
Detailed report on the different types of existing mechanisms to tackle Fuel Poverty

**EPEE project
WP3 - Deliverable 8**

TABLE OF CONTENTS

	Page
LEGISLATION AND NATIONAL POLICY	4
<u>FUEL POVERTY PROFILE (FRENCH MODEL)</u>	15
LEGISLATION AND NATIONAL POLICY	15
MINISTRIES	19
MECHANISM FOR REDUCING THE CONSUMPTION OF ENERGY: THE WHITE CERTIFICATES	20
THE THERMAL REGULATION AND ENERGY PERFORMANCE LABELLING OF BUILDINGS.	20
TAX CREDIT FOR THE PURCHASE OF RENEWABLE ENERGY EQUIPMENT AND ENERGY SAVING MATERIALS	21
ENERGY PERFORMANCE OF EXISTING BUILDINGS.	21
NATIONAL AGENCIES	22
<u>FUEL POVERTY PROFILE IN ITALY</u>	24
INTRODUCTION	24
LEGISLATION AND NATIONAL POLICY	25
CENTRAL GOVERNMENT DEPARTMENTS	28
<u>FUEL POVERTY PROFILE (SPAIN MODEL)</u>	34
LEGISLATION AND NATIONAL POLICY	35
CENTRAL GOVERNMENT DEPARTMENTS	35
REGIONAL GOVERNMENT	36
<u>FUEL POVERTY PROFILE (UNITED KINGDOM MODEL)</u>	37
THE LEGISLATURE	37
<u>LEGISLATION AND NATIONAL POLICY</u>	39
GOVERNMENT DEPARTMENTS AND FUEL POVERTY	42
CONSUMER PROTECTION	45

Fuel Poverty Profile (Belgium Model)

Belgium became a national entity in 1830 and is today a Federal State comprising:

- Three linguistic communities: French, Flemish and German
- Three Regions: Wallonia (French and German speaking), Flanders (Flemish speaking) and Brussels (French and Flemish speaking)

The French Community covers the Walloon Region territory and the French Institutions of the Brussels Region. The Flemish Community covers the Flemish Region territory and the Flemish Institutions of the Brussels Region.

The Communities and the Regions each exercise their own power. Each Community and Region also has its own Parliament and Government. Belgium is composed of 10 provinces and 589 towns. The town level is the level of power closest to the citizen.

Legislation and National Policy

In the field of energy

Gas and Electricity infrastructure

The figure 1 shows the structure of gas and electricity markets before and after the markets' liberalization.

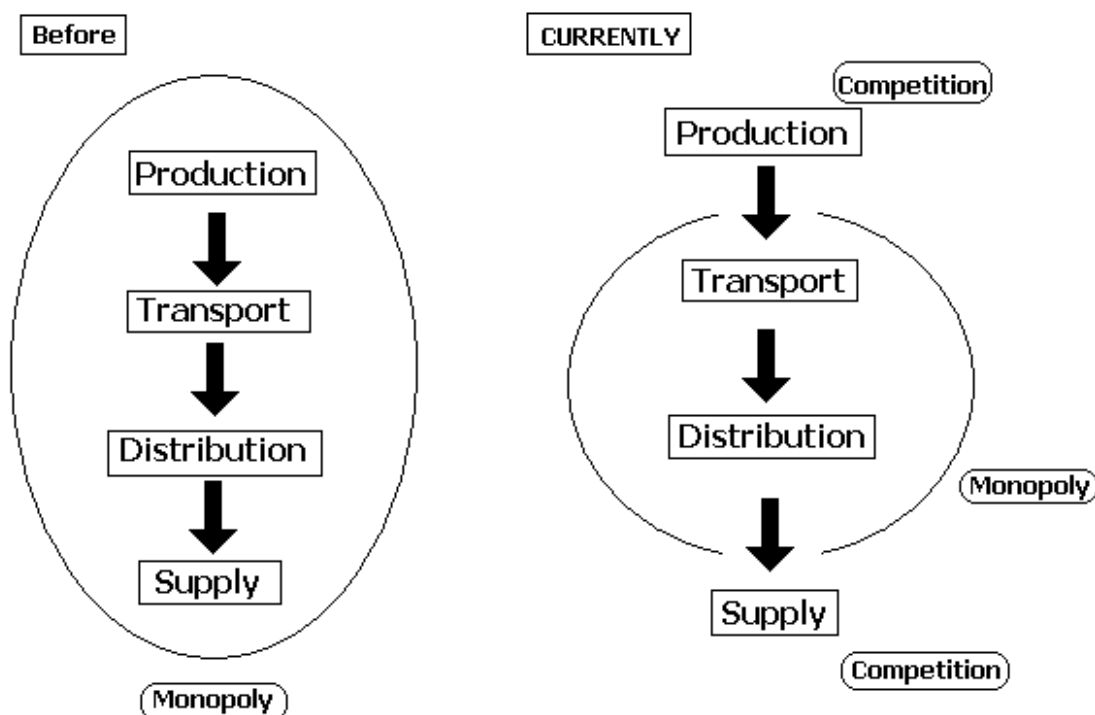


Figure 1: Gas and electricity markets in Belgium, before and after market liberalisation

The Federal Authority has responsibility for:

- Production
- Transport
- Major storage infrastructures (gas)
- Energy tariffs.

For gas, the transmission agent is FLUXYS Ltd and, for electricity, the transmission society is ELIA Ltd.

In the case of local gas and electricity distribution, there are several Network Distribution Managers (M.D.N.).

The transmission systems and MDN are funded through a charge on gas and electricity bills.

Liberalization of the gas and electricity markets

Federal

The relevant European Directives have been implemented by the 04.29.1999 laws organising the gas and electricity markets, modified by the 07.16.2001 law.

Walloon Region

The residential consumer markets have been open since the 1st January 2007 (Order of the Walloon Government – O.W.G. - 04.21.2005).

Brussels Region

The electricity market has been open since the 1st January 2007. For gas, the markets will be open in July 2007 (Order of the Brussels Government- O.B.G. - 07.19.2001 for electricity and Order 04.01.2004 for gas).

Flemish Region

The gas and electricity markets have been open since the 1st July 2003 (Order of the Flemish Government – O.F.G. - 07.13.2001 for electricity and 10.11.2002 for gas). In spite of Flanders' lead, free markets have had a particularly negative social impact.

Social measures

Federal

Social Fund for Energy

The Social Fund for Energy is based on the law of 09.04.2002 named the “Vande Lanotte Law”, placing Public Social Welfare Centres (CPAS) in charge of advice, information and financial support services relating to energy supplies for disadvantaged households. This law allows the CPAS to intervene when a person receiving money advice or debt mediation assistance is unable to pay energy bills. The CPAS receives a list of clients having payment difficulties from the energy supplier and contacts them directly in order to negotiate arrangements to settle the account. Assistance takes the form of debt mediation and budgeting advice services and represents a preventative social policy intervention to preserve energy supply. This Fund was created by Royal Order – R.O. - 10.11.2002 for the electricity market and 23.10.2002 for the natural gas market.

The Heating Fuel Social Fund

The Heating Fuel Social Fund (also called the Heating Social Fund) came into effect on 1st January 2005, based on the Law-Programme of 12.27.2004. It was introduced to subsidise heating oil costs for low-income households. This fund is only operational during the heating period (from September 1st to April 30th) and intervenes when prices reach or exceed €0.40 per litre (including taxes). The subsidy relates to bills for bulk heating oil and bulk propane delivered to dwellings. The subsidy covers a maximum volume of 1500 litres or €195 per winter per household. A €100 grant is available for people heating with oil and paraffin bought at the pump. The total financial aid depends on the price of oil, the higher the price the greater the assistance. According to the Royal Order (R.O.) of 09.01.2005, modified by the R.O. of 08.10.2005 and the R.O. of 09.09.2005 which sets precise rules for heating allowances beneficiaries of the fund are divided into 3 categories:

First category : People entitled to increased social welfare benefits:

- Widowers, widow, disabled people, pensioners, orphans (VIPO);
- Long-term unemployed people;
- Disabled children receiving raised family allowances;
- Beneficiaries of guaranteed income to old people;
- Beneficiaries of allowances for disabled people;
- Beneficiaries of a social integration income;

Beneficiaries of financial social benefit equal to the social integration income¹.

AND the annual gross income of these households can't be greater than €13246 increased by €2452 per dependant household member.

Second category: Low-income households whose annual gross income is under or equal to €13246 increased by €2452 per dependant.

Third category: Householders in debt and who benefit from debt mediation or from a collective debt payment plan and who are unable to pay their heating bills.

The Heating Fuel Social Fund is made up of contributions deducted from the sale of all heating oil products.

¹ The social integration income replaced the minimum household income from 10.01.2002

Social Tariffs

Specific social tariffs are preferential rates for electricity and gas based on the Laws of 03.20.2003 and 04.29.1999. These are regularly set by ministerial order. Beneficiaries of these specific social tariffs are called “protected customers²” and must fulfil specific conditions. The status of “protected customer” also exists at a regional level.

Walloon Region

Social Guidance on Energy Use

The CPAS agencies were given responsibility for Social Guidance for Energy Use through the O.W.G. of 4.12.2003. The first of these programmes began in June 2004 and involve three types of action: informative, preventative and remedial. These are detailed in point 3.3.2 (Social Actors: Walloon region)

MEBAR II

MEBAR II is an energy investment grant for low income households based on the O.W.G. of 12.23.1998, modified by the O.W.G. of 04.25.2002 and came into effect on the 1st April 1999. This subsidy, to a maximum €1365 for carpentry or insulation work or for central or free-standing heating appliance equipment purchases to improve housing, is granted to all households whose incomes are less than the sum of the integration incomes for each member of the household increased by 20%. In social housing, the only authorized investment is the boiler installation if, and only if, the property lacks any heating system. Referrals are made by the C.P.A.S. to the energy service of the Walloon Region.

Brussels Region

The O.B.G. of 12.14.2006 repealed³ the O.B.G. of 07.11.1991 relating to the right to a minimal supply of electricity and the O.B.G. established 03.11.1999 for the prevention of disconnection from domestic gas supply.

Flemish Region

The O.F.G. of 11.14.2003 provides for a number of free kWh, the value of which is deducted from the final annual invoice. Proportional to household size and only applicable to the main residence, all Flemish households are entitled to a certain quantity of free electricity per year. This quantity is equal to 100 kWh per household with an additional 100 kWh per member of the family. Free electricity cannot however exceed the yearly consumption of the household in full hours.

² Cfr definition of protected customer on page 11

³ In legal terms ‘repeal’ is synonymous with ‘replace’

Financial Support for Energy Efficiency Investment for Low-Income Households

Federal

The Fund for the reduction of the global cost of energy supports cheap loans in aid of eco-energy investments. This is one of the few measures with a specific social dimension (R.O. approved by the Council of Ministers of 10.02.2006). In practice, the fund provides assistance to the most disadvantaged households as defined in an Order deliberated by the Council of Ministers. These households are supported by CPAS in identifying, organizing and implementing appropriate works.

Walloon Region

Once again MEBAR II (see above 2.1.3.2.) can be cited in conjunction with the Energy Fund based on the Ministerial Order of 04.11.2005, defining the modes of energy allowances (practical measures and eligibility). The Energy Fund has granted 18 energy allowances during the period 2005-2007 to help Walloon households to invest, for example, in thermal insulation, efficient heating etc)

Brussels Region

Certain allowances to renovate housing (O.B.G. of 06.13.2002) are exclusively available to landlords. This measure includes a social aspect because the allowance depends on the beneficiary's annual total taxable income.

Flemish Region

In the Flemish Region, the allowances are part of a public service obligation in the field of rational use of energy imposed on the managers of distribution networks (decree of the Flemish Government of 07.17.2000 relative to the organization of the electricity market and decree of the Flemish Government of 07.06.2001 concerning the organization of the gas market).

Timely Assistance

Belgium has also set a heating allowance (VAT deduction) based on the law of 02.22.2006 which applies to domestic fuel bills.

In the field of housing

Federal

According to Art.23 of the Belgian Constitution (completed in 1994): “Everybody has the right to lead a proper life in accordance with human dignity. This right includes the right to decent housing”. According to the R.O. of 07.08.1997, rented housing must meet minimum absolute requirements concerning:

- amenities;
- structural soundness and stability;
- freedom from damp;
- natural lighting and ventilation;

Therefore, at the point a tenancy agreement is signed the landlord must ensure that the building satisfies the basic demands of security, public health and habitability.

More specific standards have been developed for each Region via the “Housing Codes”.

Walloon Region

The Walloon Housing Code came into effect in 1998 and was completed in 2002; it concerns (in Art. 2) the right to decent and healthy housing and gives priority to households with low incomes and in a state of poverty.

The Walloon Government supplements federal public health housing criteria. These criteria concern:

- Electrical and gas installations;
- Sanitary appliances;
- Heating installation;
- Housing size.

Civil servants and officers appointed by the Government are empowered to monitor and assess non-compliance with the minimum criteria specified for housing quality.

A Higher Council of Housing has been created to advise the Region in the area of housing policy.

The Region grants different types of support for disadvantaged households:

- Allowances to purchase decent housing or properties to be improved to a decent standard;
- Allowances to create “Government-regulated” housing⁴;
- Allowances (called ADEL) to move house or to rent, granted to tenants leaving inadequate or unsuitable housing (disabled people) to live in properties complying with all fit for habitation criteria;
- Allowances that guarantee payment of rent to the landlord.

⁴ Housing is ‘Government-regulated’ when, in compensation for the granted support, the landlord undertakes to rent the housing to a property operator who sublets to a low-income tenant.

Brussels Region

The Brussels Housing Code came into effect in 2004 and regulates in detail the public health, amenities and security conditions for housing.

The Brussels Government supplements federal public health and housing criteria across the following areas:

- Electrical and gas installations;
- Heating and sewers;
- Material toxicity;
- Layout of housing (minimal area by person, height of the rooms and access to housing);
- Infestation;
- Water supply;
- Cooking and heating appliances;
- Sanitary installation;
- Dry and damp free;
- Minimum dwelling space.

There is a Regional Inspection Service commissioned to control all aspects of security, public health and equipment criteria concerning all housing.

The Region also grants different types of financial support for households:

- Allowance to compensate for rent differences where a tenant has to leave inadequate housing for decent housing.
- Allowance for a bank rental guarantee account (not granted to recipients of integration income) equivalent to the lowest rate in the housing market
- Allowance (called ADIL) to move house, to relocate or to rent granted to tenants moving from inadequate housing to occupy a decent property. The new rent has to be higher than in the previous dwelling.

Flemish Region

The Housing Code, which came into effect in 1998, defines the quality standards for housing and can impose penalties where inadequate housing is on the rental market.

This code also requires that the municipal administration issue 'quality assurance certificates'.

The Flemish Government supplements federal public health housing criteria across the following areas:

- Available space;
- Sanitary equipment in particular bathrooms and toilets in a perfect state of working order and with bathrooms linked to sewers;
- Heating installation;
- Electrical and gas installations.

The Region grants allowances to isolated people and households living in a poor general state of housing:

- Allowance entitling them to a social credit (regular financial support);
- Allowance to relocate or to rent granted to tenants leaving poor housing to move to decent accommodation.

A Higher Council of Housing has been created to advise the Region in the field of housing policy.

Municipal scale

The municipality can introduce individual measures in the field of inadequate housing based on two different pieces of legislation: The New Municipal Law (R.O. 05.13.1999) and The Housing Codes (see above). There are also further stringent rules to combat unfit housing – effectively, provision of unfit housing is a criminal offence.

Government Departments

Ministries and organizations

Ministries and organisations can be found at national, regional, provincial and municipal level. They can address fuel poverty in terms of energy supply, housing standards and social or financial circumstances.

Federal

The Ministry of Public Service, of Social Integration, for Big Cities and of Equal Opportunities implements practical measures to tackle poverty and social exclusion.

It aims to ensure that everyone benefits from fundamental social rights and, by doing so, observes article 23 of the Constitution: “Everyone has the right to live in accordance with human dignity”.

The Federal Public Service Economy, SMEs, Self-employed and Energy Ministry (F.P.S.) ensures security of energy supply throughout the country from a perspective of sustainable development and energy cost monitoring. It also determines what energy-saving investments are entitled to tax reductions.

The Gas and Electricity Regulation Commission (C.R.E.G.) is the national organisation that regulates both gas and electricity markets in Belgium. It provides an advisory service to Government on the operation of markets and also fulfils a monitoring and enforcement role relating to compliance with laws and regulations on the part of the industry.

Walloon Region

The General Direction of the Town and Country Planning, Housing and Patrimony (DGATLP) of the Ministry of the Walloon Region helps private individuals through various incentives including subsidies to public or private organisations and also has a role in overseeing housing standards.

The General Direction of Technologies, Research and Energy (DGTRE) promotes energy efficiency, the use of new energy sources, energy-saving behaviour, sustainable products and efficient energy-wise investments.

The General Direction of Social Action and Health (DGASS) grants approval and subsidies to Public Social Welfare Centres (C.P.A.S.), debt mediation services, social integration services and social emergency schemes (24/7).

The Walloon Housing Society (SWL) ensures advice, assistance and financial, technical, administrative and social trusteeship to public service housing societies and local authorities for their housing projects. It is also empowered to control the proper functioning and the healthy management of housing societies. It also plays the role of a bank/investor since housing programmes are mainly financed by the Walloon Region.

The Walloon Social Credit Society (SWCS) supports the whole of the social mortgage (the lowest rate available on the market). It manages 23 branches that promote financial products sponsored by the Walloon Region. Conditions for obtaining a social mortgage are determined by SCWS.

The Walloon Large Families Housing Fund (FLFNW) has a public service mission. It grants social mortgages and also provides letting assistance. It coordinates action by social organisations such as the Social Renting Agencies (A.I.S.), the area boards and the housing promotion association.

The Walloon Commission for Energy (CWaPE.) provides an advisory service for the authorities regarding the organization and functioning of the regional gas and electricity markets. It also has a responsibility to monitor and control compliance with relevant Acts and Decrees.

There are a number of managers of the gas and electricity distribution networks.

Brussels Region

Within the *Administration of Town and Country Planning and Housing*, a Regional Inspection Service is commissioned to control observance of security, public health and equipment criteria relating to all housing and to deliver 'quality assurance certificates'.

The Brussels Institute for Management of the Environment is the administering body for environment and energy within the Brussels-Capital Region. It is the equivalent of the DG TRE of the Walloon Region. Its missions are similar.

The Observatory for Health and Welfare is a commission to help make decisions on health and social issues.

BRUGEL is the Brussels' regional regulator for gas and electricity. Its mission is to oversee implementation of all legal standards and compliance with quality standards required of participants engaged in gas and electricity markets.

The Brussels Energy Agency (ABEA) provides advice and guidance to Brussels residents on the rational use of energy in their homes and on the use of new energy sources. It offers information and advice to citizens on all energy matters including technological options to reduce energy consumption without compromising their.

The Brussels-Capital Housing Fund exists to encourage and allow lower-income families to buy or renovate their home through provision of beneficial social mortgages or through renting-buying schemes.

One key objective of *the Brussels Region Housing Society (SLRB)* is to make access to housing easier for lower-income people by establishing 'social rents'. An additional objective is to promote the creation of AIS and the purchasing of properties that can subsequently be rented out.

SIBELGA is Brussels' sole manager of the gas and electricity distribution networks.

Flemish Region

The same Ministries and organisations are found in the Flemish Region. These include:

- VREG: The Flemish Regulator of the Gas and Electricity Markets
- Vlaamse Energieagentschaps: The Flemish Energy Agency
- Agentschap Wonen-Vlaanderen: The 'to live in Flanders' Agency
- VHM : The Flemish Housing Society
- VWF: The Flemish Large Families Housing Fund

There are also several managers of the gas and electricity distribution networks.

Provinces

The Social Renting Agencies (AIS), financed by the Province, guarantee to landlords, through a lease: payment of the rent; a tenant; responsibility for the inventory of fixtures; and carrying out of those repairs for which the tenant is responsible. They draw up the lease and the inventory of fixtures, ensure maintenance repairs are undertaken provide legal advice and guidance as required. They offer lower-income tenants a low-rent decent home and social support and guidance if necessary.

The Provinces are developing wider access to ownership and improvement of general housing quality standards through awards of social mortgages to renovate or build houses.

Towns

The Public Social Welfare Centres (C.P.A.S.) offer social and energy guidance through various means: budget assistance, financial assistance, advice and training programmes.

In Flanders and Wallonia, the Local Disconnection Commission (CLAC in Wallonia and LAC in Flanders) of gas and electricity supply, has the power to disconnect gas and electricity supplies (See 2.4.1). The Commission is an arm of the local authority.

Fuel Poverty Profile (French model)

In France, fuel poverty is not generally recognised as a distinct social problem. The most common manifestation of difficulties in meeting household energy costs is the inability to pay fuel bills but this is mainly seen as a symptom of general poverty. Consequently the development of a legal framework to assist families to maintain warm and healthy homes has been in the context of wider policies to combat general poverty and social exclusion. This anti-poverty objective was initially supported by a law of December 1 1988 on a guaranteed minimum household income, which has now been formalised within the Social Action and Family Code.

Legislation and National Policy

1985 saw the introduction of the first Convention on Poverty and Vulnerability to involve the key nationalised French gas and electricity industries (EDF-GDF) in action to subsidise unaffordable fuel bills. This policy evolved to become the Solidarity Energy Funds (FSE), a source of financial assistance for vulnerable households who are unable to pay their energy bills.

A current annual budget of some €46 million. The source of funding is:

- 25% by the county council⁵
- 25% by EDF-GDF
- 18% by central Government (Ministry for Social Action)
- 14% by Assedic (national agency for jobless people)
- 7% by communes
- 1% by charitable organisations and others

It should be noted that in 1945 the State nationalised the production, distribution and supply of both gas and electricity. A single national agency was created for this purpose: EDF-GDF, which subsequently split into EDF (electricity) and GDF (gas).

⁵ In France, there are three different levels of territorial administrations: region, county and communes or group of communes. France comprises 26 regions, more than 90 counties and more than 36 000 communes. Historically, the French administration was built on two levels: state and communes. As a result of the decentralisation law, two different intermediate administration levels were created: regions and counties (or “department” in French). The State is represented in each region by the prefecture. Regions and counties have different responsibilities and powers. Tackling fuel poverty comes within the jurisdiction of counties and communes.

For some 60 years, these two agencies have exercised a monopoly within the gas and electricity industries. As nationalised industries benefiting from state investment in the industry infrastructure both services have been able to provide: very highly developed electricity and gas networks across France; very efficient distribution systems; and reliable security of supply. In addition, the State has been able to set a regulated tariff, which ensured that electricity and gas tariffs were the same everywhere in France and among the least expensive in Europe. With the opening of the competitive energy market, the regulated tariffs will disappear.

Law n°90-449 of the 31st of May 1990 (the Besson Law) seeks to establish the right to a dwelling and to ensure that the dwelling is of an acceptable standard. The law lays down the principle of guaranteeing, particularly for those who are disadvantaged in some way, assistance from local government to gain access to a dwelling and/or to maintain it. This law also requires implementation of **county plans of actions for housing and for disadvantaged families and individuals (PDALPD)**.

Law n°92-722 of 29th August 1992, is intended to resolve poverty and other forms of social exclusion issues. In doing so, it adopts and builds on the law of 01/12/88 in addressing some key aspects of fuel poverty: “any individual or family in vulnerable circumstances has a right to assistance from local government in order to access, or maintain access, to water or energy supplies”.

The law is intended to define the principle of a right to essential utility services (water, gas and electricity) by establishing a national protocol to prevent disconnection in cases of non-payment of bills.

The mechanism by which utility services are to be sustained comprises a number of national conventions signed on behalf of the State and representatives of EDF, GDF and water companies. These conventions define the level of assistance available and the categories of household eligible for assistance.

In the context of the PDALPD, within each county conventions are signed by representatives of the State; by representatives of EDF, GDF and other suppliers of energy or water; by communes and, if appropriate, by municipal social action centres; and by other agencies with a role in social welfare protection. These local (county level) conventions determine conditions for application of national conventions and also how best to implement advice and guidance programmes to maximise the rational use of both water and energy. This work is funded through the Solidarity Energy Funds (FSE).

The orientation law n° 98-657 from 29/07/98, relating to anti-social exclusion policy gives mandatory authority to maintenance of energy and water supplies.

Law n°2000-108 of 10/02/00, refers to the modernisation and development of the public electricity service and guarantees access to electricity supply for vulnerable households (in effect the right to energy is strengthened). The law extends the available forms of assistance for vulnerable persons and allows local authorities to intervene in a number of areas including: thermal insulation improvements; heating controls and timers; and the acquisition of energy efficient domestic appliances.

The same law 2000-108 also gives effect to the European directive 96/92/CE on the opening of domestic electricity markets. Decrees published between 2000 and 2001 will facilitate competition in electricity markets; enable participation by external energy producers in France; and introduce the possibility of customers choosing their supplier. However, one of the first consequences will be the end of the regulated electricity tariff.

Law n°2000-1208 of 13/12/00 relating to social inclusion and urban renewal covers the concept of a decent dwelling and makes it mandatory for any landlord letting a property to ensure that the dwelling does not present any risk to the health and safety of the occupant(s) and that the property satisfies a number of conditions that make it acceptable for habitation. This law is also the basis of a decree of 30/01/02 on decent housing and mixed tenures, which imposes an obligation on towns with more than 3,500 inhabitants, to ensure that 20% of the dwelling stock must be reserved for social housing.

Law n°2004-809 of 13/08/04 on local devolution modifies management of the solidarity energy funds (FSE), which have been integrated into the Dwelling Solidarity Funds (FSL) since the 1st of January 2005, and are now managed by the county commissions (comprising county councils, local authorities, energy suppliers and local social welfare organisations). The county councils are therefore the main drivers of solutions to fuel poverty and other domestic energy problems.

Two additional decrees of Law n°2000-108 of 10/02/00, relating to the modernisation and development of the public electricity service, are also relevant:

- A Decree of 08/04/04 relates to a social electricity tariff (as a service to meet primary needs); from the 1st of January 2005, households on very low incomes have been able to benefit from a special discounted electricity tariff. Households whose annual income is €5,520 (€460 per month) or less can benefit from a reduction of 30% (for a single person) to 50% (couple with 2 children or more) of the cost of the first 100 kWh each month. The process is initiated by the French Health Agency (CAM) which provides the electricity supplier with a list of eligible households; the supplier then sends the customer an application form for completion.
- Decree 2005-971 from 10/08/05 covers procedures to be followed in cases of unpaid electricity bills. Access to supply must be maintained where the case has been referred to the Dwelling Solidarity Fund (FSL) and at least until a decision has been taken on the appropriate course of action. During this period, a limited power supply will be maintained, providing for minimum electricity needs. In addition, EDF is committed to a no disconnection policy until contact has been established between the company and the customer, or the customer has been able to approach social services to explain the situation and seek assistance in paying the amount owed.

Finally, the Law of the 13th of July 2006 relating to national housing standards introduced a ban on disconnection from electricity supply during the period November 1 to March 15 for any household in receipt of financial assistance from the Dwelling Solidarity Funds or that had benefited from the funds in the previous twelve months.

In the context of public health, a circular from 09/08/78 introducing revisions to county sanitary regulations addresses the importance that must be given to

problems of heating and ventilation. It is also specified that “all measures should be taken to ensure adequate heating”.

The effects of these laws and their decrees of application in addressing fuel poverty are to promote:

- a right of access to energy supply
- a right to maintain energy supply
- a social tariff to provide discounted electricity prices for disadvantaged households
- financial help through the FSL to enable households in difficult financial circumstances to pay some or all of their energy debt.

It is clear that the legislative framework to address fuel poverty issues in France is primarily reactive and aimed at resolving crises resulting from unpaid bills. Preventative action to avoid fuel poverty and offer a more sustainable approach to affordable warmth is not a major factor in policy development at the national level and there are minimal resources available for programmes to anticipate and resolve potential problems.

Given the imminent opening of competitive energy markets it may be reasonable to anticipate that there will be losers in the market and that this will lead to increased numbers of households for whom energy bills are unaffordable and debt is unavoidable. In such a case, a new approach will be necessary to prevent increased incidence of fuel debt through new programmes of advice and information, and financial assistance to improve the heating and insulation standards of properties occupied by vulnerable households.

Ministries

The policies of three ministries are key to fuel poverty issues.

The Ministry of Employment, Social Action and Housing

The law governing a national commitment to housing standards (ENL) establishes the legislative framework of the national policy for housing and strengthens that element of the plan for social progress. This law aims to improve universal access to a comfortable and healthy dwelling. Some elements of the plan address aspects of fuel poverty:

- Mechanisms to reform allocation of social housing in favour of vulnerable households
- A ban on disconnection from essential services (water, electricity, gas) during the winter period for disadvantaged households
- Programmes to eliminate unacceptably poor housing
- Reduction of VAT from 19.6% to 5.5% applicable where the property is being connected to a district heating network (previously it had been 19.6% whereas connection to gas and electricity networks is taxed at 5.5%). In the case of heat supplied through a district heating network and where more than 80% of the fuel source is biomass, VAT is fixed at 5.5% in comparison with the standard rate of 19.6%.

The Ministry of Transport, Equipment, Tourism and Sea

This ministry is responsible for standards relating to the construction and thermal properties of residential buildings.

Ministry of Economy, Finance and Industry

This ministry develops and implements Government policy relating to energy and mineral raw materials. This ministry also has responsibility for management of the White Certificate (see below) and for fiscal legislation.

A number of different policy instruments that impact in some way on fuel poverty originate in these ministries:

Mechanism for reducing the consumption of energy: the white certificates

The White Certificates were instituted by the law of the 13th of July 2005. The aim is to achieve energy savings in the residential and commercial sectors where potential savings are significant.

The mechanism involves an obligation, set by the ministry, on energy suppliers to achieve predetermined levels of energy saving. The objective is to achieve cumulative energy savings of 54 TWh over a three-year period. The first phase runs from the 1st of July 2006 to the 30th of June 2009. Energy suppliers are free to select whatever actions they wish in attaining their target energy savings. Programmes might involve information and advice campaigns or financial incentives and subsidies to promote the purchase of energy efficient appliances or equipment etc.

The thermal regulation and energy performance labelling of buildings.

Every five years, decrees on the thermal characteristics and energy performance of new constructions are implemented. The most recent thermal regulation 2005 (RT2005), was introduced by the decree of the 27th of July 2006. It implements the European Directive on Energy Performance of Buildings which has applied to any construction project since the 1st of September 2006.

RT 2005 has a primary objective of improving the energy performance of new buildings by 15% compared to the 2000 thermal regulation (RT2000), in which the average threshold for energy consumption was 100 kWh/m²/year. The regulations enforce a number of key requirements including thermal insulation, a high-energy efficiency boiler and storage heating in place of electric fires and improved insulation for district heating networks.

The RT 2005 ranks Energy Performance of Buildings labels:

- “High energy performance” equates to an energy consumption reduction of 10% over the conventional energy consumption of RT 2000.
- “Very high energy performance” equates to an energy consumption reduction of 20% over the conventional energy consumption of RT 2000.

The Ministry of Equipment is introducing another label that is called “low energy” and refers to the “Effinergie” label, for which the average energy consumption is fixed at 50 kWh/m²/year. This label is applicable to both new and existing buildings.

Tax credit for the purchase of renewable energy equipment and energy saving materials

The tax credit is a financial incentive, which allows households to deduct from their income tax a portion of expenditure used to improve the energy efficiency standards of their home. The tax credit is applicable to the main home and for the purchase of equipment or materials – however labour and other installation costs are not allowed. The tax credit and eligible measures are:

- 15% for low temperature boiler
- 25 to 40% for condensing boiler; thermal insulation materials; heating controls;
- 25% of the connection costs to a district heat network running mainly with renewable energies or co-generation;
- 50% for hot water and heating systems powered by solar energy; photovoltaic systems; electrical systems powered by wind, hydro or biomass energy; hot water and heating systems using biomass; and heat pumps of particular specifications.

Energy performance of existing buildings.

The European Energy Performance of Buildings Directive is also implemented in France in relation to the wider housing stock.

To increase consumer awareness of energy consumption in dwellings, the article L.134.1 to L.134.5 of the code of Construction and Housing introduces a requirement for an energy audit of a domestic property at the point of sale (effective from the 1st of November 2006), or construction or rent (effective from the 1st of July 2007).

The energy audit is seen as an essential tool in communicating the scope for energy efficiency improvements to the dwelling by displaying, in a readily comprehensible way, the energy performance of the building (energy consumption, CO₂ emissions and annual energy costs). The audit is supported by a number of recommendations for cost-effective remedial actions to improve the energy performance of the property.

National Agencies

ANAH

the National Housing Improvement Agency offers subsidies to improve standards in owner-occupied housing and private-rented housing.

Subsidies are payable to householders and landlords who carry out improvement works to their homes (provided they satisfy certain criteria).

Grant-aided improvement works include:

- Improvements to the dwelling's security, amenities, health and safety and access and suitability for persons with some form of physical disability
- To save energy and to improve acoustic insulation

The amount of the subsidy varies according to the circumstances of the owner:

- For owner-occupiers, it is generally 20% of the cost of the works, with an upper limit at €13,000 although the subsidy can be as high as 35% for owner-occupiers on very low incomes.
- For property owners who are landlords, the rate of subsidy is 15% of the amount of the works. The subsidy to the landlord can be 35 to 45% if the dwelling is situated in a "programmed operation of building improvements" (OPAH in French); 40 to 70% in cases where works are part of a social programme to improve housing conditions for disadvantaged families or individuals (PST); or 70% if the owner undertakes to let the post-improvement property at a controlled rent (ANAH social).

ANAH also offers subsidies for home improvement works where low-income households contribute their own labour, where feasible, to measures specified by an agreed agency (see section on self-retrofitting works).

ADEME

The French Agency for Environment and Energy Management is a public body operating under the authority of three ministries: Ecology and Sustainable Development, Industry and Research.

The main missions of the agency are to initiate, encourage, co-ordinate, develop and implement action for environmental protection and energy saving. ADEME also undertakes projects involving evaluation, advice and assistance on behalf of different target groups including: public administration, private and public enterprises and the general public.

In relation to fuel poverty, ADEME's priority objective centres on energy efficiency improvements in dwellings occupied by low-income and other vulnerable households, with the aim of providing affordable warmth for all. The approach in delivering this objective varies dependent on the scale of the intervention.

At a local level, possible interventions include home visits and provision of advice and information to individual households, undertaking energy audits and, as appropriate, carrying out practical energy efficiency improvements. Supplementary work programmes include information and training targeted at social workers and other organisations involved in housing

On a national level, in addition to the information, training and assessment skills that are the basis of local action, national partnerships must be initiated and fostered to facilitate co-operative working on innovative projects and pilots.

ANRU (National Agency for Urban Renewal)

This agency was created in 2004 as a means of delivering the huge levels of investment required for the renewal of those areas of social housing districts in the worst condition.

The programme aims to construct 250,000 social sector dwellings, to demolish a similar number and to undertake major remedial works in a further 400,000 by 2013.

The public authorities therefore have potential access to a highly effective mechanism for the promotion of energy efficiency in social housing (in both new and existing dwellings) and, simultaneously, to redress the carbon balance of entire urban districts (as a result of action on wider energy efficiency areas such as local transport).

But this opportunity is not being taken. The massive energy efficiency potential presented within both new-build and retrofit are not maximised due to a lack of political will on a national scale.

Fuel Poverty Profile in Italy

Introduction

In Italy there is no official definition of the problem of fuel poverty although it is anticipated that there may be an important development as a result of the on-going work of the National Authority for Energy on energy “social” tariffs. The proposal for an indicator on “affordability” of utilities (water and energy) is also attracting interest (see the study “Some distributional effects of utility reforms in Italy”).

That paper documents the development of liberalisation reforms in Italy and the new regulation structures in water and energy, presenting the dynamics of public utility prices and household expenditure in the period 1997-2004. It then provides a definition of “utility affordability”, and investigates if there is an affordability problem for public utilities in Italy and how this problem varies in different areas (considering climatic, social and economic differences between North, Central and South regions but also considers the different practices in designing and constructing buildings).

The study points out that taking account of regional disparities is crucial in allowing a meaningful measure of affordability, and therefore improvement in terms of targeting policies aimed at alleviating the problem. The study’s conclusions also underline that: “an analysis of the effects of future price reforms on households’ welfare is particularly relevant. If one can forecast that in the near future some utility prices will have to increase, the issue of how to design tariffs in order – for instance – to minimise negative consequences on poorer households becomes particularly relevant. The issue of the sustainability of utility prices especially for poor households may be linked to the regulators’ choices, in that the structure of utility prices also has a distributional effect”.

In recent months the National Authority for Energy (AEEG) has worked on a reform of the tariff system for the supply of natural gas to households and is also working on devising a new system of social tariffs for the electricity sector. The need to address fuel poverty (as an interesting new model of measurement that considers type and level of income, different aspects of buildings and other important health and social issues) is achieving importance.

Legislation and National Policy

An independent agency (Autorità per l'Energia Elettrica e il Gas – see more details below) determines energy tariffs in Italy. The Authority was founded in 1995 by the national law n. 481.

That law established powers for the Authority to regulate and control the national energy sectors. The Authority must set energy tariffs and also achieve specific objectives in terms of meeting social, economic, environmental and energy efficiency targets.

During the last ten years energy tariffs (gas and electricity) have been strongly influenced by the effects of liberalisation processes in the national energy sectors.

Natural Gas

From the 1st of July 2001 a new system of tariffs for the distribution and the supply of gas is in force, in accordance with the Deliberation n. 237/00 of the National Energy Authority.

The new system consists of two tariffs, one for distribution and one for supply. The supply tariff includes the actual charge for the number of units consumed; this changes every three months to reflect the price of oil in the world market.

The Energy Authority fixes the distribution tariff to take account of geographical location (in other words, different groups of towns served by the same distribution plant). This tariff consists of a flat-rate element and a variable element:

- - the first element consists of different monthly charges related to total consumption in the “thermal year” preceding the current year (the “thermal year” is the period between the 1st of July and the 30th of June);
- - the variable tariff consists of seven brackets of consumption (prices within the brackets decrease as the level of consumption increases).

Electricity

From the 1st of January 2000, electricity tariffs for residential consumers were reformed.

The reform intended to link energy prices to the actual cost of supply (cost-reflective pricing) and create new margins for flexibility in terms agreed between customers and distribution enterprises in a liberalised energy market.

In January 2004 the National Energy Authority approved its “*Consolidated Act on Authority’s disposals for transmission, measure and supply of electrical energy 2004-2007*”, confirming the system fixed for residential users in 2000.

The current tariff system incorporates two different compulsory tariffs: D2 is the tariff for supply contracts in dwellings consuming up to 3 kW power; D3 is the tariff for non-residential users and for consumption levels exceeding 3 kW power.

Both compulsory tariffs consist of different charges (related to the power of plant and the energy consumption). Only D2 tariff considers different brackets of consumption.

Final price for each residential user includes tariff components to cover different costs:

- generation costs;
- transport and transmission costs;
- commercial and monitoring costs;
- costs of interventions on the national electricity system;
- costs to guarantee some degree of balance between prices and average costs within the tariff system.

Every three months each supplier revises its tariffs on the basis of specific criteria laid down by the National Energy Authority.

From January 2001 suppliers have been able to offer other different tariff options to their customers, for example.

“Social tariffs” and provision for vulnerable households

The current national tariff system addresses different levels of energy consumption but takes no account of the economic circumstances of individuals and families - even those in the greatest financial need.

There is currently provision for preferential charging for electricity consumption (called fascia sociale) however the charging structure favours low energy consumption rather than low-income households for whom energy may be unaffordable. Many larger families can't take advantage of this tariff because their energy consumption is high, whereas affluent families of two or three people can benefit thanks to their lower energy consumption.

However, a national law (National Energy Deliberation n. 237/2000) in the gas sector allows each Local Administration (municipality) to create a fund through a levy of 1% on the distribution rate. The fund is then used to cover the costs of gas distribution to the poor and other vulnerable households. All customer' bills indicate the amount and purpose of this additional charge (contributo sociale).

Although this initiative represents a valuable potential contribution towards assisting low-income households, by 2005 only 288 Italian municipalities, out of a total of 7.200 municipalities involved in the system of gas distribution, had adopted this policy.

The National Energy Authority is working on the development of a social tariff aimed at disadvantaged households the results of which are expected in July 2007. Eligible households will be identified through use of socio-economic indicators (ISEE, Indicatore della Situazione Socio-Economica, known in Italy known as riccometro).

Eligibility criteria can consider other relevant factors such as chronic ill health. The National Energy Authority would employ “criteria for evaluation of people who require social benefits”. Then, in accordance with national law n. 481/95 the Authority can recommend that the minimum threshold of the indicator could be increased where in circumstances of particularly bad health conditions, for example where electricity is required for the operation of medical equipment.

It is thought that access to the benefits should be based on a self-certification procedure although there will be some degree of control in the form of verification of an appropriate sample of self certification.

Households qualified to benefit from this provision will pay a minimum rate for electricity consumption related to lighting and household appliances; the rate will be determined by reference to the family size and ‘normal’ use of lighting and appliances.

Charges under the social tariff will be uniform across the country will provide guaranteed benefits for households with electricity demand of less than 3 kW; and their consumption will have to be lower than a specific monthly maximum. Charges for this tariff will also exclude taxes.

The social tariff will be subsidised through an appropriate increase on charges levied on other consumers.

Italian energy tariffs: legislative framework

Law, Decree, Deliberation	Contents
National law n. 481/1995	The law set up the National Energy Authority. The Authority has to fix and update energy rates. The national energy rate system has to foresee the promotion of competition in energy market and the promotion of energy efficiency.
National Decree n. 109/1998 (then modified by National Decree n. 130/2000)	Established ISEE as a reliable indicator to evaluate a family’s standard of living, taking account of its income and other resources.
National Decree n. 79/1999	This represents the national implementation of the Directive 96/92/EC (liberalization of national electricity markets).
National Decree n. 164/2000	Implemented the Directive 98/30/EC (liberalization of natural gas markets).
Deliberation of Energy Authority n. 237/2000	Established the new tariff system for distribution and supply of natural gas. It introduced specific economic assistance for disadvantaged customers. The system isn’t current yet.
Official Technical Document of Energy Authority 20/02/2003	This document set out the Authority’s proposals to set up a tariff system to support poor or needy consumers.
Deliberation of Energy Authority n. 5/2004	Defines new criteria for distribution and supply of electricity: each year distribution and supply companies must submit to the Energy Authority their tariff options for the following year.

CENTRAL GOVERNMENT DEPARTMENTS

Whilst the National Authority for Energy develops rules and schemes to ensure a more equal application of energy tariffs, the Government retains the main responsibility to provide general guidelines on how to draw up these rules. The choice of indicators and factors that influence and determine all of the Authority's decisions in this matter depend on the policies of Government relating to energy, the economy, welfare and health.

Ministries

Ministry for Economic Development

The General Department for Energy has the following responsibilities:

- a) drawing up national energy policies and coordinating activities and actions connected to regional energy planning;
- b) management of relationships with the European Commission and all other international organisations involved in energy policy and regulation;
- c) the departmental priority concerns the application of laws relating to energy sources, energy saving, energy efficiency and the development of renewable energy sources.

The Ministry for Economic Development oversees the National Council for Consumers (Consiglio Nazionale dei Consumatori e degli Utenti - CNCU) an agency that represents, at a national level, all the Associations of Consumers in Italy. It was established in accordance with law n. 281 (30th July 1998). The law gave the Council strong powers in improving and strengthening the position of consumers within the market.

The Council's duties are defined by the "Code for Consumers" as follows:

- expression of opinions about legislation proposed by Government and Parliament project of law and about regulatory structures as they affect the rights and interests of consumers;
- close working relationship with technical institutional organisations;
- analysis of specific issues in collaboration with research bodies, consumers and suppliers of goods and services;
- drawing up Codes of Practice with other relevant parties to define and develop tools for the protection and the information of consumers about their rights in the context of public services and utilities;
- promotion of coordination of European, national and regional policies for the protection of consumers;
- promotion of studies, research, surveys and advice and guidance on consumers' rights.

Ministry for Environment

General Department for Programming, Volunteer Agreements and Environmental Taxes

This Department oversees fiscal instruments relevant to environmental protection, including energy.

Ministry for Economy and Finance

General Department for Social Policy

This Department has responsibility for the analysis and the management of poverty and social exclusion issues, with a particular focus on their economical aspects. In collaboration with the Ministry of Welfare, it draws up legislative and financial tools to deliver social assistance.

Ministry of Social Solidarity

The Ministry of Social Solidarity, established by decree n.118/2006, subsequently law 233/2006, oversees the fields of social policies and welfare: for the control of immigration from Third and new Community countries, and for the co-ordination of integration policies for foreigners; for policies concerning drugs and for funding anti-drug programmes for young addicts; the Ministry is also in charge of the National Civil Service.

The Ministry of Social Solidarity has the task, together with the Municipalities, the Provinces and the Regions, of developing a network of services capable of granting equal rights to a decent life to all citizens, beginning with the battle against poverty and social exclusion.

With a comprehensive perspective of universal welfare provision, the Ministry addresses its activities not only towards people suffering from specific problems including the economically disadvantaged, persons with a disability and immigrants, but also towards any person who is, or is at risk of, in a situation of particular need.

The Ministry acts in the knowledge that social solidarity is an issue of concern for all Ministries. This extremely delicate task is carried out in co-operation with the social organisations that everywhere, and in Italy most of all, demonstrate the real and powerful capacity within society to adopt and implement principles of social solidarity.

This productive interaction enables the Government to better understand and address the needs of society, thus developing a social policy that sees the people themselves take a leading role whilst the State is not remote from the needs of its citizens.

Directorate General for the Management of National Funds for Social Policies and Monitoring of Social Expenditure

The National Fund for Social Policies is the main national source of funding dedicated to welfare programmes for individuals and families. The resources are mainly allocated to the INPS (National Institute for Social Security) to finance activities aiming at granting people's rights and transferred to the Regions that allocate funds to the local authorities and private partners that supply the welfare services provided for in Regional Social Plans.

The most relevant activities carried out by the directorate include:

- Monitoring of social expenditure and evaluation of the effectiveness and efficiency of social policies;
- Analysis of the level of social demand, with the aim of providing a wider knowledge base of the needs at local level;
- Definition of the basic level of social services (LEP). The LEPs represent a mechanism to ensure that social services can provide the requisite forms of assistance at a local level.

Directorate General for Social Inclusion and Social Rights and for Corporate Social Responsibility (CSR)

In co-operation with other national and international institutions and along with the representatives of the civil society, the Directorate General is in charge of the following tasks:

- Promotion and implementation of policies aiming at fighting against poverty;
- Policies aimed at supporting people and against severe marginalisation;
- Support for the activities of the Commission investigating social exclusion;
- Co-funding and monitoring of measures for wages integration;
- Promotion and implementation of policies fighting against housing problems for specific categories of person;
- Addressing and co-ordinating actions in favour of children and young people and for the protection of minors' rights;
- Co-support to the activities of the National Monitoring Centre for Children and Young People and of the National Documentation and Research Centre on Children and Young People;
- Policies and projects to meet the needs of disabled people, to promote their inclusion in employment and wider society and for the promotion of their rights;
- Policies supporting elderly people, with specific focus on active aging and independent living;
- Co-control of the National Agency of the European Youth Programme;
- Promotion and development of initiatives relating to Corporate Social Responsibility (CSR);
- Co-ordination of initiatives in the field of CSR and relation with international and EU bodies working on this issue.

Ministry of Transport and Infrastructure

Department for Residential Building and Urban Policy

This department's responsibilities are fixed by national law n. 457/1975 "Rules for residential building". The law establishes general conditions for facilitated residential building ("facilitation" means financial support to help people with mortgage interest payments) and for subsidised building ("subsidy" means financial support towards the cost of construction).

The law also covers other areas such as the testing of products and processes to improve the standard of building quality.

The Department also oversees policies to address housing problems and manages the National Observatory on Housing Conditions.

Ministry for Health

Department for Health Protection

This Department works health and safety issues in the home and in the workplace. The department includes an office dedicated to protection of the health of the most vulnerable persons.

National Authority for Energy (AEEG)

The Italian Regulatory Authority for Electricity and Gas is an independent body established under Law 481 of 14 November 1995 to regulate and control the electricity and gas sectors. An independent authority body is a public body which takes its own decisions under the terms of its founding law, procedures and regulations. It enjoys a high degree of autonomy from the Government in judgements and evaluations. Its regulatory powers include the setting of tariffs and prescribing service quality standards and the technical and economic conditions governing access and interconnections to networks for those services where technical, legal or other constraints would interfere with normal competitive market conditions and the ability of the market to protect the interests of users and consumers.

The Authority operates with full autonomy and independent judgement within the general policy guidelines laid down by the Government and Parliament and taking due account of relevant European Union legislation. In its "Documento di Programmazione Economico-Finanziaria" (Three-year Economic and Financial Planning Document), the Government draws the Authority's attention to any developments concerning public utilities that serve the country's general interest.

The Authority formulates observations and recommendations to the Government and Parliament and presents an annual report to Parliament and the Prime Minister on its activities and on the state of regulated services.

The Authority formulates its own procedures for the adoption of provisions and enjoys organisational autonomy to lay down regulations governing its internal organisation, functioning and accounting procedures.

The Authority is funded through annual contributions paid by the service providers, calculated as a set percentage of no more than 1/1000 of contributors' revenues for the previous financial year.

The task of the Regulatory Authority for Electricity and Gas is to pursue two main objectives as laid down in Law 481/95: "guaranteeing the promotion of competition and efficiency" while "ensuring adequate service quality standards" in the electricity and gas sectors.

These objectives are to be pursued by ensuring "uniform availability and distribution of services throughout the country, by establishing a transparent and reliable tariff system based on pre-defined criteria and by promoting the interests of users and consumers". The tariff system is required "to reconcile the economic and financial goals of electricity and gas operators with general social goals, and with environmental protection and the efficient use of resources".

The Authority sets basic tariffs for the regulated sectors. This includes maximum prices net of tax, and tariff adjustments based on a price-cap mechanism (defined as a "ceiling on price variations on a multi-annual basis"). The price-cap mechanism sets a limit on annual tariff increases corresponding to the difference between the target inflation rate and the increased productivity attainable by the service provider, along with any other factors allowed for in the tariff, such as quality improvements.

In 2001, the National Energy Authority and the National Council for Consumers (see above) signed an Agreement that committed them jointly develop the best mechanisms to inform consumers about public services in gas and electricity markets, with particular focus on the liberalisation process. The Agreement anticipated the need for consumer information in areas such as tariffs and quality of services.

Fuel Poverty profile (Spain Model)

Fuel poverty is not formally recognised and defined in Spain although some studies show that it has some of the poorest housing and highest levels of fuel poverty in Europe⁶. Instances of what might be considered fuel poverty are dealt with in isolation meaning that it is primarily an issue for the voluntary sector and municipalities who are the general sources of assistance for low-income and other vulnerable households.

After analysing national, regional and local circumstances it is clear that fuel poverty is not considered an issue of significant social concern. At a national level, legislation on housing conditions has been introduced in recent years. For example, stricter national legislation on building was introduced in 2006 (Código Técnico de la Edificación). At a national level level, housing subsidies are predominantly for the purpose of meeting housing costs (rents) and not to improve housing conditions generally and energy efficiency specifically.

At a regional level, there are Social Emergency Subsidies which can include paying energy bills in case of extreme necessity but, for the most part, these subsidies go to pay rents represent a greater part of the household budget than energy costs. At a local level, social workers identify household problems and approve, if necessary, a social subsidy to help resolve any domestic difficulties. Evidence from many social workers in different municipalities indicates that the number of households seeking assistance related to fuel poverty is not considerable. Social workers consulted consider that energy is cheap in Spain and that there are more important domestic difficulties such as paying rent. This view is shared by the wider voluntary sector, which takes the view that demands on resources attributable to fuel poverty is not significant.

These views and experiences explain the failure of the Spanish Government to recognise and act on fuel poverty; if the problem is not seen as a major issue at local or regional levels then it cannot be taken up as a serious social problem at a national level.

⁶ For example: Housing, Fuel Poverty and Health: a Pan-European Analysis, Jonathan D Healy, Ashgate Publishing Limited, 2004

Legislation and National Policy

Fuel poverty is not consistently identified and defined in all European countries, but in Spanish legislation the problem is not even recognised

Fuel poverty in Spanish legislation

- *Directive 2003/54/CE of the European Parliament and of the Council concerning common rules for the internal market in electricity and repealing Directive 96/92/EC.*
This Directive has been transposed to the Spanish legislation as RD1454/2005 (an adaptation of “Ley 54/1997”) and although it refers to *protection of vulnerable consumers*, it does not consider the issue in any depth.
- *Directive 2002/91/EC of the European Parliament and of the Council on the energy performance of buildings* has been partially transposed to the Spanish legislation (RD47/2007) with new regulations related to energy efficiency in new buildings. These measures will indirectly impact on fuel poverty to the extent that they improve housing conditions but they do not address fuel poverty as a separate social phenomenon.

Since neither legislation nor social policy recognise fuel poverty it is axiomatic that there cannot exist a formal definition of the problem. Until fuel poverty is recognised it cannot be defined and quantified along the lines of other countries such as the United Kingdom which considers a fuel-poor household as one needing to spend more than 10% of its income on all fuel use and in heating the home to an adequate standard of warmth (21°C in the living room and 18°C in other occupied rooms).

Central Government Departments

Some Spanish Government Departments have indirect involvement with fuel poverty.

Industry, Trade and Tourism Department

Responsible for energy legislation and transposition of European Directives on energy. Spain has transposed EU Directive 2003/54/CE but without applying specific measures to “vulnerable customers” despite this being specifically required in the Directive. The department has partially transposed EU Directive 2002/91/CE related to housing standards by means of Código Técnico de la Edificación (Specific rules for dwelling), RITE (Regulation of thermal performance of dwelling) and energy certification procedures for new dwellings.

Social Services Department

The department has no Fuel Poverty Action Plan since the issue is not recognised by the Spanish Government. There are special subsidies available to low-income families but these generally comprise grants to help pay housing costs or to pay for food.

Health Department

Although some studies have suggested that Spain has one of the highest winter mortality rates in Europe, the Health Department has no special programmes to address the problem. Paradoxically, the Spanish Government does have a programme to tackle excess summer mortality which is seen as an increasing problem and which has received significant media coverage. The National Plan for Preventative Action on the Health Effects of Excessive Temperatures (Plan Nacional de Acciones Preventivas de los Efectos del Exceso de Temperaturas sobre la Salud). The plan explicitly states that unaffordable cooling costs are a factor in the incidence of summer mortality.

Regional Government

Social Services Department

This Department delegates responsibilities to local authorities in each municipality since, in Spain, issues that may be relevant to fuel poverty are dealt with on an individual basis.

In most of the Spanish regions there is a source of assistance called “ *Social Emergency Subsidies*”; these are direct payments made where there is a need to alleviate financial difficulties in families such as energy debts or bad housing conditions. The amount of this subsidy depends on the cost of the demand or the degree of urgency.

Consumer protection: Consumer associations have not as yet developed any procedures for dealing with fuel poverty because the issue has virtually no profile in Spain. If energy consumers have never requested that consumer bodies become involved in protecting their interests there is no motivation for intervention in energy-related issues. After contacting some national and regional consumers associations (CECU, ASGECO, OCU, OCUC...) the conclusion is that they are not interested in this aspect of consumer welfare until they receive requests for assistance.

Fuel Poverty Profile (United Kingdom model)

The Legislature

Fuel poverty has been recognised and discussed in the United Kingdom since the early to mid-1970s when domestic energy prices followed the upward spiral of world oil prices. However this recognition was generally restricted to voluntary sector agencies dealing with low-income and other vulnerable households who were most adversely affected. These agencies recognised that fuel poverty was not simply a manifestation of general poverty and that, since it was caused or exacerbated by housing conditions, there could be a permanent solution in the form of capital investment to improve the heating and insulation standards of dwellings. This is not to say that energy prices and low household incomes are not factors in fuel poverty, they clearly are, but the key to affordable warmth in the United Kingdom has come to be seen as improved housing.

Fuel poverty was formally recognised as a distinct social problem following the election of a Labour Government in 1997. Previous administrations had steered clear of recognising fuel poverty - mainly because of the sheer scale of the problem. Adopting the definition of fuel poverty used by researchers and campaigning organisations would mean accepting that some 7 million households in England (37% of all households) were fuel poor. Nevertheless from 1998 Government accepted both the concept of fuel poverty and the definition used by campaigning agencies.

Prior to 1999 the Westminster Parliament exercised sovereignty over the four constituent countries of the United Kingdom. In 1998 three Acts of Parliament were introduced to confer devolved powers on Scotland, Wales and Northern Ireland. The Scottish Parliament, The National Assembly for Wales and the Northern Ireland Assembly all came into being in 1999. Devolution is relevant to the issue of fuel poverty because, whilst a number of relevant policy areas have become the responsibility of devolved administrations, including fuel poverty eradication, some key policy levers are reserved to the Westminster Parliament. Since England does not have its own devolved legislature all aspects of fuel poverty policy in that country are the responsibility of Westminster.

Devolution and Legislative Powers					
United Kingdom	Great Britain	England	Scotland	Wales	Northern Ireland
-	-	Energy Efficiency	Energy Efficiency	Energy Efficiency	Energy Efficiency
-	-	Health	Health	Health	Health
-	-	Environment	Environment	Environment	Environment
Social Security		-	-	-	
-	Energy Regulation	-	-	-	Energy Regulation
-	-	Economic Development	Economic Development	Economic Development	Economic Development
-	-	Housing	Housing	Housing	Housing
-	Energy Policy	-	-	-	Energy Policy
-	-	Fuel Poverty Strategy	Fuel Poverty Strategy	Fuel Poverty Strategy	Fuel Poverty Strategy

Despite the distribution of responsibilities across devolved administrations, all four countries have similar programmes in place to address fuel poverty. As a consequence the fuel poverty infrastructure within the United Kingdom will be exemplified through policy and practice in England.

Legislation and National Policy

The Warm Homes and Energy Conservation Act 2000

The Warm Homes and Energy Conservation Act 2000 is the legislative basis for the Government's commitment to end fuel poverty in England. The Act requires the Government to: *'prepare and publish, before the end of the period of twelve months beginning with the relevant commencement, a strategy setting out the authority's policies for ensuring, by means including the taking of measures to ensure the efficient use of energy, that as far as reasonably practicable persons do not live in fuel poverty.'*

The strategy referred to in the Act was published as the UK Fuel Poverty Strategy in November 2001. The strategy stated the Government's intention of eradicating fuel poverty for vulnerable⁷ households by 2010 after which attention would be focused on remaining fuel-poor households. The fifteen-year period specified in the Warm Homes and Energy Conservation Act meant that all fuel-poor households should have received assistance by November 2016.

Legislation Preceding the Warm Homes and Energy Conservation Act

A number of pieces of relevant legislation preceded the Warm Homes and Energy Conservation Act. Although not directly linked to fuel poverty objectives they do have significant implications for domestic energy efficiency.

The Social Security Act 1990

This Act provides the legislative basis for the payment of grants from central Government to improve heating and insulation standards in homes occupied by vulnerable households. The Secretary of State may make or arrange for the making of grants—

(a) towards the cost of carrying out work—

(i) for the purpose of improving the thermal insulation of dwellings, or

(ii) otherwise for the purpose of reducing or preventing the wastage of energy in connection with space or water heating in dwellings; and

(b) where any such work is, or is to be, carried out, towards the cost of providing persons with advice relating to thermal insulation or to the economic and efficient use of domestic appliances or of facilities for lighting, or for space or water heating, in dwellings;

⁷ Vulnerable households are defined as older people, families with children and those with a long-term illness or some form of disability.

The Secretary of State is authorised to determine which categories of household should be eligible for assistance. In practice, this has always limited grant-aid to households in receipt of means-tested or disability-related benefits although for a brief period after the introduction of VAT on domestic fuel in 1993 grants were payable to all householders aged 60 or over.

The Home Energy Conservation Act 1995

This Act required local authorities to prepare local energy conservation reports relating to the housing stock within their areas. The Act imposes no requirements on local authorities to undertake practical works. The report should identify:

- energy conservation measures that are practicable, cost-effective and likely to result in significant energy efficiency improvements
- an assessment of the cost of these energy efficiency measures
- an assessment of the extent to which CO₂ emissions would be reduced were measures to be implemented
- a statement indicating what category of households will be assisted where practical measures are to be undertaken

The report may also include:

- an assessment of the number of employment opportunities likely to result from implementation of measures considered in the report
- an assessment of the average savings in domestic fuel bills resulting from implementation

Subsequent guidance indicated that 'significant 'energy efficiency improvements' should be understood to be of the order of 30% over a period of 10-15 years.

The Utilities Act 2000

The Utilities Act authorises the Secretary of State to impose energy saving obligations on domestic energy suppliers based on a target and timescale devised by the Office of Gas and Electricity Markets (Ofgem). This energy saving programme is currently known as the Energy Efficiency Commitment and is the key source of funding for domestic energy efficiency measures in the United Kingdom.

The Utilities Act also enables the Secretary of State to introduce an order for the adjustment of charges for gas and electricity where it is considered that members of any group (a 'disadvantaged group') of customers are treated less favourably by suppliers than other customers with regard to charges for gas and electricity. Disadvantaged persons are those who are disabled or have a long-term illness; individuals with low incomes; and people living in rural areas. The purpose of the order would be to eliminate or reduce unfavourable treatment.

The Sustainable Energy Act 2003

The Act requires the Secretary of State to report on an annual basis on progress towards achievement of sustainable energy aims. Issues on which reporting is required follow the main goals of the Energy White Paper and include a report on reductions in the number of persons in the United Kingdom who are living in fuel poverty.

The Housing Act 2004

The Act requires the Secretary of State to ‘take reasonable steps to ensure that by 2010 the general level of energy efficiency of residential accommodation in England has increased by at least 20 per cent compared with the general level of such energy efficiency in 2000.’

The Housing Act also introduces the Housing Health and Safety Rating System (HHSRS). The HHSRS is a method for identifying and quantifying the degree of hazard posed to the occupant of a dwelling by poor housing conditions. The inability of a property to provide sufficient warmth for health and comfort is thought to pose the most common health hazard within the housing stock. On identifying a significant hazard, local authorities are empowered to take ‘appropriate enforcement action’.

The Climate Change and Sustainable Energy Act 2006

The Climate Change and Sustainable Energy Act places a duty on local authorities to take account of Government guidance on means by which they can improve energy efficiency, increase micro-generation, reduce greenhouse gas emissions and alleviate fuel poverty.

The Energy White Paper 2003

The 2003 Energy White Paper⁸, *Our energy future – creating a low carbon economy* restated the Government’s commitment to ensuring: ‘that every home is adequately and affordably heated. A new White Paper on energy is to be published by May 2007.’

The Energy White Paper 2007

The 2007 Energy White Paper, *Meeting the Energy Challenge*, reinforces the Government’s commitment to meeting fuel poverty targets. The White Paper recognises the difficulties posed by domestic price increases between 2004-2006, details existing Government programmes to address the problem, and indicates that additional measures will be recommended in the forthcoming UK Fuel Poverty Strategy Annual Report.

⁸ White Papers are statements of Government policy which often precede the introduction of new legislation.

Fuel Poverty in England: the Government's Plan for Action

Fuel Poverty in England: the Government's Plan for Action was published in 2004 and set out how the Government proposed to meet its legislative obligations under the Warm Homes and Energy Conservation Act. The Plan reviews the likely impact of both existing and future policies to 2010 and considers what additional resources and programmes will be needed.

The main threats to fuel poverty targets are seen as:

- Economic downturn leading to an increased incidence of fuel poverty
- Higher than anticipated rises in domestic energy prices
- A potential shortage of both energy efficiency materials and trained installers
- Poor targeting of energy efficiency assistance

Solutions to these potential problems are identified as:

- Encouraging co-ordinated partnerships between existing energy efficiency programmes
- Working with the energy efficiency industry to ensure sufficient numbers and skills levels within the industry
- Positive revisions to existing energy efficiency programmes to make them more effective and efficient

Government Departments and Fuel Poverty

All Government Departments publish regular sets of aims, objectives and performance targets in the form of Public Service Agreements (PSAs). In some cases the commitment to fuel poverty reduction is explicit, in other cases it is implicit. Public Service Agreements are effectively contracts with the electorate whereby Departments publish their targets and the timescale for meeting these targets. The current round of PSAs covers the period 2005-2008.

The Department of Health

The Department of Health has no specific targets on fuel poverty. This seems perverse in that all of the adverse consequences of fuel poverty impact on physical or psychological health. In 1997 the Department of Health commissioned a review and summary of health inequalities⁹ which concluded that poor quality housing was associated with poor health and recommended: *'policies to improve insulation and heating systems in new and existing buildings in order to further reduce the prevalence of fuel poverty.'* The report continued: *'Improvements in energy efficiency in homes is likely to improve the health of occupants, both directly and by releasing their financial resources for other uses. It also has wider benefits in conserving energy. Removal of hazards in homes is likely to lead directly to reduced death and injury from accidents. Improvements in home design might allow disabled and older people to be cared for at home, with improvements in their quality of life.'* A number of health-related PSAs do reflect the need to address health and housing conditions and the need to reduce inequalities:

- Transform the health and social care system so that it produces faster, fairer services that deliver better health and tackle health inequalities
- Reduce mortality rates from heart disease and stroke by at least 40% in people under 75, with at least a 40% reduction in the inequalities gap between the fifth of areas with the worst health and deprivation indicators and the population as a whole
- Increase the proportion of older people being supported to live in their own home by 1% annually in 2007 and 2008

The Department of Health does co-ordinate an annual campaign – Keep Warm Keep Well. The campaign involves partnership working between a range of Government departments and voluntary organisations to provide advice and guidance to older households on coping with winter conditions. Advice is provided on healthy lifestyles, grants and other financial assistance to make keep the home warmer and pay heating bills.

The Department for Communities and Local Government

The Department for Communities and Local Government (DCLG) has overall responsibility for setting and maintaining standards in housing. The DCLG oversees the implementation of the Decent Homes Standard which specifies Thermal Comfort criteria including effective insulation and effective controllable heating. A key element of departmental policy has been the Public Service Agreement to:

- By 2010, bring all social housing into a decent condition with most of this improvement taking place in deprived areas, and for vulnerable households in the private sector, including families with children, increase the proportion who live in homes that are in decent condition.

⁹ Independent Inquiry into Inequalities in Health, TSO, 1998

The Department for Environment, Food and Rural Affairs

The Department for Environment, Food and Rural Affairs (Defra) shares with the Department of Trade and Industry (DTI) ultimate responsibility for the eradication of fuel poverty. Currently the Public Service Agreement relates only to the interim objective to:

- Eliminate fuel poverty in vulnerable households in England by 2010 in line with the Government's UK Fuel Poverty Strategy (shared with the DTI)

The Department of Trade and Industry

The Department for Trade and Industry (DTI) has overall responsibility for energy policy in the United Kingdom. Departmental Public Service Agreements include:

- Promote fair competitive markets by ensuring that the UK framework for competition and for consumer empowerment and support is at the level of the best by 2008, measuring the effectiveness of the regime through international comparisons, supported by a broader evidence base
- Eliminate fuel poverty in vulnerable households in England by 2010 in line with the Government's Fuel Poverty Strategy objective (shared with Defra)

The Department for Work and Pensions

The Department for Work and Pensions administers the social security system for retired households and for those of working age. Benefits for retired households are delivered through the Pension Service and for working age people through Jobcentre Plus. Objectives and performance targets include:

- Halve the number of children in relative low-income households between 1998-1999 and 2010-2011, on the way to eradicating child poverty
- The government will also set a target as part of the next Spending Review to halve by 2010-2011 the numbers of children suffering a combination of material deprivation and relative low income
- Demonstrate progress on increasing the employment rate
- By 2008, be paying Pension Credit to at least 3.2 million pensioner households, while maintaining a focus on the most disadvantaged by ensuring that at least 2.2 million of these households are in receipt of the Guarantee Credit

Consumer Protection

The Office of Gas and Electricity Markets

The Office of Gas and Electricity Markets (Ofgem) has a principal objective to protect the interests of consumers present and future, wherever appropriate by promoting effective competition. Ofgem also has a number of secondary duties including a requirement to protect the interests of customers who are disabled, chronically sick, of pensionable age or on low incomes.

All major energy suppliers in England are required under the industry’s regulatory regime to adopt specific principles and practices when dealing with vulnerable customers. These requirements are contained within a series of Codes of Practice agreed between Ofgem and major gas and electricity suppliers. Mains gas and electricity are the only fuels regulated in the United Kingdom.

Licence Conditions require energy suppliers to follow the provisions of Codes of Practice on:

- Advice on the efficient use of gas and electricity – energy suppliers must maintain a service to advise customers on methods by which they can reduce their energy consumption
- Methods of paying energy bills and arrangements for dealing with customers in difficulty – energy suppliers must have published procedures setting out the range of bill payment options available to customers and what actions should be taken to manage, recover or prevent debt
- Procedures that must be followed relating to the provision of prepayment meters – circumstances in which a prepayment meter will (or will not) be installed, the number of outlets offering recharging facilities and the proximity of these facilities
- Provision of services for households who are of pensionable age or disabled or chronically sick
- Persons who are blind or deaf

Ofgem also requires that energy suppliers report, on a quarterly basis, on their performance across a wide range of social indicators. Data collated by Ofgem through Code of Practice monitoring of company performance comprises:

Numbers of customers on each payment scheme
Domestic debt (all customers) by level of debt
Domestic debt payment arrangements – non prepayment customers
Domestic debt payment arrangements – prepayment customers
Disconnection from supply for debt and reconnection data
Customers on the Priority Service Register ¹⁰
Number and circumstances of customers provided with energy advice

¹⁰ Energy suppliers operate a Priority Service Register aimed at persons of pensionable age; those with a disability or long-term ill health; and those who are blind or visually impaired. Services include a password protection scheme, relocation of gas and electricity meters, more frequent meter readings, free gas safety checks, special assistance if energy supplies are interrupted, special controls and adapters, bills issued to a nominated friend, relative or carer and bills issued in Braille, large print or audio format.

Social Action Plan Indicators

Ofgem also monitors and publishes trends in company treatment of disadvantaged energy consumers through data contained in its Social Action Plan.

The Social Action Plan uses a series of 12 indicators to monitor progress. A number of these indicators are updated on a quarterly basis from figures provided by suppliers under their codes of practice monitoring returns. The 12 indicators currently used for monitoring purposes are:

1. Total number of households in fuel poverty
2. Number of customers using prepayment meters
3. Domestic debt
4. Tariff and payment choice
5. Disadvantaged customers and competition
6. Priority Service Registers
7. Disconnections
8. Self-disconnections
9. Effective energy efficiency advice
10. Warm homes initiatives
11. Customer satisfaction
12. Prices

Energywatch¹¹

The Utilities Act 2000 established energywatch as an independent gas and electricity consumer protection body with a remit to protect and promote the interests of all gas and electricity consumers. energywatch provides free, impartial information and advice to consumers and can take up complaints on behalf of consumers who cannot resolve problems directly with their supplier(s).

energywatch uses intelligence gained through the complaint-handling process to identify those issues of greatest concern to energy consumers. energywatch also works closely with Ofgem in monitoring the adequacy of company performance and, where necessary, making representations to companies on how policies, processes and systems can be made more responsive to the consumer. Both Ofgem and energywatch are enthusiastic advocates of the competitive market and energywatch operates an accreditation system for a number of websites that provide a price comparison service for domestic energy consumers.

¹¹ From April 2008, energywatch will be abolished and consumer protection subsumed into a wider consumer body – the National Consumer Council. An Energy Supply Ombudsman has been appointed to act on complaints that cannot be resolved between customer and supplier.

Nature of most common complaints	April to November 2006	
	Disputed account	12,982
Refunds	2,711	6.9%
Billing problem with old supplier	2,202	5.6%
Poor customer service	2,148	5.5%
Estimated bills/consumption	2,114	5.4%
Prepayment meter settings	1,806	4.6%
Frequency/infrequency of bills	1,721	4.4%

Local Government

The Home Energy Conservation Act

The Home Energy Conservation Act 1995 was originally concerned with the economic and environmental benefits of energy efficiency. Whilst subsequent guidance indicated that the objective should be for local authorities to seek to improve residential energy efficiency by 30% over a 10-15 year period there was no specific element to the Act until revised guidance was issued by Defra's predecessor in 2000. The guidance 'Tackling Fuel Poverty – a Local Well-Being Issue' required local authorities to prepare annual reports covering:

- A statement of the authority's policy for tackling fuel poverty – with a description of how that policy is being and/or is to be pursued in order to achieve its key aims.
- Information concerning *approaches used to focus assistance* towards the fuel poor. This should include evidence of publicity and "outreach" activities, and of relevant internal and external partnerships developed (or to be developed).
- Information about fuel poverty activity undertaken by the authority through energy efficiency improvement – both of its own and other dwellings – with a broad assessment of the likely impact on fuel poverty.
- An indication of how the authority expects to adapt its policies, strategies or activities in the light of [the energy efficiency grant scheme] New HEES.

As a consequence of this guidance and a developing interest in fuel poverty both nationally and locally, the majority of local authorities have adopted some form of Fuel Poverty Strategy intended to assist their most vulnerable residents.

The Decent Homes Standard

Some local authorities in England have surrendered some or all control over their housing stock in response to a financial regime that makes it easier to raise capital investment for stock improvement where such spending is not classed as public expenditure. As a consequence, many councils have adopted policies of 'stock transfer' with their former housing stock being taken over by other social landlords, primarily not-for-profit housing associations.

However, regardless of the landlord, all social housing should comply with the Decent Homes Standard by 2010. The Decent Homes Standard specifies that all homes should meet minimum Thermal Comfort criteria based on effective thermal insulation and efficient heating systems.

The Housing Health and Safety Rating System

Local authorities are also responsible for policing the Housing Health and Safety Rating System – an objective method for assessing the degree of hazard posed to a dwelling's occupants by poor housing standards. A major potential hazard is the risk to health as a result of a cold environment resulting from poor standards of heating and insulation. Local authorities have enforcement powers that they can exercise to ensure the modification or removal of a hazard.

Local authorities have the power to make grants to owner-occupiers and landlords for the energy efficiency improvement of properties. Grant regimes are entirely at the discretion of the council except in the case of Disabled Facilities Grants where assistance is mandatory.

The EU Energy Performance of Buildings Directive

The EU Energy Performance of Buildings Directive became European law on January 4 2003. After this date member states had a three-year period in which to implement the Directive although there is an additional transition period – to January 2009 - for those states with insufficient qualified personnel to undertake the assessments required for provision of Energy Performance Certificates.

Energy Performance Certificates (EPCs) will eventually be required for all domestic properties at the point of sale or change of tenancy. However, in England, certificates are to be phased in based on the following timetable:

- From August 1 2007, EPCs will be required for sale of all dwellings with four or more bedrooms
- From September 1 2007 EPCs will be required for properties with three bedrooms (subject to adequate numbers of trained personnel)
- Provided there are sufficient qualified assessors provision of the EPC will apply to all other dwellings from September 1 2007
- From October 1 2008, an Energy Performance Certificate will be required for all new tenancy agreements and for any sales or leaseholds not covered in earlier stages
- New-build properties compliant with pre-2006 Building Regulations and with more than four bedrooms will be required to have a Predicted Energy Assessment rather than an Energy Performance Certificate where they have been marketed prior to completion. Properties in this category that do comply with 2006 Building Regulations may follow the same timescale.
- Energy Performance Certificates will be required for new-build properties from January 1 2008.

The Government is to carry out a consultation exercise on the life-span of Energy Performance Certificates although, for the first phase of house sales from August 2007, the maximum age of an Energy performance Certificate will be 12 months.

The Energy Performance Certificate assesses the energy performance of a dwelling across a number of areas:

- An energy efficiency rating from A-G where A is excellent and a SAP rating of between 1-100 showing the current energy efficiency standard and the potential for cost-effective improvements.
- An environmental assessment rating from A-G where A is excellent and an assessment on a scale of 1-100; this assessment also indicates the potential to lessen the dwelling's environmental impact.
- A table illustrates the estimated energy use, CO₂ emissions and fuel costs relating to the dwelling. In keeping with practice in other EU countries the table lists current energy use in terms of kWh/m² per year. The table also shows potential CO₂ emission reductions; potential overall energy consumption reductions; and potential financial savings from efficiency improvements to lighting, heating and hot water.

Finally the certificate assesses the energy efficiency standard of the main elements of the dwelling e.g. walls, floor, roof and windows and describes their current performance in terms of energy efficiency and environmental impact. A number of cost-effective energy efficiency measures are discussed in terms of money and energy savings and environmental impact mitigation. More expensive options such as photovoltaic panels are suggested for consideration.