



Member State Report Denmark

DATA & STATISTICS

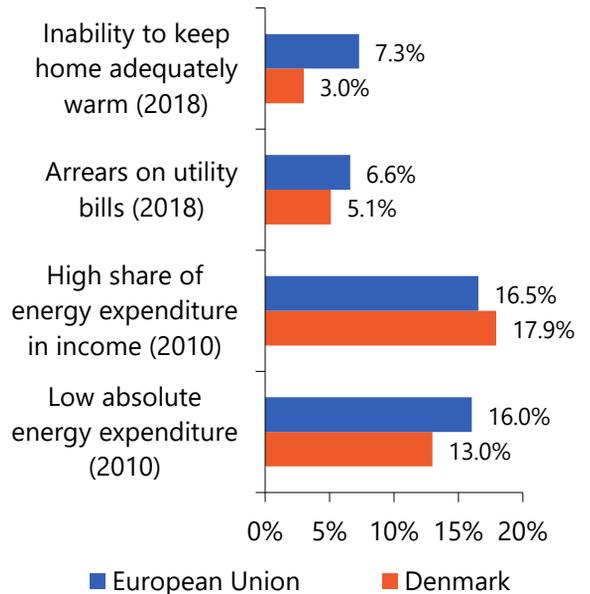
This Member State Report of the EU Energy Poverty Observatory (EPOV) provides an overview of the energy poverty situation in Denmark at a glance. With key indicators, policies, and publications, it offers an understanding of the key aspects of energy poverty in Denmark.

Denmark has a higher performance than the EU average on the population-reported indicators. In 2018, 3.0% of the Danish people reported that they were unable to keep the home adequately warm while the corresponding EU average is 7.3%. Similarly for 2018, 5.1% of the population was unable to pay their utility bills on time due to financial difficulties, while the respective EU average is 6.6%.

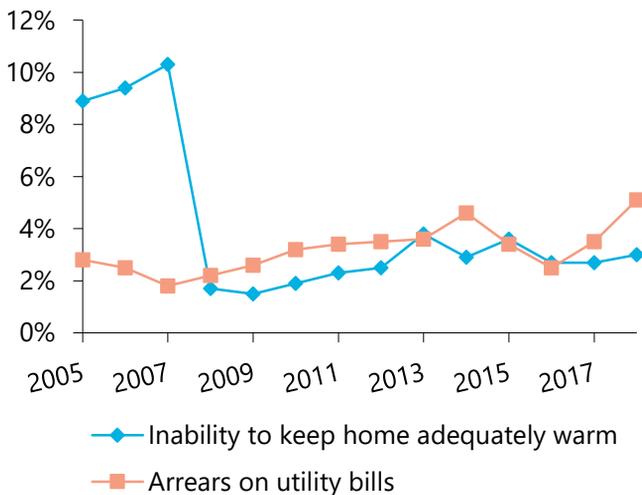
Denmark's performance in the expenditure-based indicators is mixed compared to the EU average. The share of households that spend a high share of their income on energy expenditure is 17.9% which is higher than the EU average. These households are likely to live in a dwelling with poor thermal and energy efficiency and could have relatively lower disposable incomes.

Conversely, at 13.0% Denmark has a lower number of households spending 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 Denmark, the percentage of households that are unable to keep the home adequately warm decreased consistently from 9% in 2005 to 3% in 2018. The notable decrease around 2008 can be attributed to a combination of targeted socio-economic policies and thermal efficiency improvement programmes as well as changes in indicator measurement and data gathering. After the steep decline in 2008, the percentage remained stable around 3%.

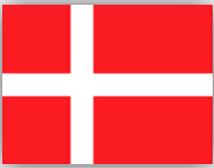
Meanwhile households in arrears on utility bills follow a different trajectory and increased slightly between 2007 and 2018 from 3% to 5%.

Gradually higher energy prices might have contributed to this increase. This may have resulted in a gradual poorer performance of indicators from 2008 onwards.

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.

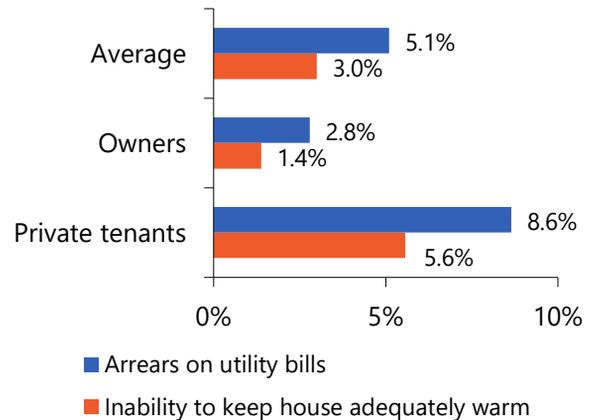
*Population-reported indicators taken from Eurostat [here](#) and [here](#) on November 19, 2019. Expenditure-based indicators calculated by EPOV based on HBS data. Disaggregated data of population-reported indicators calculated by EPOV based on Eurostat provided data.



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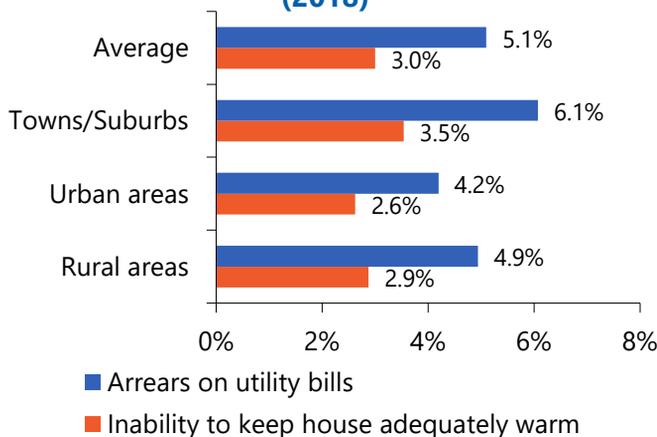
Inability to keep home warm and Arrears on utility bills disaggregated by tenure type (2018)*



The disaggregated data of the household-reported indicators suggest that energy poverty in Denmark is highest for the private rental sector, at 5.6% for the inability to keep the house warm and 8.6% for the arrears on utility bills. The private rental sector, accounts for 39% of the population in Denmark. 2.8% and 1.4% of the people who own their homes have arrears on utility bills and are unable to keep their home adequately warm and respectively.

The data also indicates that 33% of the Danish population living in apartments are more vulnerable to these indicators than people living in (semi) detached houses.

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



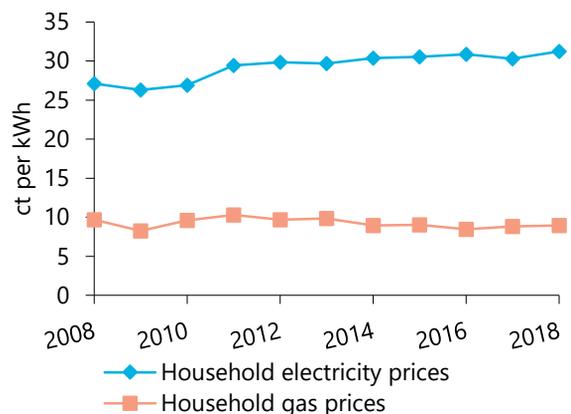
In 2018, towns and suburban areas have the lowest performance on the inability to keep the house adequately warm at 3.5% and the most arrears on utility bills at 6.1%. People living in cities are least affected by energy poverty.

The Danish population is equally divided over rural, towns and urban areas with 33%, 34% and 33% respectively. In general, Danish statistics show a high performance on energy poverty and a structural addressing of the parameters leading to surges in specific subsectors.

The household energy cost over time in Denmark has gradually increased to reach a peak in 2018 with electricity at 31.2 €ct/kWh and gas at 8.93 €ct/kWh. Over time, electricity prices showed a slight increase while the gas prices remained relatively stable.

The stable gas price is remarkable as various EU Member States showed increases in household gas prices over time. The increases electricity price could be partly explained by the push for domestic renewable energy production.

DK household energy costs over time



*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.



Member State Report

Denmark

POLICIES & MEASURES

In Denmark, energy poverty is mainly addressed through social policies. Households in a difficult economic situation may apply for financial assistance from municipalities as part of the Danish social security system. In addition, in the case of disconnection it is common practice to inform the municipality, especially if there are children or animals in the house. However, targeted financial support is available for low-income pensioners to receive a reimbursement for heating-related expenses.

General energy policies and measures can also benefit energy poor households. A regulation for *simplified electricity bills* should facilitate transparency and provide consumers with a better understanding of their electricity bill. The Danish regulator also operates an *electricity price comparison website* where household consumers can compare electricity prices on the market.

In addition, multiple programmes exist to improve the energy efficiency of housing. The *Better Housing* scheme supports homeowners in the implementation of energy efficiency measures through a 'one-stop shop' concept, assisting home-owners in the renovation process from start to finish. The *energy subsidy* measure is born from a requirement for grid operators to realise a certain level of energy savings every year, which they implement by providing subsidies to consumers for energy efficiency measures. The *National Building Fund* offers interest-free loans to social housing associations for renovation works.

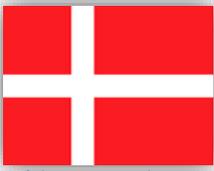
There have been some studies on energy poverty in Denmark, as well as research on related topics such as distributional effects of taxation and energy consumption patterns for different socio-economic groups. There is little activity from NGO's on the topic however.

Denmark currently addresses energy poverty related indicators via the overall system of social policies. The National Energy and Climate Plan lacks definitions, key indicators and targets to combat energy poverty. Nonetheless, Denmark lists amongst the best performers in terms of energy poverty in the EU.

Selected measures	Type of measure	Organisation	Target groups	Start year	Result
National Building Fund loans	Building insulation	National government, Local government	Social housing	1975	Supplying interest free loans for renovation works
Energy subsidy	Building insulation, Heating system	Grid operator	No specific target group	2009	Replacing oil-based heating systems with alternatives and focus on improved thermal insulation
Better Housing	Energy audits	National government, Business/Industry	Landlords, Owner-occupants	2014	Households that have received advice under the scheme carry out more renovations than households that are not under the scheme
Heating allowance for pensioners	Energy bill support	National government	Pensioners	Unknown	Reimbursement of excessive heating costs for low-income pensioners
Electricity price comparison website	Information and awareness	Regulator	No specific target group	2015	Enhanced transparency and ability to compare offers for consumers
Simplified electricity bill	Information and awareness	National government, Regulator	No specific target group	2015	Enhanced understanding of energy costs amongst consumers
Financial help from municipalities	Social support	Local government	Indebted households, Low-income households	Unknown	Part of the social security system to assist in financial requirement for energy expenditures

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Member State Report Denmark

PUBLICATIONS & ORGANISATIONS

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

Organisation

Name: ENERFUND

Organization type: Research & Consultancy

Description: This project is developing a tool that will rate and score deep renovation opportunities – like a credit score used by banks to rate clients. The tool will be based on a set of parameters such as EPC data, number of certified installers, governmental schemes running, etc. When used by municipalities, this can be used e.g. to prioritise the most energy inefficient buildings for retrofitting.

Organisation

Name: COMBI

Organization type: Research & Consultancy

Description: The improvement of energy efficiency in Europe aims at reducing overall energy consumption. The implementation of energy efficiency measures can have other “non-energy” socio-economic and environmental effects such as effects on energy poverty, which will be quantified in this project. The main outcome will be a web based tool with statistics and graphical analysis of data in all member states.

Publication

Title: Are CO2 taxes regressive? Evidence from the Danish experience

Authors: Wier, M., Birr-Pedersen, K., Klinge Jacobsen, H. and Klok, J.

Year: 2005

Description: In this article, it is demonstrated that CO2 taxes imposed on energy consumption in households, as well as in industry, do in fact tend to be regressive, and therefore have undesirable distributional effects. This holds especially for taxes imposed directly on households. To analyze this, we apply national consumer survey statistics in combination with input-output tables.

Training Resource

Title: The SMERGYmeter

Authors: SMERGY

Year: 2017

Description: The SMERGYmeter is a web-based and user-friendly consumer guide for young adults.

This online guide allows the users to compare their own energy use with those of their peers and to simultaneously measure the energy and money savings they have achieved. It provides simple and personalized recommendations and day-to-day action plans for young adults.

The selected activities fit perfectly into the current living conditions of young adults.

Other selected publications

- Klinge Jacobsen, H., Birr-Pedersen, K., and Wier, M. (2003) [Distributional implications of environmental taxation in Denmark](#)
- Petersen, K., and Gram-Hanssen, K. (2005) [Energy and water consumption of households \(in Danish\)](#)
- Wier, M., Birr-Pedersen, K., Klinge Jacobsen, H. and Klok, J. (2005) [Are CO2 taxes regressive? Evidence from the Danish experience](#)
- Snodin, H. M. (2008) [Fuel Poverty in Great Britain, Germany, Denmark and Spain - relation to grid charging and renewable energy](#)
- Gram-Hanssen, K. (2010) [Residential heat comfort practices: understanding users](#)
- Ástmarsson, B., Jensen, P., and Maslesa, E. (2013) [Sustainable renovation of residential buildings and the landlord/tenant dilemma](#)
- Nierop, S.C.A. (2014) [Energy poverty in Denmark?](#)
- Buildings Performance Institute Europe (BPIE) (2015) [Indoor air quality, thermal comfort and daylight](#)
- Recalde, M. et al. (2019) [Structural energy poverty vulnerability and excess winter mortality in the European Union: Exploring the association between structural determinants and health](#)

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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