

## ENGAGER: Energy Poverty Action

### Report from Conference and Workshop, Athens, 6-7<sup>th</sup> March 2018

The inaugural conference of the ENGAGER Energy Poverty Action examined the state of the art on this important issue, as well as new research and policy agendas.

A public workshop was held on 6<sup>th</sup> March, to address the expansion of Energy Poverty (EP) at record rates in Greece during the past decade. It brought together EP experts including policymakers, stakeholders and researchers from Greece and the EU to analyse recent developments of EP in Greece and more widely in Europe, and discussed options for tackling this issue moving forwards.

The morning session began with an introduction by Prof Stefan Bouzarovski (Action Chair), followed by two expert speakers.



Evi Tzanakaki

Prof Stefan Bouzarovski introduced the meeting presenting some key figures on EP in Europe. EP can be understood as the inability to ensure a socially and materially necessitated level of energy services in the home. EP proxies include among others the inability to keep home inadequately warm, the energy expenses of low-income households and excess winter mortality. The European Energy Poverty Observatory launched in January 2018 aims at reporting on the state of the problem and inform decision making institutions, the new ENGAGER COST Action groups EP experts from 28 countries. It aims at improving knowledge on EP through multidimensional and multidisciplinary approaches. These will help to gain a better understanding of the problem and thus to contribute to its eradication.

In her presentation of a research on demand-side management in smart grid pilots in Europe, Ana Mengolini from the Joint Research Centre at the European Commission focused the interactions between social actors and technical systems. The goal of this research project is to identify leverages to promote sustainable energy consumption behaviours.

Brenda Boardman developed the idea that fighting EP is about capital investment in the home. However, implementing measures to address EP is a difficult task because the energy poor are hard to find. Identifying them requires a detailed assessment of their income and an energy audit of the home. Therefore, monitoring EP and delivering solutions are two different activities: while monitoring can be done using national data, delivery requires to knock on the door of people. One option to deliver solutions is to start with area-based approaches, to first focus on where EP is concentrated. In the next stage, of implementation of measures, a lot of hand-holding and mentoring is necessary. When delivering solutions, one should not only consider the direct economic benefits: fighting EP has several other benefits, including more comfortable homes, happier people and less physical and mental ill health among the fuel poor.

The second session focused on EP in Greece. Margartita Ptroliagki from the Ministry of Energy and Environment presented the energy efficiency characteristics of the Greek building stock. A majority of Greek homes has been built before 1980, with many homes still lacking thermal insulation. The potential of energy efficiency gains is

particularly high in multi-family houses (with large numbers of buildings in classes E to H). Improving the energy efficiency of homes is therefore viewed not only as a method for achieving the energy efficiency targets at the European level but also as a mean to reduce energy poverty. In addition, with the increase of energy prices, thermal retrofits are getting more and more attractive from an economic point of view.

In her presentation on the challenges of EP alleviation in Greece Evi Tzanakaki from the Centre of Renewable Energy Sources presented the approach of the Greek energy poverty observatory, which analyses energy poverty both in reference to the part of households' budgets dedicated to energy and to the coverage of energy needs (provided that these needs depend not only on the characteristics of households and of their buildings but also of the region and the climatic zone). In Greece, the problem of energy poverty is to a large extent a problem for cities, which group 80 percent of the country's population. Currently, 120 cities have submitted sustainable energy plans which include the residential sector. At a national level, the main approach to energy poverty has been until now to reduce the bills. However, a new refurbishment programme is announced that will in priority help people on low incomes, with an objective of reducing significantly the energy consumptions of households.

Kyriaki Metaxa from the Heinrich Böll Foundation presented some facts on EP in Greece: in 2015, 36% of the Greek population was energy poor. In addition, one third of the population faced housing overburden in 2013. The study



identifies several impacts of EP: in terms of mortality (2.8 to 6% of annual deaths could be attributed to EP between 2003 and 2012), of air pollution, of liquidity of households with energy debts and in terms of budgets spent on heating oil benefits. To deal with EP, a holistic approach is promoted to achieve a just energy transition. Greece needs to agree on an official definition of EP, enhance the national EP observatory, and draft an EP mitigation roadmap.

Kyriaki Metaxa

Nikos Chryssogelos, President of Wind of Renewal social enterprise for social and green economy discussed the key difficulties of current national policies, which are mostly focused on energy subsidies. These policies include social tariffs for electricity, the provision of a small amounts of electricity for free, rent subsidies and heating oil allowances. However, the contribution of these policies to addressing the causes of EP is limited, which is why a new approach to EP is probably necessary.

After lunch, the third session considered how to move beyond the state of the art regarding analysis of EP. Maria Kaltsa, Architect, spoke about urban planning policy. She highlighted the role of integrated urban planning policy for addressing EP, focusing on urban clusters in the city centre of Athens. In this kind of context, it is necessary to deal with the existing, which can be challenging because it requires to focus on issues like rehabilitation, recycle, and reuse... In Athens, the poor people also live in a poorly built environment. Therefore an area-based approach is useful. In 2011, for the first time, a legislation was passed by which a specific part of Athens was considered as an area where expenses on energy upgrading (for anyone) could be deducted from income. This was accepted for an area including 50 building blocks inside the city.

Professor Constantinos Cartalis, NKUS, discussed the challenge of fighting EP through nature-based solutions in a context of warming cities. In the case of Athens, it is important to know the spatial and temporal distribution of

temperatures. As there is a strong relation between temperature variations and mortality, knowing the local climate helps identifying the most vulnerable areas in case of warm temperatures. In these areas, the electricity consumption is significantly higher during the summer months because people need to cool their homes. Based on a historical analysis of different areas in Athens, Professor Cartalis showed that there has been an increasing trend of concentration of the poorest populations in certain areas, which are also the hottest areas in summer, with the less green areas which could help cooling the local environment. Thus, there is a concentration of economic, social and environmental vulnerabilities in certain areas of the city, which are also the areas with the highest mortality rates. Building many small parks in the city can help reducing these vulnerabilities. one



Prof Constantinos Cartalis

Joanna Romanowicz NUS in UK, outlined current trends and implications for fuel poverty in student accommodation. This project examines energy poverty of students in eight European countries. This topic is interesting because until now, there have been only few studies dealing with students, who are part of the invisible energy poor due to the transitory nature of their difficulties. The study, which has started in May 2017, reveals that a significant proportion (42%) of students has already experienced difficulties with paying their energy bills. Over one third of them is living in an accommodation with damp or mould. A high proportion of students declared lacking thermal comfort, while landlords are lacking incentives to make improvements. This can have a significant impact on the physical and mental wellbeing of students.

Ioannis Koussis, NKUA, outlined a qualitative and quantitative methodology to identify barriers and motivations for energy refurbishment in EU countries.

The final part of the day was a common panel session with a choice of two topics: 1) EP in Greece, reaching consensus, exploring best practices, and 2) EP research in Europe, integrating knowledge.

By bringing together EP experts from Greece and other European countries, the workshop has produced new insights on how to deal with EP in the specific context of Greece and how to develop EP research that goes beyond the current state of the art. In particular, the workshop has highlighted the difficulties of fighting EP in a country like Greece. On the one hand, a large part of the housing stock is still lacking insulation, which means that there is a high potential for improving the energy efficiency buildings. On the other hand, the economic crisis has significantly impacted households' incomes in the past decade and worsened some situations of energy poverty. One lesson about Greece and more generally about countries of the South-Eastern part of Europe has been to show that the energy poor are faced not only with the problem of cold winters but also with heat during the summer months. Presentations have highlighted that in urban areas, the concentration of low-income populations in areas where the housing stock is inefficient is combined with problems of urban heat and of air pollution, leading to an increased exposure of certain populations to health risks.

Beyond these regional specificities, the workshop has also shown several common points between COST countries in terms of approaches to deal with energy poverty: the importance to observe and assess the problem, the central role played by the building stock as a determinant of energy poverty, the need to adopt a holistic approach to deal with the multifaceted nature of energy poverty and the difficulties that can be caused by policies which address

only one aspect of the problem at the expense of other aspects (for example benefits, which allow households to consume energy but which are only short term solutions in addition to having negative impacts on air quality in certain areas).

Finally, the workshop has allowed the participants to engage in networking activities and to include new members from Greece in the different working groups of the ENGAGER COST Action.

Working Group meetings were held on 7<sup>th</sup> March, including a common session on the drivers of EP, the patterns of EP problems and the complexities of their drivers in Europe. A common starting point of work for the WGs was established using the expert knowledge of participants. This was followed by individual WG consolidation sessions in the afternoon.



Working group meetings on 7th March