

Assessing the impact of the economic crisis on energy poverty in Greece



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ABSTRACT

The paper aims at assessing the impact of the economic crisis on energy poverty in Greece. It monitors the electricity consumption per capita, its relationship with the economic growth and its comparison with other European countries. Moreover, the paper provides new indicators and information, monitoring data related to the capability of people to pay their electricity bills, the power cuts made due to the economic crisis and the social policy of the government for sensitive social groups. Results show that the standard of living in Greece has been increased considerably compared to other countries and that people require time to respond to the new economic conditions and to change their habits. It provides evidence that the economic crisis has considerable effect on the electricity consumption and on the capability of people to pay their bills. However, the power cuts depict mainly the unwillingness of customers to continue paying bills for properties that they do not use or do not provide any revenue for them. The incapability of customers to pay the electricity bills on time, create serious liquidity problem for the Public Power Corporation, which enables the danger of transforming an energy poverty issue to an energy security issue.

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1. Introduction

Over the last decade, two challenges – namely economic crisis and climate change – have been prioritized in the political and scientific agenda. The economic crisis and the inequalities among different economic quintiles have raised the issue of energy poverty, namely the lack of access to modern energy services. Modern energy services are crucial to human well-being and to a country's economic development; and yet globally over 1.3 billion people are without access to electricity and 2.6 billion people are without clean cooking facilities (IEA, 2010). The lack of access to modern energy services is a serious hindrance to economic and social development, and must be overcome if the UN Millennium Development Goals are to be achieved.

Energy is addressing many of today's fundamental challenges, like poverty, inequality, climate change, food security, health and education. It is very important effective tools to be conducted in order to support the monitoring and reporting of progress towards widespread energy access is thus instrumental (Nussbaumer, Bazilian, Modi, & Yumkella, 2011). Energy poverty usually concerns developing countries. However, the economic crisis has affected significantly several developed countries raising questions on energy poverty issues. Greece is already facing a 6th year of recession, while the Greek government has adopted a number of fiscal measures that affect the energy prices, the citizens income and their capability to pay the energy bills.

A number of studies have assessed the different dimensions of the impact of the financial crisis in Greece, focusing mainly in their distributional effects. Matsaganis and Leventi (2013) study the effects of the Greek recession and associated policies taken to reduce fiscal deficits between 2009 and 2010. Using a tax – benefit model they find that these immediate effects, comprising a combination of falls in labour market incomes and austerity measures, were spread widely across income groups – overall income inequality was quite stable, and relative income poverty rose slightly but by far less than absolute income poverty. Moreover it could be argued that the absolute poverty threshold

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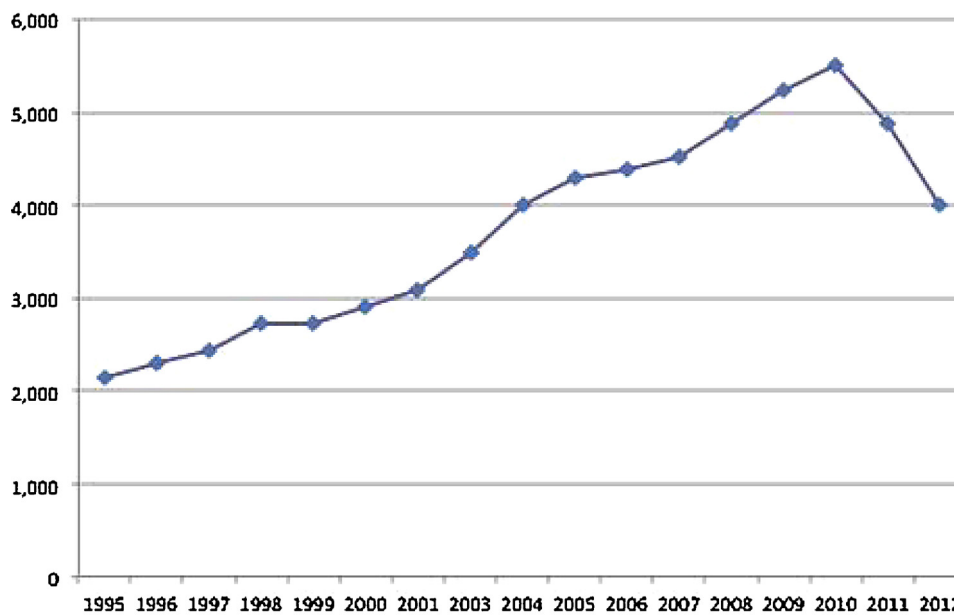


Fig. 1. Income evolution in Euros, for the income group that is below 60% of the median equivalized income, for the period 1995–2012.

Sources: Eurostat.

not only is determined by similar if not identical factors as the value of labour power at a certain point in time, but also that the two measures are closely correlated as far as their movement over time is concerned (Maniatis, Bassiakos, Labrinidis, & Passas, 2010).

The effect of the global financial crisis and resulting austerity measures in Greece is depicted in the average household income that was significantly reduced, leading to changes in the distribution of annual household income. Fig. 1 shows the evolution over the period 1995–2012 of the income (in Euros) for the income group that is below 60% of the median equivalized income. In two years-period 2010–2012 the decrease is about 30%.

To protect vulnerable groups, the government also introduced social electricity tariffs for residential consumers. These give a discount of up to 42% on annual consumption of up to 5000 kWh, compared with the normal household bill. Such an initiative, however, distorts prices by de-linking energy from its cost, as social objectives would be better pursued via the tax-transfer system (Koutsogeorgopoulou et al., 2014).

Mountainous areas are especially vulnerable to energy poverty because their thermal energy needs are especially high and their economic environment is not a particularly prosperous one. The economic performance of the alternatives and their contribution to combating energy poverty shown, that utilizing locally produced biomass and applying energy-saving measures can bring households below the “energy poverty limit”. Moreover, dependence on diesel oil and electricity for heating purposes can be reduced to a very low level by applying financially viable energy practices (Katsoulakos, 2011).

The lower-income households are the ones that fuel poverty policies should target, so that the 13.87% fuel poor proportion of this group is controlled as best as possible, given the financial crisis in Greece (Santamouris et al., 2013). In Greece, Santamouris et al. (2007) concluded that energy policies addressed to the dwelling sector should set as a priority the improvement of the envelope quality of residents where low-income people are living. Low-income households paid nearly 67% higher electricity cost per person and square metre than high-income households. Furthermore 1.63% of the households suffered from fuel poverty and 0.35% from severe fuel poverty (2004 values). Fuel poverty in

low-income groups, was in the region of 16%. Severe fuel poverty, in the low-income group, was calculated close to 4%. Concerning energy poverty, the average percentage of the households spending more than 10% of their income for energy was close to 11.3%, while 2% spent more than 20%. Almost 40% of the low-income group, called the energy poor, spent more than 10% of their income for energy while almost one fifth of the poor households, called the severely energy poor, spent more than 20% of their income for energy. Fuel and energy poverty reached quite high levels in the low-income groups, with a dramatic increase attributed to the fuel prices. It was concluded that energy policies addressed to the dwelling sector should set as a priority the improvement of the envelope quality of residents where low-income people are living.

The above-mentioned studies have provided significant insights in the impact of the economic crisis in Greece, focusing – among others – on poverty and energy poverty issues. However, the economic crisis in Greece provides new fields for research, as a number of fiscal and other governmental policies are unique, such as the property tax to be paid through the electricity bills. Therefore, it creates new research questions, and space for the development of new aspects and indicators of energy poverty. This paper aims at assessing the impact of the economic crisis on energy poverty in Greece, by examining and selecting well established indicators while providing new indicators and information, monitoring data related to the capability of people to pay their electricity bills, the power cuts made due to the economic crisis and the social policy of the government for sensitive social groups.

The sections of the paper are organized in the following way. The literature review and the methodology adopted in the paper are described in rest parts of Section 1. Section 2 reports the results and the policy implications, while the concluding remarks are provided in Section 3.

1.1. Energy poverty indicators

The use of indicators is widespread in development research and practice. Indicators are useful to quantify and analyse performance, also provide basic information for strategic planning and policy analysis. Indicators are essential tools for communicating

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