until then scattered, under exploited and difficulty open to the public.	This report, which is edited every 2 years, presents the evolution of poverty on long-rage forecasts and on recent period.
Séminaire de Montreuil du 28 Avril 1998	Montreuil's seminary 04/28/1998	1998	ADEME CLER	ADEME : The French Environment and Energy Management Agency. CLER: Network gathering the actors of the renewable energies in France, the manufacturers, the research departments, and the associations	This seminary is based on social housing and the problematic of energy consumption. This seminary put the emphasis on the question of unpaid energy bills on social housing.
"La consommation des ménages en 2005"	"Household expenses in 2005"	August 2006	R. Arthaut, D.Besson Georges. Consalès (INSEE)	National Institute of Statistics, INSEE publishes studies and statistical surveys on the population, the employment(use), the salaries, the prices, the companies, the economic situation...	This study demonstrate that in 2005, household expenses for housing (rent and energy) have reached a historic record of 24,7%
"Malgré l'énergie, une inflation modérée en 2005"	"in spite of energy, a moderate inflation in 2005"	May 2006	JM.Arnoux A. Viguier (INSEE)	INSEE	This study interests us because it explains that in 2005, the price of energy has increased so that considerable. We can understand in that case the problems, which can appear from it.
"Pauvreté relative et	"Relative's poverty and	December 2005	M.Fall D. Verger (INSEE)	INSEE	This study evokes living condition in France: Household budget difficulties, household

Title (In original language)	Title (In English)	Year of publication	Authors	Short description of the authors (Public Institution, University, NGO, social / energy specialists, …)	Short description of the document
condition de vie en France"	living condition in France"				standard of living according to several parameters, poverty's analysis (according to social category, academic standard, residence, age, type of family, health, income..)
"Comportements résidentiel et marché du logement"	"Residential comportment and housing market"	October 2005	A. Jacquot (INSEE)	INSEE	This study analyses housing's quality in France. In spite of improvement of housing's condition by the result of many constructions and refurbishment, many problems still remain. This study describes housing 's physical characteristic, sociodemographic characteristic or economic and housing expenses"
"Les conditions de logement des ménages à bas revenus"	"low income household's housing conditions"	February 2004	JC.Driant C.Rieg, (INSEE) Institut d'Urbanisme de Paris,	Since 1919, the Institute of Town planning of Paris forms professionals, leads researches on the contemporary city. INSEE	This work evokes low-income household's difficulty with the housing; Difficulty to pay rent and energy, difficulty to become owner and the overpopulation's problem. This study establishes a difference between social housing and private housing.

ITALY

Causes and consequences of Fuel Poverty in Italy

I: Definition of fuel poverty

In Italy a definition of fuel poverty doesn't exist and the problem hasn't been recognized yet.

However, a possible definition of the phenomenon of fuel poverty can be summarised as:

- Inability to obtain an adequate temperature in the house because of the energy efficiency of the building

II: causes of fuel poverty

It is possible to recognize three main factors, which start to place low-income households in a precarious position in relation to fuel poverty.

- Precarious living conditions: families in poverty conditions (decreased purchasing power, increase in the number families with a low income; unemployment);
- High living costs: family indebtedness level growth (significant increase in the housing and rent prices, increase in the energy prices);
- High-energy consumption (linked to special climatic conditions);
- Low levels of domestic energy efficiency (high thermal loss due to poor building insulation)

1: Precarious living conditions

In 2005 there were 2,585,000 families in relative poverty, equal to 11.1% of families resident in Italy. It altogether concerns 7,577,000 thousand individuals, 13.1% of the whole population. Among the main factors associated with poverty conditions, it is possible to identify a high number of components, children (particularly very young children) or elders present in the family and also a low education level and a reduced involvement in the work market.

Therefore the tie between poverty and involvement in the work market is very strong: beyond a quarter of the families (26.1%) with at least a person looking for occupation lives in relative poverty and it increases to 40% if two or more people in the family are looking for a job.

In this regard it is important to signal that in Italy over 1.8 million people are looking for paid employment. In 2005 the unemployment rate was 7.7%. Despite signs of improvement, major employment difficulties remain for young people under 25 years old. In 2005 the youth unemployment rate was 24%.

Analysing the latest report concerning the conditions leading to the economic upheaval of Italian families, it emerges that the 10.9% of families have experienced material deprivation (it is not possible to meet the cost related to their primary needs), the powerlessness to adequately heat their home (2005). This percentage raises (beyond 14%) for families in which three or more children are present; for people aged 65 and over that live alone; and for one parent families. **The situation also appears much more critical for those who are looking for paid employment where almost 31% declared that they were not to be able to heat the house.**

From the analysis of the data related to access to basic services (water, heating, electricity) it emerges that in Italy energy costs (fuels for heating use and electric energy) are in the order of the 5-6% of the average family income. This obviously ranges from region to region in consideration of several elements such as the economic condition of the families (the southern areas are, on average, poorer) and climatic situation (the northern areas are, on average, colder and the cost of heating is therefore higher).

To these factors it is necessary then to add different market conditions:

While electric energy prices are the same across the whole Italian territory, gas rates have important differences between one zone and another (price differences between operators). The price of gas has increased in Italy over the 10 last years. In 1996 the price of gas was an average €0.028/kWh HT and in 2007 the gas price is €0.043/kWh HT.

Starting from the information contained in the Istat survey on family consumption it is still possible to identify a minimum level of consumption of basic services (water, heating, electricity) below which it is possible to talk about "social exclusion", and to evaluate that a family runs into sustainability problems if in order to meet these minimum consumption standards it must spend an amount considered excessive to its income. Following this logic, it is clear that between 11% and 15% of Italian families spend, for the considered minimum basket of essential services, more than this threshold (so the family has a problem in the sustainability of these basic services), at least for one of the three utilities.

As regards to energy consumption, it is important to remember that in Italy a baseline index has never been built, according to the climatic conditions of the various country areas to define how much energy a family should consume to live in conditions of "health". Over 90% of families declare to have a dwelling equipped with a heating system. This percentage goes down to little more than 80% for families with low incomes.

2: House conditions

In Italy the share of families, which live in rented accommodation, is certainly small in comparison to those "choosing" to buy a property. It is clear that financial, legislative and cultural aspects affect this choice, making, more than in other countries, the type of property in which one lives a crucial matter. This peculiarity of the market brings, especially in some phases of the economic cycle, house price rises which can preclude the poorest families entering the housing market and who are, therefore, forced to remain in housing situations decidedly more precarious.

According to the survey on income and living conditions elaborated by Istat in 2004, 81.2% of families lived in the owner-occupied sector. Just 18.8% of families resident in Italy lived in rented accommodation. However, 40% of the rented sector is made up of low-income families.

According to the last Istat census of 2001, 25% of the house units (equal to 6.9 million) is one-family, 16.7% (equal to 4.6 million) is two-family, 12.7% are buildings with 3 and 4 house units and the remaining 45% are buildings with more than 5 house units.

Analysing the data related to the building construction period, it is clear that over 60% of residential buildings have been built before 1973 (year of reference for the first national law on energy saving building standards).

The age of a building very often has direct consequences on the state of the construction, not only in terms of the standard or structure, but also in relation to the technological choices, typical of the period in which the building has been designed. In terms of energy efficiency, the quality of a building depends, among other things, on the way in which the building itself has been designed and especially on the features of the building. The building standard set over 50 years ago (period of the post-war rebuilding) is characterised by building techniques of poor quality, which cause considerable heat loss, thermal bridges, humidity from condensation, mould growth, infiltration of water from coverings and terraces, draughts and water infiltrations from window and door frames. Many houses belong to this building type and share these characteristics.

Housing costs in the household budget have significantly grown in the last few years: in 2005 accommodation was 25.8% of the total expenditure of Italian families; if we add also the cost for heating and electricity, housing costs amount to almost a third of the total household expenditure

In the last decade accommodation costs in the Italian market have increased by 92% (in particular, the building value doubled from 1999 to today). In the same period, rents have registered an increase of beyond 100%.

As regards the other expenditure charges, from the ISTAT data analysis, it is possible to deduce that "energy products and energy services" are growing in an exponential way: liquid fuels (gas oil for heating), fuels and lubricants (gasoline, diesel oil, etc. for the transport), electrical rates, gas rates for cooking and heating. The price of gas has almost doubled to €0.043/kWh HT over the last 10 last years, as noted earlier.

The "housing, water, electricity and fuels" have seen in absolute terms the most growth (+5.7%) in the last year and have given the most marked contribution (+25.8%) to inflation levels. Specifically, in January 2006 and January 2007, the cost for electricity and fuels increased respectively by 11.7% and 6.7%. Altogether in January 2000 and January 2007 the increase has been around 29% for electric energy and 38% for gas.

III: Consequences of Fuel Poverty

Economic insecurity:

- Difficulty in meeting the cost of basic goods and services among which we also find again the cost for heating. The consequences are: individuals in economic conditions very often under- heat their own residence, compared to what is needed to keep it warm.
- Affordable houses are very often low quality houses (in poor maintenance and unfit for habitation) and this type of housing can be dangerous for the occupants' health. Dampness can aggravate asthma problems or allergies. Cold housing often leads to bronchitis, colds, etc.

Overview of the documentation available on Fuel Poverty in Italy

Title	Year of publication	Authors	Short description
White Paper "Energy-Environment-Buildings"	2004	ENEA FINCO	The Paper analyse every single aspect of the uses of energy in buildings, evaluating several best practices in order to promote best solution to increase energy efficiency and reduce energy costs in buildings.
Some distributional effects of utility reforms in Italy	November 2006	R. Miniaci and C. Scarpa (University of Brescia, Department of Economical Sciences) Carlo Scarpa (University of Padova, Department of Economical Sciences)	The paper documents the development of liberalisation reforms in Italy and the new regulation in water and energy, presenting the dynamics of public utility prices and household expenditure in period 1997-2004. It proposes a way to measure the affordability of public utilities, in order to investigate for how many households reaching a minimum consumption standard would imply a potentially excessive burden.
The absolute poverty: methodologies to estimate	2004	Minister of Welfare ISTAT (National Institute of Statistics)	It propose methodologies to define poverty and foresee appropriate policies to tackle it.
National Report on policies against poverty	2004	Minister of Welfare ISTAT (National Institute of Statistics)	It's a review of poverty's issues in Italy and it shows all the policies against the problem.
Annual Report	2006	National Energy Authority	The annual overview of the Authority about the national energy sector.

Author	Source	Year	Up-date	Subject	Available data
ISTAT (*)	- Census of inhabitants and buildings - Annual Statistical report (each Region)	2001	Yearly (last up-date 2005)	Building stock	Number and typology (residential, commercial, etc.) of buildings, number of dwellings, year of construction, area (m^2), fuels used in heating and others
				Population	All indexes
ISTAT	Report on poverty	2005	Yearly	Relative Poverty	Statistics about the distribution of poverty in Italy
				Absolute Poverty	Statistics about the distribution of poverty in Italy
ISTAT	Economical conditions and income in Italy	2005	Yearly	Income	It is a study developed in accordance with the european "Eu-Silc European Statistics on Income and Living Conditions". The study is focused on the definition of "mean income" and Living conditions of families. Main data: - net family income (analysis in relation to the different peculiarities of families); - net family income (analysis in relation to the geographical distribution); - indexes of poverty (i.e. families unable to pay energy bills)
ISTAT	Family consumption	2005	Yearly	Monthly expenditure of families	The study aims to point out the structure and the level of family consumptions in relation to the different social and economical of resident families. The survey studied family's expenditure in buying services and goods (with a particular analysis of the expenditure for energy).
ISTAT	Consumer-prices index	2005	Yearly	Consumer-price	Annual Report on goods and services's prices
Ministry of Welfare	Report on policies against poverty and social exclusion	2004	-		It's an analysis of families's impoverishment and recent poverty's trend in Italy. The study focuses on governmental policies, measures and actions.

SPAIN

Causes and consequences of Fuel Poverty in Spain

Fuel Poverty is not legally recognised in Spain although there are some indicators showing that it really exists. When a household is unable to obtain sufficient energy services it is considered to be in fuel poverty. In other words, the inability to maintain the home to an adequate temperature because of low income and poor household energy efficiency is a serious social, environmental and public-health issue.

As some studies state[16], Southern Europe suffers from the highest levels of fuel poverty and the poorest housing conditions which is evidence that the concept needs to have its own identity as in other European countries with lower levels of fuel poverty.

I: Characteristics of Spain

It is important in determining the causes and consequences of fuel poverty, to define some characteristics of Spain as a country and as a society.

The climate is not uniform because of the Iberic Peninsula between the Mediterranean and Atlantic. Mediterranean regions such as Catalonia, have a temperate climate but there are regions with huge differences in temperatures and the average temperature in winter is around 6ºC. Fuel poverty in this country is not only related to heating expenditure but cooling also, as there are parts with high temperatures in summer. Evidences of winter/summer mortality is an important aspect. The Spanish government is really worried about increasing high summer mortality as it is something new to deal with. There are special preventive programs when the summer starts. However, Spain has one of the highest winter mortality rates in Europe and because we have become accustomed to this rate the government doesn't pay special attention to it. This high rate may not just be a result of outside temperatures as Spain doesn't have extremely cold winters, but may relate to other causes such as poverty levels, economic inequalities, lack of heating or others related to "cold vulnerability". High seasonal mortality is a consequence to take into account when analyzing fuel poverty in Spain as part of this seasonal mortality could be reduced through better household conditions.

[16] *Excess winter mortality in Europe: a cross country analysis identifying key risk factors J D Healy*

II: Causes of Fuel Poverty

An important cause of fuel poverty is low income. Poverty among Spanish families is higher than the average in Europe. It has to do with the unequal wealth distribution and poor economic development of the Spanish population.[17] This has to be considered as fuel poverty is related to low income. National Statistical Institute (INE) considers that a person living in a household with less than €6.278/ a year of income, is an individual in a relative poverty situation. Therefore the percentage of people who live under the poverty threshold in Spain is 19% (With 60% Medians). This general cause of poverty becomes important when analyzing fuel poverty: the rate of 19% of poverty is high enough but, what is also important is that more than 50% of old-single people are considered poor. A cause-effect relationship can be established: old people are more vulnerable to winter illnesses that may result in early death, so as the number of old-poor people increases, the more fuel poverty and consequently excess winter mortality.

Related to that, it is important to comment on some sociological characteristics of the population and family income subsidies that are related to fuel poverty.

The Spanish population pyramid is characterised due to having an almost inverted structure: low birth rate and higher survival of the population. There are high percentages of old people that receive income subsidies leading indirectly to fuel poverty.

Subsidies to families are an important point since Spain is the EU country that assigns lower amounts to family subsidies (less than 1% when the EU average is 2,2%)[18]. If there are inadequate income subsidies for low-income people, fuel poverty will result.

Another topic to deal with is housing conditions. In Spain, from 1980 thermal regulations were first introduced. 61% of the housing stock in Spain was built before the first thermal efficiency standards in building regulations were introduced. So the country's housing conditions are usually poor and energy efficiency in houses has not been a priority in building regulations until the last few years with the transposition of Directive 2002/91/CE, which only affects new dwellings. This is one of the causes for Spain to have higher levels of fuel poverty than many other countries.

17 INE (National Statistical Institute)
18 El Instituto de Política Familiar (IPF) presentó hoy el Informe sobre la "Evolución de la Familia en España 2006

If houses are not well insulated it is difficult to maintain an adequate temperature and fuel poverty occurs.

Another cause related to this is an inadequate heating system or even the lack of central heating. In Spain, 50% of the population don't have central heating or similar heating systems[19]. The lack of heating systems is an indicator of fuel poverty because, although Spanish winters are not as severe as in northern Europe, they are still cold enough to cause fuel poverty. Although it has a temperate climate generally, there are many regions, which are very cold in the winter and very hot in the summer.

Following data from National Statistical Institute, 9% of the Spanish household can't afford to keep their house warm to meet adequate temperatures in cold periods.

Through the information outline above it is possible to understand some causes and consequences of fuel poverty in this country. Causes are low income, poor housing conditions (bad insulation for example), lack of heating systems, insufficient income subsidies, high poverty rents and 50% of old people living in poverty.

III: Consequences of Fuel Poverty

Fuel Poverty involves lack of thermal comfort in households and indirectly results in health problems (asthma, allergy, bronchitis, cold, etc), mainly in frail people, which could, in extreme case result in death.

To sum up, the inability to maintain the home to an adequate temperature affects significant parts of the Spanish population due to poor energy efficiency and/or low income so we can conclude that fuel poverty in Spain is a serious social, environmental and public health issue.

[19] *Home sweet home? Assessing housing conditions and fuel poverty in Europe. John Healy - University College Dublin*

Overview of the documentation available on Fuel Poverty in Spain

Original title	Translation	Free-access	Topic
Pobreza en España: informe FOESSA	Poverty in Spain		Poverty survey in Spain
Pobreza y pobreza persistente en España. 1994-2001	Poverty and persistent poverty: 1994-2001	http://www.ine.es/daco/daco42/sociales/infosoc_pobreza.pdf	Survey on poverty
La pobreza y su medición	Poverty and ways of measurement.	http://www.ine.es/daco/daco42/sociales/pobreza.pdf	Ways of measure poverty in Spain.
Excess winter mortality in Europe: a cross country analysis identifying key risk factors"			Survey on winter mortality factors.
Serie pobreza (colecciones FOESSA)	Poverty line (FOESSA collection)	http://www.caritas.es	Way of living of spanish-regions poor people

UNITED KINGDOM

The Causes and Consequences of Fuel Poverty in United Kingdom

The term ‘fuel poverty’ has been in use in the United Kingdom since the mid-1970s and was initially used to describe any manifestation of unaffordable energy costs without any formal objective definition of the problem. Symptoms of fuel poverty included:

- Debt to an energy supplier
- Disconnection or threat of disconnection from energy supply
- The use of prepayment as a means of paying for fuel with the implication that debt avoidance was achieved through some degree of rationing
- Alternative methods for coping with debt e.g. money taken direct from welfare benefits and paid to the energy supplier to meet ongoing consumption and for debt recovery
- Unhealthy conditions in the home and cold-related morbidity or mortality
- Under-consumption of fuel for heating as low-income households were forced to choose between essential goods or services – the heat or eat syndrome

I: An objective definition of fuel poverty

An acceptable definition of fuel poverty had to involve more than an inability to pay fuel bills. It could be argued that some households could not pay for essential services such as energy because they chose to spend their limited resources on other goods and services which should have been of lower priority than keeping their homes warm.

Consequently, the first attempt to establish an objective definition of fuel poverty looked at the proportion of household income that it would be reasonable to spend on fuel. This approach involved scrutiny of what the poorest 30% of households were actually spending on all energy services accompanied by the assumption that what these households spent was the maximum that they could afford from the household budget. The original assessment was based on the 1988 Family Expenditure Survey, which indicated that the 30% of households on the lowest incomes were spending 10% of income on fuel; consequently this figure was suggested as the level of expenditure above which a household could be defined as fuel poor.

This objective definition of fuel poverty was fully legitimised in 1998 when the recently elected Labour Government not only adopted and used the term ‘fuel poverty’ but also accepted the 10% expenditure figure as an official indicator. A further beneficial refinement followed as the Government introduced the concept of ‘needed spend’ within the fuel poverty formula. In order to be defined as fuel poor a household would not be required to spend more than 10% of income on fuel; fuel poverty would occur where a household would need to spend more than 10% of its income in order to achieve a heating regime that was adequate for health and comfort.

II: The causes of fuel poverty

The causes of fuel poverty are universal in that they comprise a combination of poor heating and insulation standards, inadequate household income and unaffordable energy prices. Clearly there are a number of permutations of these three factors that can modify or exacerbate the scale of fuel poverty. In UK this is in 1965 that thermal regulation in the buildings has been adopted. But this is only since 1974 that this regulation has been effective. In this country 75 % of stock building have been built before the first thermal regulation.

Equally action to mitigate fuel poverty can contribute different degrees of benefit; the scale of fuel poverty in England fell from 5.1 million households in 1996 to 1.2 million households in 2004 with more than 50% of the reduction attributed to rising income, with the remainder of the improvement roughly split between improved energy efficiency and lower energy prices. Of course since 2004 significant increases in domestic energy prices have largely reversed this excellent progress .For example, for the gas, in 1996, the price were 0,02 Euros/kWh HT and in 2007 it has increased, particularly the 2 last years, the cost today is 0,04 Euros/kWh HT. For electricity the increasing is less radical, in 1996 the price were 0,088 Euros/kWh HT and in 2007 it is 0,125 Euros/kWh HT.[20] Today, poverty threshold is fixed at 7200 Euros/ a year/ a person (Disposable income and calculated at 60% medians). And so in UK, 18% of people lives under poverty threshold[21] (60% medians)

III: The consequences of fuel poverty

Whilst the consequences of fuel poverty are ostensibly varied the key fact is that all of the malign consequences of fuel poverty impact to some extent on human physical or psychological health. On one interpretation they may also impact on the health of buildings through dampness and condensation and on the planet as a result of unnecessary energy consumption in poorly heated and insulated dwellings; but the human cost of fuel poverty is the most immediate and harmful.

1: Physical health

Early studies of the health consequences of cold homes centred on hypothermia within the elderly population; although numbers were small the fact that any instances occurred in an affluent society was seen as unacceptable. Of greater concern has been the regular annual monitoring of excess winter deaths in the United Kingdom. Comparisons of death rates (particularly amongst the elderly) reveal considerable increases in winter deaths compared with those occurring in the non-winter periods of the year typically representing between 25,000 to 40,000 excess winter deaths each year. There have also been a number of studies that have attempted to quantify the cost to the National Health Service of treating illnesses that may be caused or exacerbated by cold conditions such as respiratory such as respiratory illness.

[20] *Eurostat*
[21] *Eurostat*

2: Psychological health

Unaffordable fuel bills are inevitably the cause of worry and distress for families and individuals. Debt and the fear of disconnection are sources of anxiety for households or, alternatively, fuel bills will be paid at the expense of other essentials such as food with equally adverse consequences for health and welfare. Cold damp housing has been associated in a number of studies with depression and other manifestations of emotional distress.

Fuel poverty can be a major contributor to forms of social exclusion. Poor housing conditions militate against social interaction since people are reluctant to invite friends or neighbours into an unwelcoming and inhospitable living environment. This can be particularly distressing for people who spend longer periods in the home including many older people and those with some form of disability that restricts the scope of their activities.

However, Fuel poverty does not only affect the elderly or even the adult population. An under-heated dwelling shrinks the living space and diminishes opportunities for children to study in a comfortable and private environment with adverse consequences for their educational performance. Again there is evidence that poor housing conditions lead to children being absent from school with various illnesses resulting in further damage being done to their educational prospects.

Documentation on Fuel Poverty in UK

Current Awareness

Regular publications on fuel poverty are listed below. However, all of the organisations referred to maintain websites that provide the best means of keeping in touch with developments in the fields of fuel poverty and domestic energy efficiency.

- **NEA website**
  The NEA website contains basic information on research projects and other material submitted to the site's fuel poverty research file.
  http://www.nea.org.uk/Policy_&_Research/Fuel_poverty_research_file/View_reports

- **Energy Action**
  Regular journal published by National Energy Action (NEA). Three publications per year covering the full range of fuel poverty and domestic energy efficiency issues and comment on policy matters. Frequently carries articles submitted by researchers based on their findings.

- **NEA today**
  A newsletter from National Energy Action, published 3 times a year, covering broadly similar ground to Energy Action but with greater emphasis on practical initiatives being undertaken by the charity.
  www.nea.org.uk

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- **Energy Review**
  Quarterly magazine of Energy Action Scotland, covers the same fuel poverty/domestic energy efficiency subject matter as Energy Action but with a strong Scottish emphasis.
  www.eas.org.uk

- **Fuel News**
  Quarterly newsletter of the National Right to Fuel Campaign – a coalition of agencies and individuals with a professional involvement in fuel poverty issues. Fuel News combines policy comment and findings of research projects undertaken by members of the campaign and other agencies and individuals.
  www.righttofuel.org.uk

- **The Fifth Fuel**
  Formerly quarterly newsletter of the Association for the Conservation of Energy (ACE). Publication now intermittent. Primary concern is the promotion of energy conservation through political lobbying and introduction of relevant legislation. ACE is the main trade body for the domestic energy efficiency industry.
  www.ukace.org

- **The Eaga Partnership Charitable Trust**
  The Eaga Partnership Charitable Trust publishes information on fuel poverty-related work funded by the Trust.
  http://www.eaga.co.uk/Charitable/

- **Social Action Plan Reports**
  The Social Action Plan area of the Office for Gas and Electricity Markets (Ofgem) website contains information on fuel poverty indicators. Ofgem also publishes a newsletter which contains updated information on company compliance with social obligations to vulnerable and other disadvantaged energy consumers.
  http://www.ofgem.gov.uk/ofgem/work/index.jsp?section=/areasofwork/socialactionplan

- **Fuel Poverty Update**
  Joint publication from the Department for Environment, Food and Rural Affairs and the Department for Trade and Industry. Collates news and research information related to fuel poverty. Irregular production linked to specific initiatives and developments.
  http://www.dti.gov.uk/energy/fuel-poverty/newsletter/index.html

Fuel Poverty – General

Fuel Poverty: From Cold Homes to Affordable Warmth, Dr Brenda Boardman, Belhaven Press, London, 1991

At time of publication a definitive work on the issue of fuel poverty, but now partially overtaken by policy developments particularly the almost universal recognition of fuel poverty as a legitimate area of social concern and a political consensus that the problem must be resolved. This book remains the best general analysis of the problem and possible solutions.

The UK Fuel Poverty Strategy, Defra and DTI in association with the Department for Social Development in Northern Ireland, the Scottish Executive and the National Assembly for Wales, 2001.

Following publication of the draft strategy for consultation this document sets out how it is proposed to meet the requirements of the Warm Homes and Energy Conservation Act with the primary commitment to eradicate fuel poverty for vulnerable households in England by 2010.

http://www.dti.gov.uk/files/file16495.pdf

The Scottish Fuel Poverty Statement, the Scottish Executive, 2002.

Published under Section 88 of the Housing (Scotland) Act 2001 the Scottish Fuel Poverty Statement sets out the Scottish Executive's objective of ensuring that, by November 2016 and as far as reasonably practicable, people are not living in fuel poverty in Scotland.

http://www.scotland.gov.uk/Resource/Doc/46951/0031675.pdf

Warm Homes and Energy Conservation Act 2000: A Fuel Poverty Commitment for Wales, National Assembly for Wales, 2003.

Establishes a target date of fifteen years from publication of the Strategy (March 2018) to ensure that, as far as is reasonably practicable, fuel poverty is eradicated in Wales. This commitment is underpinned by the Warm Homes and Energy Conservation Act 2000.

http://new.wales.gov.uk/docrepos/40382/sjr/housing/energyfuel/fuelpovcommite?lang=en

Ending Fuel Poverty: A Strategy for Northern Ireland, Department for Social Development, 2004

Sets out the objective of eliminating fuel poverty in vulnerable households by 2016 and for the remainder of the fuel-poor population by 2016 – subject to the availability of the necessary resources. There is no formal legislative basis for the Northern Ireland Strategy.

http://www.dsdni.gov.uk/ending_fuel_poverty_-_a_strategy_for_ni.pdf

The UK Fuel Poverty Strategy 1st Annual Progress Report, DTI, Defra, the Scottish Executive, the Northern Ireland Department for Social Development and the Welsh Assembly Government, 2003.

First in a series of annual reports on the Government's Fuel Poverty Strategy. Whilst fuel poverty is in theory a devolved issue Westminster reserves powers relating to energy prices and the social security system. The annual reports consider progress across the constituent countries of the United Kingdom and also on the basis of UK-wide policies.

http://www.dti.gov.uk/files/file16479.pdf

The UK Fuel Poverty Strategy 2nd Annual Progress Report, DTI, Defra, the Scottish Executive, the Northern Ireland Department for Social Development and the Welsh Assembly Government, 2004.

http://www.dti.gov.uk/files/file16478.pdf

The UK Fuel Poverty Strategy 3rd Annual Report, DTI, Defra, the Scottish Executive, the Northern Ireland Department for Social Development and the Welsh Assembly Government, 2005
http://www.dti.gov.uk/files/file10717.pdf

The UK Fuel Poverty Strategy 4th Annual Progress Report, DTI, Defra, the Scottish Executive, the Northern Ireland Department for Social Development and the Welsh Assembly Government, 2006
http://www.dti.gov.uk/files/file29688.pdf

The Fuel Poverty Advisory Group (for England)

The Fuel Poverty Advisory Group was set up to advise the Government on its target of eradicating fuel poverty. The Group has a range of representatives from bodies in the energy sector, local government, the health sector and NGOs. The focus of the Group is on progress in delivering targets and on constructive comment to Government related to barriers to achievement; the need for additional policies; continuing motivation of key players; and considering and reporting on the results of work to tackle fuel poverty. The devolved administrations for Scotland, Wales and Northern Ireland have their own advisory groups.

Fuel Poverty Advisory Group (for England) Annual Reports

- **First Annual Report 2002/2003, Department of Trade and Industry, 2003.**
  http://www.dti.gov.uk/files/file12583.pdf
- **Second Annual Report 2003/2004, Department of Trade and Industry, 2004.**
  http://www.dti.gov.uk/files/file12586.pdf
- **Third Annual Report 2004/2005, Department of Trade and Industry, 2005.**
  http://www.dti.gov.uk/files/file12587.pdf
- **Fourth Annual Report 2005/2006, Department of Trade and Industry, 2006**
  http://www.dti.gov.uk/files/file26037.pdf

Energy White Paper: Our energy future – creating a low carbon economy, DTI, Defra and the Department for Transport, The Stationery Office, 2003.

The Energy White Paper identifies three main challenges:

- Environmental issues
- Declining indigenous resources
- The need to update much of the UK's energy infrastructure

In setting out its response to these challenges the Government includes as one of its four goals the need to 'ensure that every home is adequately and affordably heated.'

http://www.dti.gov.uk/files/file10719.pdf

The Energy Challenge: Energy Review Report 2006, DTI, 2006

This report published the Government's conclusions on progress in meeting the energy policy priorities identified in the Energy White Paper

http://www.dti.gov.uk/files/file31890.pdf

Energy Efficiency: the Government's Plan for Action, Defra, 2004

The Plan is of marginal relevance to fuel poverty since it anticipates publication of the Fuel Poverty Implementation Plan later in the year. It does however indicate that Warm Front, and its equivalents in the devolved administrations, represents the principal policy directed specifically at fuel poverty.
http://www.archive2.official-documents.co.uk/document/cm61/6168/6168.pdf

Fuel Poverty in England: The Government's Plan for Action, Defra, 2004.

Publishes the intention to make the best use of existing regulations, policies and programmes designed to increase energy efficiency, improve housing, regenerate communities, tackle fuel poverty and improve health. The Plan seeks to ensure that policies are well co-ordinated across Government, that synergies are developed and [that this enables] the very best use of resources.

http://www.defra.gov.uk/environment/energy/fuelpov/pdf/fuelpov_actionplan.pdf

The Trade and Industry Committee

In recent years the Trade and Industry Committee of the House of Commons has undertaken to inquire into progress in meeting fuel poverty targets and other more specific aspects of fuel poverty such as the effect of energy price increases and fuel debt and disconnection. The Committee publishes the content of evidence sessions and, as appropriate, their views on the issue for Government attention.

Debt and Disconnection: gas and electricity supply companies and their domestic customers. Fifth report, Session 2004-2005, 2005

- http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtrdind/297/297.pdf
  http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtrdind/297/297ii.pdf

Fuel Prices. Twelfth Report of Session 2004-2005, 2005

http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtrdind/279/279.pdf

Evidence from the Fuel Poverty Advisory Group Session 2003-2004 Oral evidence taken before the Trade and Industry Committee on Tuesday 16 December 2003 and ordered to be published on that date.

http://www.publications.parliament.uk/pa/cm200304/cmselect/cmtrdind/143/3121601.htm

Fuel Poverty, Sixth Report of Session 2001-2002 from the Trade and Industry Committee, July 2002.

The Committee welcomed the Government's good intentions but concluded that there was a need for a clearer focus on the most effective means of tackling fuel poverty. The Committee emphasised that falling fuel prices could not be relied on and that action through the benefits system was comparatively inefficient. The Committee concluded that the only real long-term solution to fuel poverty is through greater energy efficiency of the housing stock

http://www.publications.parliament.uk/pa/cm200102/cmselect/cmtrdind/814/814.pdf

Fuel Poverty: Government Reply to the Sixth Report of Session 2001-2002 from the Trade and Industry Committee, December 2002.

http://www.publications.parliament.uk/pa/cm200203/cmselect/cmtrdind/152/152.pdf

Fuel Poverty and Energy Efficiency

The English House Condition Survey (EHCS) is the key source of information about the condition of the housing stock and the extent of fuel poverty in England. The EHCS is the definitive source because it collects all relevant information on household characteristics, property characteristics and household income. The survey is conducted by qualified surveyors who gain physical access to the property and this results in survey data that is highly reliable in analysing fuel poverty. Up to and including publication of the 2001 report the English House Condition Survey was produced on a five-year cycle, however the 2003 EHCS Key Findings report was published on 1 March 2005 based on data from the 2002/03 and 2003/04 survey years and representing the average position at April 2003. EHCS Bulletin 6 was also published in March 2005 and this provides a summary of the 2003 EHCS Headline results and an update on current progress and developments.

The Office of the Deputy Prime Ministers published a more detailed EHCS 2003 Summary Report in mid-2006. This Summary Report included a core set of tables with supporting text that will form the annual reporting template for future years. Future EHCS reporting will be on an annual basis using a two-year rolling sample. A number of English House Condition Surveys have been followed up by additional analysis specific to the heating and insulation characteristics of the property and to the perceptions of the adequacy of these areas of housing as evidenced by the views

of the occupants. Whilst from the mid-1970s surveys had included questions about heating, insulation, dampness and mould growth in recognition of increasing concern about energy efficiency and energy conservation the actual data were extremely basic and only as the Energy Reports became more detailed and comprehensive in content was it possible to achieve any serious evaluation of fuel poverty (or a proxy such as cold homes). However, to date, fuel poverty information published as a result of findings from the English House Condition Survey 2001 have been comparatively rudimentary.

English House Condition Survey: 1986 Supplementary Energy Report, Department of the Environment, 1991.

This report was the first to collect information on internal temperatures and to discuss the concept of cold homes (an early proxy for fuel poverty) although one that could not be specifically linked to deprivation without any household income data. The existence of fuel poverty (or the absence of affordable warmth) could only be inferred once housing conditions and household income were employed in a fuel poverty formula.

English House Condition Survey 1991 Energy Report, Department of the Environment, 1996

This report introduced the concept of affordable warmth and, by extension, households who lacked affordable warmth. The report commented that: 'many households are spending a high proportion of their income on domestic fuel without achieving satisfactory thermal conditions – in short, they lack affordable warmth.' Although the term fuel poverty had gained currency over the previous decade it seems that it was still inexpedient to use the term 'fuel poverty'.

Whilst refraining from using the actual term 'fuel poverty' the report did adopt the definition used by fuel poverty campaigners in discussing what level of expenditure could reasonably be required: 'What level of expenditure is affordable for any heating regime will depend on a household's income after tax. A widely accepted target for affordable warmth is that a household's total fuel costs should not exceed 10% of disposable income.' In 1991 one in four households lacked affordable warmth on this basis with many more unable to meet minimum and standard heating regimes.

The English House Condition Survey 1996 Energy Report, DETR, 2000

Detailed analysis of the heating and insulation characteristics of the housing stock in England and of the nature of fuel-poor households. First formal reference to fuel poverty in the EHCS series in describing households that cannot maintain adequate heating regimes for a given level of expenditure. Emphasis on 'needed' spend as opposed to actual fuel expenditure as the indicator of a fuel-poor household.

Fuel Poverty in England in 1998: A summary report presenting data produced by the Building Research Establishment on behalf of the DTI and Defra, DTI and Defra, 2001.

Findings on trends in fuel poverty from a smaller-scale EHCS Follow Up Survey to the 1996 survey

Fuel poverty in England in 1999 and 2000: A summary report presenting provisional estimates produced by the Building Research Establishment on behalf of the DTI and Defra, 2000.

Estimates of the incidence of fuel poverty in England based on modelling of energy prices and incomes data analysis carried out by BRE using the 1998 Energy Follow Up Survey, DTI and Defra, 2002.

Detailed Breakdowns of Fuel Poverty in England in 2001: A summary report presenting data produced by the Building Research Establishment on behalf of the DTI and Defra, July 2003

Revised version of earlier report published in March 2003. The revised report corrects an error in grossing factors originally used to produce 2001 estimates.

English House Condition Survey 2001, Office of the Deputy Prime Minister, 2003.

The English House Condition Survey 2001 is complemented by a number of supporting tables that do not form part of the main report but which do provide more detailed analysis of heating and insulation properties of dwellings and compliance with the Thermal Comfort criteria of the Decent Homes Standard. These tables are available on the English House Condition Survey section of the ODPM website. Compliance with Decent Homes criteria is the key element in assessing the adequacy of the housing stock across all tenures.

The level of data collected in the 1996 survey has not been replicated in subsequent surveys; consequently, information on internal temperatures, heating patterns, tariffs and expenditure on fuel will be deduced through modelling exercises employing a smaller and less reliable sample

Detailed Breakdowns of Fuel Poverty in England in 2004: A summary report representing data produced by the Building Research Establishment on behalf of the DTI and Defra, 2006

http://www.dti.gov.uk/files/file29687.pdf.

Department of Trade and Industry 'Ready Reckoner'

The impact of 2004 domestic energy price increases on fuel poverty is now a main part of the political debate. The Government has published its own estimates, as has the Fuel Poverty Advisory Group with the latter estimates being rather higher. The Department for Trade and Industry has published a 'ready reckoner' on the fuel poverty section of its website which is intended to allow calculation of the increased incidence of fuel poverty given a number of different energy pricing permutations.

http://www.dti.gov.uk/energy/consumers/fuel_poverty/ready_reckoner.pdf

The English House Condition Survey Key Findings for 2003, ODPM, 2005

Report on progress in Decent Homes between 2001 and 2003. The Thermal Comfort element of the Decent Homes Standard is the Government's primary instrument to address fuel poverty in social housing. The report concentrates on priority areas for Government policy: providing decent homes for vulnerable households; and decent homes in the most deprived districts.

Fuel Poverty Methodology

There are minor differences in how fuel poverty is defined in the separate administrations of the United Kingdom although the intention is to maximise uniformity in future. For example the absence of relevant data precluded the Welsh Assembly Government from assessing the extent of fuel poverty in Wales and they had recourse to using HEES-eligible households as a proxy for fuel-poor households.

In England there has been considerable debate on the methodology. Fuel poverty campaigners have suggested that the political imperative to eliminate fuel poverty has led to some perverse decisions in defining fuel poverty and much of the debate has centred on treatment of household income. The Government preference has been to use full income from all household occupants in defining household income although they have also published figures based on basic income. The first definition includes housing subsidies (Housing Benefit and Income Support for Mortgage Interest) as household income whilst the basic income definition excludes such subsidies. To complicate matters further there is strong support among fuel poverty campaigners for disposable income (after housing costs) to form the basis for household income assessment. Clearly the definition of income is central in any calculation of the extent of fuel poverty.

These matters and some more technical aspects of the fuel poverty formula have been discussed in a number of papers.

Consultation on the methodology used for calculating the number of households in fuel poverty for England, DTI and Defra, 2004

In April 2004 the Department for Trade and Industry published a series of proposed modifications to the methodology used to produce the figures for fuel poverty in England. The revisions, which had been proposed by the Building Research Establishment, mainly discussed changes to the method for calculating energy costs and household income. The proposals were subjected to a consultation process which was to inform a peer review of the methodology. .Peer Review on the Methodology for Calculating Fuel Poverty Figures for England: Final Report to DTI and Defra, 2005

http://www.dti.gov.uk/files/file16566.pdf

Government Response to the peer Review of the Methodology for Calculating the Number of Households in Fuel Poverty in England, 2005

http://www.dti.gov.uk/files/file16567.pdf

Decent Homes Standard

The Decent Homes Standard has its origins in the Housing Green Paper Quality and Choice: a Decent Home for All (April 2000) which committed Government to ensuring that, by 2010, all social housing should provide tenants with good quality accommodation. In order to meet the Decent Homes Standard the property should:

- Be above the current statutory minimum standard for housing
- Be in a reasonable state of repair
- Have reasonably modern facilities and services
- Provide a reasonable degree of thermal comfort

Subsequently the UK Fuel Poverty Strategy indicated that the Thermal Comfort criteria would be used to address fuel poverty in social sector housing. The Government did acknowledge that compliance with the heating and insulation requirements of the Thermal Comfort criteria would still leave many thousands of households in fuel poverty.

Since then the Decent Homes Standard has been the subject of considerable controversy as the Government maintains that a rigorous energy efficiency standard for all social housing would be prohibitively expensive and that the Standard is a minimum requirement and that social housing landlords are encouraged to exceed the minimum requirements.

Decent Homes, ODPM: Housing, Planning, Local Government and the Regions Committee, November 2003

Inquiry by the Select Committee into the adequacy of the Government's Decent Homes Standard, the method of managing housing improvement and the likelihood of achieving targets. Report contains written and oral evidence submitted to the inquiry. The Committee was particularly critical of the Thermal Comfort element of the standard but recommended that, instead of revising the standard now, it should subsequently be replaced by a Decent Homes Plus Standard

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- http://www.publications.parliament.uk/pa/cm200304/cmselect/cmodpm/46/46.pdf
- http://www.publications.parliament.uk/pa/cm200304/cmselect/cmodpm/46/4602.htm#evidence

Government Response to the ODPM: Housing, Planning and the Regions Committee's Report on Decent Homes, July 2004

http://www.communities.gov.uk/pub/163/GovernmentResponsetotheODPMSelectCommitteesReportonDecentHomesPDF546Kb_id1152163.pdf

A Decent Home: Definition and Guidance for Implementation, Department for Communities and Local Government, June 2006

http://www.communities.gov.uk/pub/191/ADecentHomeDefinitionandguidanceforimplementationJune2006update_id1152191.pdf

Separate and Unequal: energy efficiency standards in social housing in the United Kingdom, NEA and EAS, 2005

Critical review of the different housing standards adopted by the administrations for England, Wales, Scotland and Northern Ireland. Comparison of the Scottish Housing Quality Standard, the Welsh Housing Quality Standard and the Decent Homes Standard for England which will also be adopted in Northern Ireland.

Housing Health and Safety Rating System

The Housing Act 2004 introduced a new method of ensuring that a dwelling provided a safe and healthy living environment for its occupants. The Housing Health and Safety Rating System (HHSRS) takes account of the possible hazards posed to families and individuals by housing conditions. The HHSRS anticipates that a major threat to physical health will result from cold conditions experienced in the home as a result of inadequate heating and insulation standards.
http://www.communities.gov.uk/index.asp?id=1152825

Review of Statutory Energy Efficiency Programmes

Since devolution, fuel poverty has been a devolved issue, and responsibility for devising and implementing strategies has fallen to the Northern Ireland Assembly (when not suspended), the Scottish Executive and the Welsh Assembly Government as well as to the Westminster Government for England. Despite the potential for independent and innovative thinking there have been close parallels in the policies and actions of the administrations.

The main programmes to address fuel poverty have been Warm Front in England and the Scottish, Northern Irish and Welsh equivalents – respectively the Scottish Executive Central Heating Initiative and its Warm Deal programme, the Warm Homes Scheme and the Home Energy Efficiency Scheme.

Annual reports on scheme achievements are published by the scheme managers although these tend to be little more than tables indicating type and number of jobs completed.Eaga Partnership manages the programmes in England, Wales and Northern Ireland.Information on the schemes can be found on the Eaga website at

http://www.eaga.co.uk/

Scottish gas manages both the Warm Deal and the Scottish Executive Central Heating programme in Scotland.

Fuel Poverty in the United Kingdom: a review of statutory energy efficiency programmes for low-income households, NEA and EAS, 2002

To date this report is the only UK-wide review of statutory energy efficiency programmes. Whilst there are broad similarities between all of the programmes in terms of who is assisted, how they are assisted and to what extent, there is sufficient variety to identify good practice across a range of elements within the programmes. The purpose of this report was to identify best practice and commend it across all four countries' programmes.

There have been a significant number of reports, reviews and evaluations of the individual national programmes by researchers and by monitoring bodies.

HEES 1996 Evaluation: Final Report, Prepared for EAGA Ltd by Nigel Oseland, Building Research Establishment, October 1996

Assesses the benefits of HEES in terms of customer satisfaction, potential fuel savings and increased comfort levels,

The Home Energy Efficiency Scheme, Report by the Comptroller and Auditor General of the National Audit Office, 1998

Report examined the efficiency and effectiveness of the Home Energy Efficiency Scheme from its inception in 1991 to march 1997. Concluded that scheme was effective in its main objective of increasing take up of energy efficiency measures in eligible households and that administration was good but criticised some aspects of cost control.

Targeting fuel poverty in England: is the Government getting warm? Tom Sefton, In Fiscal Studies, Vol.23, No. 3, September, 2002

Research involves examination of the 'fuel poverty gap' – and the extent to which it could be closed through better targeting of the Home Energy Efficiency Scheme in England. The author concludes that the existing scheme is unlikely to have a significant impact on fuel poverty.

Warm Front: Helping to Combat Fuel Poverty, report by the Comptroller and Auditor general of the National Audit Office, June 2003

Report found problems in a mismatch between need and eligibility for assistance. The degree of assistance available was frequently insufficient to remove households from fuel poverty and much of the worst housing was left untouched by the programme. Overall it was considered that the scheme was underachieving in its contribution to the Government's Fuel Poverty Strategy.

Warm Front: helping to combat fuel poverty, House of Commons Committee of Public Accounts, January 2004

Report with formal minutes, oral and written evidence. Adversely critical report from the committee on the operation of Warm Front. Criticism focused on:

- *Failure to assist those in greatest need*
- *No eligibility relating to energy efficiency standards*
- *Many grants make minimal contribution to reducing fuel poverty*
- *Irrational and perverse regulations in certain cases*
- *Little help for hard to treat homes*
- *Unreasonable delays in installing measures*
- *Targets based on quality rather than quality of assistance*

http://www.publications.parliament.uk/pa/cm200304/cmselect/cmpubacc/206/206.pdf

Aiming High – An evaluation of the potential contribution of Warm Front towards meeting the Government's fuel poverty targets in England, Tom Sefton, London School of Economics, 2004

This report used a scheme manager database to assess the performance of Warm Front in reducing fuel poverty. As such it was an advance on the earlier modelled work. However the conclusions were broadly similar in highlighting the extent to which non-fuel-poor households were assisted whilst genuinely fuel-poor households were excluded.

A Fuel Poverty Solution? Assessing the Effectiveness of the Warm Homes Scheme
A Research Report for the Department for Social Development by NEA Northern Ireland, 2003

Assessment of the impact on clients of work carried out under the Warm Homes Scheme. Evaluation looked at how well targeted the scheme was; the extent to which it removed households from fuel poverty; and recommendations for additional future research.

Assessing the Impact of the Central Heating Programme on Tackling Fuel Poverty: Report on the first year 2001-2002, Alembic Research, 2004

Review of the Scottish Executive's Central Heating Initiative with particular reference to the programme's achievements in removing beneficiaries from fuel poverty.

Benefits from Home Energy Efficiency Schemes in Scotland 2002/2003: A report by the Scottish Executive, 2004

http://www.scotland.gov.uk/Publications/2004/04/19314/36589

The Scottish Executive's Central Heating Programme and the Warm Deal 2003-2004, The Scottish Executive, 2005

Third annual report by the Scottish Executive on the Central Heating programme and the fifth annual report on progress with the Warm Deal Programme

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http://www.scotland.gov.uk/Publications/2005/03/20794/54018

Warming up vulnerable households: An evaluation of the Eaga Warm Front Programme and its effect on fuel poverty, Bill Wilkinson, Marion Hart and Andrew Hart, Energy Audit Company, March 2003

Assessment of the success of Warm Front in reducing fuel poverty and series of proposals as to how the programme might be made more effective.

Interim Evaluation of the New Home Energy Efficiency Scheme for Wales, National Energy Services & The Townsend Centre for International Poverty Research, National Assembly for Wales, January 2005

Assessment of the Home Energy Efficiency Scheme in terms of:

- *Appropriateness of eligibility criteria*
- *Adequacy of assistance to fuel-poor recipients*
- *Assessing the effect of price increases on those removed from fuel poverty*
- *Establishing the benefits of increasing SAP improvements*

Health Impact Assessment of the New Home Energy Efficiency Scheme, prepared by Dr John Kemm, Welsh Combined Centres for Public Health, Sara Ballard and Dr Mike Harmer, Housing and Community Renewal Division, The National Assembly for Wales. The National Assembly for Wales, 2001 [?].

Health impact assessment is a key element in policy decision-making in Wales. The approach is intended to ensure that health and well-being issues are taken into account in policy development at all levels.

Energy Efficiency Commitment

The Energy Efficiency Commitment has developed from a modest levy on electricity consumers first imposed in 1994 as the Energy Efficiency Standards of Performance into a source of funding for domestic energy efficiency improvements raised from all domestic gas and electricity consumers and with a considerably higher budget than that for Warm Front. The first Energy Efficiency Standards of Performance were imposed on the electricity industry in 1994 and were followed by further EESoP programmes in 1998 and 2000. EESoP targets for energy savings were funded by an allowance on the supply price control which allowed for £1 per franchise customer to be invested in energy efficiency work.

In recognition of the liberalisation of the gas market EESop targets were placed on all licensed gas and electricity suppliers with at least 50,000 customers from 2000.

A Review of the Energy Efficiency Standards of Performance 1994-2002: A joint report by Ofgem and the Energy Saving Trust, July 2003

Report setting out the effectiveness of Energy Efficiency Standards of Performance programmes from their inception until they were replaced by the Energy Efficiency Commitment in 2002. The Utilities Act 2000 gave the Secretary of State powers to set energy efficiency targets for suppliers.

Improving Energy Efficiency Financed by a Charge on Customers, Report by the Comptroller and Auditor General, National Audit Office, July 1998

Review of the rationale of EESop, energy saving achievements and consumer attitudes.

Energy Efficiency Commitment 2002-2005: Consultation Proposals, DEFRA, August 2001

Statutory consultation on the Energy Efficiency Commitment scheme as required by the Utilities Act 2000. proposals set out energy saving objectives over the period 2002-2005.

The Energy Efficiency Commitment from April 2005: Consultation Proposals, Defra, May 2004

Sets out proposals for overall energy savings of some 130TWh during the lifetime of the programme 2005-2008. As with previous EEC programmes at least 50% of savings should be achieved in the homes of priority group customers. Estimates that costs will double for consumers compared to the previous programme with average household costs of around £9 per fuel.

Comparing the Energy Efficiency Commitment (EEC) 2002-2005 with EEC 2005-2008, Defra, August 2004

Considers the expected outcomes from revisions to the Energy Efficiency Commitment and discusses potential barriers to achievement.

Evaluation of the Energy Efficiency Commitment 2002-2005: Report to Defra prepared by Eoin Lees Energy, 2006

http://www.defra.gov.uk/Environment/energy/eec/pdf/eec-evaluation.pdf

Fuel Poverty and Energy Prices

There is still no full explanation for the significant price increases in gas over the past year or so. A combination of high oil prices (to which gas prices are linked) exacerbated by 'market sentiment' are the main drivers. On fuel poverty High gas prices have led to substantial increases in electricity costs and these factors have combined to arrest and, to some degree reverse, the achievements of the Government's Fuel Poverty Strategy.

Fuel Prices: Twelfth Report of Session 2004-2005 by the Trade and Industry Committee, [published in typescript] March 2005. Formally published in June 2005.

The Committee listened to evidence of the adverse impact of rising energy prices and called for greater co-ordination within Government to deploy key providers of public services in identifying and assisting fuel-poor households.
http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtrdind/279/279.pdf

The Fall and Rise of Fuel Prices and Fuel Poverty, National Right to Fuel Campaign and NEA, 2005

The National Right to Fuel Campaign undertook a detailed analysis of the impact of post-2003 price increases on the incidence of fuel poverty in England.

http://www.nea.org.uk/downloads/publications/The_Fall_and_Rise_of_Fuel_Prices_and_Fuel_Poverty_(FULL_REP).pdf

Rising Fuel Prices: the challenge for affordable warmth in hard to heat homes, by Jacky Pett, Association for the Conservation of Energy, 2005

http://www.ukace.org/research/fuelprophet/Rising%20Fuel%20Prices%20-%20Full%20report.pdf

The Department of Trade and Industry

The Department of Trade and Industry has published on its website a 'ready reckoner' which is intended to illustrate the impact on fuel poverty of a range of energy pricing scenarios. The information can be accessed at:

http://www.dti.gov.uk/energy/consumers/fuel_poverty/ready_reckoner.pdf

The Department of Trade and Industry has produced a paper on energy pricing projections between 2003-2010. The paper was intended to inform Defra's Fuel Poverty Action Plan and illuminate what policies would be required to end fuel poverty for vulnerable households by 2010. The paper explains the assumptions on which energy price projections are based.

http://www.dti.gov.uk/energy/consumers/fuel_poverty/trends_prices.pdf

Family Spending: A report on the 2004-2005 Expenditure and Food Survey, Office for National Statistics, 2006

Most recent in an annual series that provides detailed analysis of household expenditure broken down by age, income, composition, socio-economic characteristics and geography. Contains basic information on expenditure on fuels.

http://www.statistics.gov.uk/downloads/theme_social/Family_Spending_2004-05/FS04-05.pdf

Fuel Poverty in Britain: Expenditure on Fuels 1993-94 to 1995-96, Gas Consumers Council, 1998

Last in a series of detailed analyses of household expenditure on fuels. Previous (irregular) analyses had been commissioned jointly by the Gas Consumers Council and the Electricity Consumers' Council.

Sutherland Comparative Domestic Heating Costs, Salkent Ltd

Bi-annual reports on domestic space and water heating costs analysed by geographical region and fuel type. Publication now covers the whole of the British Isles and is available only in CD Rom format. .

Fuel Poverty and Health

The health consequences of fuel poverty are the focus for much recent and current research. This reflects the fact that, ultimately, avoidance of harm to physical and psychological health is the main factor in policies to address fuel poverty and the following listing of health-related work is intended to provide some indication of the extent of research into housing conditions and health. No attempt has been made to produce a definitive listing of health-related publications; the material referred to below is intended for illustrative purposes.

The Energy Saving Trust has recently included a section on health on their website. Copies of research material can be found on the websites below:

www.est.org.uk/partnership/resource/action/
www.est.org.uk/partnership/sector/swg.cfm?group_id=104

Fuel Poverty and Ill Health: A Review, Centre for Sustainable Energy, 2001
(Bibliography produced for the Walsall Health and Fuel Poverty project)

http://www.cse.org.uk/pdf/pub11.pdf

Health Impact Assessment of the New Home Energy Efficiency Scheme, National Assembly for Wales, 2000

Contains a useful set of references to housing and health related issues

http://www.housing.wales.gov.uk/index.asp?task=content&a=d8

An epidemiological study of the relative importance of damp housing in relation to adult health, Julie Evans and Sophie Hyndman et al, Journal of Epidemiology and Community Health 2000; **54**: 677-686

Associations of cold temperatures with GP consultations for respiratory and cardiovascular disease amongst the elderly in London, S Hajat and A Haines, International Journal of Epidemiology 2002; **31**: 825-830

Health effects of housing improvement: systematic review of intervention studies, Hilary Thompson, Mark Petticrew, David Morrison, BMJ Volume 323, 28 July 2001

Health impact assessment of housing improvements: incorporating research evidence, H Thompson, M Petticrew, M Douglas, Journal of Epidemiology and Community Health, 2003; **57**; 11-16

Indoor heating, house conditions, and health, I Gemmell, Journal of Epidemiology and Community Health 2001; **55**: 928-929

Keeping warm and staying well: findings from the qualitative arm of the Warm Homes Project, Barbara E Harrington, Bob Heyman, Nick Merleau-Ponty et al, Health and Social Care in the Community **13**(3), 259-267

Prescribing warmer, healthier homes, Dr Noel Olsen, BMJ 2001; 322: 748-749 (31 March)

Housing and Asthma: Why our homes are making us ill! Dr Stirling Howieson, Taylor & Francis, Abingdon, Oxon, 2005

Health Implications of Cold and Damp Housing: a training resource, written and compiled by Trevor Davison, Eaga Partnership Charitable Trust, Updated 2004

Engaging Communities. An evaluation of a community development model for tackling rural fuel poverty, Institute of Public Health in Ireland, 2004

Fuel poverty and health: a guide for primary care organisations, and public health and care professionals, by Dr Vivienne Press, Produced by the National Heart Forum, the Eaga partnership Charitable Trust, the Faculty of Public Health Medicine, Help the Aged and the Met Office, 2003

Guidance Note for Primary Care Trusts: PCT Local Plans and Fuel Poverty 2003-2006, NEA, 2003

Health Impact Assessments of Housing Improvements – A Guide, Public Health Institute of Scotland, 2003

Housing and Health: Building for the Future, British Medical Association, 2003

Transforming Lives: Lessons Learned and Shared, Armagh and Dungannon Health Action Zone, 2002

Excess Winter Death

Within the debate on fuel poverty and ill health, excess winter mortality is the most sensitive indicator of the problem. The issue is particularly politically sensitive since excess winter death rates amongst the elderly population are disproportionately high and because the problem appears to be associated with the United Kingdom to an extent not replicated in countries with similar climatic conditions and levels of affluence.

Cold Comfort: the social and environmental determinants of excess winter death in England, 1986-1996, Wilkinson et al, Joseph Rowntree Foundation, 2002

Multiple Deprivation and Excess Winter Deaths in Scotland, Dr Stirling Howieson, University of Strathclyde and Energy Action Scotland, 2004

The Raised Incidence of Winter Deaths, by Neil Bowie and Graham Jackson, the General Register Office for Scotland, Occasional Paper 7, 2002

Impact of climate on mortality in Northern Ireland 1980-2001, Department for Social Development Technical Paper to accompany consultation Towards a new Fuel Poverty Strategy for Northern Ireland, DSD, 2003

Excess winter mortality in Europe: a cross-country analysis identifying key risk factors, by Dr Jonathan Healy, Journal of Epidemiology and Community Health, 2003, Volume 57, Number 10

Fuel Poverty and Energy Tariff Issues

Little formal research has been done in recent years into the impact of energy tariffs on fuel poverty; whether the negative effect of higher charges such as prepayment or the beneficial effect of social tariffs operated by most of the major energy suppliers to provide preferential terms to specific categories of vulnerable consumers.

The major source of information on payment methods, fuel debt and other fuel poverty indicators is the regular publication of Social Action Plan data by the Office of Gas and Electricity Markets (Ofgem). This material is produced on a quarterly basis and in the form of an annual report. These reports can be accessed via the Ofgem website. A link to the most recent **Social Action Plan Annual Report** is below.

http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/14238_sapq4.pdf?wtfrom=/ofgem/work/index.jsp&section=/areasofwork/socialactionplan

Debt and Disconnection: Gas and electricity supply companies and their domestic customers, House of Commons Trade and Industry Committee, Fifth Report of Session 2004-2005, TSO, 2005. The links below refer to the Committee report and to oral and written evidence.
http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtrdind/297/297.pdf

http://www.publications.parliament.uk/pa/cm200405/cmselect/cmtrdind/297/297ii.pdf

Preventing debt and disconnection – the review, an independent review by Sohn Associates on behalf of Ofgem and energywatch, 2005

http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/10688_9005.pdf

Self Disconnection Survey Report, Energy Action Scotland, 2004

http://www.eas.org.uk/downloads/SelfDisc.pdf

Protecting Vulnerable Customers from Disconnection, Energy Retail Association, 2004

http://www.energy-retail.org.uk/pdfs/Disconnections_Report_Sep_04.pdf

Social Tariffs – a solution to fuel poverty, Centre for Sustainable Energy and the National Right to Fuel Campaign, 2006

NEA defines a 'social tariff' as a charging structure that offers some form of preferential pricing, in the form of discount or subsidy, for a specific category of vulnerable domestic energy consumer.
http://www.cse.org.uk/pdf/pub1059.pdf

A social responsibility: an energywatch consultation on the nature of social tariffs in the energy market, energywatch, November 2006
http://www.energywatch.org.uk/uploads/A_social_responsibility_1_December_20061.pdf

Fuel Poverty and Local Authorities

Addressing fuel poverty through Community Planning: A Toolkit: Developing effective community participation and partnerships, by Impetus Consulting, 2004

Review of English Local Authority Fuel Poverty Report Strategies, by Impetus Consulting and the Association for the Conservation of Energy, 2003

http://www.eaga.co.uk/Charitable/Eaga%20Fuel%20Poverty%20Report.pdf

Home Energy Conservation Act Reports

Home Energy Conservation Act Reports are submitted annually to the Department for Environment, Food and Rural Affairs by local authorities in England. Local authorities may publish their full reports for general scrutiny. Individual local authority progress is published in a summary report by Defra. The most recent available figures can be found at:
http://www.defra.gov.uk/environment/energy/heca95/pdf/heca-data2005.pdf

Tackling fuel poverty: A Beacon Council Toolkit for Local Authorities, Prepared by NEA in association with the five local authorities awarded Beacon Council status for their innovative work on fuel poverty, 2003
http://www.nea.org.uk/downloads/publications/beacon_toolkit.pdf

Regional Strategies and Reports

Warm Zones address problems of fuel poverty and poor domestic energy efficiency by offering some degree of assistance to all households in a predetermined geographical area.

Warm Zones External Evaluation: First Annual Report, prepared on behalf of the Energy Saving Trust by the Centre for Sustainable Energy and National Energy Action, 2003
http://www.est.org.uk/uploads/documents/warm_zones_evaluation_1.pdf

Warm Zones External Evaluation; Second Report, prepared on behalf of the Energy Saving Trust by the Centre for Sustainable Energy and National Energy Action, 2004
http://www.est.org.uk/uploads/documents/ACFEAAcuaGbt.pdf

Green light to clean power: The Mayor's Energy Strategy, Greater London Authority, 2004
http://www.london.gov.uk/mayor/strategies/energy/docs/energy_strategy04.pdf

Future Energy West: West of England Sustainable Energy Strategy and Action Plan, Prepared for the local authorities of the west of England by the Centre for Sustainable Energy, 2003
http://www.cse.org.uk/ftp/Future-Energy-West.pdf

Regional Affordable Warmth Strategies

National Energy Action has recently finalised the first partnership with a wide range of agencies in the East Midlands to create a prototype Regional Affordable Warmth Strategy. The strategy brings together representatives from the health, economic development, housing and sustainability sectors to develop the strategy. The East Midlands is first in a number of region-wide strategies ande it is proposed over the next year to replicate this approach across other English regions.
http://www.nea.org.uk/downloads/operations/action_plan.pdf

Energy Advice

Energy advice is often thought of as a minor adjunct to practical energy efficiency improvements. However the benefits of good quality advice can range from substantial money savings to prevention of debt and disconnection. Since energy suppliers are required under their licence conditions to provide customers with effective and impartial advice it is essential that these services be, as an absolute minimum, well informed and competently delivered.

Ofgem commissions occasional analyses of the quality of energy suppliers' advice services. This has generally entailed a 'mystery shopper' exercise undertaken by external consultants.

Report on the Quality of Energy Efficiency Advice from Electricity and Gas Suppliers, **prepared for Ofgem by New Perspectives, December 2003**
http://www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/5432_quality_energy_efficiency_advice_report_19dec03.pdf

Energy Advice Handbook, written by Julia Green, published by Energy Inform, 2004

Comprehensive resource covering all aspects of domestic energy use

Fuel Rights Handbook, written by Alan Murdie, published by Child Poverty Action Group, 2005
Detailed guide to the rights and entitlements of domestic gas and electricity consumers