Member State Report
Portugal

DATA & STATISTICS

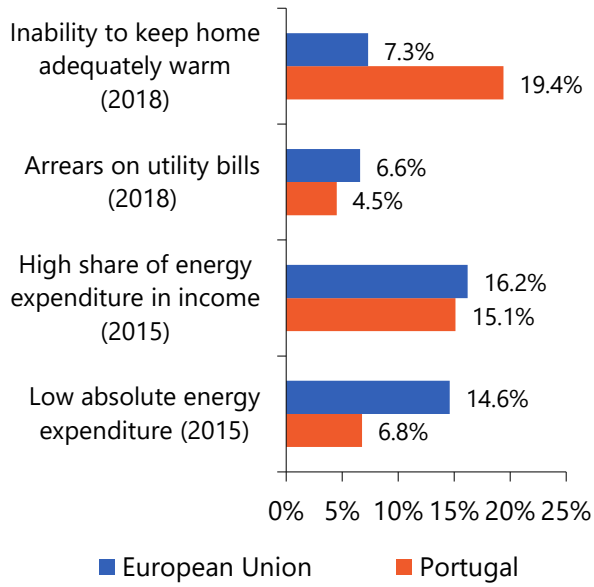
This Member State Report of the EU Energy Poverty Observatory (EPOV) provides an overview of the energy poverty situation in Portugal at a glance. With key indicators, policies, and publications, it offers an understanding of the key aspects of energy poverty in Portugal.

Portugal has a mixed performance in comparison to the EU average on the reported indicators. In 2018, 19.4% of the population reported that they were unable to keep the home adequately warm which is notably higher than the corresponding EU average at 7.3%. Conversely, for 2018, 4.5% of the population were unable to pay their utility bills on time due to financial difficulties, while the respective EU average is 6.6%.

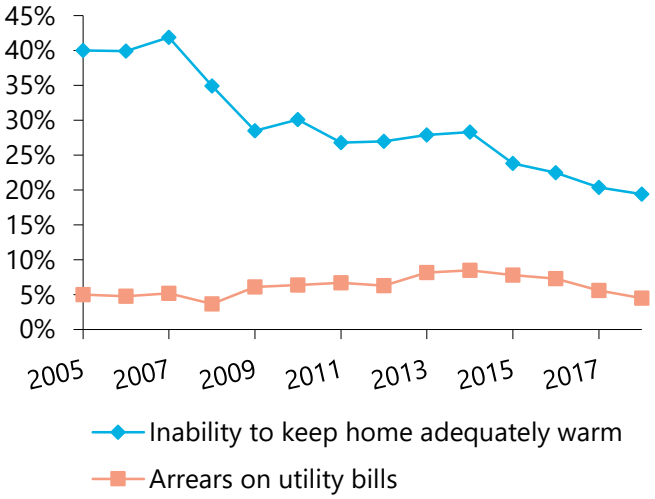
Portugal's performance in the household expenditure-based indicators is better than the EU average. The share of households that spend a high share of their income on energy expenditure is 15.1% which is slightly lower than the EU average The high energy expenditure is likely to put a strain on the household budget and might indicate a poor energy efficiency of the building

Moreover, at 6.8%, Portugal has a notably lower number of households that spend a low share of their income on energy expenditure than the EU average. These households might restrict their energy spending below what is necessary to meet their needs.

Performance relative to EU average*



Performance over time*



In Portugal, the percentage of households that are unable to keep the home adequately warm decreased significantly from 42% in 2007 to 19.4% in 2018. The sharpest decrease was between 2007 and 2009 which may be due to a new social tariff introduced in 2008 aimed at providing financial assistance to vulnerable households. Meanwhile the percentage of households with arrears on utility bills follows a consistent pattern throughout the years.

This difference between the inability to keep warm and the arrears on utility bills might be due to the important share of wood fuel used for heating purposes that are not included in utility bills.

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 here and here 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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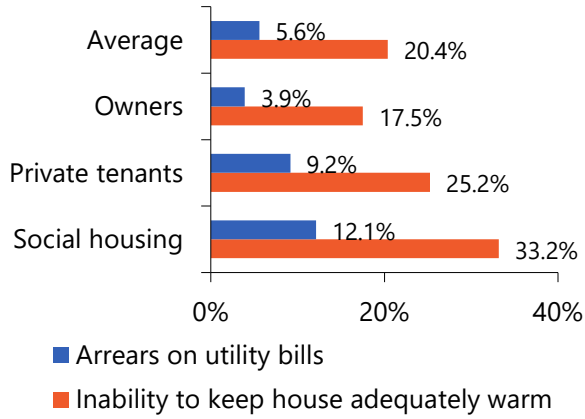
The disaggregated data of the household-reported indicators suggest that energy poverty in Portugal is highest for the social housing sector in 2017, at 33.2% for inability to keep the house warm and 12.1% for arrears on utility bills.

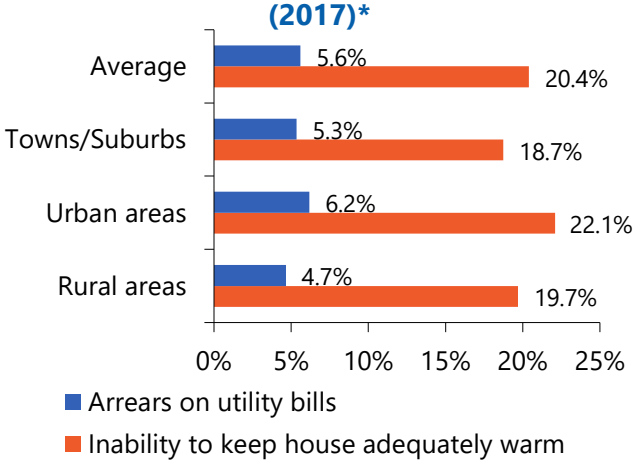
The social housing sector, which is particularly vulnerable in keeping the house adequately warm, accounts for 13% of the population in Portugal. Private tenants are also at notable risk of being unable to keep the home warm, having 25.2% for this indicator in 2017.

Household owners are at lowest risk of energy poverty, based on 2017 indicators.

Inability to keep home warm and Arrears on utility bills disaggregated by tenure type (2017)*



Inability to keep home warm and Arrears on utility bills disaggregated by urban density (2017)*



In Portugal, urban areas have the lowest performance for the ability to keep the house adequately warm and having arrears on utility bills, very closely followed by town/suburb and also rural areas.

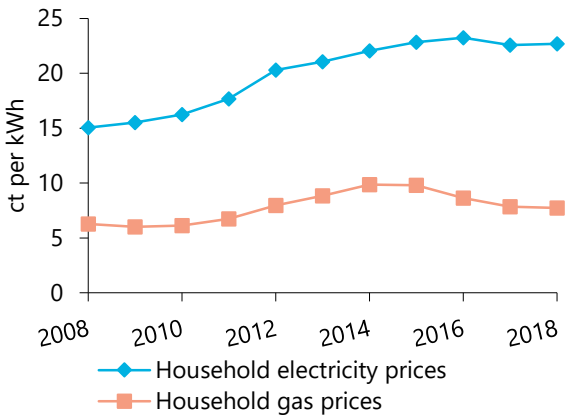
This indicates that energy poverty in Portugal is not particularly sensitive to the urban density and that poor populations are spread out across all types of areas. Urban areas, intermediately populated areas and rural areas account for 44%, 30% and 26% of the population of Portugal, respectively.

The data also shows that energy poverty is distributed somewhat evenly across all dwelling types, despite having 45% of the population living in apartments.

Portugal household energy costs over time

The household energy prices over time in Portugal have gradually increased from 15.0 €ct/kWh for electricity and 6.27 €ct/kWh for gas in 2008, to reach a cost of 22.7 €ct/kWh for electricity and 7.72 €ct/kWh for gas in 2018. The price of gas reached a peak in 2014 at 9.87 €ct/kWh to slowly decrease to the 2018 value. The price of electricity has been somewhat more stable from 2014 onwards.

These price trajectories are in line with those observed for the EU average across the years although the price of gas was notably higher in Portugal between 2013 and 2016.



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POLICIES & MEASURES

In Portugal, research on energy poverty has increased in recent years. This research focused on different topics, such as the geographical distribution of energy poverty, thermal comfort and energy consumption. There is also an increasing interest in conducting research in the inability to keep dwellings comfortably cool in summer time, which could also fall under energy poverty.

Energy poverty is addressed mainly on the national level through financial assistance via the *social tariff*. The social tariff was started in 2008 and was aimed at providing financial assistance to households to pay their energy bills. Since 2016, the tariff is automatically awarded to vulnerable consumers receiving certain social benefits and to low-income households. To benefit from the electricity social tariff, consumers must have a power supply contract for domestic use and contracted power in low-voltage ≤6,9 kVA. Additionally, to benefit from the natural gas social tariff, the consumer must have a supply contract for domestic use in low pressure and an annual consumption ≤500 m^3. The previous version of the social tariff that initiated in 2008 was different in scope (only electricity) and had different target groups. In previous years, around 14% of all Portuguese households benefit from this measure: 786,000 households receive the social tariff for electricity and 34,000 for natural gas.

The national government also operates general programmes and policies to improve energy efficiency and cooling/heating systems in households, but these are not specifically targeted to the energy poor. In 2007, the *Promotion of Efficiency in Electric Energy Consumption* policy was started. The policy aims to promote measures to improve the efficiency of electricity consumption through actions taken by third parties, such as energy suppliers and grid operators. In 2010, Portugal started the measure called *Energy Efficiency Fund*. It aims at providing financial assistance to improving energy efficiency in a wide range of sectors, including the residential sector. This is a publicly funded grant.

The national energy agency ADENE runs a project on Energy Poverty and Energy Efficiency. Its mission is the development of activities of public interest in the areas of energy, efficient use of water and energy efficiency in mobility.

Selected measures	Type of measure	Organisation	Target groups	Start year	Result
Promotion of Efficiency in Electric Energy Consumption	Cooling system, Heating system, Household appliances, Information and awareness	Regulator	No specific target group	2007	
Social tariff	Social tariff	National government	Disabled, Low-income households, Households on social benefits, Pensioners, Unemployed	2008	Around 14% of all Portuguese households benefit from this measure: 786,000 households receive the social tariff for electricity and 34,000 receive it for natural gas.
Energy Efficiency Fund	Building insulation, Heating system, Household appliances, Renewable energy	National government	No specific target group	2010	

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PUBLICATIONS & ORGANISATIONS

This page gives an overview of the most relevant organisations working on energy poverty in Portugal and presents publications on energy poverty in Portugal.

Organisation

Name: ADENE – National Energy Agency
Organisation type: National government
Description:
ADENE has as its mission the development of activities of public interest in the area of energy, efficient use of water and energy efficiency in mobility. Currently it has a running project on Energy Poverty and Energy Efficiency.

Organisation

Name: Center for Environmental and Sustainability Research (CENSE)
Organisation type: Research & Consultancy
Description:
The CENSE group on Energy and Climate within the NOVA University of Lisbon develops research in the interface of energy systems and climate change, including a focus on energy poverty

Publication

Title: Energy poverty vulnerability index: A multidimensional tool to identify hotspots for local action
Authors: Gouveia, J.P., Palma, P. and Simoes, S.G.
Year: 2019
Description:
The aim of this work is to develop a novel high-resolution spatial scale composite index, focusing on space heating and cooling, to map energy poor regions and identify hotspots for local action.

Organisation

Name: Solutions to Tackle Energy Poverty (STEP)
Organisation type: Association
Description: STEP involves nine countries in the EU, one of which is Portugal. The objective is to alleviate energy poverty by encouraging behavioural change and low-cost energy efficiency solutions among consumers in or at risk of energy poverty through tailored advice. It has three objectives: to get consumer groups and frontline organisation to team up and deliver advice, to help poor consumers save energy and improve their living standards, to disseminate best practices and policy choices.

Other selected publications

- Vasconcelos, J., Freire, E., Morais, J., Machado, J.R., and Santana, P. (2010) The health impacts of poor housing conditions and thermal discomfort
- Gouveia, J.P., Palma, P., Seixas, J., and Simoes, S (2017) Mapping Residential Thermal Comfort Gap at Very High Resolution Spatial Scale: Implications for Energy Policy Design
- Palma, P. (2017) Mapping heating and cooling energy needs in Portugal at civil parish level: Implications for thermal comfort in households
- Simoes, S., Gregório, V. and Seixas J. (2017) Mapping Fuel Poverty in Portugal
- Gouveia, J.P., Seixas, J., and Mestre A. (2017) Daily electricity consumption profiles from smart meters - Proxies of behavior for space heating and cooling.
- Gouveia, J.P., Seixas, J., Long, G. (2018) Mining Households' energy data to disclose fuel poverty: lessons for Southern Europe
- Palma, P., Gouveia, J.P., Simoes, S. (2019) Mapping the energy performance gap of dwelling stock at high-resolution scale: Implications for thermal comfort in Portuguese households.
- Gouveia, J.P., Palma, P. (2019) Harvesting big data from residential building energy performance certificates: retrofitting and climate change mitigation insights at a regional scale
- Horta, A., Gouveia, J.P., Schmidt, L., Sousa, J., Palma, P., Simões, S. (2019) Energy poverty in Portugal: Combining vulnerability mapping with household interviews.

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

This report was completed in February 2020.

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