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## **“Consumers vulnerability” characterization: a methodology approach of energy poverty in Europe.**

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### **Overview**

At present, Europe has experienced a proliferation of local initiatives to limit the emerging problems related to the vulnerable consumers and the social problem called as “energy poverty”. Different initiatives have been carried out in the European Union Countries boosting both renewable and conventional sources and technologies in order to improve the energy efficiency among affected households. The launched initiative of the Secretary-General of the United Nations toward ‘Sustainable Energy for All’ has helped refocus policy attention on eliminating energy poverty globally. However, in the European Union a common approach is needed taking into account the European socio-cultural contexts, adds to our understanding of issues related to the vulnerability of consumers as a new phenomenon experimented especially in the southern countries.

### **Methods**

The paper consists of an innovative holistic methodology applied to a Spanish Region which provides a complete analysis of the energy poverty in a territory as well as the categorization and the mapping of households through a cluster analysis in terms of their vulnerability from the energy point of view. The methodology is largely qualitative though quantitative data and results on consumer’s categories are also presented.

### **Results**

This paper explores the mainstream academic and policy literatures to provide an in-depth description of the Spanish situation of fuel poverty problem. After measuring the problem and recognising the real situation, we present a list of actions that Spanish local governments had implemented across the different regions and some own strategies that can be applied to control, limit and prevent the situation of energy poverty.

### **Conclusions**

The number of houses with a non-appropriated temperature especially in winter is growing due to two important reasons: the decline of the household incomes and the progressive growth of energy price in the last years. In this paper we try to present this situation in the case of a specific region of Spain. After this

descriptive work, we categorized the households depending on their vulnerability from the energy point of view and give solutions that can be extrapolated to other European regions.

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