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FUEL POVERTY – A NEW CHALLENGE FOR SOCIAL POLICY?

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A b s t r a c t

The article presents a multi-faceted problem of energy or fuel poverty. This issue is still poorly recognised in Poland, although it is estimated to affect at least 17% of the Polish population, who find it difficult to maintain a comfortable temperature at home or to pay bills for heating their households. Besides the thermo-modernisation of residential buildings and the promotion of appropriate attitudes to energy consumption, another approach to combating energy poverty involves economic support in the form of energy allowances awarded to households identified as "vulnerable energy consumers". This paper presents the extent of support given to households in Olsztyn in 2014-2015.

UBÓSTWO ENERGETYCZNE – NOWY PROBLEM DLA POLITYKI SPOŁECZNEJ?

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S ł o w a k l u c z o w e: ubóstwo energetyczne, miary ubóstwa, dodatek energetyczny.

A b s t r a k t

W artykule zaprezentowano wieloaspektowy problem ubóstwa energetycznego. Zjawisko jest słabo rozpoznane w Polsce, choć według szacunków dotyczące co najmniej 17% populacji Polski, dla której problemem jest utrzymanie w domu komfortowej temperatury czy też opłacenie rachunków

za ogrzewanie. Jedną z metod ograniczania ubóstwa energetycznego – obok termomodernizacji budynków mieszkalnych i kształtowania właściwych postaw podczas korzystania z energii, jest ekonomiczne wsparcie gospodarstw domowych, określonych mianem „odbiorców wrażliwych" dodatkiem energetycznym. Przedstawiono zakres pomocy gospodarstwom domowym w Olsztynie w latach 2014-2015.

Introduction

Fuel poverty refers to difficulties in satisfying basic energy needs at one's home. Energy supply requirements have a material as well as a social dimension, and the inability to satisfy one's demand for energy is associated with material deprivation and social exclusion. Energy deficient households are defined as ones which are not only in a difficult economic situation, but are also excessively burdened with energy costs. On the one hand, problems may arise while keeping one's home warm (well lit, with sufficient energy for cooking, etc.). On the other hand, due to the high costs of power supply, a household may be forced to economise on expenses allocated to other basic needs.

Although fuel poverty as a problem is gaining a growing interest, it has not been fully recognised across all the European Union or in individual member states. The issue was first raised in the United Kingdom, where studies were implemented in the 1970s on the extent and causes of fuel poverty as well as measures that could be implemented to reduce it. The UK is the only country that has a legal definition of fuel poverty (FIGASZEWSKA 2009, MIAZGA, OWCZAREK 2015, p. 2). FIGASZEWSKA (2009, p. 6) estimates that between 50 to 125 million people are stricken by energy poverty in Europe. These figures may grow as energy prices increase. In Poland, the problem of energy poverty still awaits deeper investigation and remains underestimated in terms of its scale and the need to counteract it. The first official attempt to deal with this problem in Poland was undertaken in 2013, when the amended *Energy Law* introduced the term of a vulnerable energy consumer, while the draft of *Poland's Energy Policy until 2050* included the concept of fuel poverty. However, both of these definitions are incomplete and need much more precise rephrasing.

Thus, the aim of this article has been to present the question of fuel poverty, i.e. measurement methods and the severity of fuel poverty relative to revenue poverty. Ways of limiting energy poverty have been suggested. Special attention has been drawn to a new benefit, known as an energy allowance, which households in Poland have been eligible to claim since January 2014. Data on the support given to energy poor households in Olsztyn in 2014-2015 have been collated.

Poverty Versus Fuel Poverty – Definitions and Measures

The idea of "poverty" is well understood and has been thoroughly analysed in social policy research. In the simplest words, poverty is defined as a permanent shortage of financial means for securing life needs, as a result of which both individuals and whole social groups are forced to live at or below the minimum living standard. Poverty poses a threat to the achievement of one's goals and aims (Katolicka Nauka Społeczna, online). Both in everyday language and in the specialist literature, several notions are used interchangeably: poverty, impoverishment, destitution, critical life situation, social degradation, social deprivation, and marginalisation. This linguistic diversity indicates the inherent ambiguity of poverty, which is a complex and multi-faceted phenomenon. Poverty comprises both quantitative aspects (e.g. a household's income rate) and qualitative ones (other indicators of one's material position, e.g. being in possession of certain material goods, having access to such goods as education or health services). It is difficult to find a single, unambiguous criterion that would identify a given household as a poor one (Giereszewska, Łopato 2009, p. 240). The scale of poverty is estimated with the Poverty Risk Index, based on research into household budgets. The Poverty Risk Index is computed for variously defined economic poverty thresholds. It assesses the percentage of persons in a household with expenses below:

– the existence minimum,
– the relative poverty threshold,
– the official poverty threshold.

The "existence minimum" category was developed in line with the method of basic needs. This is the threshold of economic poverty corresponding to a living standard below which one's biological life and development is endangered (Kurowski 2015, after Deniszczuk, Sajkiewicz 1997). Satisfying needs on this level and within this material scope can only ensure survival, and thus the lower threshold of poverty is determined. The relative poverty threshold is defined as a sum that equals 50% of the mean monthly expenditure of households. The official poverty threshold is the total income which, compliant with the current act on social welfare, entitles one to apply for monetary support. The range of income poverty is constantly analysed and monitored (Fig. 1).

A slight decrease in values of the extreme poverty index and relative poverty index was observed in 2015. One in 15 persons in Poland experienced extreme poverty, while nearly every sixth person was exposed to relative poverty (ca 7% and 16% of persons in households, respectively). The official poverty index remained stable in 2014-2015, reaching the value of ca 12%. Persons living in households that derived incomes from so-called non-salary sources were in the most difficult position (the extreme poverty rate among these persons was about 18%). Persons living in farming households (ca 15%) and households with most income originating from ill-health pensions (ca 12%) were at a risk higher than

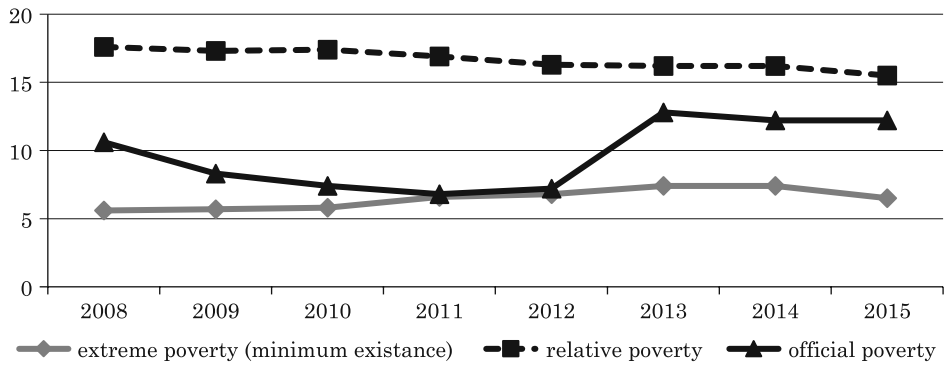

Fig. 1. Rates of poverty in Poland in 2008-2015, according to the poverty thresholds adopted in each year as a percentage of persons per household

Source: the authors, based on data from the *Zasięg ubóstwa ekonomicznego w Polsce w 2015 r.* (2016).

average of being poverty stricken. Irrespective of the type of households, multi-children families were at the highest risk of being poor. In 2015, one in eleven people in households with both parents and 3 children and one in six living in households with both parents and 4 or more children lived below the minimum existence level. Those who lived in single-parent families were in a relatively better situation. The extreme poverty risk rate for single-parent families was barely 7% (GUS, online).

According to SZPOR (2016, p. 4), it is incorrect to assume that energy poverty is a simple consequence of low income, and to apply this assumption in the search for a solution to the problem of fuel poverty is also incorrect. On the contrary, fuel poverty arises from specific conditions which significantly affect the successful prevention of the problem. Fuel poverty is a multi-faceted issue, pertaining to such areas as economy, sustainable development, health, social matters, environmental protection and housing development (Fig. 2).

Fuel poverty occurs when we find it difficult to maintain a comfortable temperature at home, to pay heating bills, to have a faulty heating system repaired or to have a new one installed, or if our flat or house is persistently cold and damp, which makes the residents fall ill (*Fuel Poverty Action Guide* 2015, p.5). However, fuel poverty is more than the lack of comfort due to an inadequate temperature at home or trouble heating water and keeping a home well lit, not to mention the use of such basic household appliances as a fridge, washing machine, gas or electric cooker, radio, television, computer and the Internet. The term 'fuel poverty' means the lack of access to energy understood as electricity, heating and gas; mostly due to financial problems, but additionally it encompasses one's inability to pay bills, to refurbish energy installations at home or to buy new systems or equipment (STĘPNIAK, TOMASZEWSKA 2013, p. 6).

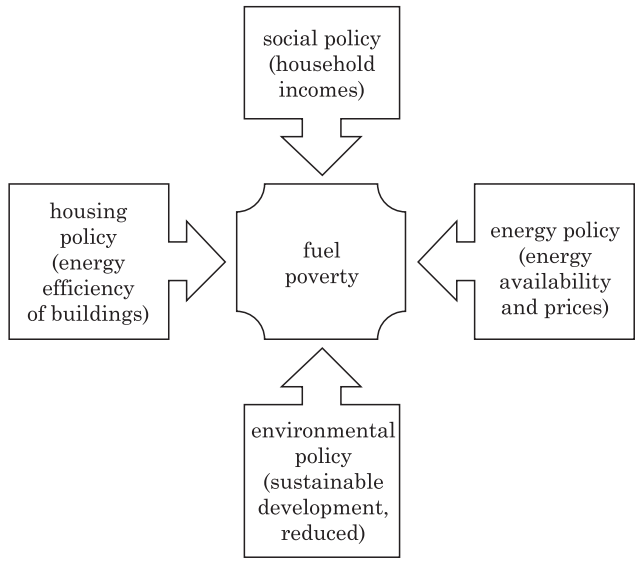

Fig. 2. Areas and policies affecting the problem of energy poverty
Source: the authors, based on PYE, DOBBINS (2015, p. 1-8).

UN-HABITAT (The United Nations Human Settlements Programme – a UN agency) assumes that difficulties in satisfying basic needs of a household with respect to the access to energy needed for cooking, heating and lighting as well as protecting one's home from cold, dampness and heat, are a barrier to attaining the minimum housing standards (known as adequate housing), and an obstacle to the sustainable development of human settlements (OWCZAREK, MIAZGA 2015, p. 6). Fuel poverty refers to a shortage of both heat and electric power. It is connected directly with energy consumption (its amounts and types), production (energy carriers from which it is derived) and distribution (energy companies). Difficulties in satisfying energy needs may arise from an inadequate development of the power infrastructure, housing infrastructure (for example, a lack of thermo-insulation, or antiquated household appliances) as well as the consumers' insufficient awareness of how energy should be used rationally. Experiencing difficulties in covering expenses incurred by keeping one's home warm and other energy expenditures, such as energy for cooking or lighting, can lead to adverse health-related consequences. Fuel poverty affects the physical health of children, who suffer from decreased immunity, respiratory tract diseases, and inadequate weight gain. Adults and adolescents have been observed developing mental disorders: stress, anxiety or a depressed emotional state. In extreme cases, lowered temperatures can cause death (LIDDELL, MORRIS 2010, p. 2987–2997).

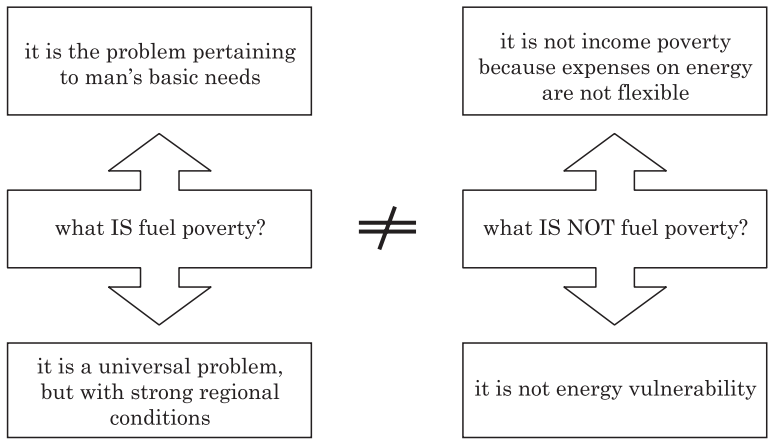

Fig. 3. Energy poverty – what it is and what it is not
Source: the authors, based on SZPOR (2016, p. 11).

An objective measure applied to fuel poverty is the relationship between a household's income and its expenditure on energy. In turn, a subjective measure is the declared discomfort caused by the temperature in a flat or house and possibly its dampness, or by problems paying for energy bills. Objective measures in research on fuel poverty are involved in both an absolute and a relative approach. In the absolute approach, the minimum energy needs threshold of households is determined, and afterwards the percentage of households below this level is identified. In the UK, the absolute fuel poverty threshold has been assumed to equal 10% of income, i.e. all households where hypothetical spending on energy exceeded 10% of income are energy poor. All expenses related to energy consumption at home were taken into consideration, which included not only heating but also water heating, cooking, lighting and the use of electric appliances. However, the cost of transport, i.e. fuel for cars and other vehicles, are excluded (DĄBROWSKA, STĘPNIAK 2014, p. 4). MIAZGA and OWCZAREK (2015, p. 7) claim that the 10% threshold in Poland is inappropriately low because of the average energy expenses being higher than in the UK. In 2003-2013, they oscillated around 10%, while in the UK they equalled around 4% of the total available revenue. Should the 10% threshold be adopted in Poland, nearly half the population of our country would be considered energy poor. Thus, the authors propose a threshold of 13% of the household's income[1]. The relative approach

[1] The 10% threshold, which is adequate for the UK, has been determined in conformity with two arguments. One is the fact that the first three deciles of poor persons actually spent over 10% of their income for energy. Secondly, it has been agreed that the expenses for energy bills are not excessively high if they equal double the median for all households. For Poland, the above threshold has been decided to be too low because the average expenses for energy bills over the last decade have approximated 10%, whereas the curve of expenses for energy does not demonstrate visible drops between individual income deciles. The 13% threshold is more reliable for Poland,

involves a selection of a parameter (or a combination of parameters) which will demonstrate energy poverty in a given population, after which a group characterised by the lowest level of the adopted parameter relative to the remaining population is identified. The most popular measure used in research on fuel poverty is the LIHC, i.e. the Low Income High Costs, which was first proposed in the UK in 2013. This approach allows researchers to classify a household as being threatened with fuel poverty if it meets two conditions: the cost of energy exceeds the average cost for this type of household, and – once this cost is covered from the household's budget – the remaining income pushes the household below the official poverty threshold (DĄBROWSKA, STĘPNIAK 2014, p. 4).

The scale of energy poverty in Poland according to the above measures is presented in Table 1. In light of the definition of absolute fuel poverty with the threshold of 13% of a household's income, as proposed by MIAZGA and OWCZAREK (2015, p. 13), energy poverty affected 32.4% of the Polish population (12.7 million people) in 2013. Should the original British threshold of 10% be applied, then the percentage of energy poor Poles would increase to 44.4% of the general population (17.2 million people). The relative energy poverty definition is less sensitive to a change in the threshold. Energy poverty according to the LIHC relative definition affected 17.1% of the Polish population (6.44 million people) in 2013. From the viewpoint of deprivation caused by fuel poverty and the creation of instruments of support, the energy poverty level identified in the relative approach is more adequate than the very high percentage achieved using the absolute definition (32.4%).

Table 1

Scale of fuel poverty in Poland in 2013

Specification	Fuel poverty in Poland according to the following definitions		
	absolute "10% of income"	absolute "13% of income"	LICH relative
Percentage of persons in households	44.4%	32.4%	17.1%
Number of persons	17.2 mln	12.7 mln	6.44 mln

Source: MIAZGA, OWCZAREK (2015, p. 13).

In their research, MIAZGA and OWCZAREK (2015) emphasise that the way in which energy poverty is measured not only results in different severity scales of this problem in Poland but also suggests different characteristics of households and houses that are statistically most strongly associated with the risk of being affected by fuel poverty. Households at the highest risk are single-person

even though it is the result of a technical correction of the average derived from a limited database. The number of energy poor persons estimated according to this threshold is also more acceptable from the standpoint of possible redistribution mechanisms (SZPOR 2016, p. 9).

ones according to the absolute definition based on the 13% threshold level, and single-parent families and married couples with two or more children in line with the LIHC relative definition. With respect to the demographic structure of households, SZPOR and LIS (2016, p. 8), based on data originating from the *Studies on Household Budgets* (GUS), conclude that fuel poverty most often strikes single parents, couples with one child, pensioners and persons living on social benefits. Both definitions indicate that energy poverty is more frequent among persons living on incomes other than salaries and wages, especially those living on benefits and social care allowances, and that fuel poverty is more common in villages. No significant differences appear between the two definitions with respect to the characteristics of flats or houses. Energy poor individuals most often live in detached or terraced single-family houses. This feature has the strongest influence on the level of fuel poverty. Most of these houses were built before World War Two or in between 1946-1960. Fuel poverty is most frequent among people who heat their dwellings with electric stoves or gas furnaces. When the LIHC definition is applied, more persons at risk of energy poverty use local central heating systems. The choice of an approach to measure fuel poverty has little effect on regional differentiation. Energy poverty is more frequent in the provinces located in south-eastern Poland: lubelskie, świętokrzyskie, małopolskie and podkarpackie (according to the relative LIHC definition: 21-29% of energy poor persons in 2013). The problem is the rarest among populations of the provinces of north-western and south-western Poland: pomorskie, zachodnio-pomorskie, śląskie and dolnośląskie (according to the LIHC definition: 8-12% of energy poor persons in 2013). To some extent, the high percentage of energy poor persons in south-eastern Polish provinces is caused by the harsh climate coupled with a higher rate of income poverty in the south-east of Poland (MIAZGA, OWCZAREK 2015, p. 2–21).

Fuel poverty, however, cannot be equated with income poverty, although to a certain extent both affect the same households. The low correlation coefficients between income poverty and fuel poverty, defined in both absolute measures (the correlation coefficient around 13-16%, depending on the definition of income poverty) and relative ones (the correlation coefficient around 15-20%) substantiate the lack of equation. Among the fuel poor persons according to the relative LIHC definition, only 33% are also income poor as identified by the relative measure. The overlapping of fuel poverty according to the 13% income definition and income poverty in the official definition is even lower – about 20% of energy poor are also income poor persons. Fuel energy can be treated as a dimension of social exclusion in the sense of difficulties in satisfying income and non-income needs, leading to social marginalisation of individual persons or households (MIAZGA, OWCZAREK 2015, p. 17, after PANEK 2008).

Economic Instruments for Preventing Fuel Poverty

Most fuel poverty researchers (WĘGLARZ et al. 2014, p. 9, SZPOR, LIS 2016, p. 8, STEPNIAK, TOMASZEWSKA 2013, p. 16) suggest that the key determinant of fuel poverty, beside low incomes, is the type of occupied residential dwelling. Accordingly, three types of action in response to the problem of fuel poverty are distinguished (WĘGLARZ et al. 2014, p. 9):

– actions directed at solving the technical problem: thermo-modernisation of buildings, replacement of high energy consumption appliances etc.;

– actions directed at solving the economic problem: support given to households at risk of energy poverty, to help them deal with the current expenses for energy;

– actions directed at solving the problem of attitudes to efficient energy consumption (in the cognitive, behavioural and emotional aspect): educational action to raise the knowledge and know-how of using energy-powered appliances, and to provide information needed when selecting and purchasing energy-efficient appliances, including the modernisation and use of heating systems.

With respect to the first type of action, i.e. mechanisms whose aim is to improve the technical state of buildings, all that the legal system in Poland provides today is a scheme supporting thermomodernisation and house repairs, implemented in line with the Act of 21 November 2008 on Support for Thermomodernisation and Refurbishments. The second group of action, i.e. the ones designed to solve the economic problem, includes mainly housing benefits and energy benefits. The Act of 26 July 2013 on the Amendment of the Energy Law and Some Other Acts incorporated into the Polish legal system the notion of a vulnerable energy user of electric energy and gas fuels, which is approximate to the concept of a person affected by fuel poverty. However, it should be emphasised that the vulnerable energy consumer was defined via a reference to people who collect housing benefits. Both housing and energy benefits are intended to help individuals who are in a difficult financial situation to cover the costs of housing (WĘGLARZ et al. 2014, p. 10).

The idea of housing benefits envisages public support to maintain flats or houses, irrespective of their status, if an eligible person alone is unable to cover costs incurred by the maintenance of a home (DZICZEK 2012, p. 199). The Act of 2 July 1994 on the Housing Rental and Housing Benefits marks the beginning of the housing benefit. The housing benefit was intended to perform several functions. First, it was to support families who lived in hardship. The Act was to protect them from the adverse effects of rapidly rising rents, while most of the revenue obtained from higher rents was expected to be allocated to repairs and maintenance of depreciated buildings. The Act on Housing Benefit, which remains effective until this day, was passed several years later, on 21 June 2001. The housing benefit is a generally available and periodic cash benefit payable

in compliance with the regulations of the Act and intended to help eligible claimants cover costs incurred by the occupancy of a flat or house. The housing benefit has several distinguishing properties:

– it is an obligatory benefit awarded to an eligible claimant in the sense that any person who fulfils the legal conditions has a right to demand to be paid the benefit;

– it is a generally available benefit, i.e. it is awarded to eligible claimants regardless of their legal title to the occupied flat or house, with certain exceptions specified in the Act;

– it is a periodic benefit, awarded for a specific period of time (6 months) and afterwards re-awarded if the legally defined conditions continue to be fulfilled.

The housing benefit is a benefit granted to applicants by administrative decision, once their eligibility has been verified (MANJURA-NIŚKIEWICZ 2011, p. 13–17). The criteria of eligibility are: a legal title to a flat or house, the family's income and the occupied floor space. In 2015, 4.4 million housing benefits adding up to a total sum of 894.44 mln PLN were paid in Poland. The main beneficiaries of this form of social welfare were tenants in council houses (41%) and in housing cooperatives (26%) (Bank Danych Lokalnych, online).

Due to the lack of data for the whole of Poland regarding the amount of public support given in the form of energy benefits, this question has been presented using the town of Olsztyn as an example. The flat-rate annual energy benefit equals no more than 30% of the product of electric energy consumption and the average price of electric power for the end-user of this energy (a household), announced by the President of the Energy Regulatory Office no later than on 31 March each year. According to the Notice of the Minister of Economy, dated 22 April 2016 and regarding the amount of a flat-rate energy benefit for the period of 1 May 2016 until 30 April 2017, the energy benefit in this time period was:

– for single-person households – 11.29 PLN/monthly,

– for households of 2 to 4 persons – 15.68 PLN/monthly,

– for households of at least 5 persons – 18.81 PLN/monthly.

The office responsible for awarding energy benefits is the Department of Housing Benefits at the Social Welfare Centre in Olsztyn, pursuant to resolution number XLVII/767/13 of the Council of Olsztyn, dated 27 November 2013 and regarding the authorisation granted to the Director of the Social Welfare Centre to process applications and issue decisions with respect to the flat-rate energy allowances. The task is classified as lying in the scope of tasks performed by the state government administration. The employees of the Department of Housing Benefits at the Social Welfare Centre received 1,957 applications for flat-rate energy allowances between 1 January 2014 and 31 December 2015. Based on the submitted applications, 1,919 decisions to grant energy benefits were issued (Tab. 2).

Table 2
Issued decisions regarding housing and energy benefits at the Social Welfare Centre in Olsztyn

Specification	2014	2015
Issued decisions regarding housing benefit	5,185	4,895
Issued decisions regarding energy benefit:	768	1,151
for one-person households	241	443
for two- to four-person households	439	605
for households with 5 and more persons	88	103

Source: reports on the actions of the Social Welfare Centre in Olsztyn in 2014 and 2015.

The number of households which are paid energy benefits has been growing steadily, despite the decreasing number of decisions concerning housing benefits. Over 90% of the total amount of energy benefits is paid to small households (4 persons at the most). This agrees with the studies of MIAZGA and OWCZAREK (2015) as well as SZPOR and LIS (2016), who suggest that small households are most vulnerable to fuel poverty and are in need of support.

Summary

Fuel poverty in Poland is a relatively new concept, which awaits broader recognition and a precise definition, so that the support inscribed in public policy could respond adequately to the actual risk. Positive trends were initiated by the introduction of the concept of a 'vulnerable energy consumer', which attests the eligibility of households to apply for an energy benefit. Despite a certain 'novelty' of this problem in Poland, instruments and programmes have already been designed with a view to reducing fuel poverty, although the competences are delegated, in various scopes, to different ministers: the Ministry of Energy, the Ministry of Infrastructure and Construction, and the Ministry of Development. However, it seems that the leading role should be played by the Ministry of Family, Labour and Social Policy, which – through the Social Welfare Centres responding to communal authorities – has the actual capacity to recognise the scale of the problem and offer help to local communities. Reducing the extent of fuel poverty can also diminish the scale of income poverty and therefore prevent social exclusion.

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