

European Energy Network



ANRE

(Romania)

European Energy Network (EnR)

Presidency & Secretariat 2017/2018

EnR Position Paper on

Energy Poverty in EUROPE and MS

- December 2017 -

EnR is a voluntary network currently numbering 24 national European energy management agencies. They mainly have responsibility for the planning, management or review of national research, development, demonstration or dissemination programmes in the fields of energy efficiency, renewable energy and climate change abatement. EnR member organizations are the main implementers of policies in their respective countries and, as a result, have a direct contact with stakeholders on a regular basis. In this sense, the network gathers information and experience from all backgrounds and acts as a two-way channel of communication between central policy makers and the citizens of Europe.



Romanian Energy Regulatory Authority (ANRE)

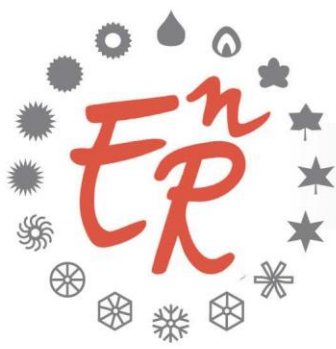
Energy Efficiency Department

Constantin Nacu no. 3, sector 2

Bucharest, Romania

www.anre.ro

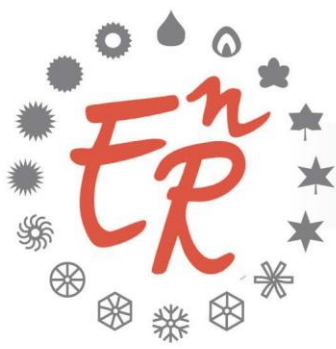
<http://enr-network.org/about-enr>



Contents

I. Introduction	3
II. The European Union actions referring to energy poverty	7
III. The European countries actions referring to vulnerable customers and energy poverty	12
IV. EnR Network proposals for addressing energy poverty at European and national level .	15
V. Bibliography	19

The content of this document does not necessarily reflect the opinion of all the European Energy Network Members



I. Introduction

The **Europe 2020** strategy puts forward three mutually reinforcing priorities to make the European Union a smarter, more sustainable and more inclusive economy. To measure progress in meeting the Europe 2020 goals, 5 headline target areas have been agreed for the EU as a whole:

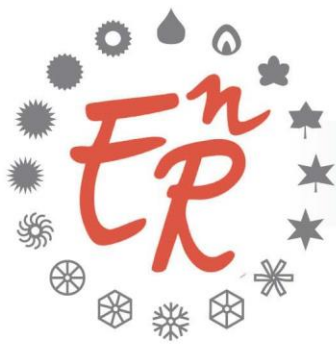
1. Employment
 - 75% of 20 to 64 year old men and women to be employed
2. R&D
 - 3% of GDP to be invested in the research and development (R&D) sector
3. **Climate change and energy sustainability**
 - Reduce greenhouse gas emissions by 20% compared to 1990 levels
 - Increase the share of renewables in final energy consumption to 20 %
 - 20% increase in energy efficiency
4. Education
 - Reduce the rates of early school leaving to below 10%
 - at least 40% of 30 to 34 year olds to have completed tertiary or equivalent education
5. Fighting **poverty and social exclusion**
 - Reduce poverty by lifting at least 20 million people out of the risk of poverty and social exclusion, thus reducing poverty from 116.4 million in 2008 to 96.4 million over the decade.

	Headline Indicator	Past situation	Current situation			2020 Target
		2008	2014	2015	2016	
Employment	Employment rate, total (% of the population aged 20-64)	70.3	69.2	70.1	71.1	75
R&D	Gross domestic expenditure on R&D (% of GDP)	1.84	2.04	2.03 ^P	:	3.00
Climate change & energy	Greenhouse gas emissions* (index 1990=100)	90.31	77.39	77.88	:	80
	Share of renewable energy in gross final energy consumption (%)	11.0	16.1	16.7	:	20
	Primary energy consumption (Million tonnes of oil equivalent)	1,692.4	1,508.3	1,529.6	:	1,483
	Final energy consumption (Million tonnes of oil equivalent)	1,179.7	1,059.6	1,082.2	:	1,086
Education	Early leavers from education & training, total (% of population aged 18-24)	14.7	11.2 ^b	11.0	10.7	<10.0
	Tertiary educational attainment, total (% of population aged 30-34)	31.1	37.9 ^b	38.7	39.1	≥40.0
Poverty or social exclusion**	People at risk of poverty or social exclusion (Cumulative difference from 2008 in thousands)	:	4759	1956	:	-20000

* Total emissions, including international aviation, but excluding emissions from land use, land use change and forestry.

** People at risk of poverty or social exclusion are in at least one of the following three conditions: at-risk-of-poverty after social transfers (income poverty), severely materially deprived or living in a household with very low work intensity. Persons are only counted once even if they are present in several sub-indicators. The overall EU target is to lift at least 20 million people out of risk of poverty or social exclusion by 2020 with 2008 as a baseline year. All data refer to EU27.

e estimate p provisional b break in time series : Data not available



Fighting **poverty or social exclusion** is a key political priority for the **European Commission** but, as stated in the European Semester Thematic Factsheet from 16.11.2016, regarding Social Inclusion, “in the aftermath of the global financial and economic crisis however, **Europe has drifted away from achieving its poverty target**. Making further progress requires renewed efforts for poverty reduction at European and Member state levels.”

In numbers, 118.7 million people or 23.7 % of the population in the EU-28 were at risk of poverty or social exclusion (AROPE) in **2015**, compared with 24.4 % in 2014. This means that these people were at least in one of the following conditions:

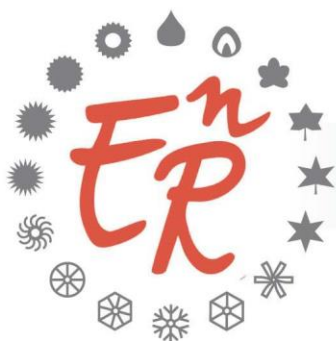
- at-risk-of-poverty after social transfers (income poverty);
- severely materially deprived or
- living in households with very low work intensity.

Particularly, more than a third of the population was at risk of **poverty** or social exclusion in three EU Member States: Bulgaria (41.3 %), Romania (37.3 %) and Greece (35.7 %). At the other end of the scale, the lowest shares of persons being at risk of poverty or social exclusion were recorded in Finland (16.8 %), the Netherlands (16.4 %), Sweden (16.0 %), and the Czech Republic (14.0 %).

People at risk of poverty or social exclusion 2008 and 2015

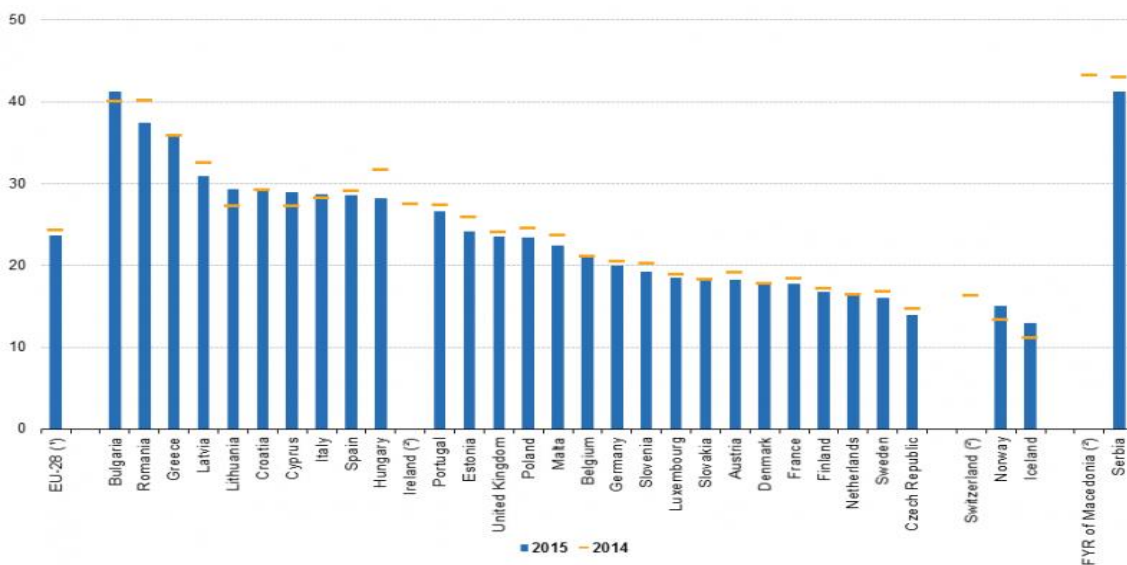
	% of total population		in thousands	
	2008	2015	2008	2015
EU*	23.7	23.7	115,908	118,759
Austria	20.6	18.3	1,699	1,551
Belgium	20.8	21.1	2,194	2,336
Bulgaria	44.8	41.3	3,421	2,982
Croatia	:	:	:	:
Cyprus	23.3	28.9	181	244
Czech Republik	15.3	14	1,566	1,444
Denmark	16.3	17.7	887	999
Estonia	21.8	24.2	291	315
Finland	17.4	16.8	910	904
France	18.5	17.7	11,150	11,048
Germany	20.1	20	16,345	16,083
Greece	28.1	35.7	3,046	3,829
Hungary	28.2	28.2	2,794	2,735
Ireland	23.7	0	1,050	0
Italy	25.5	28.7	15,082	17,469
Latvia	34.2	30.9	740	606
Lithuania	28.3	29.3	910	857
Luxembourg	15.5	18.5	72	95
Malta	20.1	22.4	81	94
Netherlands	14.9	16.8	2,432	2,813
Poland	30.5	23.4	11,491	8,761
Portugal	26	26.6	2,757	2,765
Romania	44.2	37.3	9,115	7,428
Slovakia	20.6	18.4	1,111	963
Slovenia	18.5	19.2	361	385
Spain	23.8	28.6	10,786	13,175
Sweden	14.9	16	1,367	1,555
United Kingdom	23.2	23.5	14,069	15,028

* Data for 2008 exclude HR, data for 2015 are estimated
: Data not available
Source: Eurostat, (ilc_peps01)



European Energy Network

At-risk-of poverty or social exclusion rate, 2014 and 2015 – Eurostat



(*) 2015: estimate.
 (†) 2015: not available

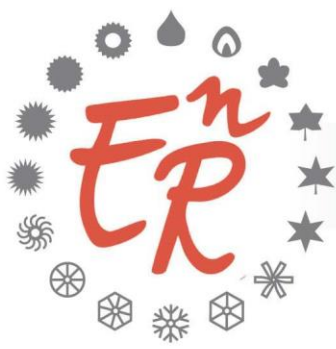
In 2014, the lowest-income households in the EU spent close to 9% of their total expenditure on energy.

Share of energy growing in low-income household* budgets in the EU in 2014



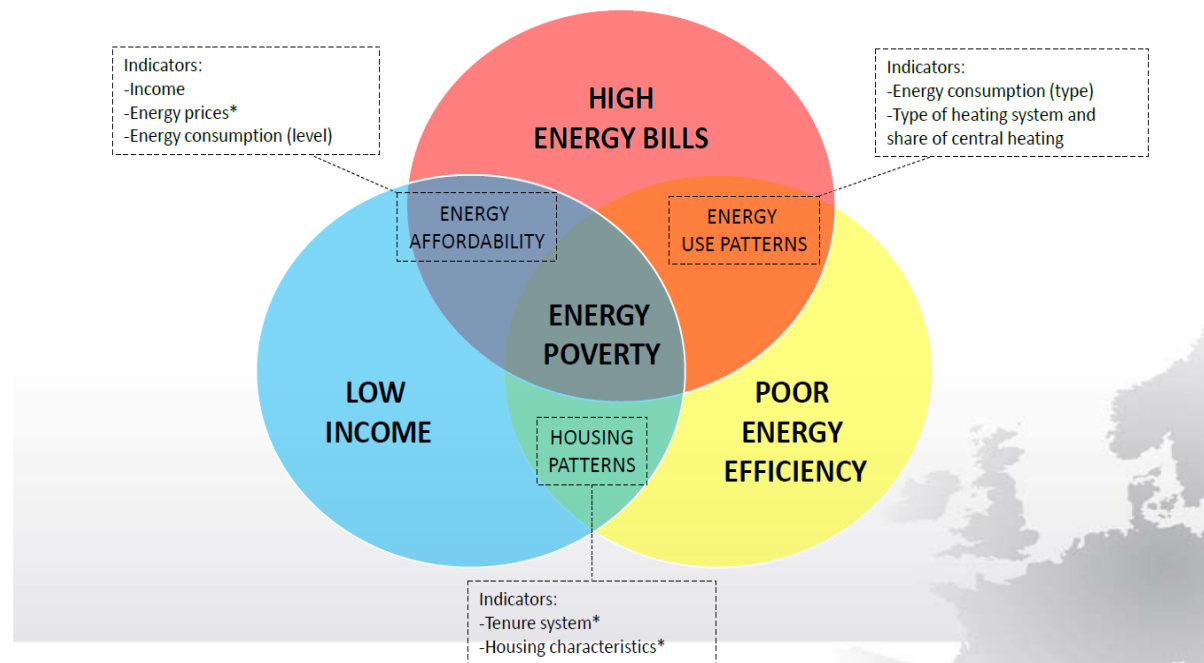
* the poorest 20% of all households

Source: Working Paper on Energy Poverty – DG ENER Presentation



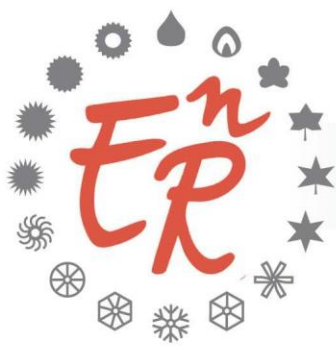
The Insight_E Study from May 2015 on the state of **energy poverty**, published by the European Commission, shows that approximately 54 million European citizens are in a situation where they are not able to adequately heat their homes at an affordable cost. **Energy poverty, often defined as a situation where individuals or households are not able to adequately heat or provide other required energy services in their homes at affordable cost, is a problem across many Member States. This is due to rising energy prices, recessionary impacts on national and regional economies, and poor energy efficient homes.**

Drivers of energy poverty - Insight Report 2015

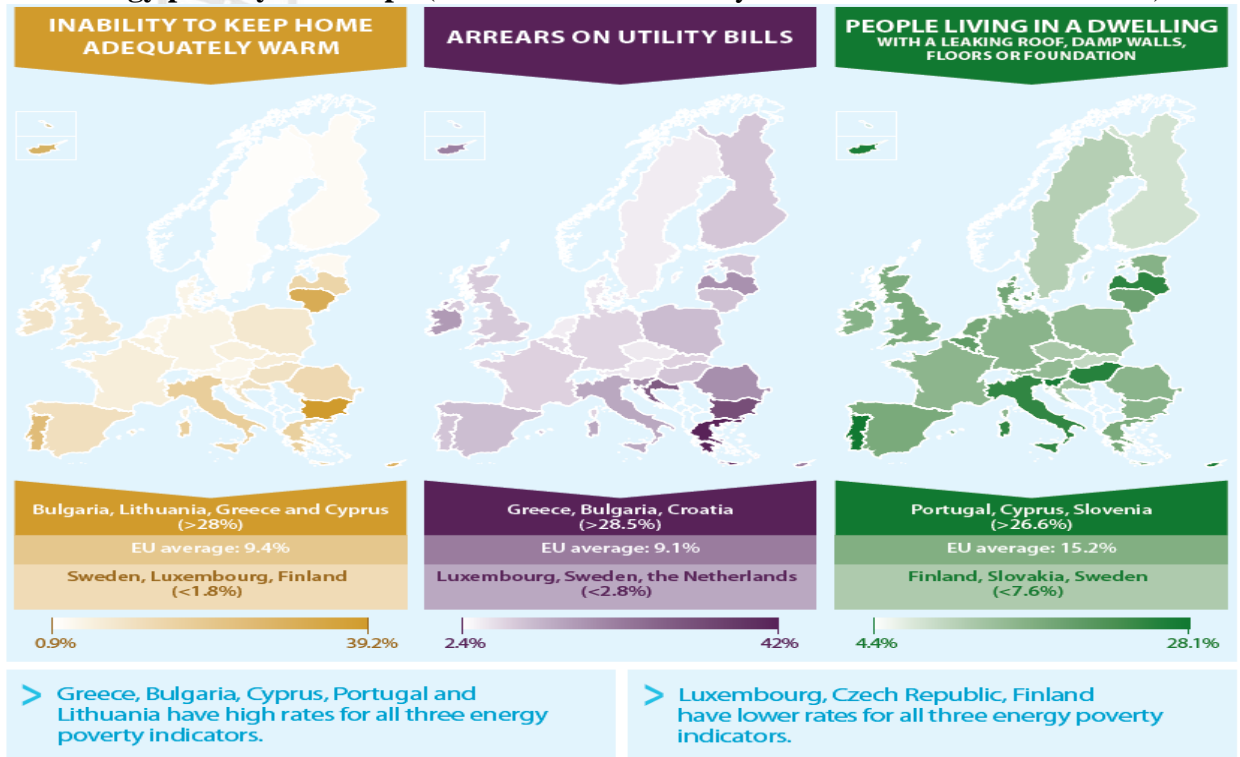


In the absence of a shared and agreed definition (and common data source) across the EU, the occurrence/prevalence of **energy poverty** is measured using three separate **proxy indicators for energy poverty** in residential buildings from the EU-database. These are :

- arrears on utility bills
- presence of leaks, damp, rot
- ability to keep home adequately warm



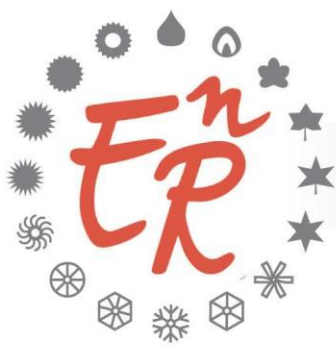
Energy poverty in Europe (Source: BPIE own analysis based on 2015 Eurostat data)



II. The European Union actions referring to energy poverty

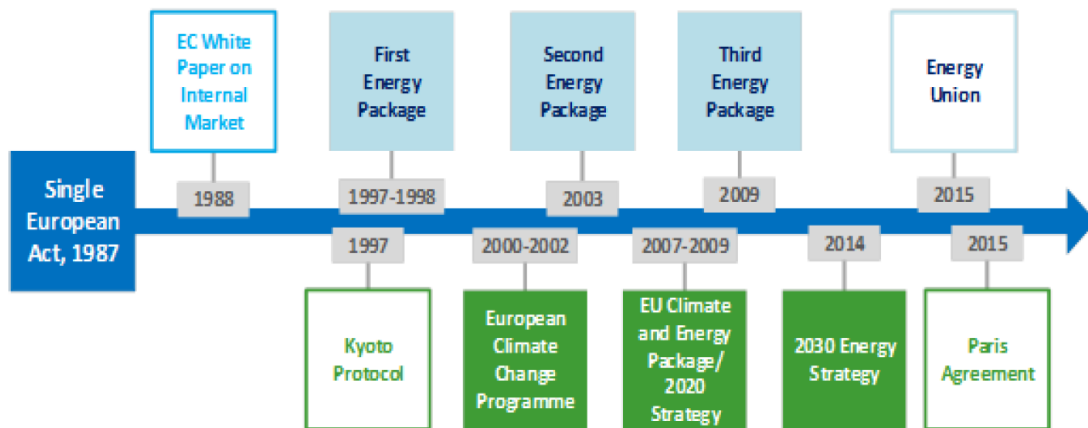
In 2007 the EU put forward some specific energy targets for 2020 which were enacted in legislation in 2009. Through these targets, the EU aims to reduce its greenhouse gas emissions by at least 20 %, increase the share of renewable energy to at least 20 % of consumption, and achieve energy savings of 20% or more.

Furthermore, the 2030 European strategy sets three key targets: at least a 40 % reduction in greenhouse gas emissions as compared to 1990; at least a 27 % share for renewable energy consumed in the EU; and, at least a 30 % improvement of energy efficiency. Also, one of the main objectives of our Clean Energy for all Europeans package was to implement *the energy efficiency first principle*. As European Commission mentioned, the cheapest energy is the one that we do not consume, *Energy efficiency* should be considered as a source of energy in itself being endless and available everywhere.



European Energy Network

Figure 1: Major milestones in EU energy and climate policy

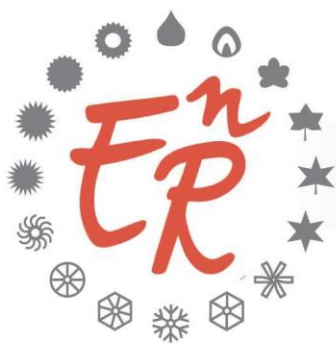


Source: Report for DG ENERGY 29.03.2017-Specific contract No ENER/C3/SER/2015-659/SI2.729305/2015-665/SI2.731474 implementing Framework contract No ENER/C3/2013-484-Ricardo-AEA Ltd

The *Clean Energy Package* from November 2016 called for **an official definition of energy poverty** and the Member States will have to monitor and report on energy poverty while the Commission will facilitate the exchange of best practices and coordinate these monitoring efforts at EU level, as part of the Energy Union Governance process. However, Member States will have to monitor and report on **energy poverty**, while the Commission has published a call for tender to establish an **Observatory on Energy Poverty** by the end of 2017 that will monitor the European situation, as well as provide technical assistance.

The European Energy Poverty Observatory is a 40 month project funded by the European Commission, starting from December 2016, aimed at engendering transformational change in knowledge about the extent of energy poverty in Europe, and measures to combat it. The EPOV project is implemented by a consortium of 13 organisations (leader - University of Manchester), including universities, advocacy groups, think tanks, and the business sector.

The 9th meeting Conclusion of the Citizens' Energy Forum London from 30-31 May 2017 recommended that energy poverty be addressed primarily through targeted measures such as energy efficiency of buildings and appliances (eco-design), in addition to social policy and safeguards against disconnection, avoiding interfering in the market. Also, invited Member States to ensure that Obligation Schemes and Alternative Measures under the Energy Efficiency Directive improve the housing stock of all consumers and especially the energypoor.



Understanding energy poverty



Energy poverty – subset of consumer vulnerability and general poverty. Specific problem where energy and social policies meet.

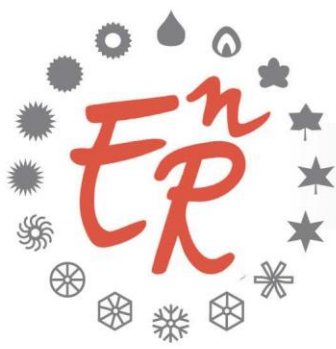
How to address energy poverty? First one step back to

1. Agree on a generic concept ↴
2. Measure the level of energy poverty ↴
3. Set up targeted policies to tackle it and measure their effectiveness

The Energy Efficiency Directive (EED), the Energy Performance of Buildings Directive (EPBD) and the internal market legislation for electricity and gas can be instrumental in the fight against **energy poverty** by addressing parts of the causes of the problem.

According to both the Electricity (72/2009/EC) and the Gas (73/2009/EC) Directives, each MS should define the concept of **vulnerable consumers**, which may refer to **energy poverty** and to the prohibition of disconnection of energy to such consumers in critical times. 24 MSs have opted for different definitions of the concept of vulnerable consumers.

Also, the EED can support the alleviation of **energy poverty** by addressing the energy performance of buildings and appliances (Art. 5(7)) and awareness among consumers (Art. 12 and 17(4)) by recommending easy-to-implement saving measures and providing information on consumption and tariff comparison as well as by targeting measures to energy poor households, for instance in the energy supplier obligation schemes (Art. 7(7)). Article 2a of the Energy Performance of Buildings Directive (EPBD) should require Member States to establish specific measures and financing instruments in their renovation strategies to decrease energy demand and contribute to the alleviation of **energy poverty**.



Drivers of vulnerability - DG ENER, EC (*BPIE Study Alleviating fuel poverty in the EU*)

Social and natural context

State of economy
Climate

Market conditions

Energy process
Level of competition

Individual circumstances

Income level
Health/disability

Education
Access to information

Living conditions

Under occupancy
Energy performance of the building
Heating system



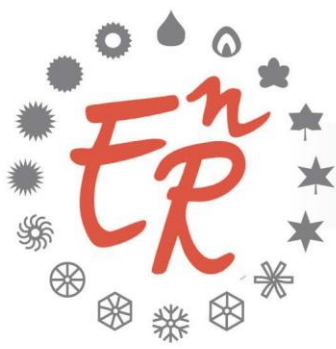
The buildings sector accounts for 40% of Europe's energy consumption, and some two-thirds of European buildings were built before energy performance standards even existed.

The European Commission has launched a new database on the EU's building stock to monitor the energy performance of buildings across Europe. The database – called the EU Building Stock Observatory – provides information on buildings' characteristics including their construction period, energy use, onsite renewable energy and renovation rates.

The Observatory tracks energy performance levels in buildings in individual EU countries and the EU as a whole; different energy certification schemes and how they are implemented; **and energy poverty levels across the EU.**

The European Commission's proposal amending the Energy Efficiency Directive (Articles 7a, 7b) is meant to strengthen the social dimension of energy efficiency and prioritise, under the energy efficiency obligation scheme and alternative policy measures, energy efficiency measures in households affected by **energy poverty.**

An ambitious energy efficiency policy will lift millions of people out of **energy poverty** and make homes more comfortable. At the same time, an '**energy efficiency first**' principle should be applied in all decision-making. So where energy efficiency improvements (including improvements such as in-door air quality, health, productivity etc.) are the most cost-effective options, these should be prioritised over investments in additional inefficient generation, transmission and distribution capacity.



Recommendations



1. A generic, simple and flexible **definition** of energy poverty centring around **low-income; affordability; adequate domestic energy services.**



2. Comparable **indicators** taking account of **energy expenditure** and **household income.**



3. Better data on **houses** and **households**



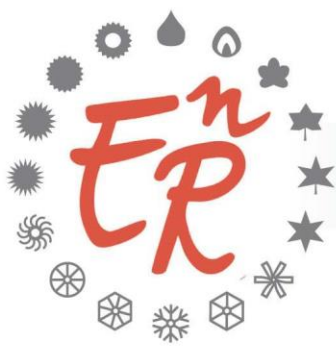
4. Combination of **policies**

Targeted & Effective	
Financial measures	Social policy ,Energy efficiency
Safeguards against disconnection	Consumer protection

The Council of the EU agreed on 26 June 2017 on a revised directive on energy efficiency for an overall EU energy efficiency target of 30%. Increasing energy efficiency will benefit the environment, reduce greenhouse gas emissions, improve energy security, cut energy costs for households and companies, help alleviate **energy poverty** and contribute to growth and jobs.

The European Commission has published a study examining how low-cost energy efficiency measures can help low-income households. As a result of high energy prices, low incomes or poor housing conditions, many Europeans have difficulties paying their energy bills, and are therefore in 'energy poverty'. One way of dealing with **energy poverty** is to promote the use of energy efficiency measures, because saving energy results in lower bills for consumers.

The study looks at 24 schemes in different countries that are helping people on low incomes make use of low-cost energy efficiency measures. For example, these schemes work better if they involve collaboration with local health and social services, and it is important for them to ensure that people in low-income households understand how being more energy efficient can help them in practical ways.

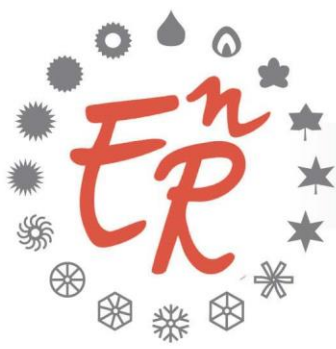


III. The European countries actions referring to vulnerable customers and energy poverty

Table 1: Measures to protect vulnerable customers in the EU (2014)

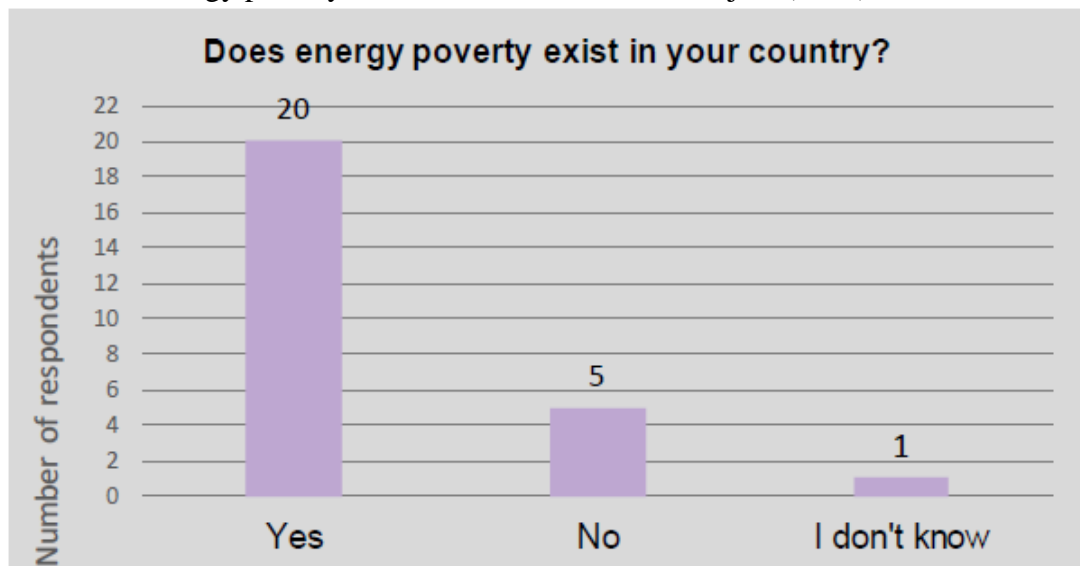
Measures	Applicability	
	electricity	Natural gas
Limitations on disconnections for nonpayment	AT, CY, GR, FR, GB, HU, IE, IT, LU, LT, NL, RO , SI, SE	AT, BG, GR, FR, GB, HU, IE, IT, LU, NL, RO , SI, SE
Special prices of energy for vulnerable consumers (the so-called social tariffs)	BE, CY, GR, ES, FR, GB, PT, RO	BE, FR, GB, PT
Exemptions from certain components of the invoice (e.g.: the cost of the actual energy, network fees, taxes, etc.)	GR, IE	IE
Additional social benefits, unallocated, for the payment of energy bills	AT, CZ, DE, FR, HU, NO, SE	AT, CZ, DE, FR, HU, NL, SE
Social benefits exclusively pre-allocated for the payment of outstanding expenses with energy.	AT, DE, FI, GB, HU, IE, NO, PL, SE	AT, DE, FI, GB, HU, IE, PL, SE
Free counseling on the ways to save energy	AT, FR, HU	AT, FR, HU
Free replacement of energy-inefficient appliances	FR	BE, FR
Financial grants for replacing inefficient appliances	AT, CY, FR	AT, FR
The right to postpone payment	CT, FR, HU, LT	FR, HU
Other	AT, DK, GR, HU, IE, LT, MT	AT, DK, HU, IT, LT, SI

Source: The database on national indicators of CEER (2015)



Energy poverty, where a household cannot afford to heat or cool its dwelling due to a combination of low income, poor energy performance of the dwelling and high energy prices, is, according to a CA EED European Project survey to which 26 MS responded, affecting a majority of EU Member States.

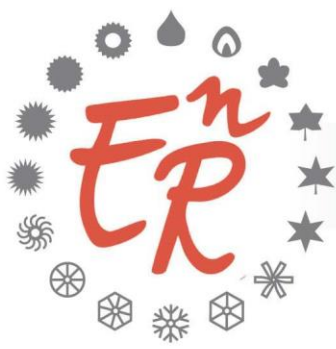
Energy poverty within the EU – CA EED Project (2016)



According to a questionnaire in 2016, all Member States except Finland, Malta, Norway, Sweden and the Netherlands are affected by energy poverty. The number of energy poor households is alarming in some countries. Lithuania estimates that around 20% of its population is energy poor, in Croatia the estimate is as high as 30%. The inability to adequately heat their homes can have a wide range of other significant impacts on the lives of the energy poor such as on health, wellbeing and social inclusion. UK has estimated that energy poverty causes several thousand excess winter deaths every year and has also identified important implications of the social nature, such as children in cold homes struggling to do their homework.

The number of energy poor households/people is estimated in different ways from one country to another. This shows that there is no common understanding of **energy poverty** across the EU and most countries do not make a clear distinction between energy poor households and vulnerable consumers. To understand the extent and depth of the problem of affordability of energy services better indicators are needed. The final report “Selecting Indicators to Measure Energy Poverty under the Pilot Project ‘Energy Poverty – Assessment of the Impact of the Crisis and Review of Existing and Possible New Measures in the Member States’” recommends four key indicators to measure the number of households in energy poverty. These indicators are tested and computed for the Netherlands, Slovakia, Spain and Italy using currently available data.

Tackling **energy poverty** is clearly defined responsibility in most countries, although it is spread over several actors at a national, regional and local level.

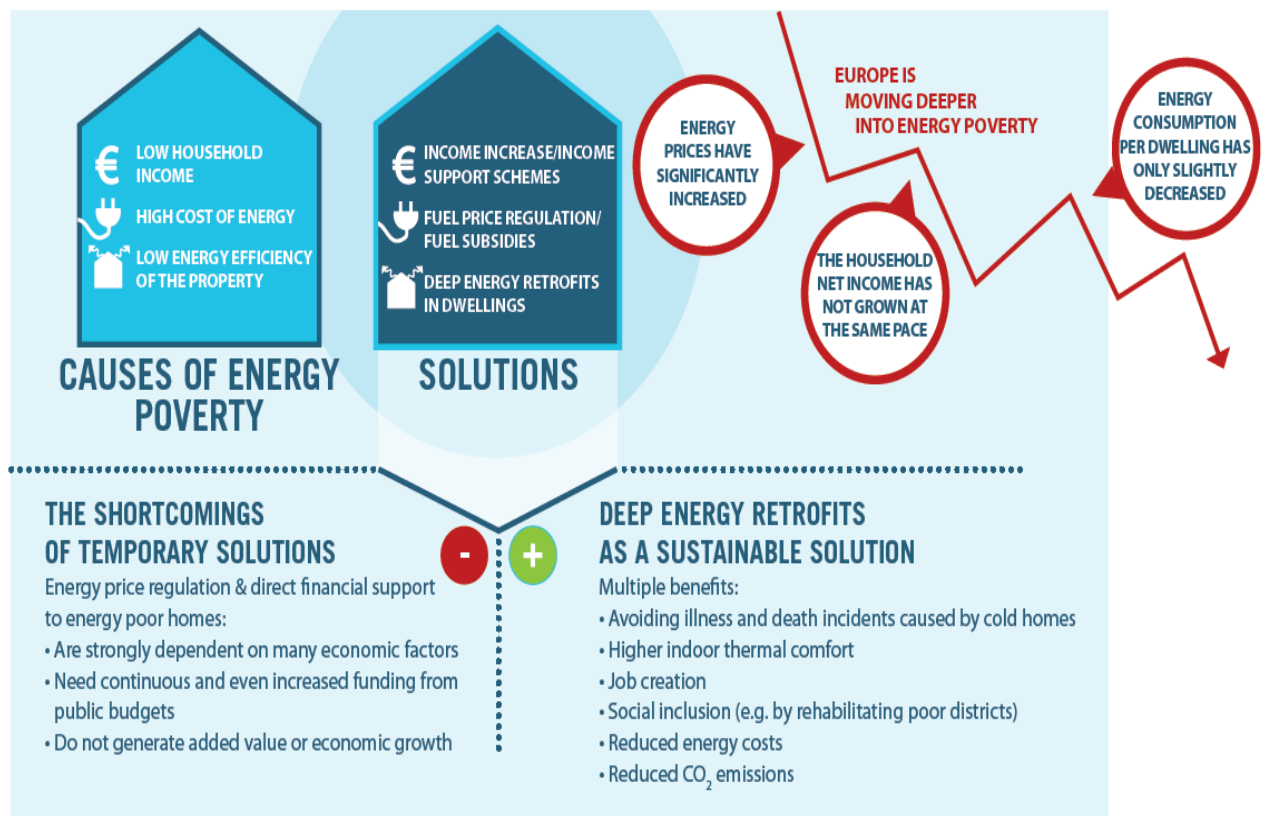


European Energy Network

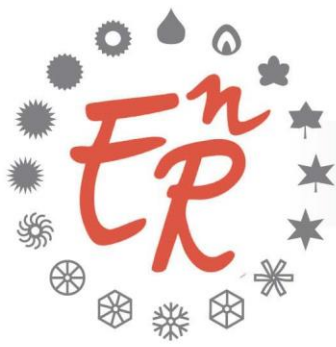
European legislation such as the Energy Efficiency Directive, the Energy Performance of Buildings Directive and the internal market legislation for electricity and gas can be instrumental in the fight against energy poverty by addressing parts of the causes of the problem.

Deep energy renovation of the homes of the energy poor is a long-lasting and sustainable solution to **energy poverty** - addressing the root of the problem and increasing the warmth of homes, lowering energy bills, and improving the quality of the dwelling, at the same time as increasing renovation rates and meeting the Paris commitment. Their long-term building renovation strategies should also contribute to the alleviation of **energy poverty**.

Fig. 5 Possible solutions and their bottlenecks (Source: BPIE own analysis)

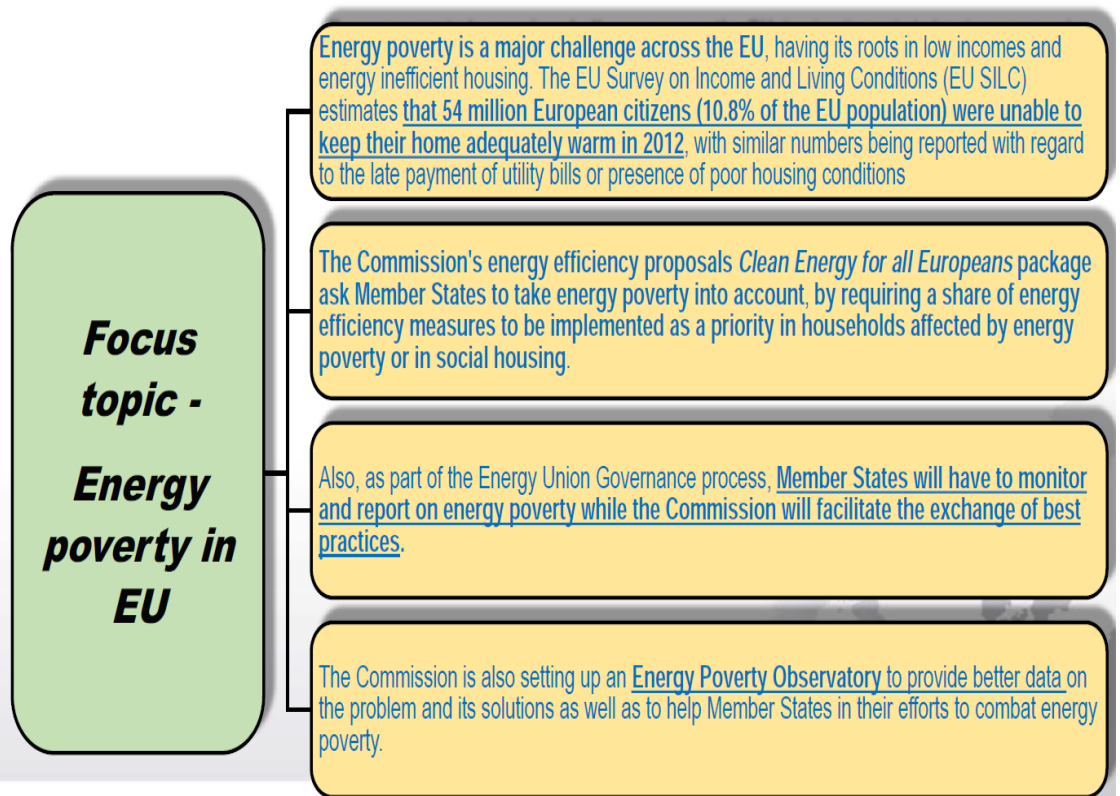


Also, the 2017 Eurelectric Position Paper mentioned that collecting data on **energy poverty** at EU level and exchanging best practices - as done in the Citizens' Energy Forum and European Commission's Working Group on Vulnerable Consumers - is useful and should be continued.



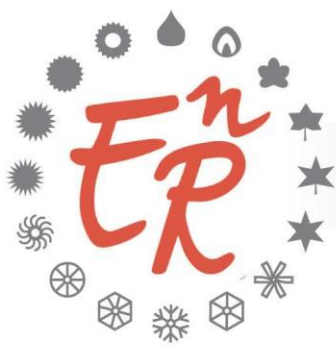
IV. EnR Network proposals for addressing energy poverty at European and national level

During the EnR Network Presidency, the ANRE focus topic for 2017 identified relevant approaches and best practices of the EnR members and European partners for addressing energy poverty, in order to ensure for consumers consistent access to clean and affordable energy by promoting the use of energy efficiency measures and will be further developed during the ENEA Presidency 2018/2019 in the context of the Clean Energy package approval by the European co-legislators.



During the 2017 ANRE Presidency of EnR Network the measures against energy poverty currently implemented in Member States were proactively discussed to the **EnR Regular Meeting M61 from Bucharest in June 2017** and **EnR Thinking Group Meeting from Salzburg in September 2017** being available on the ANRE and EnR network websites.

<http://enr-network.org/events/?date1=2017>



The role for energy agencies in tackling energy poverty (EnR Energy Efficiency Working Group)

As principal implementing partners for government energy policies – particularly in the household sector – national energy agencies have a leading role to play in supporting a greater European focus on the problem of energy poverty. At the centre of that work is our advice services: in most cases national energy agencies are funded by governments to advise households who want to reduce their energy bills. But energy agencies also tackle energy poverty by our wider services to address market barriers to the rapid adoption of a smart, decentralised and decarbonised energy system.

Advice services

In many cases, energy agencies are the official, first point of advice for householders who are struggling with their energy bill – we speak directly with millions of energy poor households across Europe each year.

Energy poverty is traditionally understood as an issue with three principal causes (see p. x): poor home energy efficiency; unaffordable energy prices; and low incomes. Energy agencies role is particularly to help households understand the benefits of energy efficiency improvements and where they can access the financial support to help pay for these.

Increasingly, energy agencies have a role in addressing the second cause of energy poverty, supporting households access lower energy bills. We do this by advising households on renewable energy measures (which generate “free” energy for households). Energy agencies may also support households with advice on how to get onto the energy tariff that is right for them.

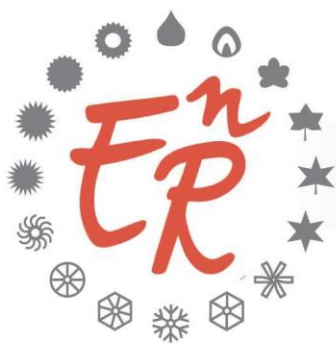
Energy agencies also play a role in helping households maximise their income. Where relevant, when dealing with people who are worried about their energy bills, some national energy agencies refer clients to help to ensure they are claiming all the social welfare benefits they are entitled to.

Though not considered within the traditional “fuel poverty triangle” energy using behaviours are also a major determinant of the affordability of energy services for households. Helping people use appliances and heating in the best way is a major part of our advice services. And, increasingly, we are helping households to access smart energy services, which will help them see and manage their energy demand, or even to choose to use energy at a time when it is cheapest (noting the growing prevalence of time of use tariffs as the smart energy system evolves).

Other areas of energy agencies work relevant to energy poverty alleviation

Targeting programmes to alleviate energy poverty

Energy agencies work closely with governments at national, regional and local level to develop and deliver policies to promote energy efficiency and renewable energy. Increasingly, governments are seeking to target those programmes at households who are facing energy poverty. But finding households in most need of help is not always easy: people living in energy poverty may be struggling with wider vulnerability and may be less likely to come forward for support. People also do not self-identify as “in energy poverty”: they may not realise that struggling on a low income in a cold home (for example) means they are eligible for support.



Supporting the effective targeting of households in energy poverty is therefore an increasingly important part of energy agencies' work. Many of us are in a strong position to do that. To give one example, very often national energy agencies manage energy performance certificate databases on behalf of national governments. EPC databases provide a rich, address level source of information about the energy efficiency of homes. This data can be combined with socio-demographic data to create a picture of the communities and even individual homes where energy poverty is likely to be prevalent. While the management of data privacy is vital in this work, the recent project Request2Action, delivered by EnR members, showed how national energy agencies are increasingly using these sort of approaches to help governments contact and promote support for energy efficiency to the households who most urgently need it.

Working with social and public sector housing providers

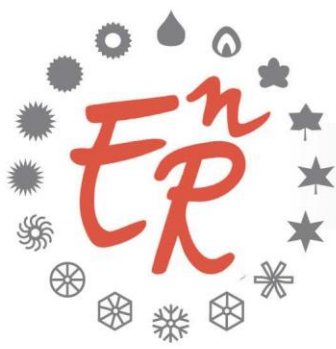
People on low incomes, and therefore who are particularly susceptible to energy poverty, are more likely to live in social and public housing. Energy Agencies have a long history of collaborating with housing providers to install energy efficiency and renewable energy measures – for example by helping the housing providers access relevant European structural funding. But, for social housing providers, making building improvements is only part of the picture. Energy agencies have developed and deliver programmes to support social housing providers to work with their tenants, who need to be able to actually understand and use (for example) new heating technologies.

Developing new technologies and energy services

Millions of energy poor households across Europe are missing basic energy efficiency measures. Energy agencies play a key role in reaching and supporting those households to improve their property with basic insulation measures and improvements to heating systems. But the newest energy technologies and energy service may play an increasingly important role making energy services more affordable for energy poor households.

By supporting the development of programmes to roll out renewable energy at scale (for example through group procurement programmes) we make these measures more affordable. Energy services is also an area of work for many energy agencies. The promotion of ESCO services, for example, is an important area of work. The challenge for ESCO models in energy poor setting is that the delivered energy efficiency improvements need to allow for some additional energy use as energy poor households use additional energy services, as well as delivering lower energy bills and repayments to the ESCO company. Fuel poor households also have less access to upfront financing. This makes the financing challenge greater and the role of energy agencies more important to support the effective structuring of ESCO projects and to ensure that public sector financing is effectively deployed.

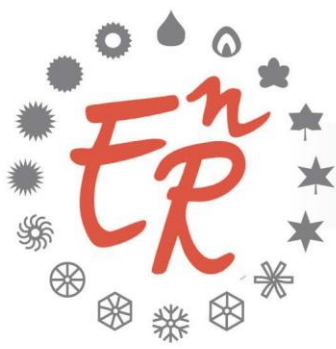
Energy agencies support trials and pilots to assess how new energy technologies and services actually work in homes. Increasingly, we are working to carry out those pilots and trials in the homes of households likely to be in energy poverty: seeking to understand how different low income households use the new technologies. There is then a focus on supporting technology providers to develop controls and functionality that best enable households to maximise the control over energy they have in their home.



✚ EnR Network 2017 proposals :

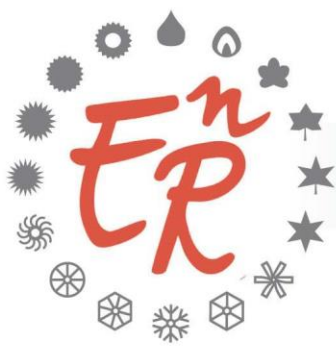
- **Official harmonized definition of energy poverty at EU level** mentioned in the Clean Energy Package provisions and criteria to measure energy poverty, to monitor the number of households in energy poverty and to report on both the evolution of energy poverty and abatement measures every two years to the EU Energy Poverty Observatory;
- EU methodology for developing the **National Action Plan for energy poverty** as part of the Energy Union governance Regulation proposal in order to integrate the provisions of the EED proposal to take **energy poverty** into account, by requiring a share of energy efficiency measures to be implemented as a priority in households affected by energy poverty or in social housing;
- Prioritized Energy efficiency programs allocation at European and national level for drafting and updating the **National Action Plan for energy poverty** by addressing the energy performance of buildings and appliances and the awareness among energy consumers for energy efficiency (grants, state aids, structural funds, subsidies, etc.)

*The content of this document does not necessarily reflect the opinion of all the
European Energy Network Members*



V. Bibliography

- **Insight_E Study *Energy poverty and vulnerable consumers in the energy sector across the EU: analysis of policies and measures***
http://ec.europa.eu/energy/sites/ener/files/documents/INSIGHT_E_Energy%20Poverty-Main%20Report.pdf
- **Selecting Indicators to Measure Energy Poverty Study** under the Pilot Project '*Energy Poverty – Assessment of the Impact of the Crisis and Review of Existing and Possible New Measures in the Member States Framework Contract ENER/A4/516-2014*.
<https://ec.europa.eu/energy/sites/ener/files/documents/Selecting%20Indicators%20to%20Measure%20Energy%20Poverty.pdf>
- **Concerted Action EED European Project - 2016 Presentations on Energy Poverty**
<http://ca-eed.eu/themes/consumer-information-ct6>
- **Feasibility study to finance low cost energy efficiency measures in low-income households from EU funds**
https://ec.europa.eu/energy/sites/ener/files/documents/low_cost_energy_efficiency_measures_-_final_report.pdf
- **EU Building Stock Observatory**
<https://ec.europa.eu/energy/en/news/commission-launches-new-database-energy-performance-buildings>
- ***Lower energy consumption, lower energy bills – the European consumer organisation BEUC recommendations to make energy efficiency policy work better for consumers***
http://www.beuc.eu/publications/beuc-x-2017-029_lower_energy_consumption_lower_energy_bills.pdf
- ***BPIE - REDUCING ENERGY POVERTY WITH NATIONAL RENOVATION STRATEGIES: A UNIQUE OPPORTUNITY***
<http://bpie.eu/wp-content/uploads/2016/11/energypovertyhandbook-online.pdf>
- ***The Macroeconomic and Other Benefits of Energy Efficiency – EC Final Report***
https://ec.europa.eu/energy/sites/ener/files/documents/final_report_v4_final.pdf
- ***How to end Energy Poverty? Scrutiny of Current EU and Member States Instruments – European Parliament***
<http://www.europarl.europa.eu/studies>



European Energy Network

- ***Energy Efficiency – national priority for reducing energy poverty, increasing life quality and safety of energy consumers” Study***

Romanian language <http://www.anre.ro/ro/eficienta-energetica/informatii-de-interes-public/info-eficienta-energetica1386850500>

English language <http://ca-eed.eu/country-information/romania>