



Vulnerable Consumer Working Group

Working Paper on Energy Poverty

1. Introduction

- 1.1 The Vulnerable Consumer Working Group (VCWG) was reconvened following the conclusions of the 2015 Citizens' Energy Forum¹. The VCWG was invited to *'explore the potential for common approaches across the EU to vulnerability and energy poverty definitions and policies'*. In the Commission's Communication 'Delivering a New Deal for Energy Consumers'², energy poverty was acknowledged as an important issue for Member State action.
- 1.2 In order to support the Commission's work, the VCWG agreed to work around two main objectives: (i) increasing transparency in the identification and measuring of consumer vulnerability and energy poverty; and (ii) providing targeted assistance to protect the most vulnerable and tackle energy poverty.
- 1.3 Both objectives, increasing transparency and providing targeted assistance, are clearly linked. Increasing transparency in the identification and measuring of energy poverty and the criteria to qualify for assistance helps Member States to provide targeted assistance and evaluate the success of their policies.
- 1.4 In the last twelve months, the VCWG met four times. In these meetings, the group listened to and discussed presentations from its members and external speakers and carried out an internal survey. The conclusions from these discussions and the findings of the survey are reflected in this document.
- 1.5 Having previously produced a guidance document on vulnerable consumers³, this working paper represents the group's initial contribution to the discussion on energy poverty.

¹ Conclusion of the 2015 Citizens Energy Forum available at:
https://ec.europa.eu/energy/sites/ener/files/documents/2015_03_13_LF_conclusions.pdf

² Delivering a New Deal for Energy Consumers, SWD(2015) 141 final. Document available at:
https://ec.europa.eu/energy/sites/ener/files/documents/1_EN_ACT_part1_v8.pdf

³ Vulnerable Consumer Working Group Guidance Document on Vulnerable Consumers available at:
http://ec.europa.eu/energy/sites/ener/files/documents/20140106_vulnerable_consumer_report_0.pdf

2. The cost of the energy bill

The rising cost of the energy bill brings additional pressure to household budgets'. As a result, some European households are spending a higher share of their budget on domestic energy services.

Bearing the rising cost of the energy bill is particularly hard for low-income households, who may, depending on their individual circumstances, under-heat their homes, reduce consumption on other essential goods and services or get into debt to meet their energy needs.

While household's income remained relatively flat, higher energy bills put more and more households under the risk of falling into energy poverty.

- 2.1 On average, household's energy expenditure represents 6.4% of the total consumption⁴ of European households'.
- 2.2 Yet, the cost of heating and other energy uses varies widely across households as it depends on individual factors such as the energy tariff, energy efficiency of the dwelling, fuel type, technology used to heat and cool, and the needs and behaviours of the occupants. All these factors impact on households' ability to turn income into adequate domestic energy services.
- 2.3 In recent years, energy prices have risen faster than household disposable income⁵. This has been particularly problematic for low-income households⁶.
- 2.4 The poorest households spent a growing share of their budget to pay for their energy bills⁷. Even though, the average households also had to spend a higher share of their budget on energy, the increase has been more pronounced for low-income households. This can be seen on the Figure below.

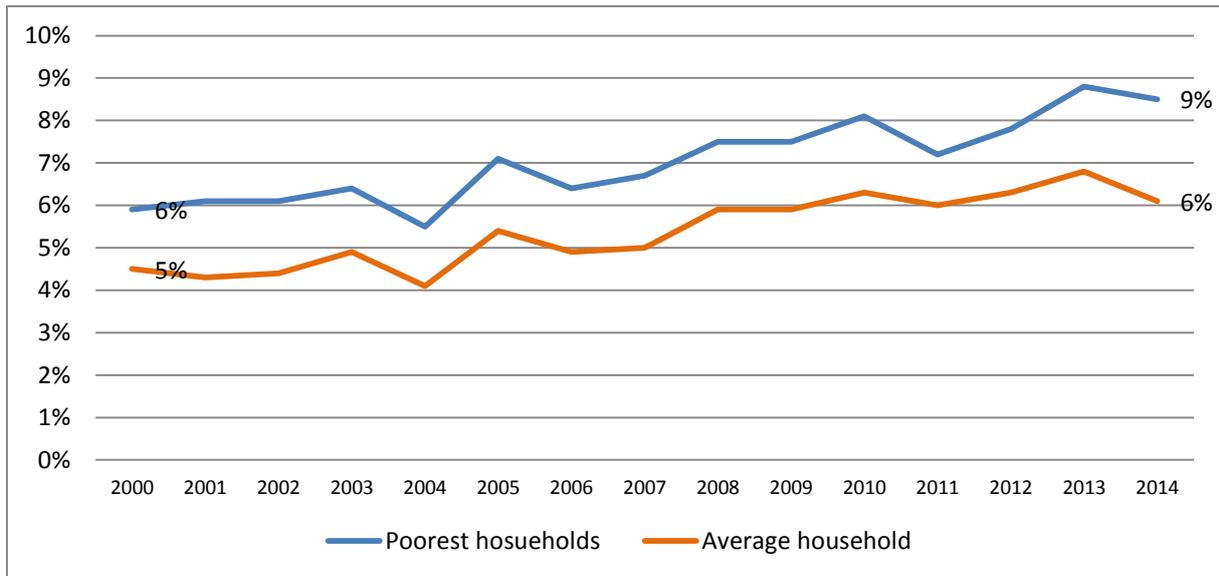
⁴ Energy prices and costs in Europe, COM(2014) 21 /2, 29.1.2014. Available at: https://ec.europa.eu/energy/sites/ener/files/documents/20140122_communication_energy_prices.pdf

⁵ Source: Eurostat (Electricity prices for domestic consumers; Gas prices for domestic consumers; disposable income of households per capita; period 2010 – 2014).

⁶ The current statistics may not capture the relatively recent decline on oil prices which may have mitigating effects on the cost of energy.

⁷ Member States National Statistical Authorities data shows that households at the bottom of the income distribution have seen their share of disposable income dedicated to gas, electricity and other fuels used for heating, lighting and powering appliances in the house increasing more than for the other income quintiles.

Figure 1: EU average - share of households' budget spent on domestic energy services⁸



Source: National Statistical Authorities of EU Member States

2.5 At the beginning of the period, low-income household, meaning the poorest 20% of all households, spend 6% more of their budget on domestic energy services for heating, lighting and powering electrical appliances, one percentage point more than the average household.

2.6 In 2014, expenditure on energy services for the poorest households in the EU raised by 50%, reaching almost 9% of their total budget. In the same period, the gap on the share of expenditure spent on domestic energy services between the average and the poorest households grew from 1% to 3%..

3. The concept of Energy Poverty

VCWG considers that a common understanding of the definition and measuring of the concept of energy poverty would help Member States, civil society and industry to start a dialogue about the level of energy poverty and the most appropriate means to tackling it.

Any such definition should be **simple**, focus on the problem of **affordability** and allow sufficient **flexibility** to be interpreted according to the particularities of Member States.

The VCWG proposes that such a definition can refer to elements such as **low-income; inability to afford; and adequate domestic energy services**.

3.1 Energy poverty is mostly referred to as the lack of access or lack of affordability to modern energy services⁹. While lack of access is more prevalent in developing

⁸ The figure represents the EU average including all Member States with the exception of Austria and Denmark due to lack of data availability at the time of writing.

countries, some households also in the EU may lack access to modern energy services such as electricity and clean cooking facilities¹⁰.

3.2 In the majority of the EU Member States, however, energy poverty refers to the lack of affordability, which is generally understood as the difficulty for low-income households to pay for domestic energy services.

3.3 EU legislation requires Member States to protect vulnerable consumers and, if identified, also the energy poor.

"Member States shall take appropriate measures to protect final customers, and shall, in particular, ensure that there are adequate safeguards to protect vulnerable consumers. In this context, each Member State shall define the concept of vulnerable customers which may refer to energy poverty and, inter alia, to the prohibition of disconnection of electricity (gas) to such customers in critical times"
Electricity and Gas Directives (Directive 2009/72/EC; Directive 2009/73/EC)

3.4 Some Member States¹¹, European Institutions and research projects have proposed definitions for energy poverty, a non-exhaustive list of which is included in the Annex.

3.5 There are common threads emerging across these definitions:

- the term energy poverty is closely linked to **households' inability to pay** their energy bills;
- most definitions associate energy bills with **domestic energy services** such as heating, cooling, lighting, cooking and powering electrical appliances;
- the term **affordable** is used to refer to households receiving adequate energy services without getting into debt; and
- the term **adequate** means the amount of energy needed to ensure basic comfort and health.

3.6 A strict and prescriptive definition of energy poverty for the EU28 could be too restrictive given the diverse realities across Member States. A particular proportion of a household's income spent on energy, which makes a household energy poor in one Member State, does not necessarily capture the problem of energy poverty in another Member State.

3.7 However, it is important to have improved transparency in the identifications and measuring of energy poverty especially for the Member States who may not have addressed the issue. This is particularly relevant as in many cases the term energy

⁹ IEA website includes a review of what access to modern energy services entails. Available at: <http://www.worldenergyoutlook.org/resources/energydevelopment/definingandmodellenergyaccess/>

¹⁰ Lack of access to the electricity and gas grid is particularly prevalent in remote and rural areas.

¹¹ Today four Member States have defined energy poverty in their legislation.

poverty is mixed or used interchangeably with the broader term of consumer vulnerability or general poverty.

3.8 While there is an overlap between consumer vulnerability and energy poverty, it is important to recognise energy poverty as a distinct issue¹². As income is one of the drivers of vulnerability, there is a correlation between consumer vulnerability and energy poverty. Energy poverty is, however, a more specific concept, which refers to the relationship between limited household budget and the cost of adequate energy services.

3.9 Energy poverty is also highly correlated with general poverty¹³. Yet, households face widely varying costs to achieve the same level of warmth for reasons other than income, such as, energy efficiency of the dwelling or household's ability to interact with the market. In addition, an adequate level of energy is essential for citizens to function in society. Having discussed these issues, the VCWG believes that enhanced transparency in the identification and measuring of energy poverty in the form of a general definition represents a positive step forward to explore solutions to tackle energy poverty. Such a definition, which Member States may wish to include when energy poverty has been identified as a policy challenge, should be **simple**, focus on the problem of **affordability** and allow sufficient **flexibility** to be relevant across Member States.

3.10 The VCWG considers that a general definition of energy poverty can refer to elements such as:

- **inability to afford**, which can be expressed, for example, as a disproportional share of income spent on energy
- **low-income**, which can refer to households in poverty such as those at the bottom of the income distribution in a Member State
- **adequate domestic energy services**, which could refer to what is perceived as a sufficient level of consumption in a specific area, an agreed standard such as the recommended temperatures by the World Health Organisation¹⁴ or the household average consumption in a Member State

¹² London Economics, Ipsos, VVA (2015) concluded that consumer vulnerability refers to the risk of negative outcome on consumers' well-being. Available at: http://ec.europa.eu/justice/events/european-consumer-summit/2015/files/ener_le_vulnerability_study_european_consumer_summit_2015_en.pdf

¹³ John Hills (2001) Fuel Poverty: The problem and its measurement. Available at: <http://sticerd.lse.ac.uk/dps/case/cr/CASereport69.pdf>

¹⁴ World Health Organisation recommends a heating regime of 21°C in living room and 18°C in other rooms for 9 hours a day (16 hours at weekends).

4. Possible metrics to measure Energy Poverty¹⁵

Measuring energy poverty is important if we want to understand the extent and depth of the problem and also assess the impact of the policies which have been put in place to tackle it.

EU Member States which have or are considering energy poverty metrics favour expenditure based metrics. These metrics account for the relationship between household income or household budget and household energy needs or expenditure, clearly capturing the problem of affordability.

This type of metrics, such as the one used in England or proposed in Austria and France, are good examples that can be adapted to measure energy poverty in other EU Member States. Expenditure based metrics can be complemented with indicators from the EU-SILC database.

Statistical information about the housing stock is still lacking in many Member States. House Condition Surveys can be run as a sub-sample of the Household Budget Surveys. The combined data will allow Member States to measure household energy needs and target energy efficiency investments to benefit low-income households living in low energy efficient houses.

- 4.1 Indicators that measure the level of energy poverty are necessary to assess and to evaluate the success of the policies to tackle energy poverty over time.
- 4.2 At the European level, no dedicated survey of energy poverty exists. Most researchers have been using Eurostat Survey on Income and Living Conditions (EU-SILC) to produce proxy indicators of energy poverty such as the perceived inability to keep home adequately warm; living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor; and arrears on utility bills.
- 4.3 There are a range of strengths associated with using the EU-SILC based indicators. EU-SILC dataset has provided an important basis for identifying the problem, and recognising differences across the EU. Besides, it may be less complex to collect than expenditure data and it provides and captures wider elements such as household experiences.
- 4.4 However, various research projects have identified some weaknesses in using EU-SILC to measure energy poverty¹⁶. Price et al. (2012) compare the results of self-reported subjective assessment of energy poverty with official expenditure-based data. The research found that 28% of households spend more than 10% expenditure on energy, and therefore would be considered energy poor. However, only 16% of the sample felt unable to sufficiently heat their homes. Of this group, less than half were energy poor based on the expenditure-based indicator. Similarly, Deller and Waddams (2015) showed that in many Member States the perceived household's

¹⁵ A completed discussion on the lessons of producing metrics to measure energy poverty is included in Insight_E (2015) 'Energy poverty and vulnerable consumers in the energy sector across the EU: analysis of policies and measures'. Available at: <http://ec.europa.eu/energy/en/news/energy-poverty-may-affect-nearly-11-eu-population>.

¹⁶ See for example Thomson and Snell (2013).

inability to keep warm during winter does not correlate with the share of energy expenditure.

- 4.5 In EU Member States that have or are considering energy poverty metrics, most experience relates to expenditure based metrics¹⁷. The advantage of an expenditure-based metric is that it is quantifiable and objective.
- 4.6 A significant development in the use of expenditure based metrics has been the move from fixed to relative thresholds. Following the recommendations of the Hills' review, England changed the selected metric to measure energy poverty from those households spending more than 10% of their income on energy to a *Low Income, High Cost* metric which defines households in energy poverty as those households above the median required energy costs, and below the income poverty threshold.¹⁸
- 4.7 Similarly to the English *Low Income High Cost* metric, E-Control (Austrian Energy Regulator¹⁹) has proposed a definition of energy poverty which refers to households whose income is below the at-risk-of-poverty threshold and, at the same time, have to cover above average energy costs.
- 4.8 In France, the National Observatory of Energy Poverty (ONPE) has recommended a metric, very similar to the one adopted in England, which considers a household to be in energy poverty when it falls both in the category of low income and high expenditure²⁰.
- 4.9 These metrics are good examples that can be adapted to measure energy poverty in other EU Member States.
- 4.10 An interesting feature of the metric used in England and proposed by E-Control in Austria and ONPE in France is that the three include a reference to above average energy consumption. Energy consumption can be observed or modelled. While modelling requires the gathering of data on the housing stock and the application of software (and necessary assumptions) to calculate the energy needs, it has the advantage of avoiding underestimating energy needs as a result of self-disconnection or under-heating²¹.
- 4.11 Statistical information about the housing stock is still lacking in many Member States. House Condition Surveys can be run as a sub-sample of the Household Budget

¹⁷ The first formally defined metric to measure energy poverty was developed by Boardman as those households unable to obtain adequate level of energy services for 10% of its income. The 10% level reflected a twice-median level of all UK households (using 1988) data. Liddell et al. (2012).

¹⁸ Hills (2012). Available at: <https://www.gov.uk/government/publications/final-report-of-the-fuel-poverty-review>

¹⁹ E-Control. Energy Poverty in Austria, Definitions and indicators.

²⁰ ONPE. (2014). Rapport de synthèse. Définitions, indicateurs, premiers résultats et recommandations. Observatoire National de la Précarité Énergétique.

²¹ UK Department of Energy & Climate Change estimated that in England the needs to spend on energy services was 21% higher than actual spend. Nevertheless, the issue of self-disconnection or under-heating may not be as prevalent in other Member States as it is in England.

Surveys²². The combined data will allow Member States to measure household energy needs and target energy efficiency measures to low-income households living in energy inefficient houses.

4.12 More than nine in ten of the members of the VCWG who answered the survey, agreed that metrics which account for household income and energy expenditure are useful measures to understand energy poverty. The majority (71%) also agreed that proxy indicators such as the ones produced in the EU-SILC are also useful measures of energy poverty.

4.13 DG ENER launched a project to assess and select indicators to measure energy poverty. The first part of this two-stage project will produce a set of indicators that provide the best possible picture to measure, compare and track energy poverty across Member States. The VCWG followed this work and provided feedback on the indicators and their applicability. The final study is published in the European Commission website²³.

4.14 The VCWG will also provide feedback in the second part of the project. The aim of the second part is to produce a tool that measures and monitor energy poverty across the EU. This tool should be able to: present statistical information to monitor energy poverty, track and assess policy measures and enable knowledge transfer across stakeholders, gather and disseminate initiatives to understand and tackle energy poverty, and steer and advance the understanding and policy debate on energy poverty.

5. A review of policies to alleviate and tackle energy poverty

Member States have put in place a number of measures to alleviate and tackle energy poverty. It is important to take stock at these measures to identify the good practices that can be shared across Member States.

The review of these measures shows that having a mix of policies dealing with the symptoms and the causes of energy poverty is paramount. In particular, policies in the form of **targeted short-term** (e.g. financial support), **long-term** (e.g. energy efficiency) measures combined with continuous support in the form of **consumer protection** and reasonable **safeguards against disconnection** are necessary to tackle the multiple dimensions of energy poverty.

5.1 EU legislation clearly assigns to Member States the primary responsibility and competence to define and protect vulnerable consumers and when identified, address energy poverty. In order to meet this goal, Member States have put in place a mix of

²² The Scottish Household Survey represents a good example of a survey which combines data gathering on the household budget and the housing stock. Information available at: <http://www.gov.scot/Topics/Statistics/16002>

²³ Trinomics (2016). Selecting indicators to measure energy poverty. Available at: <https://ec.europa.eu/energy/sites/ener/files/documents/Selecting%20Indicators%20to%20Measure%20Energy%20Poverty.pdf>

measures²⁴. This section brings some of the good practices into light. A list of measures is included in Annex II.

- 5.2 Targeted and effective measures provide smart assistance to energy poor households, reducing the need for blanket price regulation.
- 5.3 Policies such as financial support aim at providing support for households to afford adequate energy services. It is important that this support is targeted so it can effectively benefit only those in real need to pay for their energy costs. For example, the energy cheques used in France can only be used to pay energy bills or to pay for energy efficiency renovations.
- 5.4 Consumer protection and other non-financial support²⁵ can also be used to improve the situation of those who struggle to pay for their basic energy needs, the energy poor. For example, to limit the number of disconnections, additional safeguards can be put in place *before* disconnection such as active engagement from energy suppliers, or debt restructuring²⁶ and *after* such as active involvement of social services and charities or the provision of pay as you go meter.
- 5.5 Targeted energy efficiency assistance is an important tool to alleviate energy poverty. As a recommendation, public subsidies and energy efficiency schemes for retrofitting building and to pay for low cost energy efficiency measures can be channelled to those households or areas which are more deprived and with the lowest levels of energy efficiency²⁷.
- 5.6 The design of such schemes should account for the type of tenure²⁸ and the economic and social conditions of the individual households. In particular, the specific barriers faced by low-income households owning a property such as lack of upfront capital; or any unintended negative impact caused to tenants in the form of rent increases higher than the energy savings or relocations as a results of the works.

²⁴ Insight_E (2015) reviewed and classified these measures in four categories: (i) financial support; (ii) consumer protection; (iii) information and awareness campaigns; and (iv) energy efficiency.

²⁵ For example: access to independent advice, guidelines on debt recovery and support for complaints of poor treatment.

²⁶ An example of such activities is the work of Step Change Debt Charity. Website available at: <http://www.stepchange.org>

²⁷ Cambridge Econometrics produced evidence on the wider economic benefits of energy efficiency investments in the residential sector for low-income households in Scotland and the UK. Documents available at: <http://www.cas.org.uk/system/files/publications/economic-impact-of-energy-efficiency-investment-in-scotland.pdf> and http://www.e3g.org/docs/Jobs-growth-and-warmer-homes_Executive_Summary.pdf

²⁸ For example, in the case of Scotland, energy efficiency in the private rented sector is lower than in the other types of tenure with a higher proportion of dwellings in EPC G, F and E than for the overall housing stock. Source: <http://www.gov.scot/Publications/2015/12/8460>

6. Conclusions

6.1 Over the last twelve months, the VCWG has focussed its efforts to better understand the concept, metrics and policies to tackle energy poverty. After taking stock at the groups' work, the VCWG concludes that:

- a) Measuring energy poverty is important to understand the extent and depth of the problem and also assess the impact of the policies which have been put in place to tackle it. Metrics which account for the relationship between **household income** and **household energy needs or expenditure** capture well the problem of affordability. This type of metrics, such as the one used in England or the one proposed in Austria (E-Control) and France (ONPE), represent good examples that can be adapted to measure energy poverty in other Member States.
- b) Better information of the **housing stock**, which can be efficiently gathered as part of the regular Household Budget Survey, will help Member States to measure energy poverty and design energy efficiency policies which benefit the energy poor.
- c) Tackling energy poverty requires a **combination of policies**, dealing with the causes and the symptoms of energy poverty. Good examples include targeted short-term (financial support) and long-term measures (energy efficiency) in addition to consumer protection and reasonable safeguards against disconnections.
- d) A common understanding of the concept of energy poverty will help Member States, civil society and industry to start a dialogue about energy poverty and how to tackle it. The VCWG considers that a common understanding of energy poverty in the form of a general definition represents a positive step forwards to tackle the problem of energy poverty. Such definition should be **simple**, focus on the problem of **affordability** and allow sufficient **flexibility** to be relevant across Member States. The VCWG proposes that such a definition can refer to elements such as **households in low-income; unable to afford; and adequate domestic energy services**.

7. Next Steps

- 7.1 Following the publication of the Energy Union Framework Strategy and the Communication Delivering a New Deal for Energy Consumers, the European Commission is entering into a new phase of weighting different policy options on the electricity market design, energy efficiency and renewables. This process opens opportunities for legislative changes that can have an impact on the energy poor households and brings up new opportunities to act on energy poverty.
- 7.2 The VCWG asks for a mandate from the London Forum to continue working on the issues raised in this paper to use for possible consideration in future work on the energy legislation.
- 7.3 The VCWG will also work with DG ENER with the objective of producing a set of indicators to measure, compare and track energy poverty across the EU and establish a tool that presents this information to the public, enriching the public debate on energy poverty.
- 7.4 The VCWG will continue supporting DG ENER in the exchange of good practices, bringing Member States' actions to tackle energy poverty into light so the Commission's policies and initiatives complement the ones carried out at Member State and local level to tackle energy poverty.

Annex I - Definitions of energy poverty

Member State definitions of energy and fuel poverty

Member State	Energy / fuel poverty definition	Definition metric
Cyprus	Energy poverty may relate to the situation of customers who may be in a difficult position because of their low income as indicated by their tax statements in conjunction with their professional status, marital status and specific health conditions and therefore, are unable to respond to the costs for the reasonable needs of the supply of electricity, as these costs represent a significant proportion of their disposable income.	Energy poverty is defined in the Electricity Law. Based on the provisions of the Law, a Ministerial Degree is issued specifying the various categories of vulnerable consumers and the corresponding measures to protect them.
France	<i>Definition according to article 11 of the "Grenelle II" law from 12 July 2010:</i> Is considered in a situation of energy poverty "a person who encounters in his/her accommodation particular difficulties to have enough energy supply to satisfy his/her elementary needs, this being due to the inadequacy of resources or housing conditions."	A quantitative threshold is missing.
Ireland	Energy poverty is a situation whereby a household is unable to attain an acceptable level of energy services (including heating, lighting, etc) in the home due to an inability to meet these requirements at an affordable cost.	Spends more than 10% of its disposable income on energy services in the home.
UK (England)	A household to be fuel poor if (i) their income is below the poverty line (taking into account energy costs); and (ii) their energy costs are higher than is typical for their household type (DECC 2013).	Low income, high consumption (LIHC). Two criteria include (i) fuel costs are above the median level, and (ii) residual income net of fuel cost spend is below the official poverty line. This applies in England, while other constituent countries use the 10% threshold metric. Note that England continues to report the 10% threshold metric for comparison, which is that <i>a fuel poor household is one which needs to spend more than 10% of its income on all fuel use to heat it home to an adequate standard of warmth (21°C in living room, and 18°C in other rooms as recommended by WHO.</i>
UK (Scotland)	A household is in fuel poverty if, in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income (including Housing Benefit or Income Support for Mortgage Interest) on all household fuel use (Scottish Executive 2002).	The definition of a 'satisfactory heating regime' as per for Wales (below)
UK (Wales)	Fuel poverty is defined as having to spend more than 10 per cent of income (including housing benefit) on all household fuel use to maintain a satisfactory heating regime.	As stated. The definition of a 'satisfactory heating regime' recommended by the World Health Organisation is 23°C in the living room

Member State	Energy / fuel poverty definition	Definition metric
	Where expenditure on all household fuel exceeds 20 per cent of income, households are defined as being in severe fuel poverty (Welsh Assembly Government 2010).	and 18°C in other rooms, to be achieved for 16 hours in every 24 for households with older people or people with disabilities or chronic illness and 21°C in the living room and 18°C in other rooms for a period of nine hours in every 24 (or 16 in 24 over the weekend) for other households.
UK (Northern Ireland)	A household is in fuel poverty if, in order to maintain an acceptable level of temperature throughout the home, the occupants would have to spend more than 10% of their income on all household fuel use (DSDNI 2011).	'Acceptable' level as per WHO 'satisfactory heating regime'
Austria (Definition and metric proposed by the Energy Regulator, E-Control, not official)	Households are considered at risk of energy poverty if their income is below the at-risk-of-poverty threshold and they simultaneously have to spend an above-average percentage of their household income on energy.	Proposal to use multiple indicators: household income, housing expenses, energy costs; information about past due bills, disconnections, installations of pre-paid meters, etc.; subjective indicators, such as permanent household financial difficulties.
Malta	Energy poverty: inability to achieve a necessary level of energy services in a household. Fuel poverty: mainly linked to inability to achieve the necessary level of fuel use for heating homes (i.e., if the household were to spend on the necessary fuel, then it would fall below the poverty line).	Currently only using the EU-SILC indicator for share of population unable to keep the home adequately warm. Proposals to include subjective feedback from consumers through household budgetary surveys and compare energy consumption across sectors.
Slovakia	Energy poverty is defined as a condition when average monthly household expenditures for the consumption of electricity, gas and heat, represent a significant share of the average monthly household income.	According to the Concept for the protection of consumers fulfilling conditions of energy poverty, issued by the Regulatory Office, the Statistical Office provides information on average monthly household expenditure for energy consumption and household income. A household can be considered as energy poor if disposable monthly income is lower than the minimum monthly disposable household income threshold. The threshold is published on the website of the Ministry of Labour, Social Affairs and Family of the Slovak Republic, the Regulatory Office for Network Industries and on message boards of labour, social affairs and families, municipalities and municipal authorities.

Definitions of energy/fuel poverty used in EU-wide research initiatives and other projects

Institutions	Definitions
ACHIEVE	Fuel poverty. A fuel poor household is one that has a perceived difficulty or sometimes inability, to be able to afford its basic energy needs. Households in fuel poverty have energy costs, which are excessive, compared to overall household income.
BPIE	Fuel poverty. Study discusses different definitions used, assessed the fuel poverty in the EU MS based on ESTAT-SILC proxies, but does not propose one specific definition or metric.
EC-LINC	Fuel poverty. A fuel poor household is one that cannot afford to keep adequately warm at reasonable cost, where acknowledgement is made that this definition may vary by country. This is generally defined as 21 degrees C in the living room and 18 degrees C in the other occupied rooms – the temperatures recommended by the World Health Organization.
ELIH-MED	Energy poverty. Although this has a focus on low-income housing so no specific definition is provided.
Energy Cities	Fuel poverty. Described as a result of a variety of factors causing people to live in badly heated homes and include " low income, high fuel cost, poor insulation, inefficient heating equipment, inability to manage budgets, personal choice of priorities, dependency on others and living in inappropriate or out of scale accommodation."
Energy City	Fuel Poverty. The inability to afford adequate energy services for the household.
EPEE	Fuel Poverty. A difficulty, or even incapacity to have proper heating in one's home, all this at a reasonable cost.
EU Fuel Poverty Network - Thomson and Snell	Fuel poverty. A term used to describe a situation when a household is unable to afford the most basic levels of energy for adequate heating, cooking, lighting and use of appliances in the home.
EVALUATE	Energy poverty. Defined as the inability to secure a socially- and materially-necessitated level of domestic energy services (heating, lighting, cooling, and so on); Energy vulnerability can be seen as the propensity of a household to suffer from a lack of adequate energy services in the home. Energy vulnerability can be seen as the propensity of a household to suffer from a lack of adequate energy services in the home.
FinSH	Energy or 'fuel' poverty. A term used to describe the situation a household finds itself in when it is not able to afford the energy bills for its everyday needs, such as heating, lighting and hot water.
S&D Group (Socialist and Democrats) in the European Parliament – Fighting Energy Poverty S&D Manifesto	Energy poverty is the inability of a household to support an adequate level of energy supply so as to guarantee basic levels of comfort and health, due to a combination of low income, high-energy prices and low quality, poor performing housing stock.

Annex II – Good practices mitigating and tackling energy poverty

Category	Description
Financial measures	Earmarked subsidies i.e. partial or full payments of market priced energy bills
	General (non-earmarked) social support
	Targeted Social tariffs i.e.: regulated prices limited to a well-defined group
Consumer protection	Safeguards against disconnections (registry of vulnerable consumers which cannot be disconnected, disconnection moratorium during winter; active customer engagement by the energy provider prior to disconnection; possibility of debt-restructuring; provision of Pay As You Go meters for the provision of a minimum amount of energy)
	Consumer complaints (alternative dispute resolution e. g. by the National Regulatory Authority, an Ombudsman or a consumer body)
	Awareness campaigns and information dissemination through a single point of contact (e. g. consumer information point, advice centre)
	Supplier of last resort designated according to competitive procedures
Market-centred	Impartial, verified price comparison tools
	Codes of good conduct for utilities agreed with the Energy Regulator.
	Retrofit grants, loans, or tax incentives
Energy efficiency measures for buildings	Minimum energy efficiency standards in the social, private and private rented sector
	Energy Company obligations to invest a share of energy efficiency investments in low-income and vulnerable households or deprived areas
	Grants for appliances

Annex III – Projects on the ground – Intelligent Energy Europe and H2020 projects

Name	Dates / Countries	Aim
SMART-UP	01/03/2015 - 28/02/2018 France, UK, Spain, Malta, Italy	The action aims at encouraging the active use of Smart meters and In-House Displays by vulnerable consumers, engaging 5.000 vulnerable households in 5 countries. A strong and credible engagement strategy is foreseen, by training specific stakeholders that are in close contact with vulnerable households. (http://smartup-project.eu/)
REACH	1/3/2014 – 1/3/2017 Slovenia, Bulgaria, Croatia, Macedonia	The project aims to contribute to fuel poverty abatement at the practical and structural level by empowering fuel poor households to take actions to save energy and change their habits, and by establishing fuel poverty as an issue that demands structural solutions at local, national and EU level. REACH will engage vocational school teachers and students to deliver energy advice to 1600 fuel poor households. (http://reach-energy.eu/)
ACHIEVE	21/04/2011 - 20/04/2014 Bulgaria, France, Germany, Slovenia, UK	The aim of the project was to contribute to practical (energy uses and behaviours) and structural (retrofitting buildings) solutions for reduction of fuel poverty in Europe. In ACHIEVE, 150 long-term unemployed people, volunteers or students were mobilised and trained to develop a large-scale energy service towards low-income households. The service was based on home visits (around 2000) to check consumptions, install a set of free energy and water saving devices, give advice and analyse longer-term solutions. (http://www.achieve-project.eu)
EC-LINC	15/04/2011 - 14/02/2014 Austria, Belgium, Germany, Hungary, United Kingdom	The EC-LINC project provided tailored information and consultation approaches to assist low-income households in saving energy and water. No-cost or low-cost measures have been combined with an advice service through home visits. Small devices such as Compact fluorescent lamps and tap aerators have been provided for free. The project included training and qualification of unemployed or low-skilled people to be energy advisors. (http://www.ec-linc.info)