

# Context and schemes to tackle energy poverty in Europe



# GREECE BACKGROUND AND GOVERNANCE

#### BACKGROUND

Energy poverty in Greece has strongly worsened from 2011, mainly due to the **impacts of the economic recession** over 2009-2014. The share of households unable to keep their home adequately warm peaked at about 33% in 2014. Households with arrears on utility bills peaked at 42% in 2015-2016.

In the absence of an official national definition of energy poverty (under development), **vulnerable consumers** are defined in the Decision <u>YPEN/DHE/78337/224/06.11.2018</u>:

Customers included in the **social electricity tariff**; Customers whose household includes a member or members who need **life-supporting medical equipment at home** and are eligible to the social electricity tariff; Customers who have reached the **age of 70**, provided that there is no other adult member in the household who has not reached the age of 70, and who meet the income criteria applied for the social electricity tariff, increased by  $\in 8,000$ .

The key policy act for alleviating energy poverty is the law transposing the EU Energy Efficiency Directive: <u>Law 4342/2015</u> (FEK A, 143/9.11.2015), Article 25 announcing the preparation of a National Energy Poverty Action Plan by the interministerial committee for Energy and Climate. The **NECP** (<u>National Energy and Climate Plan</u>, December 2019) then specified the **national target** to reduce energy poverty by 50% in 2025 and by 75% in 2030 compared to

### **GREEK ENERGY POVERTY OBSERVATORY**

The <u>Greek Energy Poverty Observatory</u> was developed in 2014 and administrated by **CRES** (Centre of Renewable Energy and Energy Efficiency), under the Operational Program "Digital Convergence 2007- 2013" (EU funding), to inform the public and policymakers on the levels of energy poverty in Greece. It has been a member of the consortium of the EU Energy Poverty Observatory from 2016 to 2020.

## Its **aims and products** are to:

- **Assess** energy poverty in Greece with representative indicators and monitor the related trends;
- **Identify** the parameters that affect and intensify energy poverty;
- **Support** the design and implementation of efficient policy to achieve economic and social cohesion and alleviate energy poverty.

The first assessment was based on a detailed household energy consumption survey done in 2011-2012. The results are available through an **online interface**. The methodology has then been adapted to enable annual updates using data from the Household Budget Survey conducted by the Hellenic Statistical Authority.

2016, meeting levels below the EU average by 2030. The adoption of the **Energy Poverty Action Plan** is planned for 2021. It should include: a definition of energy poor households based on specific quantitative criteria; a set of policy measures; and a process to monitor and evaluate the evolution of energy poverty, and whether the policy measures need to be adapted (cf. Observatory). The plan should also promote **energy communities** (as enabled by <a href="Law 4513/2018"><u>Law 4513/2018</u></a>) as a way to tackle energy poverty.

Improvements of the current measures are under consideration, including the replacement of the **social tariff for electricity** and the **heating oil allowance** by an '**energy card**'. It is also planned to improve the **targeting of the financial incentives** for energy efficiency in dwellings, and strengthen the requirements to energy suppliers as part of the Energy Efficiency Obligation Scheme (EEOS). Both measures should provide more support for vulnerable households to renovate their homes (space heating represents more than half of the residential final energy consumption).

#### STAKEHOLDERS AND SCHEMES

The <u>Ministry of Energy and Environment</u> is responsible for the definition of vulnerable customers and for publishing the Energy Poverty Action Plan. It is also in charge of the energy efficiency policies, including the <u>renovation programmes</u>. <u>CRES</u> administers the National Energy Poverty Observatory (cf box) and the <u>EEOS</u> that requires <u>energy suppliers and distributors</u> to help end-users to achieve energy savings, with a bonus for actions in low-income households. Electricity suppliers also have to provide eligible households with the social electricity tariff. The <u>Ministry of Finance</u> administers the heating oil allowance. The <u>Regulatory Authority for Energy</u> (RAE) supervises the application of the consumer protection measures set in the Energy Law 400/2011.

**Regional and local authorities** are also major actors to provide support to vulnerable households, both for aids to cover energy expenses and for energy efficiency measures. For example, some of the regions have partnerships with energy suppliers to help households with bill arrears. Local energy cooperatives could also play an increasing role to help vulnerable households through the energy communities framework.

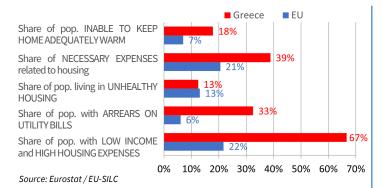
An active **research community** has published many studies about energy poverty in Greece and related issues. Trade and consumer associations and NGOs have also developed initiatives to tackle energy poverty.

# **STATISTICS**



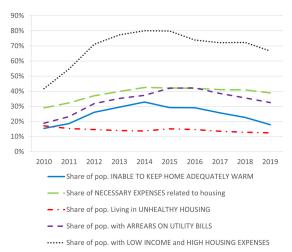
- Population: **10.7 million** (2019)
- National median equivalised income: **€9 770/year** (in current prices, 2019)
- Number of people living below the poverty line: **1.9 million** (18%) (2019)
- Climate: 4 climate zones (from Mediterranean to mountainous)
- Average annual expenses for « electricity, gas and other fuels » per dwelling): €520 /year (in current prices, 2019)

#### COMPARISON WITH THE EUROPEAN AVERAGE IN 2019



In 2019, energy poverty indicators are much more deteriorated in Greece than the European average. especially the ones related to expenses. The shares of the Greek population with arrears on utility bills (33%) and of housing-related expenses in households' revenues (39%) are both the highest in the EU. The latter phenomenon strikes all revenue categories. The share of the Greek population with low income and high housing expenses shows a particularly large gap with the average EU: 67% in Greece vs 22% in the EU. This is due to the impact of the economic recession (2009-2014) and high energy prices coupled with relatively high energy needs. Despite a mild climate, energy consumption per m<sup>2</sup> is higher than the EU average (ODYSSEE), showing a low energy performance of the buildings stock. Households still rely on fuel oil (nearly 30% of the residential final energy mix in 2019), whose price is higher than the EU average. The price of electricity, most used energy type in Greek households, is lower than the EU average. But in purchasing power parity terms, it is about the EU average (Enerdata).

## TRENDS OVER 2010-2019

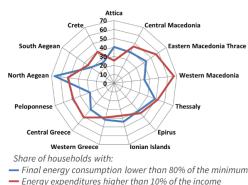


Source: Eurostat / EU-SILC

Despite the severe financial crisis from 2009, the at risk poverty rate is relatively stable. In 2019, about 1.9 million people (18%) live below the poverty rate (lowest absolute level since 2000).

The number of households living in an unhealthy housing remained quite stable. But the **financial crisis** has negatively impacted both, housing-related and expenses-related energy poverty indicators. This trend is observed **for all households**, whatever their revenue category (EPOV, 2020). The share of low income households with high housing expenses has nearly doubled over 2010-2014. Since 2014-2016, energy poverty indicators have progressively improved, far however from the pre-crisis levels (2007). Notably, the share of the population unable to keep home adequatly warm has decreased strongly since 2014. Due to the COVID19 crisis, the numbers are deteriorating and the arrears on bill payments increase again.

#### NATIONAL INDICATORS



— Energy expenditures nigher than 10% of the income

Source: CRES/Greek Energy Poverty Observatory

The **two main indicators** assessed by the <u>Greek Energy Poverty Observatory</u> are:

- Share of households with a ratio for Actual vs. Theoretical energy consumption lower than 80% (theoretical = level to meet standard comfort).
- Share of households with energy expenditures higher than 10% of their income

These indicators have been assessed for each of the 13 Greek regions, examining differences according to income class, construction year of the building, etc. It was proposed for the National Energy Poverty Action Plan to consider that a household is **energy poor** when meeting **two conditions**:

- 1. The first indicator of the observatory (Actual/Theoretical lower than 80%), AND
- 2. Total income of the household lower than 80% of the mean income in Greece.

# **NATIONAL POLICIES**

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

	SCHEME	TARGET (RESULTS)	Other information
Energy access	Social Electricity Tariff (since 2010).	Eligibility based on income (e.g., below €9,000/year for a single member household), property (up to €120,000 value) and residence criteria. Total beneficiaries estimated to 100,000 households.	Provided by the electricity suppliers (in practice, mostly Public Power Corporation, former electricity monopoly).
	Heating oil allowance (since 2013) (financial support to cover heating oil costs, and from 2021 also for natural gas and biomass).	Eligibility based on income (below €20,000 per family), and property (below €250,000 per family) in 2021. Amount depending on location and household composition (from €80 to €420). About 600,000 households received it in 2020 (total of €84 million).	Administered by the Ministry of Finance. (as this is considered a fossil fuel subsidy, its amount was reduced).
	Regulatory measures for the protection of energy poor households (2015) (crisis measure).	300 kWh of electricity provided free of charge to 92,000 indebted households, and support for reconnection. Electricity debts reducted by about 45% in one year.	Part of Law 4320/2015 to tackle the humanitarian crisis.
Renovation and energy efficiency	Energy Efficiency Obligation Schemes (since 2017) (obligation on energy suppliers).	No 'energy poverty' sub-target. But energy savings in low-income households get a bonus factor (x1.4). 350,000 low-income households helped over 2017-2020.	Administered by CRES (energy agency).
	'I Save I'm autonomous' programme (2020-) (energy upgrade of dwellings to gain at least 3 energy classes, including the installation of RES systems).	Grant rates depending on income criteria (5 rates; up to 85% for income lower than €10,000/year) + soft loans. 39,000 applications approved from December 2020 to June 2021, representing about €900 million of investments.	Administered by the Ministry of Energy; revision of <u>"Saving at Home II"</u> in place in 2018-2019.
	Scheme to replace heating oil boilers (since 2015) (subsidy from 65 to 100%).	Grants focused on low-income households (income up to €20,000 €) to replace heating oil with natural gas boilers in two regions. €10.7 million in 2020.	Administered by the Distribution Gas Company, in areas with low share of gas.

The regulation of the energy markets also includes special measures for protecting consumers such as the 40-days notice for energy bills payment or aids for bill arrears, or the suspension of the supplier's right to cut-off electricity supply due to bill arrears. New measures in the National Energy Poverty Plan should provide incentives to energy poor households in the framework of energy communities and facilitate their access to RES for own consumption. The <u>Just Transition Plan</u> should also provide support to energy poor households, as part of the National Energy Poverty Plan. For example, a bonus grant rate for renovations is applied for households living in areas producing lignite.

#### **COMPLEMENTARY INITIATIVES**

# TYPE OF INITIATIVE

# Agreement between PPC (main Greek electricity supplier, former monopoly) and some of the regions to provide specific **support for bill payments**.

#### **EXAMPLE(S)**

Agreement between PPC (for the administration) and the Attica Region (for funding) for years 2016-2017 to provide additional support to households eligible to the social tariff and with a valid debt settlement arrangement (100 euros per household in 2016, 150 euros per household in 2017).

# **ZOOM ON: Energy Efficiency Obligation Scheme (EEOS)**

The EEOS started in 2017 and applied to all electricity, gas and fuel suppliers to deliver energy savings. It has triggered actions towards energy poor householders, mainly from the dominant electricity suppliers, as it provides a bonus factor (x1.4) for energy savings achieved in low-income households. The results related to this 'energy poverty' bonus will be published in the end of the first period (2017-2020). Suppliers' programmes included awareness raising and behavioural measures.

Behavioural measures represented a large share of the energy savings over 2017-2020. It is expected that the share of savings from incentives for technical actions (insulation of buildings, replacement of heating systems) should increase in the new period 2021-2030.

# **GOOD PRACTICES**

#### Heinrich Böll Stiftung's studies (2017, 2020)

Collaborative project between Heinrich Böll Stiftung, INZEB and the social cooperative enterprise "Anemos Ananeosis"

**Objective:** contribute to giving prominence to issue of energy poverty in Greece and to the **debate** on the need to tackle energy poverty.



**Approach**: review and update about the **background**, **data and policy framework** related to energy poverty, **survey** done in 2018 of about 700 households to assess energy poverty awareness, **policy recommendations**.

Results: recommendations submitted to the preparation process of the National Energy and Climate Plan and the National Action Plan for tackling Energy Poverty.

<u>SocialWatt</u> (Connecting Obligated Parties to Adopt Innovative Schemes towards Energy Poverty Alleviation) (2019-2023)

Horizon 2020 project coordinated by the National Technical University of Athens, with 14 partners including PPC (main Greek electricity supplier)



**Objectives:** support **obligated parties** under **Article 7** of the EU Energy Efficiency Directive to develop, adopt, test and spread innovative energy poverty schemes across Europe.

**Approach:** development of **tools** to help energy companies to identify energy poor households, develop action plans with energy efficiency scheme to tackle energy poverty and monitor and assess the effectiveness of these schemes; **pilot schemes** to test innovative approaches; **capacity building.** 

**Results:** PPC's action plan includes four schemes (1) to replace oil-fired heating systems with heat pumps; (2) to replace air conditioners or other inefficient appliances; (3) an information campaign; and (4) a platform providing tailored advice to households on energy efficiency. Another scheme will support the renovation of 350 dwellings inhabited by refugees.

# **Social Innovation to Tackle Fuel Poverty** (2017-2018)

Joint programme of Schneider Electric foundation and the Ashoka.



**Objective:** identify and support to scale-up organisations that develop innovative solutions to tackle fuel poverty effectively.

**Approach**: organisations selected from European calls for projects receive twelve weeks of personalized and specialized support, through mentoring sessions to define an effective strategy to scale up.

**Results:** two Greek organisations were finalists in 2017-2018: Consumers' Association <u>EKPIZO</u>, and <u>the Energy and Development Cooperative of Sifnos</u>.

**EVENT** (Energy Vulnerability and Alternative Economies in Northern Greece) (research project; 2013-2014)

One-year project funded by the Royal Geographical Society with the Institute of British Geographers.

**Objective:** understand how experiences of energy vulnerability in Greece are underpinned by the social and spatial infrastructures of everyday life.

**Approach**: ethnographic case study, interviews of decision makers and review of secondary literature, focusing on the region of Thessaloniki.

**Results:** development of an explanatory framework for the driving forces of energy vulnerability (energy affordability, housing characteristics, energy efficiency, access to infrastructure, households' practices); analysing which assets and alternative economic practices are used by households to address energy poverty on a daily basis; identifying the broader institutional context for the rise of energy vulnerability. The main conclusions are summarized in a policy brief.

#### Solarize Greece (NGO campaign; 2015-2016)

Greenpeace campaign.

Objective: demonstrate that solar energy can help alleviate energy poverty, create jobs, and reduce pollution and energy imports (about €800 million of subsidies per year to supply the Greek islands).

Approach: media and crowd-funding campaign to raise awareness about oil-dependency of Greece, and more specifically Greek islands, and the potential of solar energy to substitute electricity generated with fossil fuels and reduce households' energy bills, through demonstration projects of solar PV for own consumption in homes of the Rhodes' island.



**Results**: PV systems were installed in **7 homes in Rhodes**, together with training on solar energy for high school students. This was complemented by a report assessing that a programme with a budget of €45 million/year could help install PV panels in 300,000 households who would be out of energy poverty.

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

- Greece's National Energy and Climate Plan
- Greek Energy Poverty Observatory
- Ministry of Energy (page on <u>energy efficiency</u> <u>policies</u>)
- Corovessi et al. (2020). <u>Energy poverty in Greece 2.0 Policy developments and social innovation: proposals for combatting it</u>
- Papada, L. and Kaliampakos, D. (2020). <u>Being forced to skimp</u> on energy needs: A new look at energy poverty in Greece