



Deliverable 2.1. Review of public policies and interventions to reduce energy poverty

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WP2 - Definition of the urban programme framework and adaptation

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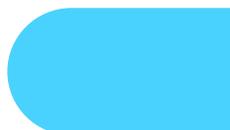


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List of acronyms

- COP – Conference of Parties
- CoM – Covenant of Mayors
- CoR – Committee of Regions
- D2.1 – Deliverable 2.1
- EAP – Energy Advice Programme
- EC – European Commission
- EE – Energy Efficiency
- EP – Energy Poverty
- EPOV – Energy Poverty Observatory
- EESC – European Economic and Social Committee
- EU – European Union
- GPD – Gross Domestic Product
- H2020 – Horizon 2020
- LNV – Las Naves
- MS – Member State
- NHS – National Health System
- NECP – National Energy and Climate Plans
- RUE – Rational Use of Energy
- SDG – Sustainable Development Goals
- UN – United Nations
- WHO – World Health Organization
- WP – Work Package



Executive summary

The Deliverable 2.1 (D2.1) proposes a comparative analysis of public policies on energy poverty carried out across Europe to establish a basis for the next stages of the Wellbased project, that addresses the consequences of energy deprivation on health and wellbeing.

Firstly, we introduce our approach to the energy poverty phenomenon and its dimensions, focusing mainly on its impact on health.

Secondly, we review the strategies to face this challenge implemented by the different European communities based on their conceptions of wellbeing, poverty and social support systems.. We compile the ongoing initiatives in each different Welfare State's model so as to give some insights about the common trends shared in each group of European countries. We found two contrasting models for addressing EP situations among member states: with support for households coming either from the general system of care for vulnerable households, or through measures that are associated with specific planning in this area. Following Esping Andersen classification, Nordic Social-Democratic States and some Conservative Welfare model countries such as Germany and Netherlands, take the first approach; while Liberal Welfare States, Mediterranean countries and the rest of the Conservative models such as France and Belgium take the second.

Thirdly, we focus on more specific actions and interventions to eliminate energy poverty that serve as a guide to Wellbased project. Some examples of interventions targeting EP are personalised household support against EP (energy audits, aid for energy bills, installations and appliances...) or obligations for energy supply companies such as information and transparency standards or the ban of energy disconnection during the winter. To identify their level of success and to tackle their potential for adaptation and replicability we proceed to classify the different actions under the logic of the socio-ecological theoretical frame. As a result of this research, we select different initiatives that provide examples of good practice and that would serve as evidence-based references for the intervention in the Wellbased pilot cities. We hope these sources will help inspire pilot cities to design an adequate urban programme in the following stages of the project.

Deliverable Keywords

Energy poverty; health; urban policy; public policy; energy efficiency; Energy Poverty Observatory; Welfare State Model; Social Determinants of Health



1. Introduction

The present deliverable is the result of the first task of **Work Package 2 “Definition of the urban framework & adaptation”**. This research is promoted by Las Naves (LNV) alongside with the key contributions of the project partners and pilot partners. The Deliverable 2.1 (D2.1) is a report type that analyses the general framework of the different policies and urban programmes across Europe to establish a solid basis for the next tasks and stages of the project.

It is important to mention that this analysis is based on the views of the people from Las Naves who have overseen developing this task. As such, it is possible that those reading this document may disagree with some of the conclusions drawn in this analysis.

This document is like any other research work whose results, despite being based on objective data and information, have been interpreted based on the values of those who have developed it. We ask, therefore, that those who read this document bear this in mind.

1.1. Scope and objectives of the Deliverable

The task for this deliverable consists of **reviewing the different public policies and initiatives carried out to tackle energy poverty**, both in partner countries and other European countries.

As an overall, the scope and objectives of this deliverable are linked between them in a progression or continuum, so each task allows us to take another step into (1) the comprehension of the energy poverty phenomenon and the initiatives carried out, (2) the identification of those successful policies and measures deployed and (3) their potential for adaptation and replicability.

We can say that the main objective of this deliverable is to draft a comparative analysis of public policies on energy poverty implemented at European level. First of all, we structure our analysis through the different Welfare States models¹ so as to give some insights about the common trends shared in each group of European countries. Secondly, once presented this general overview, we narrow the focus to present with more detail several actions and interventions which have been classified under the logic of the socio-ecological model. All in all, this exercise of research, comparison, analysis and classification aims to provide valuable insights for the implementation of the Wellbased project, especially for the intervention in the pilot cities.

1.2. Relation to other WP and Deliverables

With regards to the relation of this task to other WP and Deliverables, we can say that D2.1 will settle the framework for the next stages of the project so we consider it as the first step into understanding the basics

¹ We follow the classification proposed by Espig-Andersen (1990), explained on section 2.2. of this deliverable



for the WP2. This deliverable aims at building a solid basis for an evidence-based proposal that can work for the Wellbased pilot cities. Therefore, this is a research and analysis phase that will allow us: first, to define a common methodology and design an adequate urban programme (task 2.2), second, to adapt the urban programme (task 2.3) and finally move to the co-creation stage based on focus groups with key actors and stakeholders (task 2.4).

Moreover, this comprehensive and comparative analysis appears linked to several WP namely:

- **WP3 Pilots preparation & implementation** due to the study of the different social context and measures adopted, especially for the Wellbased pilot cities.
- **WP4 Evaluation and data analysis** because D2.1 will start building the ground for the evaluation of successful measures and start the data compilation.
- **WP5 Policy recommendations**, scale-up and transferability as this report aims at reviewing good practices and know-how that can work for different European realities.
- **WP6 Dissemination, Communication, City engagement and exploitation** due to the fact that energy poverty is a multidimensional phenomenon that we have to address from a multilevel governance perspective and cross-sectorial cooperation, in which communication and engagement is key to disseminate the achievements of the project.

1.3. Structure of the Deliverable

This report contains information about the situation of energy poverty in the EU and the efforts to tackle it. We will analyse urban programmes carried out to learn lessons, good practices and know-how.

The structure of this deliverable is divided in three parts:

- In **Section 2**, we establish the theoretical elements on which we base our analysis: the concept of energy poverty in the European context, the Welfare Systems model, the Social Determinants of Health and the role of local initiatives.
- In **Section 3**, we present a classification of how different countries of the European Union face energy poverty, according to their Welfare State model. We present a comparative analysis and a list of general conclusions and classifications
- In **Section 4**, we present more detailed actions and interventions, which have been classified under the logic of the socio-ecological model.

Although all sections of this deliverable are connected and one enriches each other, they have been prepared to be read individually.



We will also review key elements involved in the energy poverty field such as the different Welfare Systems, the Social Determinants of Health and the role of local initiatives among others. Finally, we will assess the potential of these initiatives for adaptability and replicability to the Wellbased pilots.

2. Energy Poverty in the EU

In this section we are going to review the energy poverty phenomenon across Europe and we will establish a framework to deepen the understanding of this societal challenge and the key elements involved.

2.1. A recently identified phenomenon

Whilst a common pan-EU definition of energy poverty is not yet agreed, the European Commission Citizens' Energy Forum (2016) defined it as **"a situation where a household or an individual is unable to afford basic energy services (heating, cooling, lighting, mobility and power) to guarantee a decent standard of living due to a combination of low income, high energy expenditure and low energy efficiency of their homes"**.² This definition is at the core of Wellbased, putting the impacts on health and wellbeing at the centre of the proposal.

In a recent press statement, the European Commission (2019) considered energy poverty as a **major societal challenge which has a direct impact on health**. The EC estimates that around 54 million Europeans (almost 11% of the population) are in a situation of energy poverty, however most EU countries still do not identify or quantify vulnerable energy consumers, and do not adequately target energy poverty measures³. This means that almost two thirds of Member States are not yet monitoring the development of energy poverty using quantitative metrics.

Indeed, energy poverty is a **phenomenon of complex nature** due to its multidimensional approach, involving environmental, economic, political, social and health features⁴. Among these, we can mention key elements including consumers' behaviour and perceptions, regulatory issues, housing, energy efficiency, urban development, social inequalities and climate change⁵. Precisely because of this complex nature, and its wide range of causes and impacts, energy poverty is difficult to detect and measure.

² European Commission Citizens' Forum, Covenant of Mayors website (2016): Alleviating Energy Poverty - <https://www.eumayors.eu/support/energy-poverty.html>

³ European Commission Press Statement (2019): "Time to eradicate energy poverty", 27/06/2019, <https://cor.europa.eu/en/news/Pages/time-to-eradicate-energy-poverty-in-europe.aspx>

⁴ Bouzarovski, S., et al. (2021). "Confronting Energy Poverty in Europe: A Research and Policy Agenda." *Energies* 14: 858

⁵ Recalde, M., et al. (2019). "Structural energy poverty vulnerability and excess winter mortality in the European Union: Exploring the association between structural determinants and health." *Energy Policy* 133: 110869.



However, since the economic and financial crisis, the attention and efforts to tackle energy poverty are growing. In fact, high-energy prices, low incomes and badly insulated, damp and unhealthy homes are leading to higher energy poverty rates. Electricity prices have gone up significantly in most countries in the past decade, which combined with the poor energy performance of Europe's building stock⁶, has led to increased concerns over energy poverty in Europe.

Traditionally energy poverty has been mainly associated with heating problems in cold weather climates⁷. However, **summertime energy poverty** and space cooling difficulties are a relatively under-explored aspect of energy poverty in Europe⁸, causing a knowledge-gap. Thus, the concept and metrics of energy poverty should identify vulnerable populations struggling with both high and low temperatures (as well as inability to afford other energy services). This is also something that Wellbased wants to stress: the importance of measuring and addressing energy poverty in warm climates and temperatures, especially taking into consideration the strong impact of climate change and heat waves during the last years.

Therefore, we face a **complex multidimensional challenge** that calls for an in-depth investigation. We can start by the conceptualisation and definition of energy poverty itself and the need to create common measurement indicators that allow us to gather common data, research and statistics to compare situations across Europe. Efforts to tackle energy poverty should also encourage governments and key actors involved in the health and energy field to work towards this challenge, addressing it from a wide range of areas such as public policies, environment, urban development, housing and health.

The European Union and its institutions have recognised the importance of having adequate energy services at home (warmth, cooling, lighting) to guarantee a decent standard of living and citizens' health. In fact, the right to clean and affordable energy is also part of the 17 Sustainable Development Goals (SDG), which are at the heart of the UN's 2030 Agenda for Sustainable Development.

We can state that the interest is growing thanks to the rising number of research projects, investigations and initiatives such as the Energy Poverty Observatory, now renamed the Energy Poverty Advisory Hub. However, there is still a long way to go to understand the impacts of energy poverty and its effects on citizens. This report provides an analysis of some of the key elements involved in this phenomenon and a comparative study on the efforts to tackle it.

⁶ European Commission Press Statement (2019): "Time to eradicate energy poverty", 27/06/2019, <https://cor.europa.eu/en/news/Pages/time-to-eradicate-energy-poverty-in-europe.aspx>

⁷ Thomson, H., et al. (2019). "Energy poverty and indoor cooling: an overlooked issue in Europe." *Energy and Buildings*.
Simcock, N., et al. (2016). "Fuel poverty in the UK: beyond heating?" *People, Place and Policy Online* 10(1): 25-41.

⁸ Thomson, H. Bouzarovski, S. (2019): "Addressing Energy Poverty in the European Union: State of Play and Action", EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>



2.2. Social, economic, political context: The European Welfare States

Energy poverty manifests in different ways across households, countries and regions, therefore policies and initiatives to address it are different too. The Welfare States are the reflection of those different European realities and, therefore, a key element to understanding the state and evolution of energy poverty.

By **Welfare State** we generally refer to different interventions of the Public Sector aiming at addressing, through different mechanisms such as transfers and service provision, but also through statutory regulations, different social risks faced by the population such as low income in old age, unemployment, sickness, etc.⁹ The development of the welfare state systems is based on the historical background of the political activities¹⁰ and their own social and economic characteristics, putting at its core essential concepts such as social citizenship, social rights, social stratification and the relationship between state, market, and family.

Following the works and publications of Esping-Andersen (1990) we can state the existence of three different Welfare States models, based on their level of social stratification and the so called “decommodation index”¹¹ - which describes a process when a service is rendered as a matter of right and when a person can maintain a livelihood without reliance on the market. These are: The Social-Democrat (also known as Nordic model), the Social-Corporatist (or Continental model) and the Liberal (the Anglo-Saxon model). However, this classification, that has become the standard classification of Welfare State models, has been complemented by the consideration of an additional model, the Mediterranean model¹², with major differences with the three models proposed by Esping-Andersen.

As an overall, these four models have the following features¹³:

- **Social-Democrat (Nordic):** financed by general taxes and characterized by the provision of universal social services. This is the case of Denmark, Finland, Norway, Sweden and the Netherlands.

⁹ Muñoz de Bustillo, Rafael (2019): “Key challenges for the European Welfare States”, EU Science Hub, European Commission, <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc117351.pdf>

¹⁰ Martin Powell, Erdem Yörük, Ali Bargu (2020): “Thirty years of the Three Worlds of Welfare Capitalism: A review of reviews” Social Policy & Administration Journal; and

Esping Andersen, Gosta (1990): “The Three Worlds of Welfare Capitalism”, Presentation at University St. Gallen (19-04-2011), by Anastassiya Valeyeva, Luca Christen and Innokenty Smorchkov, https://www.researchgate.net/publication/243774920_The_Three_Worlds_Of_Welfare_Capitalism

¹¹ Esping Andersen, Gosta (1990): “The Three Worlds of Welfare Capitalism”, Presentation at University St. Gallen (19-04-2011), by Anastassiya Valeyeva, Luca Christen and Innokenty Smorchkov, https://www.researchgate.net/publication/243774920_The_Three_Worlds_Of_Welfare_Capitalism

¹² Ferrera, M (1996): “The “southern model” of welfare in Social Europe”, Journal of European Social Policy Vol. 6(1), pp. 17-37.

¹³ Definitions from Giner, S.; Lamo de Espinosa, E.; Torres, C. (2006): “Diccionario de Sociología”, Alianza Editorial, Madrid



- **Social-Corporatist (Continental):** the maintenance of insured workers and the practices of social agreement are managed through a corporate structure. We can find this model in Austria, Belgium, Czech Republic, France, Germany, Hungary, Luxembourg, Poland or Slovenia.
- **Liberal (Anglo-Saxon):** traditionally characterized by homogeneous benefits for all its citizens regardless of their socioeconomic status. This is the case of Ireland and the United Kingdom.
- **Mediterranean:** in this model, families play an essential role of micro-solidarity, complementary to the state action and initiatives. We can find this model in Greece, Italy, Portugal and Spain.

Despite these differences, national Welfare States share many common features, making it possible to talk about a **European Social Model**, or a European Welfare State. Nevertheless, most of the competences on social policies lie in the hands of the Member States¹⁴, which have developed them with different features. For this reason, it is common to talk about those “models” of Welfare States. The EU, through its defence of the European Social Model, has set out the context for the development of many national social policies, especially for more recent member states, and has a say in the shaping of the current European Welfare States¹⁵. However, there are differences between them in terms of resources, coverage, scope and strategies of social protection. Latvia and Turkey are good examples of countries that dynamically participate in the recent wave of EP specific policies and research groups, developed in the European community frame, in spite of the diversity of territories and social systems.

The idea of the Welfare State facing an imminent crisis that would inevitably lead to its demise, at least as we know it, has been a common debate in social sciences almost for the last half century¹⁶. During these years, these Welfare States and their dynamics seemed to face a crisis, due to the difficulties to regulate the economy, tackle social inequalities and face existing challenges and new global challenges. In contrast, social expenditure data show that the European Welfare State has been remarkably resilient in the recent decades, at least in the context of a sharp reduction in the amount of resources allocated to social policies in relation to GDP¹⁷. So, despite the so-called “Welfare States Crisis”, their levels of legitimization seem to be raising and consolidating.

We can state that energy poverty has recently arisen as one of those “new challenges” that Welfare States are currently facing, bringing new policy dynamics and strategies into action. Going further, energy poverty is challenging the roots of the Welfare model itself, revealing inequalities derived from living conditions and social determinants, with a direct and negative impact on health and wellbeing.

¹⁴ Muñoz de Bustillo, Rafael (2019): “Key challenges for the European Welfare States”, EU Science Hub, European Commission, <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc117351.pdf>

¹⁵ Muñoz de Bustillo, Rafael (2019): “Key challenges for the European Welfare States”, EU Science Hub, European Commission, <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc117351.pdf>

¹⁶ Muñoz de Bustillo, Rafael (2019): “Key challenges for the European Welfare States”, EU Science Hub, European Commission, <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc117351.pdf>

¹⁷ Muñoz de Bustillo, Rafael (2019): “Key challenges for the European Welfare States”, EU Science Hub, European Commission, <https://ec.europa.eu/jrc/sites/jrcsh/files/jrc117351.pdf>



However, addressing energy poverty has the potential to bring multiple benefits, both for the Welfare States and citizens' lives, including less money spent by governments on health, reduced air pollution and CO₂ emissions, better comfort and wellbeing, improved household budgets and increased economic activity.¹⁸ Given the wide range of socioeconomic factors surrounding general poverty, and more specifically the challenges brought by energy poverty itself, the issue calls for a multi-faceted approach with an extra effort coming from the state institutions.

Taking into consideration this diverse range of welfare and healthcare models, Wellbased is also an opportunity to gather successful measures and initiatives that will help to build a common methodology and urban planning for the selected pilot cities. We can also consider it as an evidence-based proposal that can work as a coordinated European response to this societal challenge, adapted and scalable, taking into consideration the different European realities.

2.3. The health approach: The Social Determinants of Health

The Social Determinants of Health are the circumstances in which people are born, grow, live, work and grow old, and the systems put in place to deal with illness. Those circumstances are the result of the distribution of money, power and resources at the global, national and local level, taking into consideration the different policies adopted¹⁹. Therefore, we can say that political, social and economic forces have a decisive impact in people's life, even reaching the point of shaping the quality and conditions of their lives.

According to the **World Health Organization (WHO)**, the Social Determinants of Health explain most of the health inequities, specially the unjust and avoidable differences observed in and between countries regarding health.²⁰ In fact, the **Commission on Social Determinants of Health** - set up by the WHO in 2005 to analyse the evidence on what can be done to promote health equity - states that the development of a society can be judged by (1) the quality of its population's health; (2) how fairly health is distributed across the social spectrum; and (3) the degree of protection provided from disadvantage as a result of ill-health.²¹

¹⁸ European Commission Press Statement (2019): "Time to eradicate energy poverty", 27/06/2019, <https://cor.europa.eu/en/news/Pages/time-to-eradicate-energy-poverty-in-europe.aspx>

¹⁹ WHO: "Determinantes Sociales de la Salud" - https://www.who.int/social_determinants/es/

²⁰ WHO, Commission on Social Determinants of Health, (2008): "Closing the gap in a generation: health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>

²¹ WHO, Commission on Social Determinants of Health, (2008): "Closing the gap in a generation: health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>



The energy poverty problem is a good example on how these pre-existing circumstances affect people's life. Reduced access to heating, lighting, access to hot water for sanitary use, cooking and refrigeration among other things, have an effect on health and the maintenance of a minimum level of comfort to guarantee dignified living conditions.²² The combination of low incomes, poor thermal efficiency and housing, and high energy costs²³ work in combination to exacerbate this problem.

In fact, energy poverty has devastating consequences for individuals and for society as a whole. The main direct health impacts of cold homes are not only hypothermia, but injuries due to falls, respiratory diseases, influenza, heart attacks, and stroke which may be experienced long after exposure²⁴. The concern about cooling in warmer countries is also growing as people are suffering the consequences of strong heat waves during summer, exacerbated by climate change - which directly affects human health, the practice of medicine and the stability of health-care systems. Extreme hot temperatures are also associated with a wide range of adverse consequences such as cardiac illnesses, dehydration, mortality, mental health problems and stress. Studies of the psychological consequences of inadequate temperatures at home (cold or hot) include an increased risk of diagnosable anxiety and depression²⁵. Ultimately, energy poverty can also increase social isolation as people affected could be worried or concerned about inviting anybody back home²⁶, resulting in a general retreat and exclusion. In some cases, this may have an impact on participation in social, economic and health promoting activities and services²⁷. In this respect it is clear that access to energy constitutes a necessity for all households²⁸ and should be a major public health priority.

On the other hand, the whole society is also adversely affected as energy poverty contributes to the **intergenerational transmission of poverty** as children go home and study in under-heated and under-lit homes. Elderly people, children, single parent households, people living alone, or those with disabilities are

²² Grevisse, François, Brynart, Marie (2011): "Energy poverty in Europe- Towards a more global understanding", ECEEE 2011 Summer Study, Energy Efficiency First, the Foundation of Low Carbon Society

²³ Pye, Steve; Dobbins, Audrey; leading authors (2015): "Energy poverty and vulnerable consumers in the energy sector across the EU: analysis of policies and measures", Insight_E; An Energy Think-tank informing the European Commission. http://www.insightenergy.org/static_pages/publications#?publication=15

²⁴ Katalin, Csiba (2017): "Why is energy poverty still an issue?", Journal, Green European Journal, 14-02-2017 <https://www.greeneuropeanjournal.eu/why-is-energy-poverty-still-an-issue/>
See also: Thomson, H., et al. (2017). "Health, well-being and energy poverty in Europe: A comparative study of 32 European countries." *International Journal of Environmental Research* 14(6): 584.

²⁵ Katalin, Csiba (2017): "Why is energy poverty still an issue?", Journal, Green European Journal, 14-02-2017 <https://www.greeneuropeanjournal.eu/why-is-energy-poverty-still-an-issue/>

²⁶ Meszerics, Tamás - MEP Responsible Office (2016): "Energy Poverty Handbook", European Parliament Greens - EFA, Brussels.

See also: Middlemiss, L., et al. (2019). "Energy poverty and social relations: a capabilities approach." *Energy Research & Social Science* 55(227-235).

²⁷ WHO, Regional Office for Europe (2019): "Healthy, prosperous lives for all: the European Health Equity Status Report", WHO Regional Office for Europe, Copenhagen, Denmark, ISBN 978 92 890 5425 6

²⁸ Grevisse, François, Brynart, Marie (2011): "Energy poverty in Europe- Towards a more global understanding", ECEEE 2011 Summer Study, Energy Efficiency First, the Foundation of Low Carbon Society.



key groups at risk of experiencing energy vulnerability.²⁹ Heat-related illnesses caused by longer and more frequent heat waves, the rise in pollen concentration which impacts Chronic Obstructive Pulmonary Disease and asthma, and household air pollution with a rise in pulmonary and cardiovascular morbidity and mortality are a real threat. We can state that the consequences are greatest for the most vulnerable among those subjects living in energy poverty.³⁰

We cannot deny that energy poverty is part and parcel of the problem of poverty in general³¹ and is strongly influenced by the Social Determinants of Health. Nevertheless, the specific characteristics of energy, compared with other consumables, call for energy poverty to be considered as a challenge in its own right, a component that contributes substantially to the regrettable consequences of poverty, but also, if we are not careful, to its causes and aggravating factors.³²

If energy poverty deserves this special consideration, it is primarily on account of the consequences of energy hardship. Households with the lowest financial resources may find it much more difficult to reduce the cost of necessary energy. Indeed, this cost is intrinsically dependent on the energy efficiency (EE) of the home and equipment, which are expensive to modify, and energy prices and the energy carrier (via the price of energy). A consumer in a situation of financial insecurity has limited means of impacting on all these factors, since he/she does not have the funds at his/her disposal that would enable him/her to carry out home improvements or change the form of heating.³³ Such consumers also sometimes have constraints as to how much action they can take, if, for instance, they live in rented accommodation (as it typical in poorer households) that is not theirs to modify. These dynamics contribute ultimately to intensification of energy poverty vicious circle.

If we deepen the investigation behind well-being and energy, we can find the overall underlying living conditions, ultimately determined by health inequities. The WHO European Region, in the **European Health Equity Status Report** (2019) has stated that housing is associated with inequities in health and well-being across the entire European Region - mainly because people living in unaffordable, poor-quality or insecure housing are more likely to report poor health and to suffer from a variety of health problems. The WHO highlights that between 22% and 30% of health inequities in self-reported health, mental health and life satisfaction are associated with living conditions³⁴. Energy poverty is also critical as the report highlights that

²⁹ Katalin, Csiba (2017): "Why is energy poverty still an issue?", Journal, Green European Journal, 14-02-2017 <https://www.greeneuropeanjournal.eu/why-is-energy-poverty-still-an-issue/>

³⁰ Salas RN, Solomon CG. (2019): The Climate Crisis - Health and Care Delivery. N Engl J Med 2019; 381 (8):e13.; European Society of Respiratory Diseases 2019; Landrigan 2017. Lancet Commission.

³¹ Grevisse, François, Brynard, Marie(2011): "Energy poverty in Europe- Towards a more global understanding", ECEEE 2011 Summer Study, Energy Efficiency First, the Foundation of Low Carbon Society.

³² Grevisse, François, Brynard, Marie(2011): "Energy poverty in Europe- Towards a more global understanding", ECEEE 2011 Summer Study, Energy Efficiency First, the Foundation of Low Carbon Society.

³³ Grevisse, François, Brynard, Marie(2011): "Energy poverty in Europe- Towards a more global understanding", ECEEE 2011 Summer Study, Energy Efficiency First, the Foundation of Low Carbon Society.

³⁴ WHO, Regional Office for Europe (2019): "Healthy, prosperous lives for all: the European



over 70% of the gap in health inequities in self-reported health status linked to living conditions can be explained by differences in housing and fuel deprivation. The report has found that in 30 out of 32 countries, people living on the lowest incomes tend to be the most unable to keep their homes adequately warm, compared to those on higher incomes.³⁵ Thus, the impact over health and well-being is undeniable.

At this point, it is clear that the complex nature of this recently identified phenomenon calls for a comprehensive analysis of the problem - and its solution - from a multidimensional approach, involving not only environmental, political, social, regulatory and psychological issues, but also taking into consideration the Social Determinants of Health, health inequalities and living conditions.

In response to the growing concern about these persistent and growing inequities, the World Health Organization established the Commission on Social Determinants of Health in 2005 to provide advice on how to mitigate them. In the final report, published in August 2008, the Commission proposed three general recommendations³⁶:

- **Improve everyday living conditions**, as social stratification determines differential access and utilization of health care with decisive consequences for the inequitable promotion of health, well-being, disease prevention and illness recovery and survival. Policies to achieve these goals have to involve civil society, governments, and global institutions.
- **Fight against the unequal distribution of power, money and resources**, as inequity appears as a systematic process due to social norms, policies, and practices, shaping daily living and social structures. The WHO calls for a responsible action on health and health equity at the highest level of government to ensure its coherent consideration across all policies.
- **Measurement and analysis of the problem**, stressing the importance of effective data systems, including vital registration and routine monitoring of health inequity and the social determinants of health. This is to ensure that the data can be understood and applied to develop more effective policies, systems, and programmes.

Moreover, beyond these recommendations, the WHO makes a note on the importance of having a solid and **universal Health Care System**, especially for primary health care. In fact, we can consider the health-care system itself as a Social Determinant of Health, which, at the same time, is influenced and influences the rest of the social determinants. Gender, education, occupation, income, ethnicity, and place of residence are all closely linked to people's access and benefits from health care.³⁷ Therefore, building and

Health Equity Status Report", WHO Regional Office for Europe, Copenhagen, Denmark, ISBN 978 92 890 5425 6.

³⁵ WHO, Regional Office for Europe (2019): "Healthy, prosperous lives for all: the European Health Equity Status Report", WHO Regional Office for Europe, Copenhagen, Denmark, ISBN 978 92 890 5425 6.

³⁶ WHO, Commission on Social Determinants of Health (2008): "Closing the gap in a generation: health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>

³⁷ WHO, Commission on Social Determinants of Health (2008): "Closing the gap in a generation:



strengthening the health system, primary health care and its workforce can have a key impact to address the Social Determinants of Health and, ultimately, over the energy poverty problem and its effects.

We can also mention the **WHO 2030 Agenda for Sustainable Development and the Sustainable Development Goals**, which has provided a framework to strengthen actions to improve health and well-being for all. This SDG Agenda includes objectives linked to energy poverty and the Social Determinants of Health such as: no poverty (1), good health and well-being (3), affordable and clean energy (7), sustainable cities and communities (11) and climate action (13). The EU expressed their commitment to include these objectives in all their policies and encouraged EU countries in doing the same.³⁸

On their side, the WHO European Region, in the European Health Equity Status Report (2019) has identified five essential conditions needed to create and sustain a healthy life for all: good quality and accessible health services; income security and social protection; decent living conditions; social and human capital and decent work and employment conditions.³⁹ The Health Equity Status Report also highlights the drivers of health equity, which are the fundamental factors that contribute to creating more equitable societies, namely policy coherence, accountability, social participation and empowerment.

With regards to Wellbased, this project takes the Social Determinants of Health into consideration in order to design and implement its solution: a comprehensive urban programme to reduce energy poverty and its effects on the citizens' health and wellbeing. Going further, Wellbased adds to the Social Determinants of Health approach, the **Social Ecological Model** proposed by Dahlgren and Whitehead (1991) which maps the relationship between the individual, their environment and health. Following the working line analysed in this section, this model stresses the fact that populations across all age groups are influenced by a range of factors within and outside their control. With individuals placed at the centre, the different layers of influences on health, such as individual lifestyle factors, community influences, living and working conditions and the physical, social and political environment, have a decisive impact on the way we monitor, tackle and evaluate energy poverty.

Thus, we cannot see energy as a fine luxury anymore, but an **essential service**, the absence of which affects individuals and households' health and their participation in the life of a society. It is clear that we all depend on energy in our everyday lives and that we need to have sufficient levels of heating, cooling and lighting in our homes to have a decent standard of living and guarantee our health.⁴⁰

health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>

³⁸ European Commission website - Sustainable Development Goals https://ec.europa.eu/international-partnerships/sustainable-development-goals_en

³⁹ WHO, Regional Office for Europe (2019): "Healthy, prosperous lives for all: the European Health Equity Status Report", WHO Regional Office for Europe, Copenhagen, Denmark, ISBN 978 92 890 5425 6

⁴⁰ European Commission, Energy Poverty in the EU: https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en#eu-policy-and-monitoring-



2.4. EU policy, regulation and initiatives: Energy Union Strategy, Clean Energy for All Europeans Package, EU Directives, Energy Poverty Observatory, Committee of Regions and Covenant of Mayors

The words of Maroš Šefčovič's, the former Vice-President of the Energy Union (2014-2019), reflect and summarize accurately the evolution of energy poverty across Europe and the attention given to it:

“European consumers are today the most protected and they live in the most egalitarian continent in the world. But that is not enough. If over 10% of European households cannot afford to heat their homes properly, we must do more. [...] Energy poverty is a reality in Europe, which we have to take into account when we elaborate our policies - also at EU level [...]. Here, like for the fight against energy poverty in general, we have to share best practices across Europe. There are many ideas and projects in Europe, and they can inspire many others. This is also something where the Commission can help.”⁴¹

He continues to make a point on how recently the EU has properly acknowledged and identified this challenge:

“What we, I think, will achieve through the focus on energy poverty is the fact that this would be acknowledged on the European level that we have a problem [...] We have to monitor it, and we have to work jointly on how we are going to tackle it. That's something that was not so obvious just a year ago.”⁴²

For decades, the EU has been facing an acute and persistent housing affordability challenge with an alarming number of Europeans being unable to afford rents or cover basic housing costs, causing adverse effects on citizen's health.⁴³ Given the wide range of socio-economic factors surrounding energy poverty and challenges around housing and health, the EU has to monitor and tackle this issue in a multi-faceted approach.

The European Commission has recognized that energy poverty remains a major challenge and lifting vulnerable citizens out of it is an urgent task for the EU and its members.⁴⁴ In fact, the EC is taking an

⁴¹ Šefčovič, Maroš (2016): “Speech by Vice-President for Energy Union Maroš Šefčovič at the European Policy Centre - Launch Event Task Force on Energy Poverty”; SPEECH/16/164, 26-01-2016, Brussels, https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_16_164

⁴² Šefčovič, Maroš (2016): “EU to tackle energy poverty”; speech EU Observer, 30-11-2016, Brussels, <https://euobserver.com/energy/136095>

⁴³ European Commission, Energy Poverty in the EU: https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en#eu-policy-and-monitoring-

⁴⁴ European Commission, Energy Poverty in the EU: https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en#eu-policy-and-monitoring-



increasingly proactive role in highlighting the problems and risks of energy poverty, through introducing requirements in energy legislation to better understand⁴⁵ this challenge. Thus, the attention coming from the European Institutions seems growing and we can find a fairly good number of initiatives, policies and measures carried out in the energy poverty field.

Within the last years, energy has been a core working line for the EC. The first solid step was the Energy Transition framework and the **Energy Union Strategy** (COM/2015/080). This was a key priority during the Juncker Commission (2014-2019), and settled the basis for building an Energy Union that gives EU consumers, households and businesses secure, sustainable, competitive and affordable energy. This package built five closely related and mutually reinforcing dimensions: (1) Security, solidarity and trust, diversifying Europe's sources of energy; (2) a fully integrated internal energy market, enabling the free flow of energy through the EU; (3) improved energy efficiency; (4) climate action and decarbonisation of the economy through the ratification of the Paris Agreement; and (5) research, innovation and competitiveness.

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In fact, the **Paris Agreement - UN's Conference of Parties 21** (COP 21) was also a good opportunity to support the Energy Union Strategy and express the European commitment with climate change - beyond subscribing to the already mentioned SDG 2030 Agenda. The Agreement, formally ratified on the 5th of October 2016, sets out a global framework to avoid dangerous climate change by limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C. It also aims to strengthen countries' ability to deal with the impacts of climate change and support them in their efforts.⁴⁷ The following COP's (especially Marrakech 2016 and Katowice 2018) focused the efforts on how to operationalise and deliver the Paris Agreement.

To support this, countries, cities, regions, business and civil society members also created the **Global Climate Action Agenda** under the Marrakech Partnership for Global Climate Action (2016). This Agenda establishes key thematic areas, stressing the role of energy and human settlements among others.

In 2019, as a continuation of this direction, and once the Energy Union Strategy was completed, the EU settled an energy policy framework to facilitate the transition towards a cleaner energy and to deliver the EU Paris Agreement. The agreement on this new energy rulebook is called the **Clean Energy for All Europeans Package**, and has marked a significant step towards the implementation of the Energy Union Strategy.⁴⁸ It consists of eight legislative acts following the political agreement by the Council and the European Parliament between May 2018 and May 2019 that EU countries will have to transpose into

⁴⁵Pye, Steve; Dobbins, Audrey; leading authors (2015): "Energy poverty and vulnerable consumers in the energy sector across the EU: analysis of policies and measures", Insight_E; An Energy Think-tank informing the European Commission. http://www.insightenergy.org/static_pages/publications/#?publication=15

⁴⁶ European Commission, Energy Union: [https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en#:~:text=The%20energy%20union%20strategy%20\(COM,sustainable%2C%20competitive%20and%20affordable%20energy](https://ec.europa.eu/energy/topics/energy-strategy/energy-union_en#:~:text=The%20energy%20union%20strategy%20(COM,sustainable%2C%20competitive%20and%20affordable%20energy)

⁴⁷ European Commission Climate Action, The Paris Agreement: https://ec.europa.eu/clima/policies/international/negotiations/paris_en

⁴⁸ European Commission, Clean Energy for all European Package: https://ec.europa.eu/energy/topics/energy-strategy/clean-energy-all-europeans_en



national law in a 1-2 years term. The EU believes these new rules will bring considerable benefits from a consumer, environmental and economic perspective.

With the Clean Energy for All Europeans Package, the European Commission has proposed a range of measures to address energy poverty through energy efficiency, safeguards against disconnection and a better definition and monitoring of the issue at Member State (MS) level through the integrated National Energy and Climate Plans (NECPs). As a consequence, the EU legislative context for energy poverty is undergoing several changes. Energy poverty is mentioned in the new **Energy Efficiency Directive (2018/2002)**, the new **Energy Performance in Buildings Directive (2018/844)** and the **Governance Regulation (2018/1999)**. Also, the **Electricity Directive (2009/72)** refers to energy poverty, and its revised version was the product of a political agreement in December 2018.⁴⁹ The key points and highlights of these Directives are:

European Directives relating to Energy Poverty				
	Energy Efficiency Directive (2018/2002)	Energy Performance in Buildings Directive (2018/844)	Governance Regulation (2018/1999)	Electricity Directive (2009/72)
Contents	Considers EE as complementary to social security policies at MS level.	Overview of policies and actions to target the worst performing segments of the national building stock.	MS to assess the number of households in EP based on domestic energy services needed to guarantee basic standards of living.	Links EP with consumer vulnerability.
	Particular attention to accessibility, cost-effectiveness and affordability.	Outline national actions that contribute to the alleviation of energy poverty.	Build indicators based on relevant national context, existing social policy and other relevant policies.	MS to define a set of criteria to measure EP.
	Current building renovation rates are insufficient to meet the objectives of the Paris Agreement.	Focus on the long-term renovation strategies.	MS to include in national plans indicative objectives to reduce energy poverty.	Report EP evolution to the Commission as part of their

⁴⁹ European Energy Network (EnR) (2019): "EnR Position Paper on Energy Poverty in the European Union", Presidency and Secretariat, Italian Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) Energy Efficiency Department Roma, Italy - <https://enr-network.org/wp-content/uploads/ENERGYPOVERTY-EnRPositionPaper-Energy-poverty-Jan-2019.pdf>



				Integrated National Energy and Climate Progress Reports
	MS to adopt EE measures under their national energy efficiency scheme and policies. Vulnerable households are the priority.		Need of integrated reporting on Energy Poverty (data, information, policies, measures).	

Table 1 – European Directives relating to Energy Poverty ⁵⁰

Beyond these Directives and regulations, the EC has financed a new initiative to help Member States in their efforts to combat energy poverty: The **Energy Poverty Observatory** (EPOV). This was a 40-month project launched in January 2018 as part of the growing drive to consolidate energy policy at the EU level, following the Energy Union and the Clean Energy Package proposals. Its principal mission was to engender transformational change in knowledge about the extent of energy poverty in Europe and innovative policies and practices to combat it.⁵¹ Note that this Observatory is now transitioning to a new organisation under the name of EU Energy Poverty Advisory Hub, and this may imply changes in the European strategy against EP in the near future.

The EPOV aimed at improving the state of the art on energy poverty detection, measurement and reporting by creating a public forum for the exchange of knowledge on the issue, and the identification of possible policy solutions. To do so, they collect and publish Europe-wide energy poverty data while serving as the focal point of growing networks of policymakers, research scientists, advocacy groups and community activists interested in the issue.⁵²

The Observatory objectives have been⁵³:

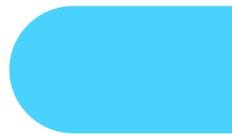
- **Improving transparency** by bringing together the disparate sources of data and knowledge that exist in varying degrees across the whole of the EU;

⁵⁰ Source: Self compilation based on EUR-Lex Directives https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.328.01.0210.01.ENG; and European Energy Network (EnR) (2019): “EnR Position Paper on Energy Poverty in the European Union” <https://enr-network.org/wp-content/uploads/ENERGYPOVERTY-EnRPositionPaper-Energypoverty-Jan-2019.pdf>

⁵¹ Thomson, H. Bouzarovski, S. (2019): “Addressing Energy Poverty in the European Union: State of Play and Action”, EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>

⁵² Thomson, H. Bouzarovski, S. (2019): “Addressing Energy Poverty in the European Union: State of Play and Action”, EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>

⁵³ European Commission, Energy Poverty Observatory, Role and Mission <https://www.energypoverty.eu/about/role-and-mission>





- Providing a **user-friendly and open-access resource** that will promote public engagement as well as informed decision making by local, national and EU-level decision makers;
- **Enabling networking and facilitate knowledge sharing** and co-production among Member States and relevant stakeholders;
- **Disseminating information and organise outreach work** that will connect and build on existing pan-European and Member State initiatives in the energy poverty domain;
- **Providing technical assistance** to the widest possible range of interested parties, based on a holistic approach to understanding and addressing energy poverty in the European Union.

To gain a comprehensive overview, the EPOV has summarised the key aspects of the situation on energy poverty in each Member State by gathering key indicators, policies and publications already published on the Observatory as well as data collected by EUROSTAT. The result is the elaboration of the **Member States Report**, a key tool to understand the situation of energy poverty on each country, its evolution and the measures adopted to tackle it. We will further analyse the MS Reports in this Deliverable.

In addition, we can state that this team is working to keep its documents and data up to date to reflect the reality of energy poverty. With regards to the current pandemic situation, in the third EU report, “Towards an inclusive energy transition in the European Union - Confronting energy poverty amidst a global crisis” (2019)⁵⁴, the EPOV provides a comprehensive analysis on current and coming measures on energy poverty across the EU, including specific policies that have been developed in relation to the COVID-19 crisis. The report also focuses on how EU countries take into account energy poverty policies in their national energy and climate plans.⁵⁵

We can say that, ultimately, the EC expects with this initiative to **support informed decision-making** at local, regional and national level by providing a user-friendly and open-access resource. It also aims at promoting public engagement on the issue of energy poverty, as well as serve to disseminate information and good practices among public and private stakeholders.⁵⁶ It is thus expected that the EPOV will become a decision-support tool for the significant amount of new EU energy policy, regulation and legislation that will be developed in the near future.

However, the EPOV is not the only initiative funded by the EC. Across Europe, various projects have received funds to develop solutions to combat energy poverty as part of the **Horizon 2020 Call (H2020)**. Wellbased is one of those projects that proposes an innovative approach to energy poverty by addressing the main impacts on population's health under the framework H2020 – Preventing disease – Innovative

⁵⁴ Available on: <https://op.europa.eu/en/publication-detail/-/publication/4a440cf0-b5f5-11ea-bb7a-01aa75ed71a1/language-en>

⁵⁵ European Commission, Energy Poverty in the EU: https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en#eu-policy-and-monitoring

⁵⁶ Thomson, H. Bouzarovski, S. (2019): “Addressing Energy Poverty in the European Union: State of Play and Action”, EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>



actions for improving urban health and wellbeing - addressing environment, climate and socioeconomic factors. Wellbased is also an opportunity to design and implement urban policies on health and energy poverty in the selected pilot cities, as well as to replicate successful schemes and share evidence-based knowledge within European cities and regions.

Moreover, in addition to innovative projects, the Commission also facilitates the exchange of best practices regarding vulnerable energy consumers in the **Citizen's Energy Forum**. This is an annual meeting which aims to inform the EC by exploring the role and perspective of consumers in the energy retail market, making it fairer, smarter and energy-efficient.

Thus, after having summarised the relevant EU legislation, policies and initiatives, it is also worth to mention the growing focus on regional and local dimension of energy poverty. In particular, both the Committee of Regions and the Covenant of Mayors highlight how this attention is key in order to develop targeted solutions.

On its side, the **Committee of Regions (CoR)** is working towards energy poverty through the Commission for the Environment, Climate Change and Energy. Among its work, we can highlight the Green Deal Going Local Roadmap for 2021, in which different working groups and local leaders have agreed on the political objectives and priorities to accelerate the carbon-neutral transition while placing cities and regions at the heart of the COVID-19 recovery.⁵⁷ In this Deal, the CoR has put forward a set of comprehensive measures to reduce buildings' carbon footprint while creating jobs and tackling energy poverty ensuring enough funding for the transition, the right to clean and affordable energy and the renovation of buildings, while ensuring that no one is left behind – also known as the Just Transition.

With regards to the **EU Covenant of Mayors for Climate & Energy (CoM)**, this initiative brings together thousands of local governments voluntarily dedicated to implementing the EU climate and energy objectives.⁵⁸ In the 2030 framework the CoM signatories are committed to providing access to secure, sustainable and affordable energy to all their citizens, alongside with taking action on mitigating climate change and adapting to its impacts. While strengthening the local approach, the CoM aims to engage public authorities, institutions and citizens towards the creation of more just and inclusive society by alleviating energy poverty. To do so, the CoM has teamed up with the EPOV to address energy poverty by supporting local and regional authorities across Europe and sharing knowledge and resources to build local capacities.⁵⁹ Among these, we can find publications such as “Alleviating Energy Poverty: Useful Resources”⁶⁰ and the participation in the awareness-raising campaign on energy efficiency and energy

⁵⁷ European Committee of the Regions, Green Deal: cities and regions define 2021 roadmap: <https://cor.europa.eu/en/news/Pages/GREEN-DEAL-GOING-LOCAL.aspx>

⁵⁸ EU Covenant of Mayors for Climate and Energy, Covenant Initiative: <https://www.eumayors.eu/about/covenant-initiative/origins-and-development.html>

⁵⁹ EU Covenant of Mayors for Climate and Energy, Energy Poverty: <https://www.eumayors.eu/support/energy-poverty.html>

⁶⁰ Available on: <https://www.eumayors.eu/support/energy-poverty.html>



poverty together with the European Commission. At the global level we can find its counterpart, the **Global Covenant of Mayors for Climate & Energy** initiative.

To finalize the analysis of the EU efforts on tackling energy poverty, we can mention the results of the **Special Eurobarometer 492** (2019) called “Europeans’ attitudes on EU energy policy”.⁶¹ The poll results show that 89% of EU citizens agree that the EU must ensure access to affordable energy, such as ensuring competitive market prices, in particular to reduce the number of people unable to pay their energy bills.⁶² Therefore, it is clear that the EU holds the crucial responsibility to protect and empower energy consumers in order to fight against energy poverty.

2.5. Key actors involved: Public Administration, Civil society, Businesses and Academics

As we already mentioned, energy poverty is a multi-faceted and multi-dimensional challenge, therefore, we can find a wide range of actors involved on it. Besides the national governments and the EU institutions, the public administration, the civil society, the business’ sector and the academic sector have a say in the efforts to tackle energy poverty.

The best example is the **Consortium** involved in the Energy Poverty Observatory (now in transition to become the new Energy Poverty Advisory Hub). EPOV was composed by 13 organisations, including universities, think tanks and the business sector, reflecting this diversity of contributions and working lines. The University of Manchester led the consortium and included, as core partners, different research institutes, agencies and organisations such as Ecofys, National Energy Action, the European Policy Centre, Intrasoft International and the Wuppertal Institut. Among the supporting organisations we can find Asociación de Ciencias Ambientales, Alphééis, Centre for Renewable Energy Sources and Saving, Fundación Ecología y Desarrollo, the Energy Action Project, Energy Action Ireland and Housing Europe.⁶³ Moreover, the EPOV counted with an Advisory Board comprising over 70 leading stakeholders between trade unions, NGOs, media, consultancy, industry and research organisations from across Europe offering different approaches to the energy poverty phenomenon. The role of these actors has been key as they have the resources, the skills and the data to provide highlights and knowledge-based reports and recommendations. In fact, anyone can join in order to contribute and interact with other stakeholders.

The result of this collaboration are the available publications - including the Member States Reports - the scientific articles, the training resources, the catalogue of practical policies and measures, the indicators’

⁶¹ Available on: [Europeans’ attitudes on EU energy policy](https://ec.europa.eu/eurobarometer/surveys/detail/492) - Publications Office of the EU (europa.eu)

⁶² European Commission, Energy Poverty: https://ec.europa.eu/energy/topics/markets-and-consumers/energy-consumer-rights/energy-poverty_en#eu-energy-poverty-observatory

⁶³ Thomson, Harriet; Dr.: “What role can the EU Energy Poverty Observatory play in addressing European energy poverty?”, Powerpoint Presentation https://energyaction.ie/ea/wp-content/uploads/2018/12/EnergyAction18_Thomson.pdf



dashboard and the discussion forums. Up to date, the Observatory is actively accepting contributions from its members to enrich the Knowledge and Resources section.⁶⁴ Thus, the EPOV is indeed a pioneering initiative of collaboration between actors from different fields sharing a common objective: engender transformational change in knowledge about the extent of energy poverty in Europe, and innovative policies and practices to combat it.⁶⁵

Outside of the formal intergovernmental negotiations, we can also mention the role of businesses and civil society members across the world which are taking action to accelerate the energy transition and climate action in support of the Paris Agreement under the **Global Climate Action** Agenda, in the framework of the Marrakesh Partnership. As we already mentioned in the previous section, this Agenda has the objective to galvanise the contribution of non-state actors⁶⁶ putting energy and human settlements at its core.

Following the key role of the civil society, the **European Economic and Social Committee** (EESC), in a high-level conference held on April 2021, has also called for a "coalition" of EU institutions and civil society organisations to fight energy poverty. According to the EESC, all institutions at every level must rally around in a coordinated approach, with the active involvement of organised civil society. The situation has worsened as the pandemic has rooted energy poverty.

However, Christa Schweng, the EESC president, has outlined that the COVID-19 crisis is also an opportunity for "a system reset to enhance EU society's resilience, increase energy efficiency for housing and address energy poverty at its core".⁶⁷ According to the President, the civil society has to play a key role in the energy field and has pointed the importance of its contributions. Following her words:

"Energy poverty is a distressing problem to which many European citizens are exposed [...] Affects the concrete life conditions of families, women, young couples, children, elderly people, and in particular the most vulnerable households. The COVID-19 health and economic crisis exacerbated these inequalities, hitting the poor and most excluded [...] This is a unique moment to take coordinated action on climate neutrality, recovery from the crisis and social cohesion. Reducing energy poverty cannot be achieved without the active involvement of organised civil society".⁶⁸

Following this reasoning, Kadri Simson, the European Commissioner for Energy, pointed how much of a challenge energy poverty is and stressed the opportunities to tackle it within the deployment of funding

⁶⁴ European Commission, Energy Poverty Observatory, Knowledge & Resources: <https://www.energypoverty.eu/knowledge-resources>

⁶⁵ European Commission, Energy Poverty Observatory, Role and Mission: <https://www.energypoverty.eu/about/role-and-mission>

⁶⁶ European Commission, Global Climate Action Agenda: https://ec.europa.eu/clima/policies/international/negotiations/initiatives_en

⁶⁷ Schweng, Christa (2021): "Conference on Energy poverty at the crossroads of the European Pillar of Social Rights and the European Green Deal"; 20-04-2021; <https://www.eesc.europa.eu/en/news-media/press-releases/eesc-conference-calls-coalition-eu-institutions-and-civil-society-organisations-fight-energy-poverty>

⁶⁸ Schweng, Christa (2021): "Conference on Energy poverty at the crossroads of the European Pillar of Social Rights and the European Green Deal"; 20-04-2021; <https://www.eesc.europa.eu/en/news-media/press-releases/eesc-conference-calls-coalition-eu-institutions-and-civil-society-organisations-fight-energy-poverty>



programmes and the engagement of key stakeholders. Beyond this, the Commissioner stated that the municipalities, the civil society and the private sector entities know how can improve the use of local renewable energy resources and to make use of ways to reduce energy bills.⁶⁹

At this event - called **“Conference on Energy poverty at the crossroads of the European Pillar of Social Rights and the European Green Deal”**- high-level representatives of EU civil society organisations, as well as European, national, regional and local institutions and academia, discussed how they could work hand in hand to identify practical steps to be taken in future.⁷⁰

Among those participants we can mention the Fondation Abbé Pierre, the Jacques Delors Energy Centre, Friends of the Earth Europe, the European Anti-Poverty Network, Diversity Europe Group, the Employers' Group, the Workers' Group, the France's Minister Delegate for Housing and the Slovenia's State Secretary of Infrastructure. As we can see, a diverse and multidisciplinary group of participants coming from different social, policy and energy fields.

As a summary, regarding the role of the different actors and their contributions when tackling energy poverty, we can highlight the following agreements⁷¹:

- Fight against energy poverty is at the heart of a strong and fair green transition.
- There is a need for action at local level with grassroots initiatives.
- Renovation requires considerable investment and low-income households have to be supported.
- Enterprises could play an important role in addressing energy poverty by generating innovation and the right technologies.
- The most vulnerable groups should be prioritised when adopting measures against social exclusion.
- We need a holistic approach to fight energy poverty in which all social and environmental elements come together, so that nobody is left behind.
- Social dialogue, collective bargaining and workers' involvement is key to ensure affordable access to energy as stated in the Social Pillar and the renovation wave.

⁶⁹ Simson, Kadri (2021): “EESC conference calls for a “coalition” of EU institutions and civil society organisations to fight energy poverty”; 20-04-2021; <https://www.eesc.europa.eu/en/news-media/press-releases/eesc-conference-calls-coalition-eu-institutions-and-civil-society-organisations-fight-energy-poverty>

⁷⁰ European Economic and Social Committee (2021): “EESC conference calls for a “coalition” of EU institutions and civil society organisations to fight energy poverty”; 20-04-2021; Press release; <https://www.eesc.europa.eu/en/news-media/press-releases/eesc-conference-calls-coalition-eu-institutions-and-civil-society-organisations-fight-energy-poverty>

⁷¹ European Economic and Social Committee (2021): “EESC conference calls for a “coalition” of EU institutions and civil society organisations to fight energy poverty”; 20-04-2021; Press release; <https://www.eesc.europa.eu/en/news-media/press-releases/eesc-conference-calls-coalition-eu-institutions-and-civil-society-organisations-fight-energy-poverty>



- Eradicating energy poverty by 2030 must be Europe's responsibility through a dedicated "coalition", with civil society organisations bringing in their expertise and knowledge on the ground.
- The EU now needs a comprehensive and consistent European political strategy, led by a "coalition" of all EU institutions and civil society organisations, determined to maintain a firm commitment to end energy poverty in Europe, with the objective of mobilising the necessary resources and regularly analysing the state of play.

Beyond these agreements and recommendations, we can mention the **proximity work done by civil society**. This is why these organisations should play a key role in the framing and implementation of policies for eradicating energy poverty. They have the networks, the knowledge and the capacity to work on the ground providing vital direct assistance to the most vulnerable both in the short and long term. Their role is also crucial to detect specific necessities and bring them to the Public Administration and authorities in order to ensure the adaptation of measures. Thus, we can consider them as a bridge between policies and plans and the reality of change.

Going further, the WHO also identifies civil society as a key health actor, as they can play an important role in actions addressing the social determinants of health by (1) the participation in policy, planning, programmes, and evaluation and (2) the monitoring performance. They can also help to organize and promote diverse voices across different communities in favour of health equity. The increased incorporation of community engagement and social participation in policy processes helps to ensure fair decision-making processes.⁷²

Public Administration, as the closest institution to citizens, plays also a crucial role when tackling energy poverty and health inequities. Underpinning action on the social determinants of health, the public sector has to act based on the principles of justice, participation, and intersectoral collaboration.⁷³ Particularly they can have a great impact through actions reinforcing policy coherence, participatory governance, planning, regulation development and enforcement, and standard-setting. Moreover, the Public Administration can finance a wide range of actions, have the tools to measure, evaluate and monitor social features, and ultimately, can promote public awareness.

The **business and private sector** has also a profound impact on health and wellbeing⁷⁴. According to the WHO, they can carry out actions to strengthen accountability, recognize and respond to international agreements, promote standards and good practices codes or adopt measures in favour of gender equality

⁷² WHO, Commission on Social Determinants of Health (2008): "Closing the gap in a generation: health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>

⁷³ WHO, Commission on Social Determinants of Health (2008): "Closing the gap in a generation: health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>

⁷⁴ WHO, Commission on Social Determinants of Health (2008): "Closing the gap in a generation: health equity through action on the social determinants of health", Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>



and opportunities. They can also invest in research, offer analysis and support tools and share their knowledge and expertise.

Finally, **research institutions and universities** are key to produce and disseminate knowledge itself. When addressing energy poverty and health equity, research generates understanding and methodologies that can be used to take adapted measures. Research institutions and academia can also help in producing scientific publications, gather reliable data, recognizing gender bias in research processes, and promote the added value of globally expanded Knowledge Networks and communities, engaging the participation of the society and the public administration.

Wellbased also takes into consideration the role of the different actors involved in the energy poverty phenomenon and the health sector. In fact, **Task 2.4** will create a focus group with key stakeholders and potential users to co-create the interventions in the pilot cities. The results will be very valuable to build knowledge and capacities to make sure that the urban programmes proposed are matching the needs of beneficiaries.

As a summary, we have the words of the Commission on Social Determinants of Health, that can be applied both to the health and energy poverty field:

“The role of governments through public sector action is fundamental to health equity. But the role is not government’s alone. Rather, it is through the democratic processes of civil society participation and public policy-making, supported at the regional and global levels, backed by the research on what works for health equity, and with the collaboration of private actors, that real action for health equity is possible.”⁷⁵

2.6. Current Main Challenges in Energy Poverty

At this point it is clear that energy poverty is a complex phenomenon that requires a well-structured definition, capable to consider all relevant items involved. This is where we can find the first difficulty: **the lack of a common EU definition and complex comparable data**. This has an inevitable impact on how each Member State measures energy poverty, gathers and compiles data and statistics, identifies vulnerable populations or addresses the issue in their national policies – taking also in consideration the different welfare models and health systems. This has an impact in the coordination of energy and social policies at EU level, as the COVID-19 health and economic crisis has exacerbated inequalities across Europe.

Even though a single definition of energy poverty does not exist across the European Union, energy poverty is often described as a situation in which a person has difficulty obtaining the necessary energy in their home to meet their basic needs because of inadequate resources or living conditions.⁷⁶ Traditionally energy

⁷⁵ WHO, Commission on Social Determinants of Health (2008): “Closing the gap in a generation: health equity through action on the social determinants of health”, Final report of the Commission on Social Determinants of Health, <https://www.who.int/publications/i/item/WHO-IER-CSDH-08.1>

⁷⁶ Thomson, H. Bouzarovski, S. (2019): “Addressing Energy Poverty in the European Union: State of Play and Action”, EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>



poverty has been associated with people struggling with low temperatures who have heating problems. However, we should consider **both high and low temperatures** as there is a clear evidence that summertime energy poverty and space cooling difficulties have also an impact on health, especially taking into consideration heat waves and climate change⁷⁷. This is a relatively under-explored aspect of energy poverty in Europe.

Behind energy poverty we usually can find a combination of features such as low household incomes, high energy prices and low levels of residential energy efficiency. Thus, energy poverty is not easily measured with a **single indicator** as each one captures a different aspect of the phenomenon⁷⁸ with decisive differences between quantitative (data-based) and qualitative (more perception-based) factors. Here we can also mention the Rational Use of Energy (RUE) aspect.

On this matter, the EPOV is playing a key harmonizing role as it has provided an enormous contribution to the preparation of comparative and robust statistics on energy poverty, making them publicly accessible. The results achieved in the first year of its existence are consistent with the rationale behind its creation, showing that energy poverty is more widespread than expected across the EU.⁷⁹ To achieve its objectives, the EPOV has defined **28 primary and secondary indicators to help build a consistent analysis**. Primary indicators are four, two of which are based on self-reported experiences of limited access to energy services, and the other two are calculated using household income and/or energy expenditure data. Secondary indicators are instead relevant in the context of energy poverty, but not directly indicators of energy poverty itself (e.g. energy prices and housing-related data). Both primary and secondary indicators can be computed by using Eurostat. This shows that data on EU countries are available on different dimensions of energy poverty, the relevance of which depends on the definition of energy poverty adopted.⁸⁰

The EPOV has provided until now a key contribution in rationalising existing information and providing it on a comparable basis for all MS, but now the problem seems to be the lack of a harmonised measure. The definition and indicators proposed by EPOV should be accepted by all countries, which are in different positions, since they could not have an agreed definition or they have a very different one. Also, Member States compute energy poverty measures based on national surveys which have different periodicity from one country to another, causing delays and difficulties to monitor the evolution of energy poverty.

⁷⁷ Thomson, H., et al. (2019). "Energy poverty and indoor cooling: an overlooked issue in Europe." *Energy and Buildings*

⁷⁸ Thomson, H. Bouzarovski, S. (2019): "Addressing Energy Poverty in the European Union: State of Play and Action", EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>.

See also: Feenstra, M., et al. (2021). "Humanising the energy transition: towards a national policy on energy poverty in the Netherlands." *Frontiers in Sustainable Cities*.

⁷⁹ Thomson, H. Bouzarovski, S. (2019): "Addressing Energy Poverty in the European Union: State of Play and Action", EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>

⁸⁰ Thomson, H. Bouzarovski, S. (2019): "Addressing Energy Poverty in the European Union: State of Play and Action", EU Energy Poverty Observatory, <https://www.energypoverty.eu/publication/addressing-energy-poverty-european-union-state-play-and-action>



This takes us to the next challenge. According to the EC, almost 54 million Europeans (around 11% of the population) are in a situation of energy poverty, however **most EU countries still do not identify or quantify vulnerable energy consumers**, and do not adequately target energy poverty measures.⁸¹ This means that almost two thirds of Member States are not yet monitoring the development of energy poverty using quantitative metrics, causing a knowledge-gap. In the context of the incipient awareness of the problem, the EU institutions and the key actors involved in the energy sector have to promote awareness on this problem and build efforts together with the MS to make sure they include energy poverty in their metrics and policies. This will allow us to objectivise the situation at European scale and set the objectives for the next years.

Finally, we can mention the challenge of **addressing energy poverty** itself. **As we already mentioned, energy poverty is part and parcel of the problem of poverty in general but we need to tackle it separately due to its own features.** This is because anti-poverty measures are very often benefit-driven, which in the case of energy poverty is more of a short-term solution even if low income is indeed a major factor behind energy poverty. Energy poor households experience difficulty often because their house or apartment is poorly insulated or the electrical and gas appliances are very old and inefficient. Tackling this problem would be the long-term solution but this also requires a larger up-front investment. Another practical reason to address energy poverty separately from poverty is that the available EU funding is significant for energy efficiency renovations, but they are not always channelled towards the households most in need,⁸² due to the difficulties of identification and data collection. Moreover, in the context of the energy transition it is also critical that we both monitor the impact of environmental policy on energy poor households, and enable these households to participate in the transition, to ensure that political support for the transition is sustained.

We can state that there are a wide variety of tools to address energy poverty, but the key aspect is an **integrated approach involving both energy policy and social policy**⁸³. The right to affordable energy, as a basic human entitlement, where no person can be deprived of a minimum service, must be asserted together with integrated solutions which tackle: (1) low incomes; (2) promote fair prices and affordable, quality, energy-efficient housing; (3) protects vulnerable consumers and (4) improves the energy efficiency of houses and equipment. At this point, the promotion of renewable energy solutions can also be an opportunity to address the renovation of buildings.

Wellbased will consider all these challenges to offer a coordinated and replicable solutions for energy poverty in the pilot cities, adaptable to the different European realities.

⁸¹ European Commission Press Statement (2019): "Time to eradicate energy poverty", 27/06/2019, <https://cor.europa.eu/en/news/Pages/time-to-eradicate-energy-poverty-in-europe.aspx>

⁸² Katalin, Csiba (2017): "Why is energy poverty still an issue?", Journal, Green European Journal, 14-02-2017 <https://www.greeneuropeanjournal.eu/why-is-energy-poverty-still-an-issue/>

⁸³ Feenstra, M., et al. (2021). "Humanising the energy transition: towards a national policy on energy poverty in the Netherlands." *Frontiers in Sustainable Cities*.



3. Addressing the energy poverty in the EU

3.1. Member states reports

The EPOV's Member State Reports summarise the key aspects of the energy poverty situation in each EU Member State, based on the key indicators, policies and publications gathered and published on the EPOV website. The indicators used in the reports are based on data collected by EUROSTAT. The definition of terms used in the reports, further information on policies, organisations and publications and further statistics can be found on the EPOV website (www.energypoverty.eu). As the reports were completed in February 2020, the impacts of the Corona crisis on energy poverty are not reflected in the reports. -- https://www.energypoverty.eu/sites/default/files/downloads/publications/20-06/mj0420245enn.en_.pdf

To measure energy poverty, EPOV recommends using multiple indicators in combination. Primary indicators are defined as follows:

1. High share of energy expenditure in income (2M): part of population with share of energy expenditure in income more than twice the national median (source: EPOV, 2010 HBS).
2. Hidden energy poverty (HEP): part of population whose absolute energy expenditure is below half the national median (source: EPOV, 2010 HBS).
3. Inability to keep home adequately warm: based on self-reported thermal discomfort (source: Eurostat, 2016 SILC).
4. Arrears on utility bills: based on households' self-reported inability to pay utility bills on time in the last 12 months (source: Eurostat, 2016 SILC) -- European Energy Network (EnR) (2019): "EnR Position Paper on Energy Poverty in the European Union", Presidency and Secretariat, Italian Agency for New Technologies, Energy and Sustainable.

3.2. Public policies, actions and interventions

The following is a classification of the different countries of the European Union according to their Welfare State models in which we reflect various aspects regarding the approach, classification and conception of the problem that is the subject of this analysis: energy poverty.

For the clustering of the different countries according to their Welfare State model, we use the classification elaborated by the sociologist Gosta Esping Andersen. His work is based on the understanding that both the health care systems and the public services that address other social problems that may derive from limited access to resources and goods considered basic for life (Social Services) are two of the fundamental pillars of the Welfare States around which this project revolves.

To the classification of the models identified by Esping Andersen, a new group of countries has been added, those of Eastern Europe, as it is considered that their delay in joining the EU could have had an influence



on the development of the pillars on which the Welfare States are based beyond the political line underlying the State policies of each of these countries.

The following tables systematize the starting point of policies to address energy poverty, the areas from which the different measures are promoted to assist those in this situation and the specific interventions implemented in each of the countries that make up the EU.

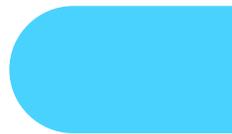
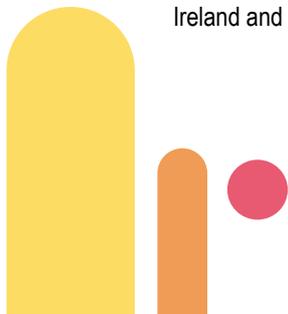
3.2.1. Liberal Welfare States

Great tradition in the field of Energy Poverty and highly developed and specific policy strategies⁸⁴.

MS	Official or general approach on EP	Is there a national strategy targeting EP?	Policy interventions against EP by territorial level	
Ireland	Long tradition in fight against EP. They have specific measures for energy-vulnerable households, but no explicit definition of the problem ⁸⁵ .	Two national EP strategies have been put in place since 2000, extending energy efficiency to low-income households.	National level:	Subsidies for building insulation; Heating installation subsidies; Household appliances; Financial aid for energy bills; Protection from disconnection
			Regional level:	
			Local level:	
			Associations:	
United Kingdom	Research in PE in Europe began in the UK. Traditionally, the British have developed the concept: "Fuel poverty" and use the indicator "Low Income Low Energy Efficiency"	They have a National Strategy: UK Fuel Poverty Strategy in 2001, targeting vulnerable households, which was updated in 2021 to the strategy: Sustainable Warmth – Protecting Vulnerable Households in England	National level:	Insulation of buildings; Heating installation; Financial aid for energy bills; Information and education; Social tariff
			Regional level:	Insulation of buildings; Heating installation; Energy audits;

⁸⁴ Based on data from: EU Energy Poverty Observatory. (2020). "Member State Reports on Energy Poverty 2019". European Commission

⁸⁵ Kerr, N., et al. (2019). "Politics, problematisation, and policy: a comparative analysis of energy poverty in England, Ireland and France." Energy and Buildings 194: 191-200.





	to measure it. A household is considered energy poor if it has below average income and the building is rated as energy efficiency band D and below.		Household appliances; Financial aid for energy bills; Information and education;
		Local level:	Insulation of buildings; Heating installation; Information and education; Financial aid for energy bills;
		Associations:	

3.2.2. Conservative Welfare States

We found two different approaches in the topic among continental states:

- On the one hand, **countries that recognize energy poverty as a specific problem** and they present remarkable governmental strategies in this area. Those are: France, Belgium and Italy.

MS	Official or general approach on EP	Is there a national strategy targeting EP?	Policy interventions against EP by territorial level	
France	France is one of the most active countries in research and policies in the field of energy poverty. The French Observatory on Energy Poverty has sought an official definition, and monitors the problem using a	At the forefront of EP, France has created the French Observatory on Energy Poverty. Specific strategies have been implemented in EP, such as social funds for the energy renovation of vulnerable households.	National level:	Subsidies for building insulation; Heating installation subsidies; Household appliances Financial aid for energy bills; Information and education; Energy audits
			Regional level:	Subsidies for building insulation; Heating installation subsidies Household appliances;
			Local level:	Subsidies for building insulation; Heating installation subsidies; Household appliances



	'basket' of 4 indicators ⁸⁶ .			Information and education; Energy audits; Financial aid for energy bills;
			Associations:	Subsidies for building insulation
			Energy supply companies:	Protection from disconnection; Subsidies for building insulation; Heating installation subsidies; Household appliances; Information and education; Energy audits.
Belgium	Very active policy in the field, they have designed wide variety of specific policies in EP. For example, specific policies have been created aimed at vulnerable consumers who cannot afford energy.	There is a national EP strategy as well as regional strategies	National level:	Social tariff;
			Regional level:	Subsidies for building insulation; Heating installation subsidies; Protection from disconnection;
			Local level:	Subsidies for building insulation; Heating installation subsidies;
			Associations:	Subsidies for building insulation
Italy	They propose their own definition of EP, a modification of the "low income high costs" indicator.	In the National Energy and Climate Action Plan, Italy set specific objectives and policies to combat energy poverty. There are specific	National level:	Subsidies for building insulation; Heating installation subsidies; Household appliances Financial aid for energy bills; Grants for self-generation with renewable energy

⁸⁶ Kerr, N., et al. (2019). "Politics, problematisation, and policy: a comparative analysis of energy poverty in England, Ireland and France." *Energy and Buildings* **194**: 191-200.



		measures and European projects underway.	Regional level:	
			Local level:	Financial aid for energy bills;
			European Projects (EnerSHIFT, LEMON):	Subsidies for building insulation; Information and education; Heating installation subsidies;
			Associations:	

- On the other hand, **countries that deal with energy poverty through general social protection system**, although some policies are being implemented in the EP topic. This group includes the Netherlands, Germany, Austria and Luxembourg.

Netherlands	Energy poverty is addressed primarily through social policies, including social housing and social support systems. But there are specific policies to improve energy efficiency in social housing. A policy on EP is currently under development.	The National Energy and Climate Plan does not design a policy line explicitly dedicated to alleviating energy poverty, but there are some specific measures	National level:	Subsidies for building insulation; Heating installation subsidies; Grants for Self-generation with renewable energy; Protection from disconnection; Financial aid for energy bills; Information and education
			Regional level:	
			Local level:	Energy audits; Household appliances; Information and education;
			Associations:	Energy audits; Financial aid for energy bills; Household appliances;
Germany			National level:	Protection from disconnection;



	<p>The national government treats energy poverty as part of a comprehensive set of social policies that address poverty in general.</p>	<p>There is no specific strategy in PE, but there are some measures.</p>		<p>Energy audits; Household appliances; Social bonds</p>
			Regional level:	<p>Protection from disconnection; Social bonds; Information and education;</p>
			Local level:	<p>Subsidies for building insulation; Heating installation subsidies; Financial aid for energy bills; Protection from disconnection;</p>
			Associations:	<p>Energy audits; Information and education; Household appliances; Protection from disconnection;</p>
			Energy supply companies:	<p>Information and education; Social tariff; Protection from disconnection;</p>
Austria	<p>EP is treated as a more social vulnerability, there are no specific programs. Definition: Household in EP = if their income is below the poverty risk threshold and your energy costs exceed the average efficiency in social housing.</p>	<p>It does not have a national energy poverty strategy, but it does have non-specific social policies to provide minimum income</p>	National level:	<p>Subsidies for building insulation; Heating installation subsidies; Household appliances;</p>
			Regional level:	<p>Financial aid for energy bills; Energy audits; Protection from disconnection;</p>
			Local level:	
			Associations:	<p>Energy audits;</p>



Luxembourg	Energy poverty is primarily addressed through social policy in Luxembourg (Basic income system...)	There is no specific strategy in PE, but there are some measures.	National level:	Subsidies for building insulation; Heating installation subsidies; Social bonds; Grants for self-generation with renewable energy; Information and education;
			Regional level:	
			Local level:	Financial aid for energy bills;
			Associations:	Information and education;
			Energy supply companies:	Information and education;

3.2.3. Nordic / Social-Democratic Welfare States

Energy poverty is addressed through general social protection system, as it is considered as one of the several dimensions of general poverty.

MS	Official or general approach on EP	Is there a national strategy targeting EP?	Policy interventions against EP by territorial level	
Denmark	Energy Poverty is included as part of general poverty. There is an energy transition plan, the National Energy and Climate Plan,	Energy poverty is addressed through the national system of social policy (managed locally) and housing policies. In addition, general energy policies have specifications for poor households,	National level:	Loans for insulation of buildings; Financial aid for energy bills; Information and education
			Regional level:	
			Local level:	Loans for insulation of buildings; Social bonds



	but it does not propose definitions, key indicators, or objectives to combat energy poverty in particular.	although there is no talk of energy poverty as such.	Associations:	
Finland	Based on two specific national studies in EP, the Finnish government concluded that no specific strategy is needed to address the EP, as the comprehensive social support system sufficiently addresses the problem.	There is no specific strategy in EP. It is addressed using social measures, which have energy specifications on particular occasions.	National level:	Social bonds; Subsidies for building insulation; Heating installation subsidies
			Regional level:	
			Local level:	
			European Projects:	Information and education; Energy audits
			Energy supply companies	Protection from disconnection
Sweden	EP is assimilated to general poverty. Energy efficiency and renewable energy plans are available, but they do not specifically target vulnerable households.	The EP is not addressed directly but through a robust social policy for vulnerable households, for example, through housing bonds.	National level:	Insulation of buildings; Heating installation, Protection from disconnection; Grants for Self-generation with renewable energy; Social bonds
			Regional level:	
			Local level:	Information and education; Social bonds
			Energy supply	Information and education



				companies:
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3.2.4. Southern Countries / Mediterranean Welfare States

Excluding Portugal, Energy Poverty is confronted as a specific risk. Spain and Greece stand out because of their national strategies against Energy Poverty.

MS	Official or general approach on EP	Is there a national strategy targeting EP?	Policy interventions against EP by territorial level	
Spain	EP concept linked to energy inefficiency. The government seeks to "ensure access to affordable, safe, sustainable and modern energy for all". There is a well-developed research history on the topic of EP in Spain.	National strategy against EP 2019 - 2024 (+ some regional strategies). Also, there are many active civil organizations fighting against the EP.	National level:	Financial aid for energy bills; Insulation of buildings; Heating installation
			Regional level:	Insulation of buildings; Heating installation; Self-generation with renewable energy Protection from disconnection;
			Local level:	Insulation of buildings; Heating installation; Protection from disconnection; Information and education
			Associations:	
Greece	There is a specific line of social intervention in EP, which addresses households that cannot pay their energy bills.	They set up the Greek Energy Poverty Observatory and specific measures against the EP, including obligations for energy companies.	National level:	Financial aid for energy bills; Subsidies for insulation of buildings; Heating installation; Self-generation with renewable energy;



				Information and education
			Energy supply companies	Social tariff
			Associations:	Subsidies for insulation of buildings; Self-generation with renewable Energy; Heating installation;
Portugal	Problems in development. For now, addressed through social assistance at the national level	There is no specific strategy, but there are beginning to be measures.	National level:	Social tariff; Heating installation; Subsidies for insulation of buildings; Household appliances; Subsidies for self-generation with renewable energy;
Malta	Problems in development. But there are already specific social bonds for energy bills for vulnerable households.	There is no national strategy as such, but if there are some measures in both social and energy efficiency. And there are European programs specializing in PE.	National level:	Financial aid for energy bills; Subsidies for insulation of buildings; Heating installation; Grants for self-generation with renewable energy
			Energy supply companies	Information and education
			Associations:	Household appliances; Heating installation; Energy audits; Information and education



3.2.5. Central and Eastern Europe States

Energy Poverty eradication policies in different levels of development. Lithuania stands out for it is preparing a specific EP national strategy, and so does Poland, addressing EP via environmental and energy transition programs.

MS	Official or general approach on EP	Is there a national strategy targeting EP?	Policy interventions against EP by territorial level	
Bulgaria	There is no specific legal definition, but the European project REACH has made a report on a national scale	There is no specific national strategy, and they present an underdeveloped EP policy, but the matter is included in the general social policies, focused on financial aid and renewals.	National level:	Financial aid for energy bills; Subsidies for building insulation; Heating installation subsidies; Energy audits.
			European Projects (REACH):	Information and education; Energy audits.
Croatia	There is no specific legal definition, but the European project REACH has made a report on a national scale	There is no specific overall strategy for the EP. The EP is mainly addressed through direct financial aid for vulnerable consumers	National level:	Financial aid for energy bills; Subsidies for building insulation; Heating installation subsidies; Energy audits. Information and education; Social bonds
			Local level:	Financial aid for energy bills; Subsidies for building insulation; Heating installation subsidies; Energy audits. Information and education; Social bonds



Slovakia	The approach to reducing energy poverty in Slovakia is mainly through social support measures.	Topic in development, especially at regional and local level	National level:	Subsidies for building insulation; Heating installation subsidies; Information and education; Social bonds Grants for self-generation with renewable energy
			Local level:	Subsidies for building insulation; Heating installation subsidies; Grants for self-generation with renewable energy
Slovenia	Field in development	There is no national strategy as such but there are variety of central government measures targeting energy vulnerable households.	National level:	Subsidies for building insulation; Heating installation subsidies; Household appliances; Protection from disconnection Information and education; Social bonds
			Regional level:	Social bonds
			Local level:	Heating installation subsidies; Social bonds Information and education;
			Associations:	Financial aid for energy bills
Estonia	Energy poverty is addressed primarily through social policies. People with incomes below a threshold can apply for	There is no specific national strategy. Poorly developed EP policy. Energy efficiency policies do not have a specific	National level:	Subsidies for building insulation; Heating installation subsidies; Household appliances; Protection from disconnection; Information and education;



	subsistence benefits. The calculation of these benefits takes into account the energy costs of the home.	goal targeting poor households.		Social bonds
Hungary	Field in development	There are civil society associations actively working on the issue. Also, the national government has implemented measures to protect vulnerable consumers, although there is no strategy against EP as such	National level:	Subsidies for building insulation; Heating installation subsidies; Protection from disconnection; Renewable energy
Latvia	In development. Since 2018, the Latvian government has been funding an energy poverty research project that is preparing an official definition of EP, focusing on the risk of EP from vulnerable social groups.	Strategy in progress. For the time being, EP is being addressed through social services policy. There are also European projects working in the field.	National level:	Subsidies for building insulation; Heating installation subsidies; Financial aid for energy bills; Information and education
			Local level:	Social bonds
			Energy supply companies:	Financial aid for energy bills; Information and education
Lithuania	There is no specific national definition. Topic in development.	There is no specific strategy. But there are equivalent measures such as heating compensation.	National level:	Subsidies for building insulation; Heating installation subsidies; Financial aid for energy bills; Information and education



		European projects are also taking part in the fight against EP.		
			Local level:	Financial aid for energy bills
			Energy supply companies:	Information and education
Poland	EP idea linked to energy inefficiency and polluting energy	Topic addressed in the Clean Air Program. Usually, however, these energy efficiency measures are not particularly targeted at vulnerable households	National level:	Subsidies for building insulation; Heating installation subsidies; Financial aid for energy bills; Information and education; Social bonds Grants for self-generation with renewable energy
			Local level:	Financial aid for energy bills; Grants for self-generation with renewable energy
Czech Republic	Topic in development, there is no specific national definition yet. Energy efficiency programs are targeted at all households rather than specific vulnerable households.	There is still no strategy against the EP. Until recently, energy poverty was addressed mainly through social policies. The Czech National Energy and Climate Plan contains plans to reduce energy poverty and plans have recently begun to implement targeting specific vulnerable consumer groups	National level:	Subsidies for building insulation; Heating installation subsidies; Information and education; Social bonds
			Regional level:	Heating installation subsidies;
Romania	Issue in development. The EP is addressed centrally through	There is no national strategy as such, but	National level:	Subsidies for building insulation; Heating installation subsidies; Energy audits;



		social support to low-income households (social tariffs, basic income...).	there are some measures in place		Financial aid for energy bills; Information and education; Protection from disconnection; Social bonds; Social tariff.
				Local level:	Subsidies for building insulation; Heating installation subsidies; Energy audits
				European Projects (SAVES2)	Information and education

3.3. Comparative analysis

First, it is necessary to mention that it is very difficult to conduct a comparative analysis of the impacts and scope of energy poverty by country. Each country uses different concepts regarding what is meant by energy poverty, and also establishes different indicators to measure the importance of this social problem.

This disparity in the initial points that lead to the diagnosis of energy poverty may also be related to the different models of social support according to the classification we made previously, that is, to the different models of Welfare State predominant in each of the countries analyzed.

There are similarities in relation to the definition, approach and measurement of Fuel Poverty in those countries that share a welfare model. It is logical to think that this is the case, since under these models there is a common current of political thought and, therefore, an approach to public policies based on the conception of the State model of each one. Differences have only been detected in the group of countries with a conservative model. We understand that the differences are due to the different intensity of their respective social protection systems.

Without assessing whether the impacts of the measures according to these different groups of countries are more or less positive in terms of reduction and effectiveness in addressing situations of energy poverty in households, there are a number of issues worth highlighting with the aim that the cities that are part of this consortium, take them into account when planning their respective local strategies.

In any case, it is also important for each of the cities to take into account the socio-political model on which the public policies of their countries are based in order to design strategies, ensuring that the proposed measures will fit into the portfolio of public services and, therefore, increasing the possibilities of replication and transfer of their pilots to other cities or even neighbouring countries.



It is with this premise in mind that we have developed this comparative analysis. This analysis is based on the observation of what is the starting point from which energy poverty situations are addressed, what is the type of strategy to address this type of problem and what are the specific measures that are carried out for this purpose. When studying these questions, the specific data of which can be seen in the tables that appear in the previous sections, we highlight what is explained below.

3.3.1 Addressing energy poverty

There are two models for addressing EP situations: either from the general system of care for vulnerable households or through specific measures that are generally associated with specific planning in this area.

The countries that address this problem in a general approach are those with more robust welfare states and whose social care measures are more extensive. These are mainly those classified as social democratic states. They start from a generic conception of poverty and consider energy as just another basic need. Therefore, their approach is not based on any of the 4 pillars of the welfare state, but rather the different measures are implemented by various departments, generally belonging to the local administration. In short, it is an approach based on the macro set of social policies deployed by different institutions depending on the type of measure in question, but with a greater role for local public services.

Some of the countries with welfare models classified as conservative countries also take this approach based on the general system of social policies, especially from the social services (Luxembourg, Austria, Germany and the Netherlands).

The rest of the countries that are part of the conservative model (France, Belgium, Italy...), together with all the other groups, propose a specific approach to energy poverty situations based on the national and local care systems, but from a very specific perspective, although with different intensity depending on the country in question and, obviously, on the coverage of social services and the importance that the state gives to each of them. The specific approach often defines the problem narrowly, and creates policy that specifically addresses this narrow definition, rather than relying on more general understandings of poverty.

In fact, it is important to make reference to the existence of some countries of the Central and Eastern European group that are still studying this problem (Lithuania, Slovenia, Hungary and Estonia) but in which, in spite of this, they have specific measures for the care of households vulnerable to this situation.

3.3.2 Strategic Planning

When looking at how different countries respond to situations of Energy Poverty, we can also observe that we can make a new classification between those that have a specific strategic plan and those that include it in their social care systems at a general level and, therefore, do not have a specific plan to attend to the problem.

In any case, the fact of having, or not, a local or national strategy to ensure citizens' access to this basic good is not necessarily negative, nor does it mean that situations arising from a lack of resources to access energy are not addressed. In fact, the group of countries that share the social democratic model do not have



specific strategies but, on the other hand, they do have a good number of measures that contribute to preventing and alleviating situations of energy poverty and the consequences that may arise from it.

The work developed by countries with a Liberal welfare model in this field is very remarkable, something that is no coincidence since it was in the United Kingdom that this "new" social problem, coined with the term "Fuel poverty", became visible. Nevertheless, it is not these countries (UK and Ireland) that have the largest integrated portfolio of services to address fuel poverty situations, but it is France and Germany that have the more diverse package of specific measures that are deployed through the public service systems at the national, regional and local levels in parallel, according to EU Energy Poverty Observatory Member State Report on Energy Poverty⁸⁷. We can affirm that some central-western countries model have successfully developed specific anti-energy poverty policies and that we can no longer speak of one cohesive Conservative model, at least in the matter of energy poverty.

3.3.3 Types of measures

As a first observation, it is important to note that the interventions are designed based on a caring conception of the problem, as opposed to an entitlement to energy conception. In this sense, there are measures aimed at guaranteeing that citizens in this situation can have access to this scarce good (energy) through the introduction of improvements to guarantee energy efficiency in their homes, educational actions and the preparation of energy audits aimed at reducing consumption and, therefore, the cost of energy bills. Another type of measure is also contemplated, although less common in the EU countries as a whole. These are social tariffs and vouchers and those aimed at protection against disconnection.

On reviewing the set of actions promoted in the different countries, we see that, with very few exceptions, all of them have measures aimed at insulating buildings. Also noteworthy is the fact that all the measures implemented are directly aimed at the population that is already in a situation of energy poverty, except in the Scandinavian countries, where vulnerability and the risk of poverty are addressed from an integral point of view: the social protection system reduces the risk of this type of situation.

On the other hand, as is obvious, it is also observed that the countries that share a welfare state model also share the types of measures implemented, although with greater or lesser intensity depending on the different degrees and intensities in terms of the coverage model provided by each of the States.

In general, according to what is observed in the specific literature and taking energy poverty data as a reference, it is true that the measures implemented in the different countries have positive impacts, but not enough to solve the problem for which they are intended, not even when the measures are applied as a whole. In order to solve the problem more effectively, we recommend to approach the problem from the point of view of access to energy as a right. This would imply providing it with greater legal guarantees to

⁸⁷ EU Energy Poverty Observatory. (2020). "Member State Reports on Energy Poverty 2019". European Commission



make its exercise effective. Furthermore, it is important to remember that SDG 7 refers to the right of access to affordable and non-polluting energy, so it is the obligation of legislators to pursue this goal.

In terms of sustainability, although there are some measures aimed at improving energy efficiency, what lies behind them has more to do with the need to reduce the cost of the bill for families living in energy poverty than with a policy that seeks environmental balance. In fact, the number of countries that have promoted policies for the self-generation of renewable energies is still very low. On the other hand, those that have implemented them do not respond to a specific pattern (neither in terms of the welfare model nor in relation to the climatic conditions of each of them).

Another group of measures that is important to mention has to do with public policies through which a series of "obligations" are created for energy companies. On the one hand we find the establishment of the duty to provide transparent information on everything related to billing and, on the other hand, obligations to prohibit the disconnection of vulnerable families from the network and the creation of social tariffs aimed, also, at households in vulnerable situations.

3.3.4 Some conclusions and recommendations

- There are coincidences in terms of the formulas in the approach and conception of the concept of energy poverty among the countries that share welfare state models because, as noted at the beginning of the analysis, they are underpinned by a political conception that guides all state policies. Despite this, almost all countries share the different types of measures explained in the previous section, although the combination and intensity of these measures depends on the degree of protection, deployment of the welfare system and resources available in each of these countries⁸⁸.
- All the groups of countries propose a conception and approach to the problem based on a welfare concept and not on the consideration of access to energy as a Basic Right.
- In this sense, although all the measures studied have the capacity to help improve the difficulties of families to ensure access to energy, none of them seems to have sufficient capacity to solve the root of the problem.
- It seems clear that it is necessary, in order to address situations of energy poverty, to establish a combination of measures including among these, and in an obligatory manner, those that involve the energy supply companies.
- None of the countries proposes an approach to energy poverty situations based on the deployment of measures through their health systems. In this sense, neither do they seem to take into account, in a direct way, the impacts that this situation may imply on the health of those who suffer from it. For the same reason, the proposed measures are not directly aimed at reducing the negative impacts that energy poverty could have on physical and mental health.

⁸⁸ These conclusions coincide with the analysis of Kerr, N., et al. (2019). "Politics, problematisation, and policy: a comparative analysis of energy poverty in England, Ireland and France." *Energy and Buildings* **194**: 191-200.

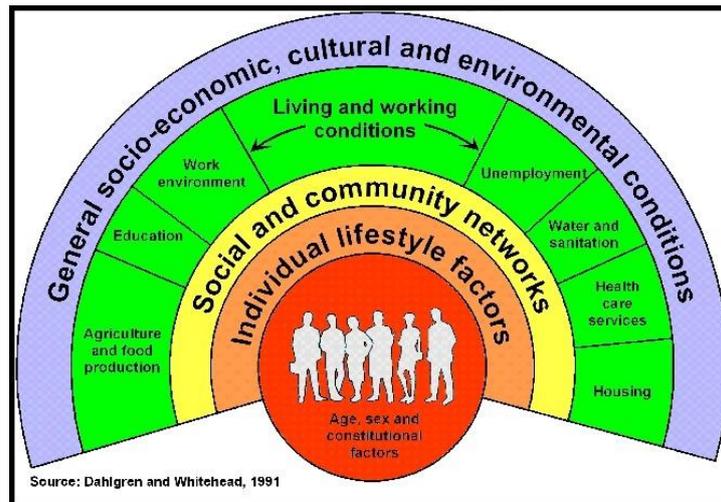


- Nor are there any measures to encourage or support solutions to this problem based on community solutions such as groups of energy prosumers, for example. These type of interventions, more innovative in view of the work done in this field so far, could have a great impact not only in terms of reducing energy poverty rates but also in relation to the health (especially mental) of the population on which they are proposed, as they involve a series of social relations between neighbours.
- Although some of the measures implemented in almost all countries contemplate interventions in homes to improve energy efficiency, they do not underlie a need to propose solutions in line with the improvement of the planet's environmental sustainability, but rather the need to reduce the cost of the energy bill. In this sense, it will be essential that the solutions chosen take into account this issue since the environmental quality and the environment in which life is developed has a direct effect on the welfare and health of citizens.

4. Actions and interventions classified from socio-ecological approach

While the previous section presented the characteristics of different policies from a broad perspective, in this section we aim to narrow the scope and present with more detail several actions and interventions that can inspire Wellbased pilot partners. The measures have been classified under the logic of the socio-ecological model, which is the theoretical framework that guides Wellbased project.

The socio-ecological model proposed by Dahlgren and Whitehead (1991) maps the relationship between the individuals, their environment and health. The health and well-being of individuals and populations across all age groups is influenced by a range of factors both within and outside the individual's control. The model has been developed to describe the social and ecological determinants of health – the way in which elements of the social, economic and physical environments interacts with individuals' biological factors and behaviours and shape health status. The model defines different layers of influence, such as individual lifestyle factors, community influences, living and working conditions and more general social conditions.



Having in mind these different layers of influence, we have classified all actions to tackle energy poverty found. To enrich the list of practices, we have not just limited our list to those identified from the Member States Report (shown in Tables from section 3.2), but we have also included those learnt from literature review and from author's experience on the field of energy poverty. This list aims to be useful to Wellbased partners as an inspiration for the design of the Urban Programme (see task 2.2_Definition of a common methodology and urban programme), considering that the envisioned Urban Programme should link all levels from the social-ecological approach, that is to say: the Urban Programme needs to include practices influencing individuals lifestyle factors, other influencing social and community networks, some influencing living and working conditions, and practices influencing general socio-economic, cultural and environmental conditions.

Through our literature review, we found several EU-funded projects working in the field of energy poverty that have developed resources about good practices. More concretely, we have chosen two of them since we considered that there were very extensive and complete (project STEP⁸⁹ and project Atlas of Energy Poverty Initiatives in Europe⁹⁰). We appreciate this work already done and we reference these to illustrate practical examples in each of the 4 layers.

- **Layer 1: Individual lifestyle factors: Practices oriented to strengthening individuals, mainly those oriented to promote individual change behaviour related to energy efficiency**

This is the group where most best practices have been found. Broadly speaking, in this group we include those **oriented to promote information and education in energy efficiency and to decrease energy consumption and energy costs**. They can be implemented through different formats, such as individual assessment services, through training oriented to people in vulnerability, through the publication of educational materials, etc. Three best practices are listed below as concrete examples, although there are a great number of other examples, many of them are also included on the reports referenced.

⁸⁹ STEP Project (Solutions to Tackle Energy Poverty). Grant agreement No. 847080. Web of the project: <https://www.stepenergy.eu/>

⁹⁰ Atlas of Energy Poverty Initiatives at Europe (2017) by Ecoserveis.



Practice	Description	To learn more
Energy Advice Programme (EAP)	Targeted advice and support covering all types of energy issue. The aim of this programme is to ensure that clients are living in warm efficient homes on a tariff they can afford.	STEP report , page 17. More information available here .
SHINE (Seasonal Health Intervention Network)	One-stop referral system for NHS (National Health Service) and third sector to help them provide affordable warmth and seasonal health interventions to residents. Interventions include advice on saving energy, grants for heating and insulation, energy debt advice, Energy Doctor in the Home: home visiting service, benefit checks, falls assessments, fire safety checks, air quality alerts for people with respiratory diseases and handyperson service	STEP report , page 9. More information available here .
Energy Cafés	Green Doctors offer residents a range of simple energy efficiency measures. They also signpost residents if eligible to government and energy company grants that can help them to install more significant EE measures. They offer residents debt assistance and also offer energy tariff or company switching advice.	Atlas of Energy Poverty Initiatives in Europe , page 74-75 More information available here

- **Layer 2: Social and community networks. Practices oriented to strengthening communities, mainly those oriented to promote community support.**

This group includes those practices oriented to face energy poverty which are based on a collective logic. This implies to spread the commitment with the problem (and the obligation to solve it) to other stakeholders (not energy vulnerable people), such as for example other people from the community, neighbourhood associations, students, volunteers, long-term unemployed, among others. The key aspect of these practices that make them belong to these second layer is the fact that **they are oriented to promote community**



support and mutual aid, and therefore moving from individual to collective support approach. Some examples of good practices in this sense are:

Practice	Description	To learn more
Alliance Against Energy Poverty (APE)	The Aliança contra la Pobresa Energètica (APE) aims to make the problem of energy poverty more visible on a societal level, by interacting with and mobilising those experiencing energy poverty. The mobilisation was achieved via collective advisory assemblies, advocacy campaigns, and demonstrations	Atlas of Energy Poverty Initiatives in Europe , page 50-51
CAF-ACCIO (self-financing communities)	Recent immigrants from impoverished countries lack a network of relationships or access to bank credit, but have economic uncertainty, as all contributes to a situation of fuel poverty. Through this initiative, they are trained with the methodology of saving groups, so as to have a real solution against fuel poverty through mutual aid.	Atlas of Energy Poverty Initiatives in Europe , page 61-61
ACHIEVE (Actions in Low Income Households to Improve Energy Efficiency through Visits and Energy Diagnosis)	Long-term unemployed, volunteers, and students are mobilized and trained to develop a large-scale energy advisory service for low-income households facing difficulties with their energy bills	Atlas of Energy Poverty Initiatives in Europe , page 80-81 STEP report , pages 22
<ul style="list-style-type: none"> • Social Innovation to tackle Energy Poverty • Innovative direction in Energy Advising (Idea) • End Fuel Poverty coalition • Fuel Poverty Awareness Day and National House Waring event 	The common denominator among all these interventions is that they intend to raise awareness of energy poverty (amongst individuals, governmental bodies, media and other stakeholders)	STEP report , pages 5-8



<ul style="list-style-type: none"> • Big Energy Saving week 		
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● **Layer 3: Living and working conditions factors. Practices oriented to improving access to life-enhancing services.**

This group of practices is quite extended, since it includes all practices oriented to improve the access to those “services” needed for a dignified work and life condition. Therefore, in this layer we understand “services” from a broad perspective, such as:

- an affordable energy supply (here we refer to practices oriented to **monetary support to the energy bill**);
- a decent household (here we refer to **housing measures to promote energy efficiency**);
- a dignified employment, (here we refer to **broadening the employment opportunities** for energy vulnerable people in order to guarantee job security)
- a safe environment (here we refer to practices oriented to **promote renewable energies as a tool to guarantee access to energy**)

Some examples of these measures are listed below:

Practice	Description	To learn more
The HELPS project - Enerterre	The French cooperative Les 7 Vents coordinates the HELPS project - Enerterre, promoting shared and accompanied self-rehabilitation (SASR) practices that enable energy poor households to engage in energy efficiency refurbishments of their homes at a lower cost.	Find more information here .
ZEZ Energy Advisors	ZEZ fights youth unemployment and energy poverty in Croatia with the Energy Advisors programme. The programme aims to improve energy efficiency in energy poor households through the use of tips and energy efficiency measures, carried out by young and long-term unemployed persons qualified as energy efficiency advisors	More information available here .
Brixton Energy Solar	The Brixton Energy Solar projects are co-operatively	Find more information here .



	owned renewable energy projects on social housing estates. They allow tenants in social housing to make investments on their roof and give access to part of the electricity produced with solar panels for free. Revenues from the projects feed into an energy efficiency fund and provide training opportunities for youth in the community.	
Self consumption to fight against energy poverty	In 2019, the Italian social housing company “Edilizia Pubblica Pratese” inaugurated the NzeB residential complex in San Giusto (Prato) including 29 lodgings, a community centre of 250 square metres, an equipped garden and a new square. This project is a great example of collective self-consumption to fight energy poverty, combining high levels of energy efficiency with social housing to minimise energy costs, thanks to innovative approaches using sun and wind energy	Friends of the Earth (2020): “Community Energy: A practical guide to reclaiming power” . Page 95

- **Layer 4: Promoting healthy macro-policies. Practices oriented to coordinate interventions and to define public policies to tackle energy poverty**

This layer refers to those practices and policies that aim to make structural changes on the socio-economic context, mainly referring to both energy and to household policies. We have highlighted the following group of practices:

Practice	Description	To learn more
Protections against disconnection	Measures promoted from national level, to guarantee a level of protection against the disconnection of the energy supply, usually regarding electricity but in some cases also gas and water.	STEP report , pages 13-15



Social tariff	This measure gives a discount, tax reduction, allowances, or financial support on the electricity bill (and sometimes natural gas, depending on countries). This measure is usually funded by the public budget of each country or by energy agents	STEP report , pages 15-17
Policies for democratic and renewable access to energy	Measures to produce energy from renewable sources, and to manage it from public hands	Public Local Supplier (for example, Barcelona Energia)
National Energy Poverty Observatory (France)	The Observatoire national de la précarité énergétique, ONPE (National Energy Poverty Observatory) is a tool to observe and analyse policies that counteract against energy poverty. Its main goal is to be a knowledge hub on energy poverty in France, with a focus on the housing and mobility sectors	Atlas of Energy Poverty Initiatives in Europe , page 25

5. Conclusions

Energy poverty is a serious problem that affects a substantial number of people in Europe. Its consequences can be very serious and it is increasingly clear that it has an effect on the health of those who suffer from it. For this reason, numerous measures have been put in place in practically all EU countries. These measures are very varied and emphasize different aspects depending, on many occasions, on the predominant social policy model in each of the countries that implement them.

This is why this document should help both Wellbased partner cities and the other cities that access it, to design new formulas to address this problem, taking into account how these could fit into their different welfare models and based on the measures already in place in their own countries. However, this fact is not contradictory to the possibility of inspiring their models of care and prevention of energy poverty situations with what has been developed in other countries.

Finally, it is important to point out that, when designing new interventions, it is extremely important to take into account how they will affect the different dimensions of the socio-ecological model.

Likewise, we should not lose sight of the fact that access to energy should be considered a right that all citizens should be able to enjoy, as it is fundamental to guarantee a dignified life.



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