

Energy Poverty in Greece

Social innovation proposals to address the phenomenon

Executive summary

Energy poverty is defined as the lack of access to basic energy services such as electricity, gas, heating, cooling, etc. According to the International Energy Agency, it is estimated that 1.3-2.6 billion people on the planet experience energy poverty¹, thus suffering of its multiple adverse effects (social, economic and environmental), which also apply on a society level.

According to a study conducted by the Buildings Performance Institute Europe², the estimated number of energy-poor citizens in Europe is between 50 and 125 million people. Despite the severity of the problem, a common definition at European level is not yet in place, nor are there specific criteria for identifying those suffering from energy poverty. Existing approaches for the definition of the phenomenon are based on quantitative indicators such as the proportion of household expenditure on energy in relation to their income or its relation to the poverty line after paying for energy services (the 10% approach, “low income - high costs”, “minimum income limit”), and qualitative factors (consensus approach). Moreover, there is no specific EU policy with regard to combating energy poverty, even though several, direct or indirect, references have been made since 2009 on EU legal documents and announcements.

In Greece there is neither a clear definition of energy poverty, nor specific indicators for monitoring the phenomenon. In general, a household is considered to be energy-poor if they spend more than 10% of their income on energy needs, combined with some other, usually social and geographical criteria for the allocation of benefits. Several studies have been carried out to measure energy poverty levels in Greece, in which both quantitative and qualitative indicators (subjective questionnaires) have been used, as well as the energy efficiency status of buildings through the statistics on Energy Performance Certificates (EPCs).

Most national social policies, which are indirectly related to addressing energy poverty, are in the form of subsidies: the “social electricity tariff” of the Public Power Corporation³, the provision of free electricity (up to 300 kWh for 2015) for households struggling to pay their energy bills⁴, the rent subsidy and the heating oil allowance. These policies lack of worthwhile and long-term outcomes, since they do not aim for the cause of the problem. The most important policy for tackling energy poverty was the energy efficiency scheme for residential buildings called “Energy Efficiency at Household Buildings” Program⁵, which, however, proved to be inefficient, due to its bureaucratic nature, its limited budget and other technical and procedural obstacles.

In Europe and worldwide, there is an abundance of good practices regarding energy poverty tackling at national and regional level. Generally, these schemes are based on the application of energy efficiency measures, and are characterized by their collective nature, their orientation towards the benefit of citizens, the protection of public health, and the improvement of economic indicators at the community, municipal, regional, and country level through the creation of new jobs. The schemes also utilize European financial instruments and funding options, synergies and networking among stakeholders through collaborative energy associations, innovative business models, and are often applied on social housing buildings.

¹ International Energy Agency (December 2015): Modern Energy for All. Available at: <https://goo.gl/A1snNf>

² Buildings Performance Institute Europe (May 2014): Alleviating fuel poverty in the EU. Available at: <https://goo.gl/BDzBYZ>

³ Public Power Corporation: Information on the Social Electricity Tariff. Available at: <https://goo.gl/fE3dGt>

⁴ European Parliament ITRE Committee (August 2015): How to end Energy Poverty? Scrutiny of Current EU and Member States Instruments. Available at: <https://goo.gl/hkb1a0>

⁵ Ministry of the Environment and Energy: New edition of the scheme “Saving at home”, with better conditions. Available at: <https://goo.gl/lwU2Ur>

This report contains specific proposals to tackle energy poverty in Greece, taking into account the multifactorial nature of this phenomenon. The proposals are intended to represent sustainable solutions for the indirect increase of household income, rather than the introduction of new subsidies, with the aim of simultaneous contribution to the national and European objectives regarding the protection of the environment and climate change.

With reference to broader policy changes, the development of a new coherent and comprehensive strategy to eliminate energy poverty, is considered extremely important. This strategy needs to address the problem holistically, taking into account social, environmental and energy aspects and can be achieved through the following steps:

- > Agreement on an official definition of energy poverty, taking into account the multifactorial nature of the phenomenon and utilizing the relevant European experience and modern approaches on the subject.
- > Specification of the appropriate measurement and monitoring indicators of the problem, integrating quantitative and qualitative criteria.
- > Preparation of a National Roadmap to eliminate energy poverty through the gradual transition from a social policy based on benefits to an innovative green policy based on investments and energy efficiency measures, under a medium and long term perspective.
- > Appropriate staffing and upgrade of the Energy Poverty Observatory and its cooperation with the future European Energy Poverty Observatory, in a way that they complement each other, by exchanging views and expertise.

On the same time, specific proposals on actions and measures are made on the following three areas identified as significant for addressing the phenomenon.

1. Information and education

It is known that measures aimed at changing the tenant behavior can significantly reduce final energy consumption, putting citizens at the heart of the solution through a gradual transition from the user's liability status to that of an informed consumer and later an active consumer (prosumer⁶). The training and certification of unemployed, recent graduates and young scientists as energy consultants could facilitate their access to the labor market and provide consulting services regarding proper energy use to vulnerable households. These visits of energy consultants could be combined with the replacement of some analog meters by smart meters, an obligation of the Hellenic Electricity Distribution Network Operator already pending from 2014. Other proposed actions include the establishment of a website (providing information and consumption data, savings benefit counting applications, lists of certified energy companies, suppliers, etc.) and a national or municipal support hotline for advice regarding energy use.

2. Improvement of the energy efficiency of buildings

Improving the energy efficiency status of residencies is an issue of strategic importance when it comes to tackling energy poverty. Energy renovations may seem more expensive than other measures to combat energy poverty, since they require greater initial investment (which, typically, vulnerable households cannot afford), but they also provide the most remarkable long-term gains in energy bills, contribute substantially on indoor air quality improvement and offer short payback times, especially in cold climate zones.

To raise investment rates on energy efficiency measures, a consultative body (the Energy Poverty Observatory, for instance) could provide information and guidance and contribute this way to the utilization of EU funds through the development of complete action plans by local authorities or partnerships. Meanwhile, Energy Performance Contracts could be used in conjunction with European funds or low-interest loans for the energy

⁶ European Union (June 2016): Prosumers on the European Energy Union. Available at: <https://goo.gl/c0qZ2P>

renovation of vulnerable households' residencies. All interested parties (ESCO, owner and tenant) could share the economic benefits from the energy savings, creating a «win-win» situation. In some cases, mortgage payments could be combined with the application of energy efficiency measures by a rewarding reduction of interest rates, while also reducing the bank's risk for loan repayment.

It is also important, prior to their application, to assess possible measures based on their expected energy savings and payback period, in order to apply those that provide greater benefits. This can be facilitated by an improved context regarding building energy studies and certification system, taking into account facts on social, financial and energy poverty status of tenants or even the transformation of EPC's towards more personalized suggestions, such as the "Building Renovation Passports"⁷.

Finally, the facilitation of collective schemes and energy associations (both in the building and neighborhood level), with focus to the implementation of the energy efficiency measures on residential buildings, can be realized through informative campaigns for owners and tenants. Through the campaigns, the possible economic and environmental benefits of collective schemes and energy associations will be disseminated, and the necessary changes in institutional level will be made known to them (e.g. joint procurement of construction materials and services for energy saving interventions, supply of energy at competitive prices, production, storage or exchange of energy from renewable energy sources, consulting services from members of an energy coop, acquisition and refurbishment of bankrupt or empty buildings etc.).

3. Utilization of Renewable Energy Sources

In combination with energy efficiency schemes, the use of renewable energy sources can contribute in many ways to address energy poverty by providing energy security and affordable energy prices for citizens. This can be achieved through the improvement of existing policies regarding self-generation and self-consumption of energy from renewable energy sources (funding schemes for the initial investment costs, low-interest loans or combined with existing "red" loans), training and support of stakeholders, and the creation and promotion of energy cooperatives. Energy cooperatives can act as energy producers and supply energy from renewable energy sources directly to their members at affordable prices. Moreover, the establishment of frameworks such as the "Energy Contract with Consumers" and the "Guarantee of Origin"⁸ (i.e. the right of consumers to know where their consumed energy comes from) will ensure that consumers are empowered and are set at the center of the energy system. At the national level, increasing the penetration rate of renewables in the energy mix means long-term reduction of the requirements for energy imports and greenhouse gas emissions trading fees, which in turn translate to the release of national financial resources and their redirection on housing upgrading programs and/or social policies.

Addressing energy poverty as part of a strategy for the transition from fossil fuels to energy efficiency and RES, requires broad partnerships and significant changes in the way we perceive energy. The success of the above actions is based on the cooperation of various stakeholders and bodies (municipalities, ministries, consumer and environmental organizations, energy market operators, academic and research institutions, etc.). An innovative social policy must combine energy, environmental and social aspects, in order to address the problem holistically, but it also must be adaptable on different social groups' needs and people experiencing poverty. The development of a new strategy for smart, green cities, integrating buildings to changes in the energy model and emphasizing on synergies, is a prerequisite for the success of the above mentioned actions.

⁷ BPIE (October 2016): Building renovation passports – Customized roadmaps towards deep renovation and better homes. Available at: <https://goo.gl/5m80EN>

⁸ European Commission: REScoop MECISE - Call for changes in EU regulation to foster consumer choice and transparency in electricity market. Available at: <https://goo.gl/36iJFm>