

# Context and schemes to tackle energy poverty in Europe



# POLAND BACKGROUND AND GOVERNANCE

#### BACKGROUND

Poland faces significant energy poverty problems, partly as a result of specific historical legacies in the regulation and development of its housing and energy sectors. Of particular significance is the disproportionately **high reliance on solid fuels for heating** among low-income households, leading to significant air pollution problems. There have been major strides in the improvement of energy efficiency within the housing stock, although a number of challenges remain (about heating systems in particular).

While debated since the **early 2000's**, energy poverty first officially appeared in Polish discourse in **2009** in a <u>report</u> of by the Energy Regulatory Office. The **2013** amendment of the <u>Energy Law</u> introduced two crucial terms for **vulnerable electricity and gas customers**.

"A vulnerable electricity customer is a person who is eligible to receive a housing allowance (income support) because the level of their income is below a given threshold."

The current concept of vulnerable energy customers is thus based on poverty. However, the housing allowance is available only to people living in apartment blocks.

Poland intends to develop a definition of energy poverty, that is not adopted yet.

The need to mitigate energy poverty is to be addressed through policy measures by incorporating social issues in the energy efficient upgrading of residential housing and wider renovation support schemes.

The main strategic document that currently refers to energy poverty is 'Energy Policy of Poland until 2040' (which is still a draft). It mentions the reduction of energy

# MAIN ACTORS DEALING WITH ENERGY POVERTY

The formal responsibility about energy poverty has been transferred from the Ministry of Energy to the <u>Ministry of Climate and Environment</u>. Relevant competences also comprise the <u>Ministry for Family and Social Policy</u>, the <u>Ministry of Economic Development</u>, and the <u>Energy Regulatory Office</u>.

An <u>inter-ministerial team</u> co-ordinated by the Ministry of Climate and Environment (previously Ministry of Energy) was created in 2017 and operated until 2020. Its aim was to create a definition of energy poverty, but no results were published.

The <u>National Fund for Environmental Protection and Water Management</u> (NFOSiGW) is the government agency responsible for the implementation of key relevant programmes (see schemes below).

Regional and local authorities are also key in addressing energy poverty and implementing policies to tackle it. A good example of a local policy with national impacts is the Skawina Smog Alert – linked to the national Smog Alert movement. Due to their actions, a national laboratory for combating energy poverty was set up in association with the Stop Smog Programme.

This action was among the first to recognize the need to include vulnerable groups in its advocacy work across the local municipality.

**NGOs** are also actively involved on the topic.

poverty through thermal retrofitting of the housing stock as one of the energy sector's priorities. Earlier, the <u>Strategy for Energy Security and Environment</u> (2014) specified that by 2020 energy poverty should be evaluated and a programme to tackle it should be developed. One of the stated objectives in the National Energy and Climate Plan (<u>NECP</u>, 2020) is indeed the reduction of energy poverty, and the protection of vulnerable consumers. The Anti-smog Act was implemented in 2015. This Act enables regional authorities to pass local laws restricting the use of coal in individual households (e.g., complete ban of coal for heating in Krakow), although a specific support mechanism for energy poor households was lacking.

#### STAKEHOLDERS AND SCHEMES

Energy poverty is primarily tackled through the **social welfare framework** under the Ministry for Family and Social Policy. The <u>energy allowances</u> are provided by the municipalities and their social welfare centres.

**Regionally-based energy advisors** from the National Fund for Environment Protection and Water Management (NFOSiGW) also play an important role. NFOSiGW implements as well the 'Stop Smog' programme targeting energy poor households living in single family houses. This is part of the Poland's flagship Clean Air Programme – a key energy poverty effort –coordinated by the Prime Minister. The other schemes for building renovations or energy efficiency (e.g., white certificates scheme) do not currently include social criteria or energy poverty focus.

The expansion and upgrading of district heating (DH) networks also contribute to reducing energy poverty through more efficient and cooling energy provision systems, and thereby lower heating costs.

A growing number of studies examining energy poverty in Poland in different ways have been published since 2015.

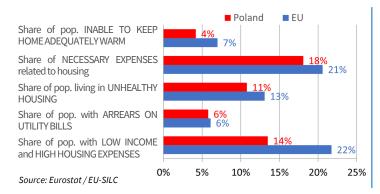
## **STATISTICS**



## **POLAND**

- Population: 38 million (2019)
- National median equivalised income: €7 142/year (in current prices, 2019)
- Number of people living below the poverty line: **5.9 million** (15.5%) (2019)
- Climate: continental
- Average annual expenses for « electricity, gas and other fuels » per inhabitant related to the dwelling): €600 /year (in current prices, 2019)

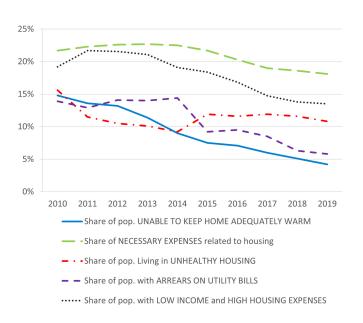
#### COMPARISON WITH THE EUROPEAN AVERAGE IN 2019



In 2019, Poland shows a better performance than the EU average for energy poverty indicators, either housing or expenses related. In particular, the share of low-income households with high housing expenses is much lower in Poland (14%) than the EU average (22%).

The residential sector in Poland still relies on coal (29% of the energy consumption, followed by gas and heat with a 20% share each; source: Enerdata), which is cheaper compared to other energy types; gas and heat prices remains around 30% below the EU average. These affordable energy prices can explain the good performance for expenses-related indicators.

#### TRENDS OVER 2010-2019



Source: Eurostat / EU-SILC

Since 2015, the number of Polish people at poverty risk has been declining (despite an increase of the poverty rate since 2017): in 2019, 5.9 million people are affected by this issue

All energy poverty indicators have shown an improving trend since 2010. The share of population living in unhealthy housing however shows a rebound since 2014 to stabilize around 11-12%.

Several retrofit and energy efficiency programmes in collective buidings have been implemented over the past years, possibly explaining the progress made in indicators, especially the falling number of people unable to keep their home adequalty warm despite a growing trend in energy prices since 2010 (Enerdata). But the majority of Polish households live in detached houses and in rural areas, which were not targeted in these retrofit programmes, while they are more exposed to energy poverty (EPOV, 2020). On the national level, the specific energy consumption of dwellings has thus remained unchanged, which may indicate the need for a broader scope in retrofit programmes, as done in the Clean Air programme.

The COVID19 pandemic has worsened the situation for energy poverty, to an extent yet difficult to assess (Nagaj and Korpysa 2020).

#### **NATIONAL DATA**

#### % of households unable to keep their home adequately warm (data for 2017) according to type of work/income according to dwelling type according to construction period 10,0 25 15 20 20 10 15 10 10 Multifamily ■ Blue-collar workers ■ White-collar workers Detached n detached houses ■ Self-employed multifamily ■ before 1946 ■ 1961-1980 ■ 1996-2006 ■ Retirees and pensioners ■ Recipients of other non-earned income sources ■ 1946-1960 ■ 1981-1995 ■ after 2007 Source: adapted from Sokołowski et al. 2019

A <u>research study</u> done in 2019 has analysed a set of energy poverty indicators and related drivers, according to a variety of parameters (e.g., professional categories, dwelling type, rural/urban areas) to provide a detailed picture about energy poverty in Poland. This also highlighted regional variations.

High risk of energy poverty were found for households living in buildings built before 1946, in rural areas, or dependent on certain social benefits.

## **NATIONAL POLICIES**

### POLICIES FOR ENERGY ACCESS, BUILDING RENOVATION AND ENERGY EFFICIENCY

	SCHEME	TARGET (RESULTS)	Other information
Energy access	Housing allowance (since 2014).	Benefit paid to poorest households, aimed at allowing them to cover their monthly accommodation expenses, including for heating and water. However, gas and electricity bills are not included. In practice, the allowance principally covers rent expenses.  The allowance may cover no more than 70 per cent of the costs related to the standard area of an occupied home. Its quantification is complex: it is contingent upon a series of specific income and housing criteria.	If there is no district heating, hot water or mains gas in the dwelling, a household can get a lump sum for the purchase of fuel.
	Energy allowance (since 2014).	More specialized energy benefit granted to people already receiving a housing allowance, to help them in covering their electricity bills.  Allowance strictly regulated in terms of eligible housing area (in practice, limited to small apartments, excluding detached houses), with a small amount to the beneficiaries (equivalent to 2.50–4.40 EUR per month).  Granted and paid by the municipalities.	When applying, households need to submit a copy of their electricity supply contract with a utility company.
Renovation and energy efficiency	'Clean Air' programme (2018 - 2029).	Nationwide public grant scheme to support building renovations and the upgrading of domestic heat supply (budget of about 24 billion euros for 12 years). Support mainly in the form of direct grants, but subsidies for partial repayment of capital component of bank loan are foreseen in the future. The programme has two elements: a basic and supplementary level of funding. Only households living in single family homes are eligible for it, and for the supplementary level their monthly income need to be lower than about 310 euros in a multi-person household, and about 440 euros in a single-person household. Grant rate can be up to 90% for the lowest income households. The programme can cover energy audits, heating system connections and installations, energy efficiency improvements of walls, windows and doors.	There are specific limits for particular types of activities and buildings. In February 2021, it was reported that 1000 municipalities had signed an agreement under the programme, following a number of improvements that were implemented previously.

#### **COMPLEMENTARY INITIATIVES**

TYPE OF INITIATIVE	EXAMPLE(S)	
Thermo- modernisation bonus	Grants for the renovation of dwellings (no social criteria), mostly used by housing cooperatives and communities for multifamily buildings (460 800 dwellings renovated over 2009-2019).	
Tax relief for thermal efficiency improvements	A taxpayer who owns or co- owns a single-family house is entitled to the relief, which allows for deducting expenses incurred towards the implementation of an energy efficiency project in a single- family house.	
Prepayment meters	Vulnerable consumers can have these installed at no extra cost.	

# **Stop Smog programme**



'Stop Smog' is a special component of the Clean Air Programme scheme, explicitly **targeted towards energy-poor households**. It provides subsidies for installing new heat sources (including renewable energy systems), thermal retrofitting, and connections to the heating or gas network, for **single-family houses**.

The subsidy rate may vary with income thresholds, up to  $\[ \in \]$ 11,600 per house. **70%** can be sourced from the **State budget** (from the 'Thermo-modernization and Renovation Fund'), with a further 30% coming from **local budgets** (including possible residents' own contributions).

The applicants to the programme are the **local authorities**. The selected **municipal programmes** are set for 3 or 4 years. The municipalities can target the households in need of help, as they also provide the housing and energy allowances. The resident signs an agreement with the municipality and offers access to their home for the purposes of the intervention.

The first call resulted in agreements signed with 7 municipalities, with €8.2 million from the State and €3.7 million from the municipalities to act in 1,100 houses. The scheme has been <u>revised</u> <u>early 2021</u> to make the applications by municipalities easier, and allow applications by groups of municipalities. The State planned €31 million for the call of 2021, expecting to select 70 municipalities. Further €113 million are planned for the calls over 2022-2024.

## **GOOD PRACTICES**

#### **IBS Energy Poverty project** (research project; 2015, 2018)

Research project of IBS (Polish Institute for Structural Research), funded by the European Climate Foundation (2015-2017), the Polish Ministry of Entrepreneurship and Technology and the Forum Energii (2018).



**Objective:** Develop knowledge and assessments of energy poverty in Poland.

Approach: Review of methodologies to assess energy poverty in Europe, and development and adaptation of energy poverty indicators for Poland.

Analysis of the **targeting and effectiveness of policy instruments** to tackle energy poverty using microsimulation model.

Analysis of the influence of energy poverty on air pollution.

**Results**: Several **publications** in Polish and English (e.g., Sokołowski et al. 2019).

Results and **policy recommendations** discussed in multiple policy and scientific arenas.

#### <u>ASSIST (Support Network for Household Energy Saving)</u> (Horizon 2020; 2017-2020)

Coordinated by AISFOR SRL (Italy), with two Polish partners (the Consumer Federation Association, and KAPE, the Polish Energy Conservation Agency).

**Objective:** Tackle energy poverty by providing tailored support to vulnerable or energy poor consumers.

**Approach:** Development of a training and qualification schemes, and a **network of Home Energy Advisors** (HEAs) with knowledge on **social, communication and technical aspects**. The trained HEAs can use an online platform to share experience and get resources, news and continuous training. **Communication actions** were also organised to raise citizen's awareness about energy poverty and the availability of energy advice.

**Results:** 304 HEAs (whose 53 in Poland) have provided support to 5,242 households (whose 1,875 in Poland). In Poland, the HEAs also informed households about programmes that can help them (e.g., Stop Smog). The communication actions included an **Energy Bus** to reach persons who would not go to an advice centre.

The ASSIST reports also include a <u>review of good practices</u> and how they can be replicated.

## FINE Power Engineering - Civic ENERGY (local energy cooperatives; 2019)

Project part of the 2019 Social Innovation to Tackle Energy Poverty Programme, launched by the Schneider Electric Foundation and Ashoka in several Central and Eastern European countries.



**Objective:** Bring more **affordable and renewable energy** to people outside major urban centres, focusing on residents of isolated single-family houses, farms, small multi-family homes in **small villages**.

**Approach: Incubation model** to support the development of **social energy cooperatives**, providing local communities with services, for example to install solar panels.

**Results:** The project aimed at creating and testing a model, and tools for replicating it. Poland had a low development of energy cooperatives or communities. A first legislative framework for energy cooperatives was adopted in 2015. But the development has still been slow. The "More than energy." movement, gathering local governments, NGOs and citizen, is advocating for better conditions for energy cooperatives.

# <u>EVALUATE (Energy Vulnerability and Urban Transitions in Europe)</u> (research project; 2013-2018)

Funded by the European Research Council, part implemented in Poland with the support of the University of Gdansk, and close collaborations with the City of Gdansk and the Metropolitan Research Institute.



**Objective**: Investigate the manner in which urban institutional structures, built environment and everyday practices shape **energy vulnerability at a variety of geographical scales**.

Approach: Survey of over 700 households, practitioners, experts, policy-makers and activists across Poland, and with a specific focus on inner-city Gdansk. The project documented and quantified the presence of energy poverty at the local, regional and national level in Poland. The project also organized workshops and policy events aimed at Polish think-thanks, academics, regional and local authorities with an interest in energy poverty issues, as well as local NGOs responsible for environmental protection.

**Results**: A specific outcome was the discovery of 'low-carbon gentrification' in Gdansk, and the provision of advice to relevant authorities seeking to address energy poverty.

#### **Information sources** (see also the documentation annex)

- <u>Inter-ministerial team on energy poverty</u> coordinated by the Ministry of Climate and Environment.
- Poland's National Energy and Climate Plan
- Energy Regulation Office (URE)
- Karpinska and Śmiech (2021). <u>Breaking the cycle of energy</u> poverty. Will Poland make it?
- Sokołowski et al. (2020). <u>7) Energy poverty between energy paradigms in Poland.</u>
- Sokołowski et al. (2019). <u>Measuring energy poverty in Poland</u> with the multidimensional energy poverty index.