TACKLING ENERGY POVERTY THROUGH NATIONAL ENERGY AND CLIMATE PLANS:

PRIORITY OR EMPTY PROMISE?

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Published in December 2020
To cite this study: LIFE Unify (2020), "Tackling energy poverty through National Energy and Climate Plans : Priority or empty promise? "

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BRINGING THE EU TOGETHER ON CLIMATE ACTION

The Unify project has received funding from the LIFE Programme of the European Union. The information and views set out in this report are those of the authors and do not necessarily reflect the official opinion of the European Commission .

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INTRODUCTION

Energy poverty is an increasingly pressing issue in the EU with nearly 34 million people unable to afford to adequately heat, cool or light their homes. Around 15% of Europeans live in poorly insulated homes with a leaking roof, damp walls, floors or foundations. This complex topic can only be addressed through social, economic and energy policies that protect the most vulnerable in our society.

The COVID-19 crisis put energy poverty across Europe in the spotlight. During lockdowns, people were unable to leave their homes which resulted in increased private energy consumption and hence, higher bills. In addition, many people were affected by decreased income or job losses [1].

In order to address the situation during the pandemic, some Member States have taken measures to decrease citizens' energy bills and provide them with the much needed support in their access to energy. According to mapping carried out by the Engager Network on the COVID-19 emergency measures related to household energy services [2], Spanish, French, Austrian and Polish governments took measures to ban disconnections, i.e. to prevent consumers from being cut off from the energy and electricity supply. While, in Portugal, Ireland, and some regions in Belgium (Wallonia and Brussels regions), a disconnection ban was announced by the regulatory entities. For other countries such as Germany, municipal energy providers took some additional measures to ban disconnections. However, the application period of these measures varied from one country to another highlighting that, without a systemic approach, these temporary measures fall short of addressing the root causes of Europe's energy poverty problem.

In the long run, Member States are expected to use their National Energy and Climate Plans (NECPs) and Long-Term Renovation Strategies (LTRS) to set out an indicative objective, a timeframe and relevant policies to reduce energy poverty. Together with the European Commission's recommendation on energy poverty [3], recently published alongside the "Renovation Wave" Strategy, these policies and measures represent an important opportunity to address Europe's energy poverty problem.

The European Commission has shown welcome support to addressing energy poverty with the formation of the EU Energy Poverty Observatory [4] which collects data and resources from across Europe. Additionally Europe's citizens affected by energy poverty were named as one of the three key priorities of the Renovation Wave alongside recommendations for Member States to provide national definitions and indicators for energy poverty in their Guidelines on Energy Poverty.

Although the Commission's willingness to reduce energy poverty is clear, it seems difficult to concretise this without taking sufficient legislative action through ring-fenced funding and specific policy. Currently, responsibility seems to have been deferred to Member States as the issue is deemed too complex to remedy at the EU level.

However as shown in this analysis, many Member States are at the very beginning of their journey to even recognise or define energy poverty in their political narrative. Currently, neither measures in current NECPs and LTRS, nor the level of ambition underpinning the Renovation Wave Strategy are enough to tackle the problem of this magnitude. Hence, if these measures are not further developed and properly implemented, households affected by energy poverty risk being left unheard without adequate solutions, funding or recognition.

[1] According to the European Parliament's survey, six out of ten EU citizens have experienced personal financial difficulties. More info :https://www.europarl.europa.eu/news/en/press-room/20200525IPR79717/eu-citizens-want-more-competences-for-the-eu-to-deal-with-crises-like-covid-19
[2] http://www.engager-energy.net/covid19/
[3] https://ec.europa.eu/energy/sites/ener/files/recommendation_on_energy_poverty_c2020_9600.pdf
[4] https://www.energypoverty.eu/

METHODOLOGY

This report assesses policies and measures aiming to tackle the energy poverty in Croatia, Czechia, Hungary, Poland, Slovakia and Slovenia. It also looks into energy poverty measures in these countries' NECPs and makes recommendations to strengthen them.

In the document, both case studies and assessments are organised around the following key issues relating to the energy poverty policy:

1. Energy poverty definition - the report assesses whether there is a proper energy poverty definition agreed at national level in each country.
2. Energy poverty data - the report assesses whether the country collects proper data about energy poverty and uses it in its policy planning.
3. Policy towards energy poverty stated in National Energy and Climate Plans, national Long Term Strategies and National Long Term Renovation Strategies - the report assesses current and proposed policy measures towards energy poverty on a national level.

The analysis presented in this report is based on publicly available information such as government announcements, final NECPs or new policies, measures and legislation presented at the national level, as well as NGOs' expert opinion. Country assessments are based on national expert opinions, evaluation and analysis.

MAIN CONCLUSIONS & RECOMMENDATIONS

In their National Energy and Climate Plans, Member States are expected to assess the number of households in energy poverty, and elaborate concrete steps to guarantee basic standards of living in the relevant national context by taking into account the Commission's indicative guidance on relevant indicators. From our analysis, it is clear that Croatia, Czechia, Hungary, Poland, Slovakia and Slovenia fail to even provide a clear definition of energy poverty and do not adequately set objectives and targets to tackle the issue.

The European Commission proposed four key energy poverty indicators [5] :

1. Arrears on utility bills - share of (sub)population in arrears on utility bills.
2. Low absolute energy expenditure (M/2) - share of households whose absolute energy expenditure is below half the national median.
3. High share of energy expenditure in income - proportion of households whose share of energy expenditure in income is more than twice the national median share.
4. Inability to keep home adequately warm - share of (sub)population not able to keep their home adequately warm.

Among the four primary energy poverty indicators proposed by the EU Energy Poverty Observatory, data is obtained each year only for two of them (arrear on utility bills and inability to keep home warm), while others have the most recent data only for the year 2015. Hence, this lack of current data makes it difficult to have a comprehensive understanding of the energy poverty situation [6].

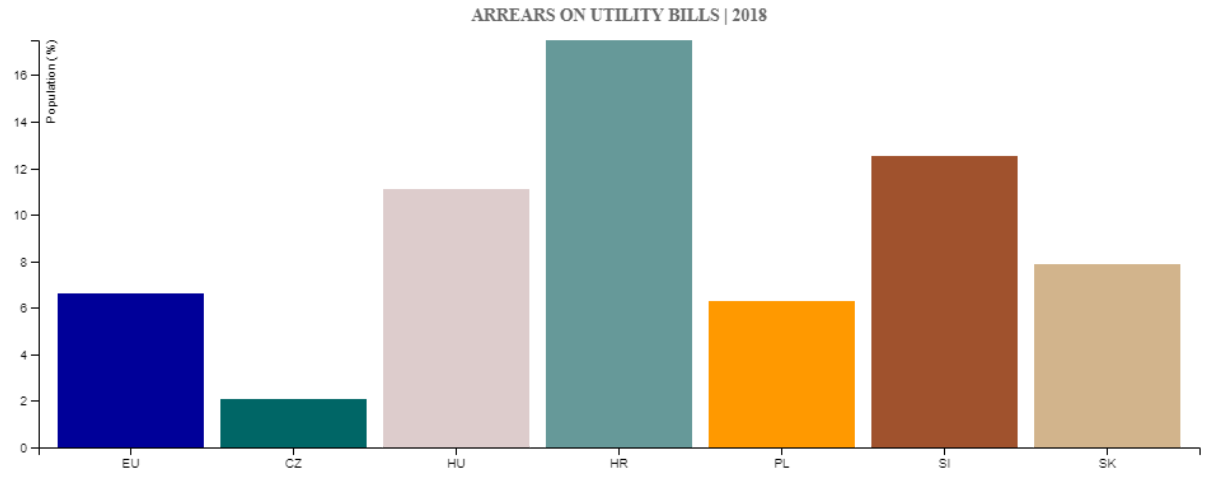

Figure 1 : Arrear on utility bills, 2018, Energy Poverty Observatory

[5] Use of these indicators is not obligatory for any country, but some of them are well established in some EU countries.
[6] https://www.energypoverty.eu/indicator?primaryId=1460&type=bar&from=2015&to=2015&countries=&disaggregation=none

In addition, none of these countries put enough emphasis on the objective of reducing energy poverty in their NECP, despite high energy poverty rates. For instance, in Slovenia 22.7% of the population live in apartments with a leaking roof, damp walls, floor, or rotten window frames [7]. However, the Slovenian NECP still fails to include a clear definition or any quantified targets or goals on energy poverty.

The situation does not look any better for the Long Term Renovation Strategies (LTRS). According to the Energy Performance of Buildings Directive, Member States should develop a comprehensive strategy with indicative milestones and progress indicators aimed at achieving a highly energy efficient and decarbonised national building stock by 2050. Together with other requirements, the LTRS have to include an "outline of relevant national actions that contribute to the alleviation of energy poverty [8]." Despite the 10 March 2020 deadline for submitting the LTRS to the Commission, at the time of writing this assessment, 13 countries have still not submitted their final strategies. Among those covered by this report, only Czechia submitted its LTRS, but the overview of measures to tackle energy poverty is omitted [9].

Yet there is still potential for a change. Certain measures mentioned in current NECPs could play an important role in alleviating energy poverty, increasing energy efficiency, deploying renewable energy and providing better housing conditions for millions if their potential is fully tapped. Among these, energy efficiency measures, building renovation, prosumer and energy communities are highlighted for almost all countries covered in this report. These measures will not only improve people's quality of life but also help the EU increase its level of climate ambition to achieve the Paris Agreement goals [10]. Hence, it is crucial to implement these measures by prioritising and taking into account the people and households affected by energy poverty.

Table.1 shows the implementation status of different tools and measures to tackle energy poverty in analysed countries. It also analyses Member States' performance based on the following assessment scale [11] :

++	means allowed according to the law and implemented (popular)
+	means allowed according to the law, but not very active, not popular, ineffective
+-	means allowed, but not implemented at all or does not work for energy poverty target group
-	means not allowed according to the law and/or not implementedb/ not published
NA	NA - not assessed

[7] Eurostat SILC research, https://ec.europa.eu/eurostat/web/microdata/european-union-statistics-on-income-and-living-conditions
[8] Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency, Article 2a(1)(d).
[9] More information : https://www.bpie.eu/publication/a-review-of-eu-member-states-2020-long-term-renovation-strategies/
[10] To do its fair share under the Paris Agreement to limit the global temperature rise to 1.5˚C, the EU should increase its 2030 climate target to at least 65% emissions reduction. This would mean increasing the EU's energy efficiency target to at least 45%, renewable energy target to at least 50% in order to drive action on energy savings to provide better conditions for the energy poor and create a just and sustainable future
[11] In this table, "not allowed by law" means that a measure to be taken by local authority or a business, eg. electricity providers cannot be taken under the current national laws. In some other countries, if a specific measure is not stated in the law, it also prevents national or local actors from realising those measures.

Measures	Croatia	Czechia	Hungary	Poland	Slovakia	Slovenia
Long Term Renovation Strategies available	-	+	-	-	-	-
Energy poverty reduction goal in NECP	-	-	-	-	-	-
Energy policy impact assessment on energy poverty in NECP	NA	-	-	+	-	-
Energy poverty monitoring	-	-	- (there is a definition in a law not yet adopted, no monitoring)	+(independent from government)	-	-
Expert support in administrative issues [12]	NA	+	-	NA	-	+
Special financial support on energy bills/fuel purchase for people and/ or households affected by energy poverty	++	-	+	++	-	-
Prepaid energy systems	NA	NA	+	+-	+-	-
Support for house insulation/renovation	+	++	+-	+	+-	+
Support for heat source exchange	NA	+-	+-	+	+-	+
Support for RES installation	NA	+	+-	+-	+-	+-
Energy cooperatives support	NA	+-	+-	+-	-	-

Table 1 : List of key measures to tackle energy poverty and analysis of Member States' performance [13]

[12] In some countries, experts selected by national authorities support people in getting financial or technical support for renovation.
[13] Authors of this report acknowledge that financial support for energy bills/ fuel and prepaid energy systems could also be perceived as negative measures in certain country contexts. For instance, in Slovenia, financial support for fuel / energy bills can encourage consumers to use coal or not prioritise energy efficiency. In addition, pre-paid energy is usually significantly more expensive than payment after using, pushing vulnerable people even further from proper access to basic energy. However, as these measures are used by governments and companies as measures to monitor energy poverty, the authors decided to include them in the document.

To address the lack of a comprehensive approach by Member States, the Commission's Renovation Wave strategy can play an important role in encouraging countries to step up their action towards making the building stock more energy efficient, decarbonised and sustainable. The direction set by this initiative is the right one, energy poverty being rightly envisaged as one of the main priorities and addressed by the Guidelines on Energy poverty which provide recommendations to Member States on how to define and measure it.

However, the overall level of ambition proposed by the Commission is still not enough to be in line with the Paris Agreement nor to tackle energy poverty sufficiently. The people affected by energy poverty are the most vulnerable to volatile weather conditions and are at the forefront of the climate crisis. In order to address these challenges, energy renovation rates need to be at least tripled across Europe, ensuring the achievement of substantial energy savings through deep renovations. Deep renovations will not only increase energy efficiency, but also start tackling one of the root causes of energy poverty by lowering energy bills as well as improving people's living conditions and indoor air quality, with quantified positive impacts on health. As energy efficiency is one of the most promising solutions to energy poverty, efforts to increase energy savings should prioritise energy poor households as key beneficiaries and subsidise the renovation of their dwellings so they are not excluded.

As part of the measures foreseen by the Renovation Wave strategy, the phased introduction of mandatory minimum energy performance standards targeting the worst-performing buildings is key to alleviating energy poverty, as low-income households predominantly live in leaky, unhealthy and energy-wasteful dwellings. The implementation of such standards need necessarily to be supported by targeted funding, technical assistance and social impact guidelines in order to maximise the benefits for the energy poor while avoiding unintended social consequences such as rent increases.

The new Multiannual Financial Framework (MFF) and recovery package (Next generation EU) also represent an opportunity to change the course on energy poverty and increase investments in energy efficiency, renewables and buildings renovation.

Against this backdrop, this report makes the following recommendations to the European Commission and Member States to tackle energy poverty in Europe:

Ambitious ring-fenced funding for people affected by energy poverty

Member States need to include and implement a strategic and coherent approach towards addressing energy poverty in all Recovery and Resilience Plans, Regional Development Operational Programmes and Territorial Just Transition Plans on a national, regional and local level. It is crucial to seize all funding opportunities and ramp up building renovation, energy efficiency and renewables to eliminate energy and buildings related causes of energy poverty.

While developing their relevant EU funds spending plans, Member States should demonstrate that a share of funding reflects the investment needs of energy poor households. They should also ensure plans are sufficient to reach energy poverty alleviation targets or other relevant policies outlined (or to be outlined) in the NECP and LTRS (such as renovation of worst-performing building stock).

On the other hand, the Commission should ensure that a range of reforms and measures tackling energy poverty have been allocated sufficient EU funds in the spending plans currently under development and negotiation. It is very important for the EU to provide ambitious funding for Member States to respond to energy poverty adequately.

Many Member States affected by energy poverty are unlikely to use non-targeted funds for this purpose due to competing political demands in response to the pandemic. Hence, key areas for a targeted fund include the Energy Efficiency Directive (EED) under article 7 and article 20, as well as the Energy Performance of Buildings Directive which will be revised in 2021.

EU funds dedicated to energy efficiency and renewable energy should proportionally and in priority reach low-income populations that otherwise would not be able to invest in energy efficiency or renewable energy. This will also help guarantee a just energy transition.

Funding of residential energy efficiency, renewable energy, energy communities and modernisation of heating systems should be accessible to households that cannot access commercial banking products for renovation or mainstream energy efficiency funds. This is due to their financial vulnerability and locations that are not attractive for market-based energy efficiency investments.

The Commission should propose measures to at least triple the current annual renovation rate, prioritise deep renovations and adjust all necessary legislation to reach out to the energy poor.

The Renovation Wave initiative sets the strategic direction through its Action Plan, which is also important for tackling energy poverty. However, the actual level of ambition of the whole strategy is not enough and it must be stepped up.

For example, the introduction of mandatory minimum energy performance standards for existing buildings as part of the revision of the Energy Performance of Buildings Directive (EPBD) is an important starting point to address energy poverty. Further work is needed to make sure that they are implemented in a socially fair way through adequate support and social safeguards for the most vulnerable.

Finally, there should be clear support from the European Commission to Member States in integrating renewables and community energy ownership into energy poor areas which should be clearly mentioned in the upcoming Renewables Energy Directive revision.

The Commission should strengthen energy poverty related requirements during the implementation of NECPs

This report makes it clear that many Member States struggle to define the issue and are short on solutions, political will and adequate funding are needed to propel tangible action. Given that the Commission's guidance on energy poverty was published after the NECPs were finalised by Member States, there was very little support for Member States in developing their energy poverty alleviation policies.

In the next years, it will be crucial for the European Commission to offer a practical action plan and support Member States during the implementation of the NECPs. The Commission's support should be devoted to helping Member States to develop solid national definitions of energy poverty, identifying the main causes of energy poverty, and setting reachable but still ambitious energy poverty alleviation targets. This should also be reinforced by the revision of all relevant EU energy legislation which is foreseen in the near future. Policies and measures that aim to support Member States in developing their national policies to tackle energy poverty should be connected to energy efficiency, renewable energies, protection of vulnerable consumers, and heating and cooling measures.

Overall, the Commission should pay special attention to energy poverty related policies and measures, as the evaluation of energy poverty related policies in the NECPs will be only feasible if usable definition and targets are set. Guidance and exchange of experiences is very much needed to facilitate this process.

Comprehensive, country specific definitions of energy poverty and adequate legislation should be developed by Member States to make sure people affected by energy poverty are properly prioritised.

This report clearly identifies that one of the biggest barriers to analysing and alleviating energy poverty in many Member States is the lack of an official, measurable definition and indicators. Member States need to define energy poverty, within their particular context, and prioritise the most vulnerable. In addition, a strong measuring and monitoring system should be established by all Member States.

When attempting to define energy poverty, it would be important to use a definition of energy poverty that includes gender dimensions. Factors such as income, gender, race, ability and geographical location may influence the individual's vulnerability to energy poverty and should therefore be considered when defining the problem and applying solutions.

Besides defining the energy poor, Member States should develop clear processes to engage with energy poor households (e.g. through hospitals, social services etc.) to ensure that their target audiences are aware of the support provided.

The European Commission should support Member States by establishing the enabling framework. However, it is still Member States' responsibility to enact tangible solutions which are context specific. This is particularly necessary as energy poverty is so varied and requires very different solutions in rural and urban areas of Member States.

Member States should urgently develop missing National Long Term Renovation Strategies

Renovation of existing buildings, which steps up the pace towards making the building stock more energy efficient, decarbonised and sustainable, is one of the most important tools in tackling energy poverty.

However, among countries covered in this report, Hungary, Poland, Slovenia and Slovakia have not developed their national Long Term Renovation Strategies yet. Only Czechia developed its strategy but without fulfilling the requirement on the outline of actions for energy poverty. LTRS should not be seen as a box ticking exercise by Member States. They have the potential to increase the wellbeing of millions of European citizens and hence strategies should be developed in an efficient and participatory way to prioritise the energy poor and alleviate energy poverty.

COUNTRY ASSESSMENTS

CROATIA

Energy poverty in Croatia

In Croatia, there is no clear definition of energy poverty; nor indicators to clearly measure energy poverty. In addition, general criteria and methodologies for determining energy poverty are also lacking.

However, according to Energy Poverty Observatory data [14], energy poverty is a significant issue for Croatia. In 2018, 7.7% of the Croatian population was unable to keep the home adequately warm (slightly above the EU's 7.3% average) , while in 2017, 17.5% of the population was unable to pay utility bills on time due to financial difficulties, far above the EU's 6.6% average.

Energy poverty, as a concept, is still mainly related to general poverty and the social welfare system in Croatia. Even though low-income households are usually worst affected by energy poverty, general poverty cannot be fully equated with energy poverty as such. Defining energy poverty should be based on social, economic and energy criteria, such as inability to afford adequate levels of energy services and low energy efficiency of dwelling and appliances. However, a better coordination of energy and social policies are necessary to address both issues at the national level.

Energy Poverty Measures in the NECP

In Croatia's National Energy and Climate Plan, it is stated that "before the start of the implementation of the NECP, the Programme for Elimination of Energy Poverty will be prepared, within the framework of which a model of support for affected households will be developed. "

In January 2019, the Croatian government adopted a Conclusion on the development of the Energy Poverty Elimination Program, which includes the use of renewable energy sources in residential buildings for the period 2019 - 2021. According to the conclusion, the relevant Ministry should prepare the program within a 90-day period. The funds required for the development of the program were established in the Financial Plan of the Environmental Protection and Energy Efficiency Fund for 2019 with projections for 2020 and 2021.

However, the Energy Poverty Elimination Program is still not developed even though almost two years has passed since the initial decision.

In addition, the NECP mentions that two different programmes targeting energy poverty were developed for two specific groups: citizens living in assisted areas and areas of special state concern; and citizens who applied to the 'Renovation of Family Houses' call. The areas of special state concern are determined by law and divided into three groups. The first and the second groups are areas affected by conflicts in Croatia in the 1990s which still face some challenges such as under population, under development , etc. The third group is determined according to three criteria: economic development, structural difficulties (unemployment and lack of interest for private sector investments) and demographics. The aim of the law and subsequent bylaws, government programmes and decisions is to achieve a balanced development of all areas of the Republic of Croatia and to encourage demographic and economic progress. Neither one of these programmes targeted the overall group of vulnerable energy buyers or vulnerable groups of citizens, but they both partially tackled the issue of energy poverty.

[14]https://www.energypoverty.eu/sites/default/files/downloads/observatory-documents/20-06/extended_member_state_report_-_croatia.pdf

CROATIA

Unfortunately, the National Energy and Climate Plan does not estimate the exact amount of funds needed for the implementation of the Energy Poverty Mitigation Program, nor does it provide more detailed information on the potential measures which will be implemented.

Other measures to alleviate energy poverty

In addition to these programmes, the Croatian government will adopt a Long-Term Strategy for the Renovation of the National Building Stock by 2050 [15], which will propose national measures to alleviate energy poverty. This should be achieved through deep renovation of buildings.

Renovating the building stock in Croatia is crucial to alleviating energy poverty. The draft Long Term Renovation Strategy clearly states that vulnerable groups of end consumers will benefit from special financial models and can be targeted through promotional campaigns to raise awareness of the benefits of investing in the energy renovation of their homes.

However, the only energy poverty measure described in the draft strategy is the adoption and implementation of the Energy Poverty Programme, which should be implemented in the 2021-2030 period. The measure should be funded through EU funds and state budget, while the Ministries responsible for energy and social welfare should be in charge of the monitoring and implementation of the measure.

The objective of the measure is to alleviate energy poverty and to establish an energy poverty monitoring system. As stated in the description of the measure, “indicators necessary for monitoring energy poverty will be identified and a monitoring system will be established, through the already existing system of collecting data on household consumption and habits (Central Bureau of Statistics) [16]”. The data will analyse the possible extension of the criteria for obtaining the status of vulnerable energy customers. Energy efficiency measures in energy poor households will be co-financed, for example to: replace household appliances according to the "old for new" system, improve or replace heating systems in particular electricity and fuel oil), install systems using renewable energy sources and implement other technical energy efficiency measures.

The Programme will elaborate these measures in detail and, where appropriate, develop other measures, as well as the possibility to implement them under the energy efficiency obligation system for suppliers. The Programme will elaborate and implement a model for meeting energy costs which will identify the level of assistance needed for households facing energy cost difficulties. Measures to combat energy poverty through energy renovation of buildings will be further elaborated in the Energy Renovation Programme for Multi-Residential Buildings 2021-2030 and in the 2021-2030 Programme for Energy Renovation of Single-Family Homes.

One of the annexes to the draft of the Long-Term Strategy for the Renovation of the National Building Stock by 2050 describes the public debate held with energy poverty experts in February 2019. The aim of the debate was to define energy poverty criteria which could then be implemented in public calls for the energy renovation of residential buildings, primarily single-family houses, i.e. for private users, and buildings with the lowest levels of energy efficiency in assisted areas and areas of special state care.

[15]https://mgipu.gov.hr/pristup-informacijama/savjetovanje-s-javnoscu-8116/okoncana-savjetovanja/nacrt-dugorocne-strategije-obnove-nacionalnog-fonda-zgrada-do-2050-godine-na-javnom-savjetovanju-od-10-08-do-09-09-2020/10971
[16]Page 63, https://mgipu.gov.hr/pristup-informacijama/savjetovanje-s-javnoscu-8116/okoncana-savjetovanja/nacrt-dugorocne-strategije-obnove-nacionalnog-fonda-zgrada-do-2050-godine-na-javnom-savjetovanju-od-10-08-do-09-09-2020/10971

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According to the draft National Long Term Strategy for Renovation of National Building Stock by 2050, the most important criteria that will be further described and used as indicators of energy poverty are:

- Household income,
- Energy class of the building,
- Living area per household member,
- Total energy costs in relation to total household income
- Social status (disability allowance, child allowance, pensioners with a minimum pension, social health census, property-ownership census, etc.)

In June 2020, the government opened the public call for owners and co-owners of family houses in energy class D or lower, with a specific line of funding for vulnerable groups of citizens at risk of energy poverty. The call is based on the Energy Renovation Programme for family houses, implemented by the Fund for Environmental Protection and Energy Efficiency adopted in 2014. The Programme aims to increase the energy efficiency of existing houses, reduce energy consumption and CO2 emissions and monthly costs for energy products, while improving overall quality of life. The changes and adjustments to the Programme were first adopted in 2015 [17], and then again in 2020, when social criteria were added to allow social welfare centres to coordinate energy certificates and help the most vulnerable citizens apply for funding.

For the citizens who are at risk of energy poverty, renovation of their family houses will be fully funded by the Fund for Environmental Protection and Energy Efficiency. An additional HRK 32 million is earmarked for this purpose.

RECOMMENDATIONS

Define and measure energy poverty

The development of a specific definition of energy poverty is the first step in alleviating energy poverty in Croatia. It would enable a common understanding of energy poverty that would help improve cooperation between the public sector, civil society and industry.

In addition, Croatia needs to establish a measuring and monitoring system to report to the Commission on progress in alleviating energy poverty, given that this is one of the indicators for the implementation of the NECP.

[17] https://narodne-novine.nn.hr/clanci/sluzbeni/2015_03_36_742.html

CROATIA

Avoid delays in the implementation of the measures and continuation of the funds

Delays in the implementation of the measures and lack of continuity in funding are significant obstacles to alleviating energy poverty in Croatia. In addition, as stated in the draft Strategy for the Renovation of the National Building Stock by 2050, citizens should be more informed about the Programmes and measures to alleviate energy poverty. This also requires strengthening local administrative coordination between different sectors, as well as between different ministries (the Fund for Environmental Protection and Energy Efficiency, the State Office for Reconstruction and Housing, the Ministry in charge of social issues, the Ministry in charge of renovation and the building sector, as well as the Ministry in charge of energy sector).

Increase the role of local authorities

Specific measures to alleviate energy poverty should be integrated into the Sustainable Energy and Climate Action Plan (SECAP). Energy poverty must become part of the regulations on climate change mitigation and adaptation and integrated to similar documents of municipalities and cities.

Ramp up the renovation of building stock

The Commission has recently published its Renovation Wave strategy which aims to reduce emissions and energy consumption from buildings. This key tool to address energy poverty should guide the Croatian government in their use of EU funds and encourage the development of :

- co-financing programmes for the purchase of more energy efficient household appliances,
- financial support for individuals to invest in the improvement of household energy systems, such as solar heating systems and biomass boilers for domestic heating and hot water,
- co-financing projects for the introduction of individual heating meters so that vulnerable citizens have more control over their own energy consumption as well as addressing the country's energy poverty problem.

CZECHIA

Energy poverty in Czechia

Czechia does not have an officially accepted energy poverty definition, indicators to quantify energy poverty or monitoring tools. Therefore, to measure and describe the issue on a national level, it is necessary to rely on European data such as Eurostat, EU - SILC (European Union - Statistics on Income and Living Conditions) and ACER reports.

One of the most important indicators of energy poverty whether a household can afford to keep their home adequately warm. According to EU-SILC research, about 2.8 % of Czech households could not afford to keep their home adequately warm in 2019 [18]. This is well below the European average of 7.3% and a big improvement compared to 2005 when it was about 9% [19].

Another energy poverty indicator (even if it includes some utility expenses beyond energy) is arrears on utility bills. In Czechia, only 2.1 % of households were unable to pay on time due to financial difficulties for utility bills (heating, electricity, gas, water, etc.) for the main dwelling in the last twelve months [20]. Thus, together with Sweden, Austria, or Netherlands, Czechia falls into a group of countries with the lowest level of households experiencing problems with paying their bills on time.

However and unsurprisingly, the worst energy poverty rates in Czechia are in the Ústecký (coal) region. Based on the indicators below, about 14% of households in the Ústecký region are hit by energy poverty while the Moravskoslezský (coal) region is second worst [21]. According to research, the main reasons for energy poverty are low incomes, high energy costs, inefficient buildings and household appliances. These issues should be addressed through the Renovation Wave and Just Transition of coal regions.

Energy Poverty Measures in the NECP

In the Czech National Energy and Climate Plan, energy poverty is discussed in a rather theoretical way. The Plan proposes to start with a precise definition of the terms vulnerable consumer and energy poverty. According to the Plan, criteria at national level need to be determined, thus allowing for regular monitoring of the state of energy poverty. Currently, an ongoing energy poverty project aims to set up a certified methodology for evaluating energy poverty and vulnerable customers in Czechia, and to propose measures to alleviate the problem. Another objective mentioned in the plan is to set up instruments to ensure an increase in energy efficiency for low-income groups.

From the Just Transition perspective, the Czech NECP mentions a pilot programme for financial assistance provided to households and municipalities in Karlovarský, Moravskoslezský and Ústecký regions. The programme aims to pre-finance the replacement of substandard solid fuel boilers in households in the form of a soft loan to individuals. It could potentially help socially weak households to support the replacement of substandard heat sources in a residential building.

In addition, the Czech NECP refers to the energy community principle which may also bring about progress in the energy efficiency of households and reduce consumption and lower supply rates.

[18] https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdes01&lang=en
[19] https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200120-1
[20] https://ec.europa.eu/eurostat/web/products-eurostat-news/-/DDN-20200120-1
[21] https://www.tacr.cz/wp-content/uploads/2019/10/190531_TZ_energetickaChudoba.pdf

CZECHIA

According to its NECP, Czechia should establish a framework to support and facilitate the development of a renewable energy community, through both legislative and non-legislative measures.

Other measures to alleviate energy poverty

There are basically two energy measures for Czech households in the Operational Programme Environment. The first one is a boiler subsidy that aims to replace obsolete solid-fuel combustion units. For that purpose, households can use partial financial state support or loans. The second choice, designed rather for the "middle class", is the New Green Savings programme. The programme aims to reduce the energy intensity of buildings and thereby reduce the energy used to heat buildings. Those two measures are, in practice, not applicable to households with deep financial problems.

Thus, besides some vague measures explained in its NECP, Czechia does not have concrete policies or measures specifically aimed at reducing energy poverty. The energy poverty measures are primarily applied through national social policies or, where applicable, partially by consumer protection policies. Even though energy efficiency programmes have in theory an important potential to alleviate energy poverty, they fail to specifically target vulnerable households [22]. Programmes providing financial assistance to households for energy savings, renovations and improved heating systems, such as the above mentioned Operational Programme Environment and Integrated Regional Operational Programme, could play a transformative role, if their potential is tapped.

RECOMMENDATIONS

A just and fair transition to address energy poverty

While developing policies to address energy poverty in Czechia, it is important to keep in mind that it is an issue related to coal regions which have structural social and economic problems mainly due to their coal mining history and that those issues have lasted decades. Thus, while setting up any new financial mechanisms, special attention should be paid to: meaningful distribution of funds while taking absorption capacity into account, clear criteria for supported projects in line with sustainability and climate neutrality, the partnership principle and high levels of transparency.

Prevent rather than cure

The escalation of energy poverty cannot be ruled out, especially in the context of the ongoing COVID-19 pandemic. Thus Czechia needs to focus on the prevention of energy poverty growth today by protecting vulnerable people with meaningful measures that are in line with energy transformation goals.

[22]https://www.energypoverty.eu/sites/default/files/downloads/observatory-documents/20-06/extended_member_state_report_-_czechia.pdf

HUNGARY

Energy poverty in Hungary

The share of the population unable to keep homes adequately warm has significantly decreased since 2013, and in 2019 it was only 6%, below the EU average (7.3%) [23].

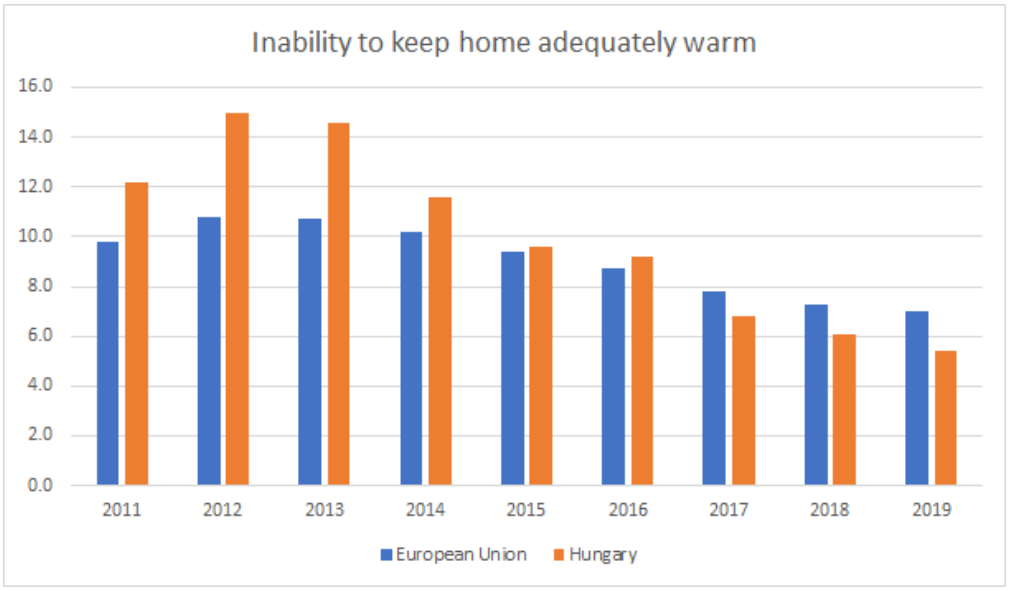

Figure 2 : Inability to keep home warm in the EU and in Hungaryin percentages between 2011- 2019, Eurostat data

The decrease is most probably due to the utility price cut introduced in 2013 that reduced the price of electricity, piped gas and district heating by approximately 20% and fixed the price at that level. This measure did not affect the price of solid fuels, even though more than a third of households and 55% of households in the first income decile rely on solid fuels. The price of firewood has been increasing for more than 10 years. The NECP highlights that "currently, biomass use accounts for a dominant share of renewables in Hungary. In 2016, biomass accounted for more than 80% of total renewable energy consumption, which is predominantly based on the fuel wood consumption of the poorest population segment".

While in terms of the energy price burden, the general situation improved, the quality of buildings has not improved significantly. In 2011 and in 2018, 22% of the population lived in a dwelling with leaking roof, damp walls, floors or rotten window frames, which is significantly higher than the EU average of 15.6% in 2011 and 13.9% in 2018 [24].

The number of inhabitants facing arrears peaked in 2013 at 25% of Hungary's population. It saw a steady decrease until 2018 when 11.1% of the Hungarian population had difficulties to pay utility bills on time. However this number is still 1.68 times higher than the EU average. In 2019, the share of consumers with arrears longer than 60 days [25] was 2.9% in the case of gas, 10% for electricity, and 11% for district heating [26].

[23] Eurostat, 2018 https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdes01&lang=en
[24] https://ec.europa.eu/eurostat/web/products-datasets/product?code=sdg_01_60
[25] Arrears longer than 60 days might lead to disconnection.
[26] https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdes07&lang=en

HUNGARY

Energy Poverty Measures in the NECP

The energy poverty sub-chapter (2.4.4) of the Hungarian NECP plans to monitor energy poverty based on the share of households that spend more than 25% of their income on energy. There is no objective and timeframe set for reducing the share of energy poor households. No institution is designated as a responsible organisation to monitor energy poverty.

Two target groups (large families in rural areas and single pensioners living in apartments) are identified as primary beneficiaries under energy poverty-related policies. The following policy areas are mentioned in the document as key fields of interventions to tackle energy poverty:

- energy fee guarantee for the most deprived households,
- supporting energy poor households with the income from a future energy saving obligation scheme,
- subscription based electricity for households living in low-quality housing to secure the heating of one room,
- drafting a programme to improve the situation of vulnerable consumers and awareness raising.

However, sections on these policies are unfortunately very brief and lacking in detail.

Various sections of the NECP refer to support of use of biomass in individual heaters. Under the renewable energy chapter, the NECP aims to encourage "the use of heat pumps, burning of biomass in efficient individual heating equipment, and the establishment of decentralised community heating plants producing renewable energy (...) with non-refundable aids".

Other financing sources of the policy measures include the resources of the energy efficiency obligation scheme (EEO) [27]. The EEO will be "supporting the most deprived social groups (upgrades implemented under the obligation scheme, increased use of decentralised heating solutions and electricity production penetration" (.3.4.1.ii). Furthermore, non-refundable aids might be allocated to "local cooling and heating, encouraging the use of heat pumps, burning of biomass in efficient individual heating equipment, and the establishment of decentralised community heating plants producing renewable energy" (3.1.2.iii).

Energy efficient renovation of the housing stock would be a key policy element to tackle energy poverty, but this is neglected in the NECP energy poverty chapters. Policies are mostly price-focused and the document refers to the price reduction policy of the government, as key to keeping energy prices affordable. The NECP states that Hungarian electricity and gas prices are among the lowest in Europe (MEKH 2019), which is true, only in nominal prices. The share of energy costs from the income of a household with two earners is around the European average. Thus, the energy cost burden of households is higher than assumed by the NECP. This is especially true for those who rely on biomass and who have utility bills arrears (12% of consumers) that can result potentially in the interruption of the service [28]. This means that the energy cost burden of households is underestimated by the NECP and results in the lack of targeted and sustainable support to lower energy costs.

[27] This scheme is to be launched in 2021.
[28] https://habitat.hu/sites/lakhatasi-jelentes-2020/energiaszegenyseg/

HUNGARY

Other measures to alleviate energy poverty

Currently, a social solid fuel subsidy targets households living in settlements with less than 5000 inhabitants. Its distribution results in inequalities as the amount of fuel distributed in micro-regions with a higher socio-economic status is higher than in the most deprived ones Also, the distribution of lignite, coal and wet wood under the programme contributes to air pollution and climate change [29].

There are two main building renovation programmes that have a huge potential to address energy poverty, however both of them fail to do so as they do not reach low income households:

Loan programme from EU funding: In the previous Operational Programme planning period, there was a planned programme for non-refundable residential building renovation support, later cancelled by the government. The dedicated amount of money was divided into two streams: one part was used to renovate public buildings, and the other part was designed to create a loan programme with nearly 0% interest and a low proportion of downpayment. However, the administrative requirements remained too demanding, hence very few people could make use of this opportunity.

"**Warmth of homes" programme, financed from emissions trading:** Demand for this programme remains very high however, the calls for applying for support are really unpredictable and highly competitive. Moreover, it is designed to be ex-post financing in the case of building efficiency, for only 50% of the investments. The proportion of the available funds used to carry out building renovation purposes remains pretty low according to the official data [30].

It is important to highlight that there are no renovation schemes targeting the energy poor specifically. Recently, a generous home-renovation subsidy with an open-ended budget starting from 2021, was announced by the government. The subsidy does not provide incentives to boost energy efficiency, but can be used for any intervention. It is not currently accessible to low-income households as it is post-financed.

Following a government decision, non-repayable cohesion funds for energy efficient retrofits were not dedicated to the residential sector but were spent on public buildings or were distributed in a form of an interest-free loan. Due to the financial vulnerability of a large share of households and the demanding administrative requirements, the uptake of the loan was mostly an option for middle and higher income households. Social rehabilitation programmes financed by cohesion funds have contributed to the (partial) energy efficient renovation of dwellings or the improvement of the quality of the homes of households living in low-quality housing in segregated areas.

With the Renovation Wave initiative setting a strategic direction for Europe to increase energy efficiency and address energy poverty, it is clear that the Hungarian government needs to change its approach to measures that can provide both better living conditions and decreased energy bills.

[29] https://habitat.hu/wp-content/uploads/2018/09/hfhh_tuzifa_tanulmany.pdf
[30] https://rekk.hu/downloads/events/NCs_REKK%20ny%C3%A1ri%20konfi_EN_v0608.pdf

HUNGARY

RECOMMENDATIONS

Define and measure energy poverty

The Hungarian NECP should set a target to reduce the share of energy poor households. Timelines and a monitoring system should be established.

Policy interventions should be further elaborated to provide information on funding sources, responsible authorities for implementation and forecasts of how and at what level these policies will tackle energy poverty.

Prioritise buildings renovation, energy efficiency and renewables

Building renovations, especially renovation of the worst-performing building stock, should be a key energy poverty related policy.

In addition, upgrade of the most inefficient heating and other devices should also be part of energy poverty alleviation measures. This will also help reduce air pollution and the energy costs of low-income households that rely on solid fuels.

Supporting local renewable district heating plans and other energy community initiatives in the field of heating in the most deprived neighbourhoods can be an ideal substitution for polluting and inefficient individual heaters.

Set up a long-term, targeted funding framework and raise awareness on funding resources

A long-term and predictable funding framework for energy efficient retrofitting has to be set up. It should prioritise the renovation of the worst performing building stock, and offer targeted support to low-income households, through pre-saving schemes, partly non-refundable and pre-financed funding. One-stop shops should be established to support the carrying-out of renovation and social services should include counseling on energy savings, involving technicians.

Finally, a micro-finance scheme could facilitate small but urgent energy efficiency measures (e.g the change of windows and of a broken heater) in homes that are not worth renovating (e.g substandard homes in segregated areas).

There is also a need for socially targeted programmes for upgrading household appliances to more efficient ones. In addition to the government's current price-reduction policy that reduces the price of electricity, gas and district heating equally for each consumer, there is a need for a social tariff and housing allowance that provides support for low-income households' energy needs.

POLAND

Energy poverty in Poland

In 2017, 10% of households in Poland suffered from energy poverty, according to the multidimensional index using the Alkire and Foster method [31]. About half of these households were also income-poor. In population terms, this means 3.35 million people out of the 38 million people living in Poland (8.8%) are somehow affected by energy poverty. The level of energy poverty seems to be sufficiently studied by independent scientific teams, but the country does not have officially approved energy poverty indicators.

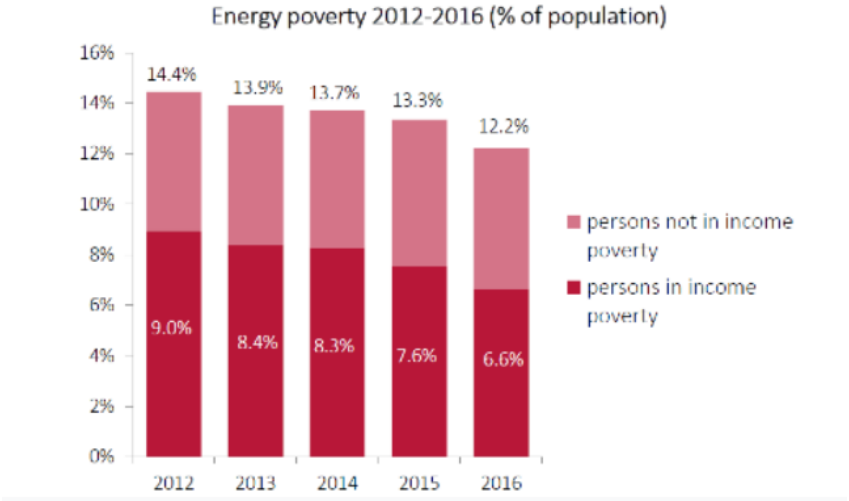

Figure 3 : Calculation based on Polish Household Budget Survey 2012-2016, Institute for Structural Research, Poland

Energy Poverty Measures in the NECP

The Polish NECP makes a reference to the country's energy poverty problem, but it does not clarify objectives and include figures.

The country's final NECP includes policies aimed at reducing energy poverty enforced by two programmes: Clean Air and Stop Smog, but no other measures have been developed in order to address the issue more accurately.

Every inhabitant who wishes to renovate their homes and change their heat source is eligible for support from the Clean Air scheme. It subsidises up to 90% of the investment and offers the possibility to get an affordable loan for the remaining 10% of the investment. The donation varies according to the household's income and should not exceed a certain amount. The most vulnerable can get a larger amount of financial aid. This programme is complemented by the "Stop Smog" initiative which provides additional help to those identified as energy-poor. Under Stop Smog, people under the yearly income of PLN 53,000 can get 100% of the funds for renovation of a house from both national and local budgets in various proportions.

[31] This method accounts for five dimensions of energy deprivation: two objective indicators of "low income, high costs" and "high share of energy expenditure in income", as well as three subjective indicators of "inability to keep the home adequately warm", "presence of leaks, damp, or rot" and "difficulties paying utility bills". More information about the publication: https://ibs.org.pl/app/uploads/2019/07/IBS_Working_Paper_07_2019.pdf

POLAND

Both programmes have been assessed as not successful enough in the alleviation of air pollution in Poland or in helping energy-poor citizens. The initiatives have been criticised for the difficult formalities and long procedures. At the beginning of 2020, only three municipalities decided to join the Stop Smog initiative and the number of houses renovated was reduced to around 300. In the Clean Air programme the number of applications reached 131,000 in April 2020 (one and a half years into the programme), although it was expected to receive and accept as many as 400,000 applications yearly.

In addition, although there is a policy to alleviate energy poverty through heating system operators, its description is very vague, thus there is a low probability of enforcing a decisive policy on the issue.

In spite of the fact that the measures stated in NECP are scarce and seem not fully adequate to address the problem, it is expected that these measures will reduce energy poverty levels by 2030.

Other measures to alleviate energy poverty

The oldest policy measure on energy poverty is an energy supplement given to the people who apply for it under the circumstances explained in the law (low income, small housing, etc).

Since 2019, the following solutions have also been introduced:

- electricity sellers should offer prepaid services on use of energy,
- additional security against disconnections from the grid for people experiencing energy poverty,
- agreement on energy sale that can be cancelled without fees,
- consumer can freely change gas or electricity service provider.

RECOMMENDATIONS

Build an integrated programme to boost building renovation, increase energy efficiency and address energy poverty and air pollution

The Clean Air programme was set-up to do this, but unfortunately it does not deliver expected results and it remains hard to address different forms of energy poverty. An integrated programme would allow Poland to be in line with the strategic direction set by the Renovation Wave, increasing the energy efficiency of its stock, promoting the further deployment of renewables, while providing wider social benefits and thereby tackling the root causes of energy poverty.

POLAND

Strengthen NGOs' role in addressing energy poverty

NGOs have the capacity to reach out to the energy poor in order to raise awareness about the programmes targeting energy poverty and teach people how to manage their bills. By developing an independently managed programme financed by the government and/ or energy producers, the country can take an important step in alleviating energy poverty.

Bring back support and extend the possibility of cooperation within local energy clusters to motivate local actors to support people in energy poverty, encourage renovation of homes in poor condition, and trigger energy savings.

In Poland, energy poverty relates mostly to the heating of homes and local heat providers are usually municipal companies or private companies (in big cities). With measures that create local clusters and support schemes, and include local renovation companies, heat providers and local authorities in a comprehensive manner, the main cause of energy poverty in Poland can be addressed.

SLOVAKIA

Energy poverty in Slovakia

Slovakia is among EU Member States who are seriously affected by energy poverty. According to the European Energy Poverty Index [32], Slovakia is ranked 24th out of 28 European countries. The biggest problem is high domestic energy expenses, as it is among the highest in the European Union.

On the basis of 2019 Eurostat data [33], 7.8 % of the Slovak population is unable to keep home adequately warm (EU average is 7%). This number increased significantly since 2010 (4.4%) The situation is worse in some social groups: 10.8 % of single parents with dependent children and 14 % of single persons and pensioners are exposed to the same problem. The share of people living in dwellings with a leaking roof, damp walls, etc. is quite even across the population (5%). However, there is a higher share of single people (7%) and single people with dependent children (over 8%) living in these conditions.

On the basis of a public survey (June 2020), 15.7% of the Slovak population suffers from excess heat during summer, especially retirees and people living in big cities [34]. Low income people (less than 800 EUR per family) are more exposed to the problem.

Slovakia has not established a definition of energy poverty, therefore it is difficult to say how many people are energy vulnerable. On the basis of other indicators, the problem of energy poverty is a really serious problem for Slovakia. For instance, 54% of Slovak households spent more than 10% of their disposable income on energy. When taking into consideration both the income and energy costs – Indicator LIHC (Low Income High Costs) shows that more than 10% of Slovak households are in energy poverty.

There have been a few attempts to set the definition of energy poverty in the past. All of them failed due to a lack of background analysis. The resulting definitions were based on poverty with no connection to energy issues. The biggest problem was the unwillingness of the Ministries to take responsibility, and especially the financial one. It seems the newly elected government (March 2020) is willing to take responsibility and add the issue to the government's programme as one of the major issues that should be solved.

Energy Poverty Measures in the NECP

In the Slovak NECP, energy poverty is recognised as one of the sub problems that must be addressed, and has to be taken into consideration in all important decisions. However, it presents almost no planned policies and measures to reduce energy poverty and no impact assessment of existing and planned policies and measures to reduce energy poverty.

The NECP simply underlines the government's will to use appropriate regulatory methods to solve the problem of energy poverty. However, there is no official definition of energy poverty and no analysis on vulnerable households which makes it difficult to assess and monitor the problem.

[32] https://www.openexp.eu/european-energy-poverty-index-eepi
[33] https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdes01&lang=en
[34]http://www.prog.sav.sk/index.php/energeticka-chudoba-na-slovensku-2020-od-analyz-k-odporucaniam-pre-verejne-politiky

SLOVAKIA

Other measures to alleviate energy poverty

Slovak legislation and practice provides some protection for vulnerable customers but not targeted specifically to the energy poor. There are general price regulations on electricity and gas supply prices for households and some state social policy measures. There exists a housing allowance available for citizens in material need. A single person household can, in addition, receive 55 EUR, a larger household, 89 EUR per month. Nevertheless, these solutions are insufficient given the breadth and impact of energy poverty. In addition, a particularly serious problem is that the country does not provide any protection against disconnection from energy.

Currently, Slovakia has programmes to help people increase energy efficiency in their dwellings through thermal insulation (Zelená domácnostiach, Green to households - a subsidy for heat pumps, photovoltaics, and solar panels) and upgrade their heating systems (Kotlíkové dotácie). However, they are not entirely successful in decreasing energy poverty as their high initial costs make them unobtainable for the most vulnerable population.

The upcoming Long-Term Strategy for the Renovation of the Building Stock aims to tackle the problem of the least energy efficient buildings and energy poverty. The main aim of the document is to support the renewal of residential and non-residential buildings, to achieve a highly energy-efficient and decarbonised building stock in Slovakia by 2050.

RECOMMENDATIONS

Define and measure energy poverty

The first step to alleviate the problem of energy poverty is to set a definition of energy poverty. Without defining vulnerable groups, analysing the problem, and knowing the number of people requiring help, it is impossible to develop policies aiming to alleviate energy poverty.

The problem of energy poverty is a multidimensional one. It is related to low levels of energy efficiency in the country but also to the fact that low income groups cannot access government support for renovation due to high initial costs.

The problem of the Roma community is a very specific one. Their homes can be built from unsuitable materials, or built on other people's land. 7% of Roma households do not have any electricity installations in their dwellings [35]. Specific measures are needed to solve the Roma energy poverty problem.

[35] http://www.prog.sav.sk/index.php/energeticka-chudoba-na-slovensku-2020-od-analyz-k-odporucaniam-pre-verejne-politiky

SLOVAKIA

Support increasing energy efficiency of buildings by prioritising low income groups

The financial participation of the energy poor in works to improve energy efficiency has to be distinctly lower (and even nonexistent) in comparison to an average consumer. However, this is not the case in the current policies and it is one of the biggest gaps in increasing the energy efficiency of dwellings. The majority of energy vulnerable households cannot afford to use one of the state supported schemes for increasing energy efficiency because they are not able to pay initial costs.

Strengthen the local attitude to energy poverty

In Slovakia, there are very deep regional disparities. Big cities (Bratislava and Košice) have very low unemployment rates and the average salary is around 150% above the national average salary. On the other hand, some regions contribute very little to the GDP [36]. The regions of low GDP usually face low income and high unemployment problems. In addition, the majority of low income regions have more severe climate conditions – very cold winters and extremely hot summers.

Information campaigns on the problem of energy poverty or energy vulnerability

It is important to raise awareness of households on energy efficiency in buildings, heating and household appliances. It is important to stress the amount of money the household uses for energy and the savings that can be made by increasing energy efficiency. One of the most vulnerable groups of people are retirees. Campaigns could be aimed at the pre-retirement group of people with sufficient income to increase the energy efficiency of their dwellings. This could decrease the amount of retirees in energy poverty in future.

[36]https://www.routledge.com/Perspectives-on-Energy-Poverty-in-Post-Communist-Europe/Jiglau-Sinea-Dubois-Biermann/p/book/9780367430528

SLOVENIA

Energy poverty in Slovenia

The European Energy Poverty Index (EEPI) study shows that Slovenia ranks 15th among European countries in terms of performance in alleviating domestic energy poverty. The European Domestic Energy Poverty Index (EDEPI) ranking is 20th and the European transport energy poverty index (ETEPI) is 14th [37]. This study also shows that the main contributors to domestic energy poverty in Slovenia are high energy expenditures as share of total household expenditure and living in a dwelling with a leaky roof. The inability to keep a home cool in summer and warm in winter is also a problem, but to a lesser extent than the first two factors.

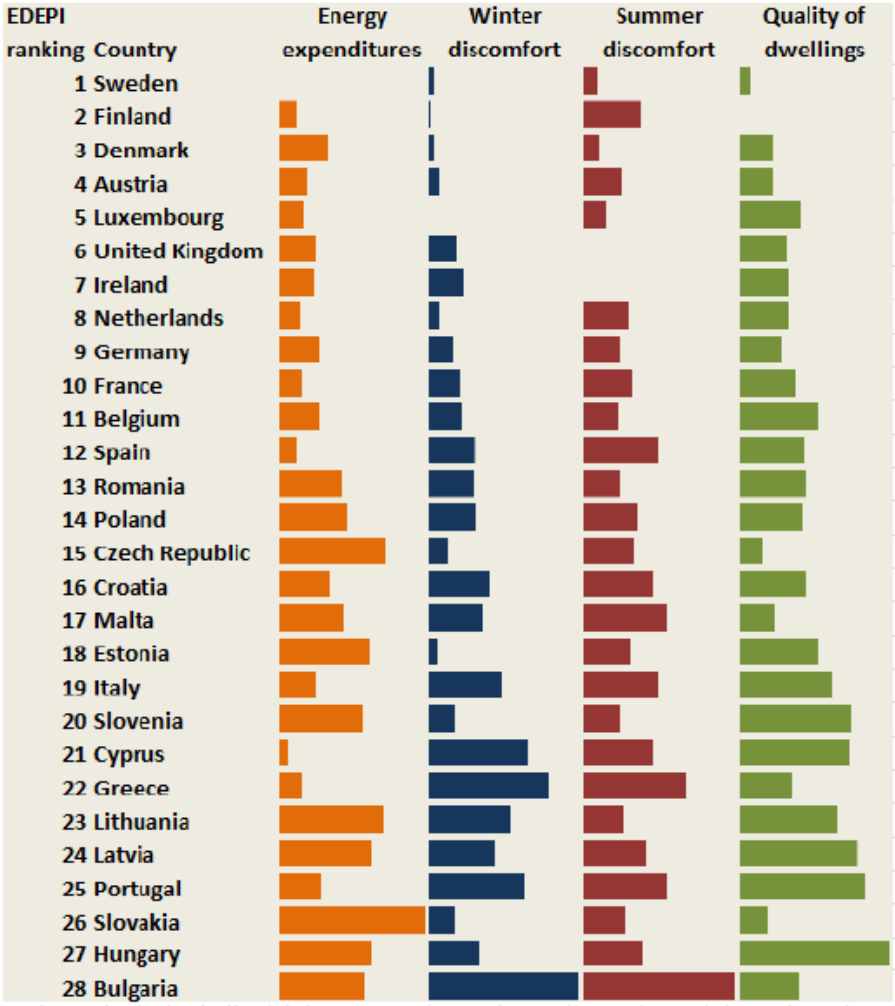

Figure 4 : Contribution of each dimension of domestic energy poverty to the EDEPI ranking, European Energy Poverty Index (EEPI): Assessing member states' progress in alleviating the domestic and transport energy poverty nexus, OpenExp. 2019

[37i https://www.openexp.eu/european-energy-poverty-index-eepi

SLOVENIA

The Eurostat data on the share of households that are unable to keep home adequately warm predictably shows that the problem is acute in low-income households. The share of those households has decreased from 2016 to 2018, but the problem is most persistent in the group of single member households, households with single people with dependent children, and even more in single female member households, especially in households below 60% of the median income [38].

In addition, there is a relatively high proportion of the population in Slovenia that lives in an apartment with a leaking roof, damp walls, foundations, floor, or rotten window frames. In 2018, 22.7% of the population lived in such conditions (in 2011 it was 27%), well above the EU average of 13.9% [39].

One of the barriers to measuring and alleviating energy poverty in Slovenia is the lack of an official definition. Apart from the Statistical Office's definition [40], which is "a situation in which a household is unable to provide adequately warm housing (and other energy services like hot water, lighting, etc.) at an affordable price", the country does not have an official measurable definition of energy poverty. A measurable definition is needed for setting the target, establishing appropriate measures, evaluating their effectiveness, and measuring if we are to achieve the target.

Energy Poverty Measures in the NECP

Energy poverty is referred to in sub chapters 2.4.4 and 3.4.4 of the Slovenian NECP, but as mentioned previously, without a clear definition or any quantified targets or goals set. There are several projects, measures and programmes mentioned, but there is a lack of consistency between these measures. In addition, as there are no targets set, the progress and effectiveness of the measures put in place can not be monitored.

The NECP states that the definition of energy poverty, with its measurable indicators and targets, will be developed in the future. Apart from including the definition of energy poverty, the NECP should include:

- a set of appropriate indicators and defined regular and systematic monitoring activities,
- set targets for 2030 for reducing energy poverty,
- a detailed mechanism for the adaptation of programmes and measures according to the objectives.

Other measures to alleviate energy poverty

In practice, due to lack of a measurable and comprehensive definition on who can be categorized as "people affected from energy poverty", financial indicators are used to identify households at risk of energy poverty. The key indicator, which is used to qualify households as energy poor and eligible for Eco Fund energy poverty alleviation programmes, is receiving social or financial support [41].

[38i Eurostat. 2020a. Inability to keep home adequately warm. Available: https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_mdes01&lang=en
[39] Eurostat, https://ec.europa.eu/eurostat/web/products-datasets/product?code=sdg_01_60
[40] Statistični urad RS. 2019. Metodološko pojasnilo - energetska revščina. Available: https://www.stat.si/StatWeb/File/DocSysFile/9200.
[41] Eko sklad. 2019. Javne objave. Available: https://www.ekosklad.si/fizicne-osebe/javne-objave

SLOVENIA

The Slovenian Eco Fund established programmes are:

- **Energy advice for households affected by energy poverty (ZERO):** The network of offices for energy advising (ENSVET) operates in approximately 36 locations across the country. The costs of the energy advisers are covered by a scheme for energy companies that aims to achieve yearly energy savings, and the costs of the devices that are given to households are covered by the Fund for Climate Change, run by the Ministry for Environment and Spatial Planning. This measure allows households to make some savings, although it could be better described as an awareness raising measure, as it does not eliminate the key problems households could be facing (e.g. old inefficient electric appliances, inefficient buildings, inadequate living conditions due to humidity).

- **Programme for 100% co-financing for the replacement of old stoves and wood furnaces from 2016:** Initially it was intended for recipients of regular social support who were also owners of their dwellings, later recipients of care allowance and tenants of municipal and state housing were added as the beneficiaries. Due to the low number of applications, the programme was expanded geographically. The amount of the incentive is up to 8,000 EUR per household [42].

- **Programme for 100% co-financing of the energy refurbishment of dwellings in multi-apartment buildings:** This is intended for owners of dwellings who are recipients of regular social support and income support. The programme started in 2010 and is the longest running programme for increasing energy efficiency in socially vulnerable households. This programme was not meant as a social measure, but rather as a way to remove the barrier to the renovation of multi-apartment buildings. Vulnerable households that do not have the resources for renovation can block the renovation of the entire building.

In 2018, the Jozef Stefan Institute prepared a report on energy poverty measures by evaluating the effectiveness of national measures to reduce greenhouse gas emissions [43]. According to the evaluation of the three above mentioned programmes, a common shortcoming was the lack of ability to reach the target group. The ZERO programme reaches less than the anticipated 300 households per year. The programme for 100% co-financing of replacement of old stoves and wood furnaces helped 18 households between 2016 and January 2018, and the programme for 100% co-financing of energy refurbishment of dwellings in multi-apartment buildings was successful in 152 cases from 2010 -2017.

Recently, the Eco Fund started a new programme called ZERO 500. It makes 5 million EUR from EU Cohesion Funds available for reducing energy poverty in 500 households. The measures focus on energy retrofitting of individual dwellings (e.g. insulation of walls, floor and/or roof, replacement of windows, replacement of inefficient heating systems) and are meant for households receiving regular social support or income support. The support should finance 100% of the selected measure, up to 8.000 EUR.

[42]Eko sklad. 2020. Zmanjšanje energetske revščine. https://www.ekosklad.si/prebivalstvo/pridobite-spodbudo/zmanjsevanje-energetske-revscine

[43] Stegnar, G., Urbančič , A., Petelin Visočnik, B., Cirman, A., Primc, K., Slabe Erker, R. & Majcen, B. 2018. Podnebno ogledalo 2018: Ukrep v središču – Energetska revščina (Končno poročilo). Ljubljana: IJS

SLOVENIA

RECOMMENDATIONS

A more holistic approach to addressing energy poverty should be developed based on data on the prevalence of energy poverty and its characteristics.

This requires defining energy poverty, introducing appropriate indicators, and regular and systematic monitoring. It is necessary to clearly set out the goals for reducing energy poverty and adjust the programmes and measures accordingly. Long-term strategies in addition to short-term measures need to be developed.

The government also needs to work towards the harmonisation of energy and social policies (social support related to energy poverty, and vice versa) and integrate energy poverty policies with a wider array of policies, such as employment, housing or pension policies.

Measures for energy poor households should be systematically integrated and coordinated with a wider range of social policy instruments.

In addition, institutions implementing measures to reduce energy poverty should be strengthened in terms of staff, financial resources and knowledge. Another important aspect for developing integrated and comprehensive policies is to carry out constant evaluations of the measures.

Energy efficiency programmes should be carefully designed to reach the energy poor.

Measures designed for tackling energy poverty through implementation of energy efficiency measures should focus on:

- Low-cost energy efficiency and energy saving measures (efficient indoor lighting, draft proofing of doors and windows, reflective foils for radiators, thermometers etc.),
- Replacement of household appliances ("old for new"),
- Replacement of inefficient heating systems (with use of renewables when possible),
- Different levels of retrofitting building envelope,
- Deep renovation of the buildings whose occupants are vulnerable should be promoted and, if impossible due to a deteriorated state of the building, replacement homes should be ensured,
- Subsidies, which are suitable and useful for energy poor households (e.g. high financing rates), should be used for the deep renovation of dwellings,
- Loans with no interest should be supported, always prioritising deep renovation,
- All state owned social housing should be renovated to improve housing conditions [44]

[44] InventAir. 2019. Policy recommendations on energy poverty identification and segmentation. InventAir project.

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If necessary, free assistance should be provided in completing documentation and applications for receiving various forms of support for energy efficiency [45]

Recognise local circumstances and involve relevant stakeholders

The location-specific nature of the problem should be recognised and local people should be engaged in designing coping strategies as they are most familiar with local circumstances.

Involvement of relevant stakeholders in designing, implementing and monitoring energy poverty related policies, in a fully participatory manner, is a required step forward. Stimulating and maintaining connections between the social, energy, health and environmental institutions and stakeholders, and ensuring data exchange, is also important.

Set up a financial support scheme

Financial support, such as payment of energy bills or support for heating fuel, should be used as a measure after all cost-effective energy efficiency options have been implemented. It should not be the first measure as it does not contribute to overall improvement of quality of life and it does not promote rational energy use.

BRINGING THE EU TOGETHER ON CLIMATE ACTION

The Unify project has received funding from the LIFE Programme of the European Union. The information and views set out in this report are those of the authors and do not necessarily reflect the official opinion of the European Commission .