

***Affordability of utilities' services: extent,  
practice, policy***

***Research Paper 3: Policies Used to Tackle Utility  
Affordability in Different EU Member States***

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## Executive Summary

In this research paper we summarise the existing literature on the policies used in Member States to tackle affordability issues in the different utility sectors. We look at policies relating specifically to the utility sectors, rather than reviewing the general social support mechanisms in individual Member States. The current research paper aims to record the variety of affordability policies across the EU rather than to evaluate the effectiveness of different policies. An evaluation of policies' effectiveness in tackling energy affordability and digital exclusion is provided in Research Paper 13. Also, while a wide range of policies are discussed in the present paper it is not possible to give an exhaustive list of all the policies used in all Member States due to the large quantity and disparate locations of the information involved. While the research paper mainly delivers a high-level summary of policies used in different Member States, at the back of the paper additional detail is provided for the three case study countries of Austria, France and Northern Ireland.

Key messages from the research paper include:

- There is tremendous variety in the policies used to tackle affordability across sectors and across Member States.
- At least 11 broad categories of policies used to tackle affordability issues can be identified.
- Policies are most developed in the energy sector with energy efficiency schemes and education programmes being common.
- In telecoms, Universal Service Obligations (USOs) to ensure a minimum service and to protect 'vulnerable' consumers are particularly important.
- While the detailed design of individual policies is left to Member States, and often local authorities within Member States, the EU provides broad policy steers. For example, the EU encourages energy efficiency investments as a means to tackle energy affordability.
- Policies are designed and delivered by a huge variety of organisations including: national governments, regional governments, local governments, regulatory bodies, charities and utility companies. This sharing of responsibility makes it difficult to obtain a complete picture of affordability policies in any one Member State, let alone for the entire EU.
- Many energy affordability initiatives reported in the literature appear small in scale and one can question whether they really tackle the scale of the problem as it exists in many Member States.



## 1. Introduction

This document provides a high-level summary of EU and national policies to tackle affordability issues in different utility sectors. There is also a more detailed presentation of affordability policies in Northern Ireland, Austria and France. The first four sections each review the policies in one of the following utility sectors: energy, water, telecoms and transport. The next three sections each provides additional detail on one of the three countries mentioned above. As a literature review, this document relies on the information collated in academic articles and summary documents produced by European organisations. Due to limited resources it has not been possible to conduct a survey of policies across countries using original source materials. As a result, the policies reviewed reflect the situation at the date of the publications, and the policies reported may have been superseded. Where monetary amounts are described they are as reported in the original publications and have not been adjusted for inflation. The range of policies and the fact that they are devised and implemented by multiple independent organisations means that no single publication is likely to provide a fully comprehensive description of the policies in place across Europe. The surveys often rely on the input of member organisations and so reflect the approach and the knowledge of those organisations. Where several surveys are available for a sector at different points in time, such as for energy, detail from multiple surveys has been included to be comprehensive and to allow changes in policies through time to be observed.

There are many instruments to address affordability issues, and Table 1 provides a brief overview of the different approaches, including the sectors where they can be applied.

Table 1 omits two large scale reforms which have implications for affordability, namely: (i) price regulation, and (ii) liberalisation to increase competition. We do not explicitly consider these policy options for two reasons: (i) these policies concern the design of entire utility markets rather than being interventions targeted specifically at affordability; and (ii) the literature comparing the merits of each approach is long, well established and too large to summarise here (a review is provided in Deller and Vantaggiato, 2014). This omission does not deny the importance of these two approaches to affordability, but rather attempts to maintain a clear focus to the current discussion of policies. Our interest is also mainly on the affordability of use rather than of access, to keep the discussion manageable and to focus on policies which may not have been discussed in other contexts. This choice becomes most apparent when Universal Service Obligations (USOs) are discussed, where we concentrate on usage and access by vulnerable/disadvantaged groups. Policies designed to aid 'vulnerable' groups are included as, although not perfect, one expects a significant correlation between individuals who are vulnerable and those who experience difficulties with the affordability of utilities.

Additionally we do not review the general welfare policies and social support available from governments and other organisations in Member States, such as pensions, unemployment benefits



and disability benefits, as they are beyond the scope of this project which focuses exclusively on the utilities. Nevertheless policies which provide support to economically disadvantaged and ‘vulnerable’ consumers are likely to play an important part in determining the affordability of utilities in particular Member States. Indeed the variations in the general social support provided across Member States is likely to be a key factor determining the variations in policy initiatives to tackle utility affordability between Member States. Where Member States provide more generous social support it is probable, though not guaranteed, that affordability pressures will appear less severe and, hence, fewer utility-specific interventions will be required. This dependency on context means that imposing uniform policies across all Member States would be difficult to implement and unlikely to receive political support.

As in any subsidy scheme, assistance to help those with affordability issues in the utilities faces the double challenge of ‘errors of inclusion’ (assistance given to those who do not need it) and ‘errors of exclusion’ (assistance not provided to those who need it). Finding an appropriate balance between these errors, when public expenditure is subject to the pressures of ‘austerity’, is a serious challenge.

**Table 1: Potential Policy Interventions to Tackle Affordability Issues**

Policy Intervention	Sectors	Comments
Efficiency Measures	Energy, Water	Cost-effective in the long-run, but require upfront investment. Issues regarding who pays for investment & difficulties if measures need accurate targeting or user behaviour must change. Reducing consumption likely to produce environmental gains.
Social Tariffs	All	Provides lower prices to certain groups. These groups may be vulnerable and/or economically disadvantaged or may be groups with particularly high usage. A form of subsidy.
Pre-Payment Meters (PPMs), ‘Pay-as-you-Go’ in Telecoms	Energy, Water, Telecoms	Provide a very direct and easy to understand budgeting mechanism. Available to those with poor credit histories. Incentives for rationing and self-disconnection possibly “too strong”. Higher costs and limited competition available to PPM users may lead to high prices.
Increasing Block Tariffs (IBTs)	Energy, Water (but All in theory)	Lowest price charged for first units of consumption, with higher prices for additional units. Implies minimum quantity of consumption deemed essential for civilised existence. Key choice is width of each ‘block’.



Low Usage Tariffs	Energy, Water and Telecoms	Designed to allow reasonably priced access for individuals with low/very low usage requirements
Uniform Geographic Pricing	All	Decreases prices in high cost areas (often geographically remote)/time periods at the expense of increasing prices relative to costs in low cost regions/time periods. A form of cross-subsidisation where services that may otherwise be unaffordable are provided.
General Subsidies	All (particularly Transport)	No complications regarding targeting specific groups, but poor efficiency re: maximising benefit to individuals in most need. Costly in the long-term and potentially politically difficult to end.
Universal Service Obligations (USOs)	All	Specify minimum standard of service which must be provided in a country. Generally deal with affordability issues around access rather than use e.g. in high cost rural locations.
Lower taxes/tax deductions	All	Lower VAT may be charged, reflecting perception that consumption is a 'necessity'. Investments in efficiency may be encouraged via tax deductions (a form of subsidy). Unless carefully designed, tax deductions may be most beneficial to the well-off: they have the largest tax bills to reduce.
Training, Advice and Information Schemes	Energy, Water, ICT/Internet	Likely to be low cost, but actual impact unclear. Issues with effective targeting at hard to reach groups. Potentially a specific form of 'Efficiency Measure'. Also, effectiveness may be linked to individuals' social and human capital.
Income Support Measures	All	May be labelled to suggest connection to utility expenditure. Unless paid directly to a utility provider it is unclear how much is spent on utilities and likely to have less impact on affordability metrics than steps to cut expenditure. Non-earmarked income transfers theoretically attractive as they allow households maximum freedom re: optimising consumption across all products/services.

Source: Collated by authors



# Centre on Regulation in Europe

Improving network industries regulation

In terms of delivering policies to ease affordability pressures it is clear that implementation frequently depends on the actions of local and regional governments even if funding is provided by national governments. In part this reflects the need for effective local knowledge when targeting policies at specific households and the presence of local utility providers. While local initiatives harness local knowledge they may lead to considerable variation in outcome between areas and add complexity regarding the number of implementing organisations and funding sources. Further complexity results from policies requiring co-ordination between the public, private and voluntary sectors.



## 2. Energy

### 2.1 EU level policies

The policies used to address affordability in the energy sector are the most developed in any of the utility sectors, with significant policies at both the EU and national levels. As is often the case, EU policies/requirements mainly guide the delivery of policies which are designed and implemented at the Member State level. This sub-section covers the statements that have been made at the European level and the debate as to whether the EU should take a more active role within this arena. The term ‘energy poverty’ first became part of EU language as part of the Third Energy Package as Bouzarovski et al (2012) note. Table 2 details the key milestones in EU policy on energy poverty and is a modified version of Table 1 in Bouzarovski et al (2012).

**Table 2: Key EU Policies Relevant to Energy Poverty**

Date	Event	Recommendations
July 2009	Electricity Directive (2009/72/EC) and Gas Directive (2009/73/EC)	<ul style="list-style-type: none"> <li>- Requirement to “define the concept of vulnerable customers which may refer to energy poverty” and ensure adequate safeguards to protect them (Article 3)</li> <li>- Article 3(3) allows member states to appoint a Supplier of Last Resort (SoLR)</li> <li>- For electricity the SoLR may meet the USO. No USO requirement made regarding gas provision</li> <li>- National governments asked to formulate “appropriate measures” to address energy poverty/vulnerability including National Energy Action Plans</li> <li>- Article 37(1)(n) provides customer protection measures</li> </ul>
July 2010	European Economic and Social Committee opinion on energy liberalisation	<ul style="list-style-type: none"> <li>- “existing statistics should be harmonised so that the most rigorous assessment possible can be made of the energy poverty situation in Europe”</li> <li>- “it would make sense to set up a European Energy Poverty Monitoring Centre”</li> </ul>
November 2010	European Commission	<ul style="list-style-type: none"> <li>- Encouraged “Member States to adopt appropriate long-term policy solutions, and not only temporary relief”</li> <li>- The aim should be the replacing of “direct subsidies for high energy bills with a support for improving the energy quality of dwellings”</li> </ul>

Source: Bouzarovski et al., 2012



Despite these developments, Bouzarovski et al (2012) emphasise that the position of energy poverty within European institutions is precarious as there is no institutional centre and there is a lack of concrete and quantifiable definitions. Without a distinct institution Bouzarovski et al suggest that the promotion of energy poverty issues is dependent on advocacy groups combined with top-down bureaucratic efforts involving a focus on consumer protection. However, as the authors note, there are potential difficulties with European institutions taking stronger policy steps in this arena. Firstly, at the political level there is the question of whether the EU has the right to set policy related to energy poverty since the topic lies on the boundary between market regulation and national social policy. Secondly, the appropriate definitions and policies for energy poverty are likely to be highly context dependent. Variations across member states, particularly between the EU15 and new Member States, in the extent and nature of energy poverty would probably make detailed EU-wide requirements unworkable without significant cross-national transfers. The EC's avoidance of a single European definition of 'energy poverty' or 'vulnerable consumers' reflects such differences.

European Fuel Poverty and Energy Efficiency (EPEE) (2009) nevertheless argues that more needs to be done at the European level to move fuel poverty up the agenda, thus pursuing a similar path to Bouzarovski et al. EPEE (2009) argue for a common definition of fuel poverty<sup>1</sup> across the EU, a common legislative framework where member states are required to explain how they will meet their obligations to energy consumers and a Working Group to improve and harmonise national fuel poverty data.

The EU emphasises the importance of increasing energy efficiency to tackle affordability issues: one-off investments in reducing energy use are likely to be more cost-effective over the long-term than ongoing subsidies and income support measures. By reducing energy consumption such an approach should also deliver environmental benefits. The question with energy efficiency investments is who will fund the upfront investment cost, since households facing affordability difficulties will often be least able to fund the investments themselves. This issue is addressed by EUROLECTRIC (2014), a position paper from the Electricity Industry Union, which encourages the Commission to consider additional ways to unlock private capital to fund energy efficiency investments.

This focus on energy efficiency is supported by National Energy Action (NEA) (2014). This report, commissioned by 'The Greens' in the European Parliament, investigates the feasibility of establishing an EU wide Social Energy Target. The report notes that at present the European Commission (EC) has not set a binding commitment for the level of energy saving to be achieved by

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<sup>1</sup> The terms 'energy poverty' and 'fuel poverty' are used interchangeably in this research paper. However, the EC uses energy poverty to refer solely to expenditure on electricity and mains gas.



2030. The report argues that the EC should set minimum energy efficiency standards so that insulation in existing domestic properties is brought up to the same standard as new build properties. To fund the necessary investments NEA (2014) highlights that in a January 2008 consultation on amending the EU Directive on the EU Emissions Trading Scheme (ETS) one proposal was to use revenues from the emissions trading scheme to address fuel poverty issues. While NEA (2014) details many measures in member states that utilise ETS funds to improve energy efficiency, it has difficulty identifying policies using these funds which specifically target the fuel poor. The only stated example which explicitly mentions targeting those on low incomes is in France where the National Agency for Housing prioritises improvements to buildings which house low income families.

Further European moves to improve energy efficiency highlighted by NEA (2014) include the European Energy Efficiency Action Plan which required National Energy Efficiency Action Plans to be submitted by member states and approved by the EC. However the NEA report also details the limited progress made against these action plans, noting that the Council of European Energy Regulators (CEER) 2012 Status Review found that only a third of CEER members could identify **new** energy efficiency measures resulting from the National Energy Efficiency Action Plans and that in only six member states were these measures designed specifically to support vulnerable consumers. NEA also expresses concern that Article 7(7)(a) of the Electricity and Gas Directives allows measures to be funded by charges on all energy consumers, potentially worsening the situation of the vulnerable and those on low incomes, without requiring policies to channel resources actively to help these groups. Indeed, to maximise the progressive impact of fuel poverty measures Boardman (2010) advises that they should be paid for from general taxation revenues rather than energy bill charges, since the fuel poor are likely to pay relatively low amounts of income tax.

In terms of funding to support energy efficiency measures, NEA (2014) highlights a lack of EU funding mechanisms which are directly linked to addressing energy poverty. Instead most of the funding streams relate to research and development along with the roll-out of new technologies. While accepting their broader focus, NEA (2014) does acknowledge the €600m Intelligent Energy Europe (IEE II) and the €132m European Local Energy Assistance (ELENA) funds as potentially supporting low income energy consumers. NEA also notes that the large resources of EU structural and cohesion funds are specifically targeted at deprived areas and can be used to fund energy efficiency. However, NEA (2014) provides no indication of the proportion of these structural and cohesion funds used in this way.

NEA ultimately conclude that while member states place a political emphasis on improving energy efficiency, this emphasis often is not matched by concrete policy actions. NEA also notes that while the EU has emphasised energy efficiency in their policy, actual interventions have instead prioritised income support measures and social tariffs.



NEA (2014) reiterates the key requirements of the EU’s Electricity and Gas Directives on member states in relation to consumer vulnerability (see Table 2 above). Member States must define the concept of vulnerable consumers, make assessments of the types of consumers qualifying as vulnerable and put in place measures to protect the vulnerable. The EC also requires that the resulting protections are in line with competitive markets. NEA (2014) emphasises that despite the EU Directives there has been little activity within Member States, and reports that only 10 Member States have official definitions of energy poverty. Similarly, NEA reports that only 17 Member States have any laws or regulations that can be used as evidence that the concept of ‘vulnerable customers’ is a reality.<sup>2</sup>

One policy measure which can be used to tackle affordability issues, albeit mainly in relation to access, are USOs. As Harker et al (2013) explain, USOs generally give rights for consumers to access a service in situations where access would be unaffordable if prices reflected the full costs of provision. For example, in its White Paper on Services of General Interest (2004) the EC uses the following definition for USOs: “[Universal service] establishes the right of everyone to access certain services considered as essential and imposes obligations on service providers to offer defined services according to specified conditions including complete territorial coverage at an affordable price”. The significant element of this definition for current purposes is the phrase “an affordable price”. In the energy sector the EU only requires that all households receive an electricity supply; there is no equivalent requirement regarding gas supplies. Table 3 details the terms of the USOs in energy which have specific relevance to affordability as described by Harker et al (2013) at the European level and in four Member States.

**Table 3: USO Provisions Relating to the Affordability of Energy from Harker et al (2013)**

Member state	Description
European level	<ul style="list-style-type: none"> <li>- Every household consumer has a right to electricity supply of a specified quality at a reasonable, easily comparable, transparent and non-discriminatory price</li> <li>- Adequate protection of final consumers in remote areas and vulnerable consumers on low incomes</li> <li>- Promotion of energy efficiency via energy action plans</li> </ul>
France	<ul style="list-style-type: none"> <li>- Principle of equality included alongside social cohesion</li> </ul>
Belgium	<ul style="list-style-type: none"> <li>- Partial financing of social assistance (energy supply) to poorest households</li> <li>- Social tariff for protected household customers on low incomes or in precarious situations</li> </ul>

<sup>2</sup> However, this is an increase from the figure reported by the European Regulators Group for Electricity and Gas (ERGEG) (2009) who found only 8 member states where the term ‘vulnerable consumer’ was commonly known/used. These eight countries were: Belgium, Bulgaria, Great Britain, Greece, Hungary, Ireland, Italy and Slovenia.



UK	<ul style="list-style-type: none"><li>- Both electricity supplier and distributor can be obliged to increase consumer awareness of energy efficiency</li><li>- Equal treatment of all customers</li></ul>
Germany	<ul style="list-style-type: none"><li>- Energy supply companies have duty to supply customers with electricity and gas which is affordable</li></ul>

Source: Harker et al., 2013

Beyond the European Commission itself, CEER (2014) explains how ‘Affordability’ is one of its four ‘RASP’ Principles that define its vision for the internal energy market (the others are: ‘Reliability’, ‘Simplicity’ and ‘Protection and empowerment’). CEER gives the definition of its Affordability principle as: “Affordability, such that charges are clear and kept to fair and reasonable levels for all customers, reflecting value for money at a level consistent with funding necessary investments to develop energy networks and to achieve energy policy targets (for example renewables), taking into account the real needs of customers”<sup>3</sup>. CEER goes on to describe how this principle can be met by network regulation, providing customers with effective choice via competition and through innovation. CEER also notes that both measures specific to the energy sector and general social policy can play a part in addressing affordability issues, thus taking a very broad view of the policies that might address affordability issues. CEER’s Affordability principle is also qualified in nature, requiring charges to be high enough that they can both fund investments and also allow the meeting of unspecified ‘energy policy targets’.

CEER is not the only cross-national body in Europe to look at energy affordability. Bouzarovski et al (2012) report that in South Eastern Europe a range of states have signed an ‘Energy Community Treaty’ (current EU members are Bulgaria, Croatia and Romania). As a result of this treaty a ‘Memorandum on social issues’ has been signed which commits members to deciding “the need and the form of a social platform for dialogue, explicitly targeting social impacts of energy market reform”<sup>4</sup>. Bouzarovski et al (2012) note that former transition economies face particular difficulties in developing sufficient capacity to tackle issues of energy deprivation, and that Croatia implements increasing block tariffs while there is targeted social support available in Bulgaria and Romania. However such social support may be indirect (and presumably poorly targeted), for example, it may involve the tolerance of non-payment of bills and bill arrears.

Lastly, two areas of changing technology have been identified as providing potential help for vulnerable consumers. A Working Group report prepared for the 6<sup>th</sup> Citizens’ Energy Forum (2013) on e-billing and personal energy data management acknowledged that the online environment could provide an important enabler for consumers, but recommended the improvement of online tools to facilitate take-up by vulnerable consumers. Darby (2012) has addressed the implications of smart meters for fuel poor households, referring specifically to smart metering arrangements under

<sup>3</sup> Pg. 16, Annex 3 – the RASP principles, CEER (2014)

<sup>4</sup> Cited on pg79 of Bouzarovski et al (2012).



the Energy Services Directive 2006, the electricity/Gas Directives 2009 and the European Commission Communication on Smart Grids in 2011.

## 2.2 Policies at Member State level

The most recent overview of measures to help vulnerable citizens with energy affordability is DG Ener’s Vulnerable Consumer Working Group (VCWG) Guidance Document from November 2013. Table 4 summarises the policies outlined in this Guidance Document.<sup>5</sup>

**Table 4: Overview of Assistance in the Energy Sector for ‘vulnerable consumers’ from VCWG (2013)**

Member State	Description of Policies
Austria	<ul style="list-style-type: none"> <li>- Work ongoing to define ‘vulnerable consumers’ and how this definition links to energy poverty</li> <li>- Energy efficiency subsidies</li> <li>- Electricity Assistance Fund</li> <li>- Wiener Energieunterstützung (Viennese Energy Support) provides energy advice, replacement of old appliances and financial aid</li> <li>- Price comparison tools include the National Regulatory Authority’s (NRA) ‘Tarifkalkulator’</li> <li>- Collective switching scheme organised in 2013 by Verein für Konsumentenschutzinformation (VKI), Austria’s main consumer organisation</li> </ul>
Belgium	<ul style="list-style-type: none"> <li>- energy poor/vulnerable consumer defined by various consumer characteristics e.g. health problems, age and socio-economic status</li> <li>- Support for energy efficiency improvements available to around 7% of households in Flanders</li> <li>- Support measures include investment in energy efficiency improvements, expert advice and interest free loans</li> <li>- Social tariffs with eligibility determined by the Federal Administration and prices set by the NRA</li> <li>- Social tariffs are financed by a levy on all customers’ bills</li> <li>- In 2012 7.7% of households were on the social tariff for electricity and 8.1% of households were on the social tariff for gas</li> <li>- To support customers, Distribution System Operator (DSO) may install PPMs</li> <li>- Consumers with a PPM are guaranteed an energy supply even when no credit remains via an emergency credit system</li> <li>- Dispute resolution via independent public energy ombudsman service</li> </ul>

<sup>5</sup> For a comprehensive set of web links providing further detail on the policies detailed in Table 4 we refer you to the VCWG Guidance Document itself and, in particular, Annex 5. The list of policies for each of the Member States in this table may not be exhaustive, i.e. other additional policies may have been in place when the VCWG produced its document.

	<ul style="list-style-type: none"> <li>- DSO in Flanders provides free energy audits in the home</li> <li>- DSO in Wallonia provides home visits by energy tutors</li> <li>- 'dare to compare' campaign encourages consumers to compare energy companies' contracts and promote switching</li> <li>- Various price comparison tools</li> <li>- Flanders ensures a limited amount of free electricity for each household. A similar measure is under development in Wallonia</li> </ul>
Denmark	<ul style="list-style-type: none"> <li>- Specific protection for consumers in remote areas</li> <li>- Energy efficiency improvement measures although not targeted specifically at the vulnerable</li> </ul>
Finland	<ul style="list-style-type: none"> <li>- NRA price comparison tool</li> </ul>
France	<ul style="list-style-type: none"> <li>- Definition of energy poor/vulnerable consumer: qualification for a special tariff based on income thresholds; in July 2013 the annual threshold for a single person was €11,604 and for a family of 4 people was €24,360</li> <li>- From April 2013 households cannot be disconnected for late payment during the winter</li> <li>- Social tariffs are available for electricity and gas. 2 million households are eligible but many do not take up the tariffs</li> <li>- For electricity the social tariffs are mainly delivered by EDF, but it was hoped that by the end of 2013 a decree would enable other suppliers to propose social tariffs thereby fostering competition</li> <li>- In 2012 around 1.1m consumers benefited from social tariffs for electricity with an average annual discount of €90</li> <li>- In December 2012 the maximum income threshold to benefit from social tariffs for electricity was increased by 35%</li> <li>- All gas suppliers can offer social tariffs and 313,000 consumers benefit from them with an average annual discount of €135</li> <li>- Dispute resolution via independent public energy ombudsman service</li> <li>- The ombudsman would like social tariffs replaced by 'energy cheques'</li> <li>- National 'energy scarcity' observatory created in 2011</li> <li>- GDF SUEZ reports programme to renovate 300,000 properties and programme of financial/technical support</li> <li>- Subsidies available to low income home owners to support energy efficiency improvements; tax reductions available for energy saving investments</li> <li>- Incentives for landlords to invest in energy efficiency measures</li> <li>- To help switching there is a free telephone information service and a website including a price comparison tool</li> <li>- Minimum notice required before disconnection can occur for unpaid bills</li> </ul>
Greece	<ul style="list-style-type: none"> <li>- Definition of energy poor/vulnerable consumers based on income threshold, but households must also consume a low volume of electricity. Alternatively specific categories of the disabled qualify</li> <li>- Policies to encourage the extension of the gas grid to rural areas</li> <li>- Energy efficiency subsidies and a social tariff available</li> </ul>

	<ul style="list-style-type: none"> <li>- Vulnerable consumers have beneficial arrangements for the planning of electricity payments</li> <li>- Price comparison tools available</li> </ul>
Hungary	<ul style="list-style-type: none"> <li>- Gas tariff discount for large families (3+ children)</li> <li>- Home maintenance support for families in need which is provided by local municipalities</li> <li>- Consumers are able to defer the payment of bills and pay by instalment</li> <li>- Disabled people benefit from additional services related to metering, billing and payment terms. Disabled consumers whose life depends on electrical equipment are guaranteed a non-interruptible electricity supply</li> <li>- Minimum notice period before disconnection for unpaid bills</li> </ul>
Republic of Ireland	<ul style="list-style-type: none"> <li>- Dispute resolution via independent public energy ombudsman service</li> </ul>
Italy	<ul style="list-style-type: none"> <li>- Specific protection policy for consumers in remote areas</li> <li>- Around 1m households benefit from social tariffs for electricity (17,000 receive this support due to severe health problems)</li> <li>- Around 600,000 households benefit from social tariffs for gas</li> <li>- Disconnections for small debts are not allowed</li> <li>- Vulnerable energy customers may pay unexpected high bills by instalment</li> <li>- 'Free of Charge' payment method available to all customers but few use it</li> <li>- Smart meters help consumers receive bills based on actual consumption and aid the monitoring of consumption</li> <li>- Tax reduction for investments in energy efficiency</li> </ul>
Latvia	<ul style="list-style-type: none"> <li>- Support for energy efficiency improvements in the electricity sector, but not in the gas sector</li> </ul>
Lithuania	<ul style="list-style-type: none"> <li>- Support for energy efficiency improvements in the electricity sector, but not in the gas sector</li> </ul>
Malta	<ul style="list-style-type: none"> <li>- Definition of energy poor/vulnerable consumer based on income thresholds</li> <li>- In 2010 the impact assessment for proposed regulated electricity prices included specific analysis of those on low incomes</li> </ul>
The Netherlands	<ul style="list-style-type: none"> <li>- Covenant on Energy Saving in the Rental Housing Sector covers social housing and also provides incentives for tenants and landlords</li> <li>- The Focus of the covenant is the energy labelling of properties in the hope the rental market will only allow lower rents for less efficient properties</li> <li>- There are laws on debt management schemes run by municipalities</li> <li>- Energy suppliers have voluntary agreements with debt service organisations</li> <li>- Consumer information and practical help on energy topics is available</li> <li>- Large number of private and consumer association run price comparison tools. One consumer association has also become involved in collective switching</li> <li>- There is regulation of disconnection during winter months</li> </ul>

Poland	<ul style="list-style-type: none"> <li>- General prohibition against disconnection</li> <li>- No social security measures aimed specifically at vulnerable energy consumers; low income consumers are covered by the general social support system</li> </ul>
Portugal	<ul style="list-style-type: none"> <li>- Social tariffs for gas and electricity</li> <li>- Energy efficiency measures for vulnerable consumers and social support provided by non-government organisations</li> <li>- A free telephone information service is available along with a website providing a price comparison tool</li> </ul>
Romania	<ul style="list-style-type: none"> <li>- Definition of energy poor/vulnerable consumer based on consumer characteristics e.g. health problems, age and socio-economic status plus an income threshold at the same level as the government set minimum wage</li> <li>- Retail price regulation, but concerns that this is tailored to special interests rather than meeting the needs of vulnerable consumers</li> </ul>
Slovenia	<ul style="list-style-type: none"> <li>- Definition of energy poor/vulnerable consumer based on consumer characteristics e.g. health problems, age and socio-economic status</li> <li>- No specific material support relating to energy for vulnerable consumers via the social support system</li> </ul>
Spain	<ul style="list-style-type: none"> <li>- Definition of energy poor/vulnerable consumer based on consumer characteristics e.g. health problems, age and socio-economic status</li> <li>- Around 2.7m households benefit from social tariffs</li> </ul>
Sweden	<ul style="list-style-type: none"> <li>- The NRA provides a price comparison tool</li> </ul>
United Kingdom <sup>6</sup>	<ul style="list-style-type: none"> <li>- 'Warm Homes Scheme' offered free government funded energy efficiency improvements to households in energy poverty</li> <li>- Dispute resolution via independent public energy ombudsman service</li> <li>- 'Future of Rural Energy' initiative aimed at tackling fuel poverty and promoting energy efficiency in areas not on the gas grid; includes initiatives in research, training and information provision</li> <li>- Support for vulnerable consumers from regulation and on a voluntary basis</li> <li>- Government obligations on large energy suppliers to deliver financial and energy efficiency support to customers who are fuel poor and/or vulnerable</li> <li>- Vulnerable consumers protected from disconnection in winter months</li> <li>- The six largest suppliers have signed up to a voluntary agreement 'The Safety Net' to never knowingly disconnect a vulnerable consumer</li> <li>- The NRA Ofgem has adopted a 'risk-based' approach to vulnerability</li> <li>- Landlord's Energy Saving Allowance provides tax deduction for energy efficiency investments in rented properties</li> <li>- The Energy Act 2011 specifies that from 2018 all rental properties must have an energy efficiency rating of at least E</li> </ul>

<sup>6</sup> The policies recorded for the United Kingdom do not include all of the policies in place in the devolved regions of the UK such as Northern Ireland.

- Scotland has introduced 'Energy Efficiency Standards for Social Housing'
- Warm Home Discount scheme provided a winter discount of up to £140 in 2014-15 against electricity bills depending on supplier
- Suppliers must offer range of payment options for consumers in debt; repayment plans must reflect an individual's ability to pay
- The Priority Services Register provides a range of services on bill presentation, meter positioning, priority reconnection
- 'Energy Best Deal' Campaign provides advice to vulnerable consumers re: changing supplier to get the best deal
- Citizens Advice Consumer Service provides a Government-funded helpline for energy consumers
- Energy suppliers have set up a 'Home Heat Helpline' to offer advice on staying warm in the winter
- 'Fuel Poverty Advisory Group' advises Government and encourages co-ordination between organisations
- NRA has a 'Consumer Vulnerability Strategy' and monitors the performance of suppliers against social obligations

*Source: DG Ener's Vulnerable Consumer Working Group (VCWG) Guidance Document, November 2013*

From Table 4 it is clear that the three countries reporting the broadest range of policies/activities to support vulnerable consumers and the energy poor are Belgium, France and the UK. In terms of the policies used to tackle vulnerability/affordability the three most common types are: social tariffs, incentives for energy efficiency improvements and information and educational tools to support engagement with the energy market by vulnerable consumers. More quantitative information on the frequency with which particular policy instruments are used in different member states is provided by the Agency for the Cooperation of Energy Regulators (ACER)/CEER (2014). Table 5 repeats Table 8 on page 210 of ACER/CEER (2014) and reports figures for 2013.

**Table 5: Number of Member States using Different Support Measures for Vulnerable Consumers in the Energy Sector from ACER/CEER (2014)**

Support Measure	Number of Member States - Electricity	Number of Member States - Gas
Restrictions on disconnection due to non-payment	16	11
Earmarked social benefits to cover (unpaid) energy expenses	9	7
Special energy prices for vulnerable customers (social tariffs)	8	5
Additional social benefits to cover (unpaid) energy expenses (non-earmarked)	4	5
Free energy-saving advice to vulnerable customers	3	3
Right to deferred payment	2	3
Exemption from some components of the final energy bill e.g. network tariffs, taxes and levies etc.	2	2
Financial grants for the replacement of inefficient appliances	2	2
Free basic supply of energy	1	1
Replacement of inefficient basic appliances at no cost to vulnerable households	1	1
Other	5	9

*Source: ACER/CEER, 2014*

Table 5 shows that aside from restrictions on disconnection each of the other policy measures is used by less than a third of member states. Considerable variety in the policies used is also demonstrated by the number of countries applying 'Other' unspecified policies. The range of policies suggests a current lack of consensus on the 'best practice' for alleviating energy affordability issues. It may also suggest that either policies are heavily dependent on local social, economic and technical conditions or that local political and institutional factors are important in determining the policies adopted. Since several countries use multiple measures simultaneously, the numbers in Table 5 indicate that some countries within the ACER/CEER data do not report any measures in place to support vulnerable consumers.



Even when a large number of countries share a common policy measure, ACER/CEER (2014) reveals that the way in which it is implemented varies significantly with a corresponding variation in the magnitude of the relief the measures provide to vulnerable consumers. As an example of this variation ACER/CEER (2014) records that the disconnection process must take at least 200 days in the Flanders region of Belgium, but may take less than a month in 9 other member states. In Estonia the duration of the disconnection process is increased considerably for vulnerable consumers (from 15 to 90 days), while in the Netherlands voluntary agreements ensuring a minimum period before disconnection are not legally enforceable. Moreover there are inconsistencies in the length of processes for disconnecting electricity and gas *within* some countries. In Greece there is a 70-day notice period before electricity disconnections can occur, but only a 15-day notice period is required for gas disconnections. Additional detail on the development of these policies is shown by earlier documents on the subject, for example from the European Regulators Group for Electricity and Gas (ERGEG) (2009) and from the EU funded EPEE project.

### 2.3 Reflections on energy efficiency policies

There are a range of papers and documents which focus specifically on policies related to energy efficiency. In this sub-section some additional interesting points raised by these papers are discussed.

A key issue identified as requiring attention in the National Energy Action Plans is the presence of non-aligned incentives for tenants and landlords to invest in improving the energy efficiency of housing. While tenants benefit from more energy efficient dwellings via reduced energy bills, it is the landlords owning the dwellings who generally have to make investments in energy efficiency, a situation exacerbated by the fact that many of the energy poor live in social housing with poor insulation. This situation suggests that an effective intervention may be to improve the social housing stock in particular areas. An example of such an intervention cited by NEA (2014) is the UK's Decent Homes Programme which, by setting minimum efficiency standards, led to higher standards in social housing than in private rented housing.

Boltz and Pichler (2014) highlight another challenge regarding energy efficiency, namely that many households do not realise that they have the power to reduce bills through particular activities. Boltz and Pichler attribute this lack of knowledge to low education, old age and 'outdated habits' among the energy poor, suggesting that professional energy counselling can lower energy consumption and energy bills.

One policy measure which has gained considerable attention in its potential to alter consumer behaviour and lower energy consumption is the introduction of 'Smart Meters'. A summary of developments in this arena across Europe is provided by a DG Ener Working Group (2013) report. Smart Meters are still waiting for mass adoption in most of Europe although complete roll-outs



have been achieved in Italy and Sweden, while Finland and Denmark hope to complete their roll-outs in 2016.<sup>7</sup> A specific policy which is recommended by the Working Group as good practice is 'consumption data portability' so that energy consumption data produced by households can easily be shared between firms to facilitate better switching decisions. It is reported that this practice already exists in Belgium and Britain<sup>8</sup>. However there are obvious challenges in terms of consumer privacy, and any effect that such information may have on the competitiveness of the market.

One key tool to realise the potential of smart meters is Customer Energy Management (CEM) applications. These are applications run by utilities to provide processed information to consumers about their energy consumption in a format designed to be easy to understand. Within Europe, CEM systems have been implemented in Belgium, Netherlands, France, Germany and the UK. Examples of CEM applications cited by DG Ener (2013) include 'Energy Watch' by Vattenfall in Finland, 'Smart Energy Box' by Electrabel in Belgium and 'Eco Manager' by EDF Energy. The key function of these applications in relation to affordability is that they enable the remote control of appliances to minimise energy consumption during periods of peak electricity demand and high prices. However, such products incur their own costs which may prove a barrier to adoption for low income households. For example, DG Ener notes that the 'Smart Energy Box' by Electrabel has an initial cost of €139 and an ongoing monthly cost of €3 to allow control of four appliances.

Lastly, a key issue with energy efficiency measures is the effective targeting of interventions at those households in the worst position, so as to maximise the benefits of the limited resources available. It is often difficult to identify individual households in fuel poverty as the finely grained data required to make house-by-house selections may not be available in a centralised format and householders themselves may not always be able (or willing publicly) to identify their own situation. To overcome this Boardman (2010) suggests using 'area-based' approaches where all households in a defined geographic area known to have a high fuel poverty rate are targeted. The other advantages of area-based approaches are economies of scale when retrofitting homes and the possibility of harnessing word-of-mouth communication to spread energy efficiency messages.

Moore (2012) notes that if fuel poverty policies are designed to improve the statistics recorded by specific fuel poverty indicators, then the choice of fuel poverty indicator and its construction are likely to have important consequences on the fuel poverty policies which will be delivered. Moore argues that if housing costs are included in the income measure used to define fuel poverty, it tilts the targeting of support towards home owners who do not have to pay explicit housing costs. Similarly, if no attempt is made to equalise household incomes according to household size, support will be biased (relatively) towards small (or single person) households. In the UK context,

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<sup>7</sup> It is notable that discussions of smart meters focus almost exclusively on members of the EU15 rather than new Member States possibly suggesting that for less wealthy nations the relative benefits versus the costs do not make the technology a priority.

<sup>8</sup> The report notes that in the UK consumption data portability is being facilitated as part of the multi-stakeholder 'Midata' initiative.



Moore suggests that such measurement issues would lead to the distribution of resources to tackle fuel poverty being tilted towards elderly households.

Brunner et al (2012) suggest that increasing the frequency of energy bills can ease affordability pressures. After studying the coping strategies of low income households in Vienna, Brunner et al note that for households with few financial resources/savings it is important not to receive sudden large bills, or in other words, to suffer 'bill shock'. More frequent bills not only limit sudden jumps in the strain placed on family resources, they also provide more frequent opportunities for households to adjust their consumption in response to the information delivered by bills. One reason for the popularity of PPMs in the UK, even when consumers know they may not get the cheapest available deal on the market, is the added controllability they provide to aid budgeting.



### 3. Water

The key issue relating to water affordability in the past twenty years has been tariff rebalancing as discussed by Herrington (2003). Tariff rebalancing in this context refers to reducing subsidies so that water is priced to reflect the true economic costs of provision, thereby creating a price signal which encourages water conservation. The requirement that water prices reflect the true economic costs of abstraction, distribution and treatment was a key element of the EU’s Water Framework Directive (Directive 2000/60/CE), though derogations were available to ensure basic services could be provided at an affordable price.<sup>9</sup> Since moves to full cost pricing generally led to price increases, it is unsurprising that water metering and tariff rebalancing have frequently met considerable resistance from users, as we note is currently the case in the Republic of Ireland.

The broadest discussion of policies concerning the affordability of water and sewerage services is provided by OECD (2002). Table 6 summarises the policies recorded in OECD (2002). It shows that, at least in 2002, common approaches to increase water affordability were to reduce/remove VAT on water and sewerage services along with using IBTs to provide an initial quantity of water at a discounted price. Herrington (2003) notes that a central challenge when setting IBTs is determining the quantity of consumption allowed at each pricing level. Unless the complexity of linking charges to household size is introduced, IBTs can limit the benefit received by large low income families, while offering ‘unnecessary’ benefits to small well-off households.

**Table 6: Policies to Improve Water Affordability from OECD (2002)**

Member State	Description of Measures
Belgium	<ul style="list-style-type: none"> <li>- Brussels region: Social fund supports low income households and welfare recipients experiencing payment difficulties</li> <li>- Wallonia region: draft decree for equivalent social fund funded by a uniform levy on household water bills</li> <li>- One supplier in Wallonia (Société Wallonne de Distribution d’Eau) provided a social fund which was then distributed by local social services departments</li> <li>- Flanders: The retired on guaranteed income, families receiving a minimum income, the disabled and certain carers receiving a ‘substitute income’ were exempt from wastewater charges</li> <li>- Nationally: Payment assistance and hardship initiatives provided indirectly by social services, charities and money advice centres etc. liaising with suppliers</li> <li>- Reduced VAT on water supply and no VAT on sewerage services</li> <li>- Two-block tariffs including a ‘free’ block for each household. In Flanders all utilities have had such a tariff since 1976, in Wallonia 20% of suppliers had</li> </ul>

<sup>9</sup> See paragraphs under ‘Getting the prices right’ at: [http://ec.europa.eu/environment/water/water-framework/info/intro\\_en.htm](http://ec.europa.eu/environment/water/water-framework/info/intro_en.htm)

	such a tariff in 2000; issues around whether free block linked to household size
Czech Republic	- Reduced VAT rate on water supply
France	<ul style="list-style-type: none"> <li>- In early 1990s French anti-poverty legislation began referring to water as an essential good</li> <li>- When water charges were not metered there was help with water affordability, but by 1995 88% of French households were metered</li> <li>- November 1996 Charte Solidarité-Eau represented the first national attempt to support water customers facing financial hardship: a household in serious financial difficulties and unable to pay a water bill would continue to receive a minimum supply for up to 3 months while their case was considered by the Commission Solidarité-Eau</li> <li>- Example of Dreux where in 1997 water vouchers were given to c. 400 households (selected by the Centre Communaux d'Action Sociale) at a cost of €30,000 funded jointly by the local authority and water company</li> <li>- 1998 law enforced earlier water charter and required government and operators to define their financial contributions and outline measures which would help the poor. Water disconnections were prohibited once a household sought help</li> <li>- In 2000 water disconnections prohibited when a baby or elderly dependent was in a household, regardless of the household's financial position.</li> <li>- The 2000 convention was envisioned to be administered by départements' commissions which would write off debts if certain social conditions were met. The central government promised €4.5m in funding and the main private water companies' association promised €3m per year (€0.30 charge to average annual water bill)</li> <li>- By December 2001 38% of départements had agreed a convention, 23% were negotiating one and 52% had allocated funds. There were concerns local administration charges could reach 10% of funds available</li> <li>- Payment assistance and hardship initiatives provided indirectly by social services, charities and money advice centres etc. liaising with suppliers, including the writing off unpaid bills</li> <li>- Reduced VAT on water supply</li> <li>- No legal basis for tariff setting according to social considerations</li> </ul>
Germany	<ul style="list-style-type: none"> <li>- Water utilities required to follow commercial principles so ability to provide direct help to those in financial difficulties is limited. Instead community welfare centres dealt with households facing these issues</li> <li>- Generally illegal to disconnect water services for non-payment</li> <li>- In Hamburg the public water company provided financial support to customers to cover water meter installation. Roll-out of water meters accompanied by education programme to save water</li> </ul>
Hungary	- Some municipalities believed to have given direct cash subsidies to help poor families with water bills

	<ul style="list-style-type: none"> <li>- In early 1990s the system of subsidies switched from an automatic price subsidy to a subsidy directed at services with very high costs</li> <li>- Water companies were privatised, with firms' prices regulated according to "economically legitimate costs" in the early 2000s</li> </ul>
Republic of Ireland	<ul style="list-style-type: none"> <li>- Household water charges abolished in 1996 and subsumed into general taxation, but reintroduced in 2014</li> </ul>
Italy	<ul style="list-style-type: none"> <li>- No VAT on sewerage charges</li> <li>- IBTs common with the current form dating from 1974 when a five-part pricing structure was introduced</li> <li>- The lowest block is subsidised and while designed to cover 'essential' household use it is not linked to family size, income or housing type</li> <li>- The next block is designed to equate to average costs while the higher blocks charge a premium</li> <li>- There is also clear cross-subsidisation from the tariffs charged to non-domestic users to domestic users</li> <li>- Although this system was scheduled to be phased out during 2001-2005</li> </ul>
Luxembourg	<ul style="list-style-type: none"> <li>- Financial assistance came from central government and municipal bodies</li> <li>- There were social tariffs and a history of complex IBTs</li> </ul>
Malta	<ul style="list-style-type: none"> <li>- The "domestic" tariff included subsidised block at 15% of the standard price</li> <li>- The "social assistance" tariff included a first block which was free, a second charged at 25% of the standard price and free meter rental</li> <li>- The "social assistance" tariff was introduced in 1981 and is restricted to one and two person households receiving social assistance</li> </ul>
Netherlands	<ul style="list-style-type: none"> <li>- 6% VAT on first 20m<sup>3</sup> and then full rate of 17.5% on additional consumption</li> <li>- No VAT on sewerage charges</li> </ul>
Poland	<ul style="list-style-type: none"> <li>- Municipal/district Social Support Centres were responsible for providing financial aid to poor households which could include paying water charges as part of housing assistance</li> <li>- Grant programmes involving welfare organisations and financial counselling agencies set up by utilities and utility trust funds</li> </ul>
Portugal	<ul style="list-style-type: none"> <li>- Reduced VAT on water supply and no VAT on sewerage charges</li> <li>- IBTs common with between 2 and 6 blocks (4 blocks most common)</li> <li>- The usage included in the first block is relatively low so large households are at a disadvantage</li> </ul>
Spain	<ul style="list-style-type: none"> <li>- Reduced VAT on water supply and no VAT on sewerage charges</li> <li>- IBTs common with 3 or 4 blocks. The first block is subsidised, the second reflects average costs, while higher blocks are designed to deter excessive use</li> <li>- The usage included in the first block was relatively low so large households were at a disadvantage, with special schemes to overcome this issue in certain parts of Spain</li> <li>- In the 1990s in Barcelona there was a large dispute related to a significant increase in water treatment charges which led to 80,000 families withholding</li> </ul>

	<p>payment and instead paying the relevant money into accounts of residents' associations until the dispute was resolved. The Barcelona issue was resolved by using the principles of the EU Water Directive to establish a rationalised system of tariffs</p> <ul style="list-style-type: none"> <li>- In the 1990s the width of the first block of the IBT in Barcelona, Madrid, Seville and Murcia could be increased for large households/families.</li> <li>- Aguas de Murcia offered the retired a water supply where the first 15m<sup>3</sup> in each 2 month period was free and the next 10m<sup>3</sup> was charged at a rate 34% below the initial block charge for other households of a similar size</li> </ul>
Slovak Republic	<ul style="list-style-type: none"> <li>- Ministry of Finance set the maximum prices for water and wastewater services</li> <li>- In 2001 prices before VAT were capped at 24% and 28% (for water and wastewater respectively) beneath the "economically legitimate costs" as defined at the national level</li> </ul>
United Kingdom (excluding Northern Ireland)	<ul style="list-style-type: none"> <li>- No VAT on water or sewerage services</li> <li>- Traditionally paid flat charge for water, so many policies designed to ease move to metered supplies</li> <li>- By 1998 10 out of 27 private water companies in England and Wales had arrangements where customers would receive charitable help if they faced disconnection due to non-payment of bills</li> <li>- Some companies used in-house hardship funds, others established independent charitable trusts; in both cases funding had to come from firms distributable profits rather than directly via a charge on bills</li> <li>- England and Wales: Payment assistance and hardship initiatives provided indirectly by social services, charities and money advice centres etc. liaising with suppliers</li> <li>- From 2001-02 the funds of the 'Transitional Relief Scheme' for Scotland were targeted specifically at households receiving Council Tax Benefit and spending at least £180 on water</li> <li>- From 1999 legislation in England and Wales required all water companies to offer 'free metering'</li> <li>- The Water Industry Act 1999 prohibited companies from disconnecting households for non-payment of charges.</li> <li>- Three water companies in England and Wales offered special low-volume tariffs</li> <li>- In 1999 Vulnerable Groups Regulations covered households where one person received one of six designated government benefits/tax credits and either had at least three children under 16 or a person in the household had a medical condition causing significant extra water use; in these cases, the water charge was capped at the average for all households served by a water company</li> <li>- There were also examples of 'restricted tariffs' (social tariffs) targeted at low income/vulnerable groups. Examples given are: Anglian Water ('Aquacare Plus'), Hartlepool ('Aquacare Plus') and Mid-Kent ('HelpuMedico')</li> </ul>

- The Benefits Agency paid water company bills directly for some individuals receiving income support
- Low income working families and disabled individuals could receive tax credits to offset utility bills
- Companies had to offer discounts for larger low income families and retired people who could opt for charges based on the average household rather than meter readings
- A High Court decision on 'Budget Payment Units' (similar to PPMs) ruled that companies cannot cut off the water supply when an individual's credits run out

*Source: OECD, 2002*

In addition to the policies in Table 6, Herrington (2003) describes the social discounts applied in some Greek cities at the time. These discounts related to the tariffs charged to families with three or more children. In Athens the size of the initial tariff block was increased for these large families while in Thessaloniki and Larissa 50% discounts on volumetric water charges were applied up to a certain quantity of consumption in each billing period. Herrington (2003) also notes that from the viewpoint of economic efficiency and water conservation, income support measures are preferable to discounted tariffs. The argument is that discounted tariffs potentially reduce the price signals that could otherwise encourage reduced water usage. Indeed, Bithas (2008) argues that to achieve the sustainability of water resources over the long-term, water pricing is essential and that this should be based on full-cost pricing, with social equity concerns being addressed through other policy instruments.



## 4. Telecoms

The telecoms sector is distinctive for two reasons: (i) with the exception of concerns regarding ‘digital divides’, affordability issues receive less attention compared to other sectors, and (ii) policies to increase affordability are generally delivered via USOs. The emphasis on USOs relates to a historical focus on ensuring access to telecoms services rather than to particular levels of consumption.

Harker et al (2013) provides the most recent discussion of telecoms USOs at the European level and in France, Belgium, the UK and Germany. Harker et al (2013) record that at the European level USO requirements for telecoms were laid out in Directive 2002/22/EC (Universal Service Directive) which was then amended by Directive 2009/136/EC. Table 7 is an adaption of Table 3 in Harker et al (2013). Table 7 focuses on those elements of the USOs which are directly linked to affordability/vulnerability and usage rather than to general access.

**Table 7: USO Provisions Relating to Affordability/Vulnerability in Selected Member States from Harker et al (2013)**

Member State	Description
European level	<ul style="list-style-type: none"> <li>- Public pay phones to have disabled access and will be sufficient to provide geographic coverage</li> <li>- Emergency calls from public pay phones should be free of charge and possible without any means of payment</li> <li>- End-users with disabilities must be able to choose supplier</li> <li>- Affordability for all end users</li> <li>- End user will pay only pay for services which are essential for the universal service</li> <li>- Possibility for end user to monitor and control expenditures</li> </ul>
France	<ul style="list-style-type: none"> <li>- Free emergency calls</li> <li>- When non-payment of bills the end-user shall still receive calls and be able to make calls to free services or the emergency services</li> </ul>
Belgium	<ul style="list-style-type: none"> <li>- Access to fixed telephone line regardless of geographical position</li> <li>- If bills are not paid, the end-user shall still receive calls, be able to make calls to free services or the emergency services and receive technical support via the local network</li> </ul>
UK	<ul style="list-style-type: none"> <li>- Emergency calls from public pay phones are free of charge and possible without any means of payment</li> <li>- Special services for disabled end-users: access to directory information, priority fault repair services, appropriate billing methods and accessible and usable public pay phones including textphones</li> </ul>



	<ul style="list-style-type: none"> <li>- Common tariff(s) for universal services</li> <li>- Appropriate tariffs for low income end users and those with special social needs</li> <li>- Possibility for end user to monitor and control expenditures</li> </ul>
Germany	<ul style="list-style-type: none"> <li>- Emergency calls from public pay phones are free of charge and possible without any means of payment</li> <li>- Price judged affordable if it does not exceed the average price paid by households living outside cities with a population over 100,000</li> <li>- End-user cannot be made to pay for services or facilities which are not required or not necessary</li> </ul>

Source: Harker et al, 2013

A more comprehensive but older overview of telecoms USOs by country is provided by the Body of European Regulators for Electronic Communications (BEREC) (2010). BEREC (2010) notes that in only four of its members was there no USO or an equivalent service achieved via an undertaking. The present topical question surrounding USOs is the extent to which Internet services should be explicitly incorporated into their provisions. For example, BEREC (2010) notes that four of its members have extended the scope of USOs to include Internet access for schools, public libraries and hospitals at an affordable price. However, in 2010 BEREC records that only two countries had included general broadband within the definition of their USO, although only two NRAs thought broadband should always be excluded from USOs at that time.

One feature of USOs in telecoms is that their provisions frequently relate to providing vulnerable consumer groups with effective access rather than affordability issues per se. Measures to help the disabled can include: (i) special support to allow the disabled to take advantage of service choice, (ii) the provision of tariff options that would not normally be commercially viable (which is more closely related to affordability), and (iii) the provision of specific facilities and services.

Table 8 is an abbreviated version of the table beginning on page 17 of BEREC (2010). It concentrates on USO provisions specifically relating to affordability and vulnerability. In particular, provisions relating to universal access to a telephone line or public payphone are omitted due to their ubiquity and their loose connection with affordability.

**Table 8: USO Provisions Relating to Affordability and Vulnerability by Member State from BEREC (2010)**

Member State	USO Provision
Bulgaria	<ul style="list-style-type: none"> <li>- Provision of emergency calls, free of charge</li> <li>- Provision of access to public telephone services, including emergency call services, telephone directory and inquiry services for disabled people, to a standard similar to those enjoyed by other end-users</li> </ul>
Cyprus	<ul style="list-style-type: none"> <li>- Special measures for disabled or socially excluded end users</li> <li>- Free access to emergency services</li> </ul>

Czech Republic	<ul style="list-style-type: none"> <li>- Access for disabled persons to the publicly available telephone service at the same level of quality as the access enjoyed by all other end-users, based on, in particular, specially provided terminal equipment</li> <li>- Phased payment of the price to establish a connection to the public telephone network</li> </ul>
Denmark	<ul style="list-style-type: none"> <li>- Basic phone services, ISDN-services or electronic communication services with a minimum of functions as well as a text phone service to a certain group of disabled end-users</li> <li>- A directory enquiry service for a certain group of disabled end-users</li> </ul>
France	<ul style="list-style-type: none"> <li>- Provision of a quality telephone service to everyone at an affordable price</li> <li>- Free routing of emergency calls</li> <li>- Specific technical and tariff conditions for people who have difficulty accessing the telephone service as a result of physical handicap or a low income.</li> </ul>
Germany	<ul style="list-style-type: none"> <li>- The possibility to make emergency calls from all public pay telephones free of charge.</li> </ul>
Greece	<ul style="list-style-type: none"> <li>- Free access to emergency services, (obligation of all operators not only the universal service provider)</li> </ul>
Hungary	<ul style="list-style-type: none"> <li>- At least 3 per cent of all compulsory public telephone stations must accommodate the hearing-impaired and physically impaired</li> </ul>
Ireland	<ul style="list-style-type: none"> <li>- Provision of services to disabled users</li> <li>- Measures to help consumers control spending and keep costs affordable</li> </ul>
Italy	<ul style="list-style-type: none"> <li>- Provision of a quality telephone service to everyone at an affordable price</li> <li>- Free routing of emergency calls</li> <li>- Specific technical and tariff conditions for people who have difficulty accessing the telephone service due to a physical handicap or a low income</li> </ul>
Lithuania	<ul style="list-style-type: none"> <li>- Provision of universal services usable for disabled users</li> </ul>
Malta	<ul style="list-style-type: none"> <li>- Special measures for disabled users and those with special needs</li> </ul>
Netherlands	<ul style="list-style-type: none"> <li>- The end-user has the choice between two telephone service subscriptions at a fixed location: a service with reasonable tariffs and a service with a tariff that does not exceed the tariffs laid down by ministerial regulation</li> </ul>
Poland	<ul style="list-style-type: none"> <li>- The provision of facilities for disabled persons</li> </ul>
Portugal	<ul style="list-style-type: none"> <li>- Specific provisions to ensure end-users with disabilities enjoy access equivalent to that of other end-users, including access to emergency services and directory enquiry services. The provisions may involve: a) Provision of telephones and/or public text telephones or equivalent for people who are deaf/who have speech-impairment; b) Provision of services e.g. directory enquiry services etc. free of charge for</li> </ul>



	blind/visually impaired people; c) Provision of itemised bills in alternative formats for blind/visually impaired people
Slovakia	<ul style="list-style-type: none"> <li>- Free access to emergency call numbers including access from public pay telephones without using any means of payment</li> <li>- Ensuring access to publicly available telephone services for disabled users and appropriate availability of public pay telephones</li> </ul>
Slovenia	<ul style="list-style-type: none"> <li>- Ensuring public pay telephones allow free emergency calls without any means of payment and accessibility for disabled users</li> <li>- Ensuring disabled end users have the same access to and use of publicly available telephone services, including access to emergency services and directory enquiry services, as other end users</li> </ul>
Spain	<ul style="list-style-type: none"> <li>- Accessibility of public telephones by users with a disability and the possibility to make free emergency calls from public pay phones</li> <li>- A sufficient offer of broadband Internet access terminals should be guaranteed</li> <li>- To offer options or bundled tariffs, different from those applied in normal commercial conditions, to people with special social needs, to allow them to access/use the public telephone system from a fixed location</li> <li>- The application of special pricing options, limitations on prices or common tariffs, and the application of the same conditions no matter the geographical situation of the user according to clear public and non-discriminatory conditions</li> </ul>
Sweden	<ul style="list-style-type: none"> <li>- Provide access for people with a disability to services according to the same extent and on equivalent terms as for other end-users</li> </ul>
UK	<ul style="list-style-type: none"> <li>- Uniform pricing – services within the USO must be charged at the same price throughout the UK</li> <li>- Provision of a social tariff that departs from normal commercial conditions</li> <li>- Allow consumers to monitor and control expenditure – e.g. itemised billing</li> <li>- Ensure equivalent access for those with a disability – special measures must be taken e.g. the provision of a text relay service. Ensure disabled users are able to access emergency numbers and operator assistance, provide special billing arrangements for users dependent on telephone service, and offer contracts and billing in large print, Braille or other format useable by vision-impaired users</li> </ul>

Source: Body of European Regulators for Electronic Communications (BEREC), 2010

Table 8 shows that in 2010, 20 BEREC members within the EU had specific measures in their USOs related to vulnerability or affordability. It is also clear that the two most common measures included were the provision of special services for disabled users (17 countries) and free emergency calls (9 countries). Nevertheless, Table 8 shows considerable diversity in the affordability measures included with the strongest references to affordability being recorded in France and Italy where the



USOs include the statement: “Provision of a quality telephone service to everyone at an affordable price”. In both Spain and the UK there are references to uniform pricing to ensure that those in remote geographic areas are not disadvantaged.

Although not specifying the countries where they are employed, BEREC (2010) provides details of two particular schemes providing subsidised telecoms access to the disabled. These schemes are the provision of 50 free SMS text messages a day to deaf people and half-price packages for blind people covering 90 hours per month of Internet browsing. For a more in-depth discussion of service provisions for the disabled via USOs see BEREC (2011).

#### 4.1 The Digital Divide

Within the telecoms sector the affordability issue which has received the most policy attention is the potential for digital divides. There has been increasing concern about how the economically disadvantaged and vulnerable may fall further behind in society if they are not able to access the opportunities presented by digital technologies and, in particular, the Internet. When considering digital divides, Levin (2010) notes that usage is as important as access. Even if a household has access to a broadband connection they may not use it. For example, in the case of fixed telephony Levin argues that a key barrier to usage is not the cost of the initial installation, but the high fixed cost associated with monthly line rental. Given these high fixed line rental costs, Levin suggests that those on low incomes may rely disproportionately on mobile devices for their telephony and, increasingly, broadband needs.

Weerakkody et al (2012) provide an overview of the strategies adopted by the EU to promote e-inclusion. Table 9 is adapted from Table 1 in Weerakkody et al (2012).

**Table 9: European Strategies to Promote e-Inclusion from Weerakkody et al (2012)**

Year	Body	Strategy
1999	EU policy documents	eEurope initiative established with aim of bringing everyone in Europe online as quickly as possible
2000	European Council meeting Lisbon	Goal set of EU becoming a more competitive and dynamic knowledge based economy with greater social cohesion
2001	European Council meeting Nice	Specific criteria established including a requirement that each Member State produce a biennial national action plan on social inclusion
2002	eEurope	A number of targets were set for e-accessibility
2003	Symposium on e-Inclusion	Ministers discussed ways to make the Information Society open, inclusive and accessible to all EU citizens



2005	eEurope	E-Inclusion set as one of the key priorities of the eEurope action plan
2005	European Commission	i2010 strategy launched; key objective to promote an inclusive European information society
2006	European Commission	Member states should co-ordinate their policies for combating poverty and social exclusion. National Action Plans should include concrete steps to improve access to ICT and the opportunities offered by new technologies
2007	European Commission	i2010 initiative continued to build political awareness on e-Inclusion, encouraging the spread of successful e-Inclusion policies across the EU and the development of future actions
2010	European Commission	Europe 2020 strategy launched to create smart, sustainable and inclusive growth with an economy based on knowledge and innovation

Source: Weerakkoday et al, 2012

Helsper (2011) provides a concrete example of one policy adopted at the EU level to encourage digital literacy: the European Computer Driving Licence provides an internationally recognised training programme and certificate concerning competence in ICT.

Alongside efforts to deal with digital divides at the EU level, BEREC (2010) records that at the Member State level the majority of its members had strategies (often government funded) for improving the affordability of broadband in underserved areas. Two alternative policy interventions highlighted by BEREC (2010) are training to encourage ICT/Internet usage and the availability of computers/free wi-fi in publicly accessible buildings to provide access to the Internet for those unable to afford a computer or broadband connection in their own home.

BEREC (2010) records that in 2010 the only EU country including broadband as part of their telecoms USO was Finland. However, BEREC states that the UK was aiming for a Universal Service Commitment covering broadband up to 2MB which would be effective from 2012. Table 10 provides examples of the policies included in BEREC (2010) to encourage the take up of broadband. As with Table 8, Table 10 concentrates on policies directly linked to affordability and vulnerability rather than wider measures to increase access to broadband across geographic areas.



**Table 10: Policies to Promote Broadband/ICT Affordability from BEREC (2010)**

Country	Policy
Austria	<ul style="list-style-type: none"> <li>- Fujitsu Siemens and Federal Chancellery promoting 'Citizen Laptop'</li> <li>- Possible extension of social tariffs for low-income households to cover broadband services</li> </ul>
Belgium	<ul style="list-style-type: none"> <li>- Investigating increasing Internet availability via public Internet access points</li> </ul>
Czech Republic	<ul style="list-style-type: none"> <li>- Government initiatives to address computer illiteracy issues</li> </ul>
Denmark	<ul style="list-style-type: none"> <li>- Mobile broadband firms subsidising notebooks with built-in mobile broadband if buyer takes a contract of at least 6 months</li> </ul>
France	<ul style="list-style-type: none"> <li>- 'France Numérique 2012' strategy to make affordable broadband services available to all by 2012 (minimum connection speed: 512 Kbps)</li> <li>- Possible extension of social tariffs for low-income households to cover broadband services</li> </ul>
Lithuania	<ul style="list-style-type: none"> <li>- PCs for residents subsidised via income tax rebates</li> <li>- May 2002 'Window to the Future' Alliance set up by leading businesses, banks and IT firms to support development of an 'Information Society'. This has included training schemes targeted at computer literacy and Internet use</li> </ul>
Malta	<ul style="list-style-type: none"> <li>- 'SmartStart' initiative to enable disabled and low income individuals to purchase a PC at an affordable price</li> <li>- General public able to purchase PC at daily rate of €0.99</li> <li>- 'Community Training and Learning Centres' to improve ICT access in communities and increase digital literacy</li> <li>- 'Project Blueskies' launched in 2008 to provide broadband at subsidised rates to households with no Internet or only a dial-up connection. By 2010 this had benefitted 5,700 households</li> </ul>
Netherlands	<ul style="list-style-type: none"> <li>- Government initiatives to address computer illiteracy</li> </ul>
Poland	<ul style="list-style-type: none"> <li>- Publicly funded measures to improve connectivity to socially challenged and disadvantaged areas</li> <li>- Local governments assign EU funds to help families unable to purchase a PC</li> </ul>
Portugal	<ul style="list-style-type: none"> <li>- 'e.iniciativas' government programme selling laptop bundled with mobile broadband to secondary school pupils, professors and adult trainees at better than commercial rates</li> </ul>
Romania	<ul style="list-style-type: none"> <li>- 'Knowledge Based Economy' project initiated by government and part funded by World Bank to improve access to ICT and raise computer literacy</li> </ul>
Slovenia	<ul style="list-style-type: none"> <li>- EU funded measures to improve connectivity to socially challenged and disadvantaged areas</li> </ul>
Sweden	<ul style="list-style-type: none"> <li>- 1998-2007 tax reduction for all 'gainfully employed' citizens linked to PC</li> </ul>



ownership	
UK	<ul style="list-style-type: none"><li>- Measures to improve connectivity to socially challenged and disadvantaged areas – funded by regional and local bodies</li><li>- Government initiatives to address computer illiteracy</li></ul>

Source: BEREC, 2010

Helsper (2011a) provides a critical view of the UK government’s recent digital policies, arguing that traditionally the UK had been a model for Europe in terms of the ICT policies adopted with programmes addressing both access and use by combining infrastructure investments with efforts to improve skills. However, at the time of Helsper’s article she notes a shift in government policy to focus solely on infrastructure, with efforts towards e-inclusion being outsourced to the private and third sectors. This shift away from direct government involvement in encouraging usage is seen as conflicting with the government’s promotion of ‘e-Government’. Helsper’s main concern is that a focus on infrastructure mainly benefits the well-off who are already connected/can afford better connections, leading to the gap between the digitally included and the digitally excluded increasing. Nevertheless, Helsper records some initiatives by the third sector in the UK to support increased digital usage. These initiatives included ‘Race Online 2012’ which was an umbrella for 1,500 organisations and initiatives including ‘digital champions’ and ‘UK Online’ centres designed to support disadvantaged individuals in their use of the Internet and digital public service channels.



## 5. Transport

It has been more challenging to find discussions of policies addressing transport affordability which provide a pan-European perspective. A common policy which is often justified on the grounds of maintaining affordability are the subsidies provided to public transport networks in urban areas. Detail on the form these subsidies may take is provided by Serebrisky et al (2009). These authors present a typology of subsidy types which is summarised in Table 11.

**Table 11: Typology of Transport Sector Subsidies from Serebrisky et al (2009)**

Subsidy Type	Description
Means-tested Transfer Funded by General Taxation	Chile introduced a programme in 2005 to compensate certain groups of citizens against the rising cost of transport resulting from rising oil prices. Households receiving support included pensioners and families receiving benefits along with those earning below \$350 per month. 40% of Chilean households were eligible.
Concessionary fares	Present in most countries and cities (e.g. UK, Madrid and Sofia). Special categories of users travel for free or at a discount. Exemplar groups include students, the elderly, the unemployed and, in Eastern Europe, war veterans.
Transport Vouchers	The primary example is the 'Vale Transporte' scheme which began in Brazil in 1985. Employers retain 6% of formal workers' earnings and in return provide vouchers for use on journeys to and from work. Employers buy the vouchers from issuing agencies and transport operators who receive the vouchers can cash them in at the issuing agencies. Workers can opt out of the system and those that do so will generally be those on incomes sufficiently high that 6% of income exceeds the actual cost of transport.
Flat fare structure	A flat rate is charged for journeys of varying lengths resulting in a cross-subsidy from those on low-cost trips to those on high-cost trips. Alternatively, if there is no differentiation between 'peak' and 'off-peak' prices, those travelling during 'off-peak' periods are likely to be subsidising those travelling in 'peak' periods.
Conditional direct operating subsidies	Provision of a subsidy dependent on certain conditions to improve performance. For example, in Buenos Aires from 2002 a direct subsidy was provided to bus operators, dependent on the number of passengers transported, the operator's gross revenues and the kilometres supplied. The subsidy was funded by a specific tax on diesel fuel.

Fuel tax rebate	In the UK bus operators received a rebate of around 80% on the tax paid for fuel used by public transport vehicles. Originally called the Fuel Duty Rebate it became known as the Bus Service Operators Grant. Issues are that this scheme involves no performance targets and is not linked to the economic situation of users.
Infrastructure Grants	Almost the default method for funding infrastructure for rail and road schemes in most parts of the world (except where road tolls exist). Ticket prices or usage charges are set so that users do not directly pay for the infrastructure services rely on. A central problem is that these grants may be given to schemes which win votes rather than to measures that do the most to help the economically disadvantaged.
Unconditional operating and capital subsidies	Particularly common in the US, these are subsidies with few, if any, performance requirements attached. An example would be for projected annual deficits of transport operators to be covered by government transfers.

Source: Serebrisky et al (2009)

As a companion to the type of subsidies which may be used, Cervero (2011) provides information on the extent of non-fare revenues (subsidies) received by public transport systems in different cities around the world. The data, from the UITP Mobility in Cities database (2006) is reported in Table 12.

**Table 12: Annual Non-Fare Revenues per Capita for Public Transport in 42 cities in 2001 from Cervero (2011)**

Annual Non-Fare Revenue per Capita in 2001	Cities
€0-200	Moscow, Warsaw, Prague, Krakow, Rome, Budapest, Athens, Ghent, Lisbon and Turin
€200-400	Dubai, Barcelona, Bilbao, Nantes, Valencia, Vienna, Rotterdam, Madrid and Amsterdam
€400-600	Stockholm, Clermont-Ferrand, Helsinki, Hamburg, Zurich, Berlin, Geneva, Marseilles, Brussels, Munich, Paris, Graz, Lille, Hong Kong
€600-800	Bern, Stuttgart, Newcastle and Copenhagen
€800-1000	Chicago, Manchester, Glasgow, London and Oslo

Source: Cervero, 2011



Table 12 shows the large variations in the levels of non-fare revenue being received by the transport systems of different cities within the EU, after controlling for the population of cities. In general the lowest amounts per capita are provided in Southern and Eastern Europe while the highest amounts per capita are frequently seen in the UK.

Cervero (2011) argues that a better use of the resources spent on subsidies would be to increase accessibility rather than to subsidise mobility. Traditionally the notion that public transport should be subsidised is linked to the idea that car use is under-priced once the externalities of congestion and pollution are considered, so providing a subsidy to public transport reduces its relative price to travellers thus indirectly correcting for the inefficiency associated with the under-pricing of car use. Regardless of the strengths of this argument, Cervero (2011) notes that providing support to metro and rail systems can be regressive, given the income groups who use them, and that funding bus services is a more progressive policy choice. Additionally Cervero (2011) suggests that public subsidies to transport operators can be controlled by competitive tendering processes to select the company providing the transport service. Another option to control costs, as mentioned in Table 11, is restricting subsidies to particular categories of users such as the elderly and school children. The problem with this approach is that not all elderly people or school children reside in poor households and so low income workers may subsidise services provided to children and pensioners from wealthy households.

Harker et al (2013) record that in contrast to telecoms and energy, the EU's USO provisions for rail are laid out in Regulations rather than Directives, so member states have less freedom regarding implementation. The two Regulations covering USOs in rail are: Regulation (EC) No 1370/2007 and Regulation (EC) No 1371/2007. Harker et al (2013) note that although no country has a USO for rail relating to geographic coverage, member states can identify public service providers to run more numerous, cheaper or higher quality services than the market would otherwise provide. The main provisions in rail USOs relating to vulnerability in Harker et al (2013) are that there should be non-discriminatory access rules for passengers with restricted mobility and support should be available to enable their access. In France there is also a requirement that social tariffs should be provided to those on low incomes.

One important factor in transport affordability is road user charging. Bonsall and Kelly (2005) suggest that a range of measures can be implemented to reduce the impact of congestion charging on the economically disadvantaged and to minimise the risk of social exclusion. Such potential measures include: altering the boundary of any congestion zone to exclude core facilities e.g. hospitals etc.; making charges time dependent so night-shift workers are exempt; allowing different payment methods; providing exemptions for certain groups; and hypothecating revenues to fund improvements to public transport. Bonsall and Kelly explain that in London there are exemptions for disabled 'Blue Badge' drivers and a 90% discount for residents and certain NHS patients and staff. Bonsall and Kelly also note that low-paid workers and emergency service staff living outside



the congestion zone failed to gain exemptions when the congestion charge was being established in London, on the grounds that employers should cover the increased costs these groups would face.

Discussions of transport affordability, like those of broadband costs, frequently relate to the potential impact of a lack of access and/or use on social exclusion. Lucas (2012) notes that the concept of social exclusion is difficult to define, since it is inherently multifaceted and attracts little formal consensus. However at its heart is the idea of individuals lacking resources, rights, goods and services that would enable the effective relationships which most individuals within society experience. When considering policies to influence transport-related social exclusion, the issue is one of use as well as access. For example, Lucas reports that in the UK those on low incomes who have access to a car still travel less frequently and over shorter distances than those on higher incomes. Bonsall and Kelly (2005) also note that to reduce the private transport use of groups at risk of social exclusion it is particularly important to improve public transport options early in the morning and late at night.

Lucas (2012) reports how in the UK since 2006 a systematic process of 'accessibility planning' has been a statutory requirement in local transport, land use and service sector planning in an attempt to identify and overcome transport problems faced by the socially excluded. Lucas describes how an interim report by the Department for Transport in 2009 found considerable differences in the methods to overcome social exclusion adopted in nine local authority areas. Some efforts targeted socially excluded populations, while others improved transport accessibility for all. Similarly, some schemes focused solely on transport, while others took a holistic approach incorporating health and social services. To achieve success, 'local champions' were identified as necessary to drive the delivery of improvements, local authorities needed suitably capable staff and there was a need for effective multi-stakeholder relationships. As an example, Lucas describes the policies of Merseytravel (Merseyside) and Centro (West Midlands) who worked with local employment services to deliver the 'Workwise' programme which provided travel assistance to those moving from benefits into work. However, as many transport initiatives rely on local funding streams, Lucas warns that the reduction in local government funding under the UK's 'austerity' programme has led to many of these schemes being dropped.



## 6. Additional notes on Northern Ireland

### 6.1 Energy

Although Northern Ireland is part of the UK, tackling fuel poverty is a policy area which has been devolved to the administrations in Wales, Scotland and Northern Ireland from London.<sup>10</sup> As a result, within the UK there are significant variations in the policies used to tackle fuel poverty. While the funding for the policies of the Northern Ireland administration may come from the central UK government, the allocation of funds to fuel poverty as opposed to other policy initiatives is reliant on decisions taken within Northern Ireland. In this respect local organisations and pressure groups have a strong part to play in ensuring funds are allocated to fuel poverty reduction and often influence the policies which are implemented. The variety of policy initiatives in the different constituent parts of the UK also results from varying extents of fuel poverty. In Northern Ireland the issue is particularly prominent as 68% of households rely on relatively expensive oil central heating and only 20% of households are connected to the mains gas network. Another difference between Northern Ireland and the situation in England is the absence in Northern Ireland of a single government department (in England there is the Department of Energy and Climate Change) to co-ordinate all the policy initiatives directed at reducing fuel poverty.

Liddell et al (2011) provide a comprehensive review of the policies used to tackle fuel poverty in Northern Ireland. These activities augment the UK's 2001 Fuel Poverty Strategy. The additional efforts resulted from two strategies: 'Ending Fuel Poverty: A Strategy for Northern Ireland' produced in 2004 and 'Warmer Healthier Homes: A New Fuel Poverty Strategy for Northern Ireland' produced in 2011. The 2011 strategy has four key objectives relating to: (i) the targeting of resources, (ii) increasing energy efficiency, (iii) achieving affordable energy, and (iv) building strong partnerships. The focus of Northern Ireland's strategy is to reach those 13% of households in Northern Ireland (roughly 75,000 households) who would need to spend more than 18% of their income on energy to achieve the recommended level of heat and lighting.

One of the distinctive features of the fuel poverty landscape in the UK is the prevalence of PPMs, a pay as you go scheme where consumers pay for energy in advance of its use. As a policy option PPMs offer consumers who struggle to budget effectively control of their energy costs. The downside is that this control is so strong, and the cost of heating so prominent, that individuals may consume an 'undesirably' low amount of energy from a policymaker's perspective, with consumers engaging in rationing and 'self-disconnection'. PPMs on the mainland of the UK have been criticised since, although they may be popular with users (Cooke et al., 2001), they are used by those with a history of payment difficulties and frequently involve higher prices per unit than alternative

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<sup>10</sup> The regulation of energy is devolved from the UK government to be determined within Northern Ireland.



payment options. However Boardman (2010) reports that in Northern Ireland in 2008 PPMs offered prices on average 4.9% cheaper than standard credit arrangements and 2.5% cheaper than paying by Direct Debit. Also, DECC figures from 2009 show that in Northern Ireland PPMs for electricity are far more prevalent than in the rest of Great Britain with (29% compared to 13%). Boardman notes that this prevalence of PPMs enables a policy where there are no electricity disconnections for unpaid debt in Northern Ireland.

Another common practice on the mainland of the UK which receives criticism is the adding of charges to electricity bills to fund various policy objectives; as compared to funding from general taxation, such charges are applied to all bill payers regardless of income, and so are regressive. Charges on the energy element of a bill are regressive because the proportion of income spent on energy is lower for higher income levels, while a fixed charge is even more regressive. Despite this general point, Boardman (2010) notes that in Northern Ireland a charge is added to bills which is probably progressive because of the way the resulting funds are dispersed. Since 1997 the Energy Efficiency Levy charge has been in place to fund energy efficiency schemes, and the programme developed into the Northern Ireland Sustainable Energy Programme (NISEP) in 2010. Currently funds of around £7.9m are available for energy efficiency improvements. The charge is a small addition to the per kilowatt hour price of electricity which averages out at a total cost of £5 per customer. Around 60% of the funds resulting from the charge come from commercial energy users, while around 80% of the funds raised are spent on helping fuel poor households.

Highlighting the importance of effective targeting, Liddell et al (2011) describe how audits in the UK's constituent nations in 2008-09 revealed that a significant proportion of households which had received support via local fuel poverty alleviation schemes had not actually been suffering from fuel poverty when they received support. Due to the difficulty of identifying fuel poverty on 'the doorstep', Liddell et al promote 'area based' approaches, explaining that this approach was first piloted in Northern Ireland in the 'Beechmount Project'. Currently the area-based approach is used in Northern Ireland as part of two schemes: (i) the 'Warmer Ways to Better Health' teams and the Public Health Agency's 'Western Health Action Zone'. The area-based approach in Northern Ireland aims to increase the take up of existing energy efficiency initiatives.

In applying the area-based methodology Liddell et al explain that local councils are the principle facilitators with the first step being to select an algorithm to determine the areas to be targeted so that considerable resources can be focused on those areas in most need of help. Within a targeted area each household is contacted individually with a single specialist contact person providing advice on energy efficiency, benefit entitlements and community energy brokerage schemes. After offering advice, the contact person should put the household in contact with 'enablers' who can carry out the household improvements necessary to raise energy efficiency.

Liddell et al (2011) recognise that one problem with the area-based approach is that it ignores households in severe fuel poverty that are nevertheless located in areas that overall have low rates



of fuel poverty. To overcome this weakness, Liddell et al suggest allowing households who feel fuel poor to self-refer, an option which the Northern Ireland regulator considers as essential in any policy intervention.

Overall Liddell et al (2011) emphasise that for fuel poverty policies to be successful, linkages between definition, strategy, policy and implementation need to be coherent and tight, particularly when responsibility for fuel poverty alleviation is spread over several tiers of government. To overcome the risks of split responsibility, Liddell et al describe how clear structures have been established in Northern Ireland to manage fuel poverty reduction. In 2005 the Public Health Agency (PHA) established the Northern Area Fuel Poverty Steering Group which was a multi-agency partnership including organisations from the public, private and voluntary sectors across 10 local council areas. In 2006 this Steering Group published a strategy containing 11 aims and for each of these aims key tasks, timeframes, outputs and outcomes were established so that the implementation of the strategy could be effectively tracked. Progress is monitored via annual action plans and Liddell et al report that the strategy has also been assessed via customer and stakeholder surveys. This monitoring forms part of a wider infrastructure supporting the scheme which includes local 'Warmer Homes Groups' and a co-ordinator being appointed in each council area along with a series of energy efficiency advisers. One remaining question with the area based approach is how easily it can be transferred to situations that have weaker communities and less developed local organisations than in Northern Ireland.

## 6.2 Telecoms

BEREC (2010) reports a £120,000 grant was given to Avanti Communications to research the potential for high speed mobile broadband in rural Northern Ireland.

## 6.3 Water

OECD (2003) reports that provision of water services in Northern Ireland was similar to that in the Republic of Ireland with no household charges, and the cost of water provision being funded through general taxation.



## 7. Additional notes on Austria

### 7.1 Energy

The energy regulator in Austria, E-Control has a direct responsibility to measure energy affordability and poverty. E-Control (2014) believes the effective definition of a fuel poverty metric and the tracking of fuel poverty are the key first steps to combating fuel poverty.

E-Control (2014) reports that in Austria consumers have a right to be supplied with energy even when they do not make the necessary payments on one occasion, but repeated non-payment will lead to disconnection. Boltz and Pichler (2014) highlight that a current lack of awareness around energy efficiency among householders is seen as a key opportunity for improving affordability. Building on this opportunity there is a plan for energy suppliers to set up counselling offices providing advice on energy poverty, energy efficiency and other topics from January 2015.

## 8. Additional notes on France

### 8.1 Energy

Dubois (2012) looks at the history of French policies to tackle energy poverty. The most significant policies highlighted by Dubois (2012) are detailed in Table 13.

**Table 13: Key French Policies to Tackle Energy Poverty from Dubois (2012)**

Year	Event	Impact
1985	Creation of 'Energy Solidarity Fund' by EDF, GDF and the French state	Aimed to remedy the energy debts of low-income households
1988	'Law on the Minimum Income' (RMI)	Recognised the right of very low-income people to be helped to preserve their supply of energy, water and telecoms. Guaranteed continuity of energy and water supply following non-payment until a financial support mechanism could be received by the consumer
2000	Law reforming the French electricity sector	Electricity deemed an "essential" good and all customers granted a "right to energy"
2001	Decree concerning vulnerable customers	Defines the customers who can receive support mechanisms
2004	'Tarif Première Nécessité (TPN)'	Social tariff for electricity created. Energy Solidarity Fund becomes a competence of the Départements and is included in the Solidarity Fund for Housing
2008	'Tarif Spécial de Solidarité (TSS)'	Social tariff for gas created
2010	'Grenelle 2' law passed and 'Habiter Mieux' programme introduced	The notion of 'energy precariousness' introduced and is complemented by a practical definition linked to income. Habiter Mieux is a major programme to improve the homes of those on low incomes.

*Source: Dubois, 2012*

Table 13 shows that there is a long history (almost 30 years) of policy interventions aimed at tackling energy poverty in France. Dubois describes the 'Habiter Mieux' programme as being focused on improving the thermal properties of dwellings housing low income households. €500m of additional funds has been allocated to this policy for the period 2010-2017, with the aim of



renovating around 300,000 homes at the cost of €1,100-1,600 per home. The policy is implemented at the Département level and it is hoped that each household will only have to deal with a single contractor. Implementation of the policy harnesses the pre-existing resources and organisation of the National Agency for Home Improvement, and contains flexibility regarding the exact measures to install, to accommodate varying local circumstances. A potential weakness of the programme is its focus on individual home owners. This may limit the programme's ability to alleviate the energy poverty of those in shared ownership schemes or who are tenants, although local variations of the scheme, such as in Paris, can contain explicit provisions to support these household types.

The World Health Organisation (2007) noted that emergency mechanisms to help with energy expenses were financed by Départements, the State, energy suppliers and other social services, but that each Département had its own financial policy, with no common support mechanism, nationally applicable criteria or definition for eligibility.

## 8.2 Water

Reynaud (2006) details the development of measures in France to help address the affordability of water services. The first measure in this direction was the National Fund for Rural Water Supply (FNDAE) established in 1954, which taxed all water supplied in France to subsidise investments in water supplies and wastewater treatment in small rural communities. Reynaud explains that more recently the availability of water was included as a basic human need in the 1992 Law on the Minimum Income (RMI) which guaranteed a minimum income level to all those over the age of 25. However, while Article 43 of this law required a mechanism to deal with the serious financial difficulties of those with unpaid water bills, this provision had little impact as no specific fund was created to pay off these unpaid water bills.

In 1996 a voluntary contractual agreement, entitled the Water Solidarity Charter, was signed by the State, the Association of French Mayors (AMF), the Federation of Local Communities delegating Public Services (FNCCR) and the Professional Syndicate of Water and Sewerage Operators (SPDE). The charter consisted of three main elements: (i) water is not to be disconnected for unpaid bills resulting from serious financial difficulties for a period of 3 months while the case is considered; (ii) in the case of default, bills are partly or totally paid by local communities, private water operators or charities; and (iii) efficient water use campaigns. Reynaud cautions that the impact of this Charter was again limited due to the complexity of its management, which involves several organisations. Around 130,000 disconnections were still occurring annually in the late 1990s, illustrating the Charter's limitations.

In a bid to improve on the Water Solidarity Charter, in April 2000 the National Water Solidarity Convention was signed by the same parties who had earlier signed the Water Solidarity Charter. In addition to earlier commitments, the Convention prohibited the disconnection of households containing babies or elderly individuals, and stated that households in serious financial difficulties



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were to be identified by local government social agencies (Commissions de l'action sociale d'urgence). Unlike the earlier agreement, this Convention identified financial resources to support the measures described, along with the relative contributions of the public and private sectors into the social water fund.

Further protection for households against disconnection from electricity, gas and water supplies was announced in October 2005 with disconnection due to the non-payment of bills being prohibited during the 'winter' period of 1 November to 15 March each year without the prior approval of social services. Reynaud (2006) questions why there were no social tariffs for water when social electricity tariffs are allowed by law.



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