**Extended abstract**

**BEHAVIOURAL CHANGES TO ALLEVIATE ENERGY POVERTY IN EUROPE**

Energy poverty is one of the main social, technical and legislative issues at the present time in Europe, with the estimated number of people who are affected ranging from 50 to 125 million. The European Commission (EC) has put a great deal of effort into solving this issue, as shown, for example, by the recent launch of the EU Energy Poverty Observatory in January 2018. One of the points stressed by the EC is the importance of learning from experience and from the best practices being carried out in various member states (MS). With this in mind, the project reported here (funded by the EU Commission under Grant Agreement no. 12345), of which the Energy Consumption Research Institute is a partner, aims to uncover best practices and recommendations to address energy poverty by implementing a series of pilot actions with a group of advisors called HEAs (Home Energy Advisors). These advisors have been specifically trained to implement the pilot actions by educating vulnerable consumers to optimize, and possibly reduce, their energy consumption, mostly through behavioural changes. In this project, the Energy Consumption Research Institute is responsible for the technical training of HEAs and for planning the pilot actions. This paper presents the initial results of these two tasks.

The first part of the paper summarizes the results of a statistical analysis performed in order to define “energy-poor” or “energy-vulnerable” consumers, as a common European definition does not exist. The main obstacle in performing this analysis is that the data often used for standard indicators (e.g. *Low Income High Costs*) are not available in many countries, so new ways to define energy-vulnerable consumers have to be explored. Moreover, the differences in the data available in EU countries lead to fragmented and often incompatible consumer segmentation in the member states. To overcome this barrier, it is necessary to define the background against which the pilot actions are to be implemented (the situation in the MS being analysed here) and to perform a targeted market segmentation by analyzing and enhancing existing databases to which similar and compatible indicators are applicable.

The second part of the paper briefly introduces the training offered to the HEAs, in order to show which competences an HEA needs before approaching a vulnerable consumer or family, and how to build these competences.

The third part represents the core of the paper, which focuses on planning the pilot actions. This process involved several stakeholders and local experts, who met in three workshops, as well as a comprehensive literature review, brainstorming sessions with several project partners and consultations with organizations that have already put into place actions to support vulnerable consumers or are actively working in this field. The proposed actions are assessed by analyzing their advantages and disadvantages, their possible constraints as well as the projected timeframe and cost forecast for each of them. Finally, the outcomes of the first implemented actions are presented in order to provide insights into the preliminary results.

The main conclusions that can be drawn focus on the role of the Home Energy Advisors and on optimized energy consumption, which can be triggered by HEA advice to vulnerable consumers.

In general, two issues have been identified. The first is related to the barriers that have to be overcome by the HEAs: in particular, adapting to differences in educational background, which has been shown to be a pre-requisite for the success of the training, and countering the lack of trust that energy-vulnerable consumers have in HEAs by showing that they are acting as independent parties with no economic interest (e.g. a national consumer association or a local charity). This is also related to another barrier, which concerns the possibility of using the “HEA qualification” on the job market.

The second issue is that, in many cases, it is nearly impossible to reduce energy consumption in energy-vulnerable households. Although unaware of the environmental benefits, they already behave in an energy-saving mode and consume as little energy as possible in order to keep their expenses low. The HEAs should therefore only aim to optimize energy consumption in terms of reducing or maintaining vulnerable consumers’ current level of expenses with the same amount of energy (or slightly more, thus increasing their comfort). This can be achieved by using energy in a “smarter” way, for example by exploiting different electricity prices at different times of the day or by switching to a more inexpensive energy provider with the help of external experts such as the HEAs.