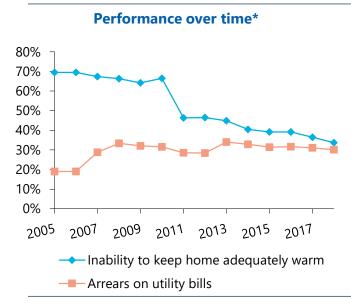


This Member State Report of the EU Energy Poverty Observatory (EPOV) provides an overview of the energy poverty situation in Bulgaria at a glance. With key indicators, policies, and publications, it offers an understanding of the key aspects of energy poverty in Bulgaria.

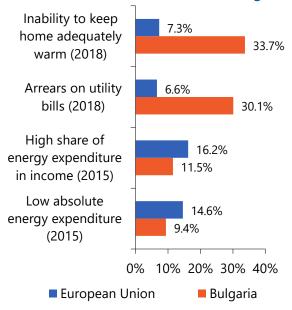
Bulgaria has a lower performance than the EU average on the population-reported indicators. In 2018, 33.7% of the Bulgarian people reported that they were unable to keep the home adequately warm while the corresponding EU average is 7.3%. Similarly for 2018, 30.1% of the population was unable to pay their utility bills on time due to financial difficulties, while the respective EU average is 6.6%.

However, Bulgaria's performance in the expenditurebased indicators is better than the EU average. The share of households that spend an unusually high share of their income on energy expenditure is 11.5% which is lower than the EU average. These households are likely to live in a dwelling with poor thermal and energy efficiency.

Moreover, at 9.4% Bulgaria has a lower share of households spending an unusually low share of their income on energy expenditure as the EU average. These households might restrict their energy spending below what is necessary to meet their needs.



Performance relative to EU average*



In Bulgaria, the percentage of households that are unable to keep the home adequately warm gradually decreased from 70% in 2005 to 34% in 2018. The notable decrease between 2010 and 2011 may be attributed to sample size differences, explaining the steep drop, yet the trend remains similar over time as a result of consistent measures and a policy focus on lowering the inability to keep the home adequately warm.

Meanwhile households in arrears on utility bills follow a different trajectory and increased notably between 2005 and 2018 from 19% to 30%. This can possibly be explained by the consequences of the financial crisis, especially in terms of employment and income loss.

About the EU Energy Poverty Observatory

The EU Energy Poverty Observatory (EPOV) is an initiative by the European Commission to help Member States in their efforts to combat energy poverty. It exists to improve the measuring, monitoring and sharing of knowledge and best practice on energy poverty. EPOV has been developed by a consortium of 13 organisations. This report was authored by Navigant.

*Population-reported indicators taken from Eurostat <u>here</u> and <u>here</u> on November 19, 2019. Expenditure-based indicators calculated by EPOV based on HBS data. Disaggregated data of population-reported indicators calculated by EPOV based on Eurostat provided data.

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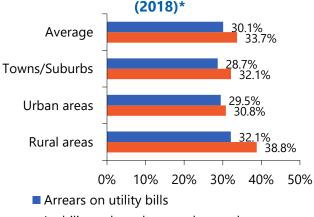


DATA & STATISTICS

The disaggregated data of the householdreported indicators show that the inability to keep home is highest for people who live in social housing, at 38.9% in 2018. The social housing sector accounts for 14% of the population in Bulgaria. However the 84% people who own their dwellings are most likely to have arrears on utility bills.

The data also indicates that apartment type dwellings are the most vulnerable to these indicators, noting that 46% of the population live in this dwelling type. Followed by detached type dwellings in which 42% of the population resides.

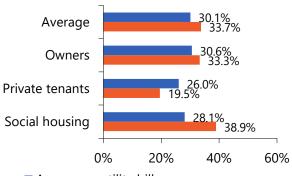
Inability to keep home warm and Arrears on utility bills disaggregated by urban density (2019)*



Inability to keep house adequately warm

The household energy cost over time in Bulgaria has gradually increased to reach a peak in 2018 with electricity at 9.9 €ct/kWh and gas at 4.08 €ct/kWh. Household electricity prices showed a slight and consistent incline over the past decade. Simultaneously, household gas prices fluctuated according to global wholesale gas prices. When compared to the EU prices, Bulgaria is characterised by relatively cheap electricity and gas prices. Bulgaria is one of the EU Member States with heavily regulated energy prices, which contributes to the relative stability of these prices.

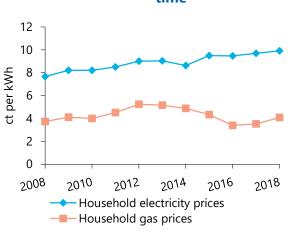
Inability to keep home warm and Arrears on utility bills disaggregated by tenure type (2018)*



- Arrears on utility bills
- Inability to keep house adequately warm

In Bulgaria rural areas have the lowest performance for the ability to keep the house adequately warm and having arrears on utility bills. This may be explained by the most prevalent building type as most dwellings are (semi) detached which requires more heating and is located in areas with higher heat dissipation. 32% of the Bulgarian population lives in rural areas.

The slightly higher percentage of the population in arrears on utility bills in rural areas can be explained by the general tendency to have lower disposable incomes, hence triggering arrears. The location does not seem to be decisive due to nation wide price controls on energy prices.



Bulgarian household energy costs over time

*Population-reported indicators taken from Eurostat <u>here</u> and <u>here</u> on November 19, 2019. Expenditure-based indicators calculated by EPOV based on HBS data. Disaggregated data of population-reported indicators calculated by EPOV based on Eurostat provided data.

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Energy poverty in Bulgaria continues to be a large issue even though research and policies on the topic are under development. The term energy poverty is not defined in Bulgarian legislation, as a result of which matters linked to the issue are often part of broader social policies. Regional studies of energy poverty in (South) Eastern Europe have included analyses of Bulgaria (Buzar 2007, and Bouzarovski et al. 2011), and a separate report on the national energy poverty situation in Bulgaria was produced in the *REACH project* (*Reduced Energy use and Change Habits*) in 2014 (Kisyov 2014).

Policies on energy poverty in Bulgaria have mainly focused on financial assistance or renovation. Within the category of financial assistance, general income support is provided to households with an income below a certain threshold. In addition, *heating aid* is provided to vulnerable households to cover their heating expenditures during winter (1 November–31 March). Moreover, *one time support* may be granted in exceptional circumstances in case of extra costs, which could include higher heating costs in winter or repairs/replacements for broken heating equipment. There are also discussions on the introduction of a *social tariff for electricity*.

In addition, multiple programmes exist that target the renovation of buildings, particularly apartment buildings, often funded through European programmes. The *REECL Programme* is a joint project of the Bulgarian national government, the European Bank for Reconstruction and Development, and the European Commission to provide loans and investment incentives for renovation through local banks. The *National programme for energy renovation* also relies on European structural funds.

A number of European Union projects linked to energy poverty have been partially carried out in Bulgaria. Within the REACH project, energy advisors carried out home visits to energy poor households. A similar service was also provided in the <u>ACHIEVE project</u>. Other projects include <u>FIESTA</u> (for families with children) and <u>SAVES2</u> (for students).

Selected measures	Type of measure	Organisation	Target groups	Start year	Result
REECL Programme	Building insulation, Heating system	National government, Business/Industry	Apartment buildings	2006	To date, the REECL Programme has committed to 2635 energy efficiency loans totaling 18 million Bulgarian leva and incentive grants amounting to 3 million Bulgarian leva.
National programme for energy renovation	Building insulation, Heating system	National government	Apartment buildings	2007	The estimated energy savings were 16.12 GWh per year with an investment of 63.50 million BGN. For the next period, 2,022 multifamily buildings received grants. The expected investment is around 280 million BGN.
Social tariff for electricity	Energy bill support	National government	Vulnerable households	in discussion	It is estimated that the measure will cover 1.1 million people.
Heating aid in winter	Energy bill support	National government	Low-income households	1999	Nearly 7% of the population is covered, which is about 500,000 people, or around 250,000 households per year.
Reduced Energy use And Change Habits (REACH)	Information and awareness, Energy audits	European Union	Vulnerable households	2014	In various countries, over 1.600 home visits were conducted whilst giving advice on energy efficiency
Monthly allowance	Social support	National government	Vulnerable households, Low- income households	1999	Aid is granted on a monthly basis to persons or families who meet multiple pre-defined conditions
One time support	Social support	National government	Vulnerable households, Low- income households	1999	One time financial support may be granted once a year in exceptional circumstances when there are extra costs, which could include higher heating costs in winter or broken heating equipment.

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PUBLICATIONS & ORGANISATIONS

This page gives an overview of publications on energy poverty in Bulgaria and presents organisations working on energy poverty in Bulgaria.

Title: iDEA: Overall Report

Authors: DOOR, Focus, University of Cyprus, Energy Agency of Plovdiv

Year: 2018

Description: The report details analysis of existing tools, educational practices and methods relating to energy poverty in Bulgaria, Croatia, Cyprus and Slovenia. It establishes gaps in existing tools and training needs, this information will then be used to for the development of iDEA ICT tools which will be published on the website in the future.

Title: Sustainable Energy Consumption and Energy Poverty: Challenges and Trends in Bulgaria

Authors: Hajdinjak, M., Asenova, D. Year: 2019

Description: The chapter first looks at the main characteristics of the household energy consumption (energy mix, use of renewables, socio-material factors) and then summarises the relevant information about the Bulgarian energy system and energy policies. The conclusion of the chapter considers why Bulgarian households rarely take measures aimed at increasing their energy efficiency.

Other selected publications

- Buzar, S. (2007) Energy Poverty in Eastern Europe: Hidden Geographies of Deprivation
- Carper, M. and Staddon, C. (2009) <u>Alternating currents: EU expansion, Bulgarian capitulation and disruptions in the electricity sector of South-east Europe</u>
- Waddams Price, C. and Pham, K. (2009) The impact of electricity market reform on consumers
- Bouzarovski, S., Sarlamanov, R. and Petrova, S. (2011) <u>The Governance of Energy Poverty in Southeastern</u> <u>Europe</u>
- Hiteva, R. (2013) <u>Fuel poverty and vulnerability in the EU low-carbon transition: the case of renewable electricity</u>
- Kisyov, P. (2014) Report on national situation in the field of energy poverty Bulgaria
- Schumacher, K. et al (2015) <u>How to end Energy Poverty? Scrutiny of Current EU and Member States</u>
 <u>Instruments</u>
- Lenz, N.V., and Grgurev, I. (2017) <u>Assessment of Energy Poverty in New European Union Member States:</u> <u>The Case of Bulgaria, Croatia and Romania</u>
- Kulinska, E. (2017) <u>Defining Energy Poverty in Implementing Energy Efficiency Policy in Bulgaria</u>
- Hajdinjak, M., and Asenova, D. (2019) <u>Sustainable Energy Consumption and Energy Poverty: Challenges</u> and <u>Trends in Bulgaria</u>

For definitions of the terms used in this report <u>click here</u>. The EPOV website provides an extensive collection of Knowledge & Resources. <u>Click here</u> for more information and to contribute additional policies, publications and other resources.

This report was completed in February 2020.

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EU ENERGY POVERTY Observatory



Training Resource

Publication

Organization type: Guidance/toolkit Description: The SAVES 2 hub provides energy saving guidance for university students living in rented accommodation including: switching energy supplier, smart meters and the energy efficiency of the property. The resource can be accessed by students from across Europe and includes blogs and an international energy saving competition. The energy savings are given by local universities and knowledge institutes.

Name: Energy saving advice for students

Title: Defining Energy Poverty in Implementing Energy Efficiency Policy in Bulgaria Authors: Kulinska, E. Year: 2017 Description: The lack of a clear common

definition of energy poverty requires that a systematic and critical study is made of the basic theoretical concepts offered by Bulgarian and foreign researchers, as well as an overview of the problems pertaining to the energy poverty of households in Bulgaria and possible measures to tackle this the issue. Policy recommendations are given.