

Abstract #: 180

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**Abstract Title: How the prioritization among different goals can affect consumers' energy-related decisions: A fuzzy logic approach with evidence from Asian households**

Abstract Text:

The behavioral part of residential energy consumption is in many cases not taken into great consideration by policy-makers, giving rise to phenomena such as the "energy efficiency gap", which hinders the efforts for energy security and for the successful mitigation of climate change. Such phenomena could possibly be avoided with integrated approaches for explaining or predicting energy behavior, and by combining quantitative and qualitative approaches that had been used mostly separated in the past. Towards this direction, the current work aims at creating an agent-based residential energy behavior model which incorporates bounded rationality and social data into a mathematical framework, and it is the second part of a greater study that was first presented during the 2014 BECC Conference. Using the framework of fuzzy logic, combined with real empirical data, our model can potentially show that energy efficiency policies can be more effective when the concepts of bounded rationality and consumers' prioritization are taken into a greater account. After having previously demonstrated that non-fuzzy and fuzzy decision-making predictive models can generate different results, the current stage of this study provides real evidence from Asia. Answers to web-based surveys, reflect the preference of households in large Asian cities between environmental, monetary and personal satisfaction goals regarding their choice of purchasing and using energy efficient devices. Other important variables of the study are: the consumers' perception of device and electricity prices, their perception of changes in the local climate, and the extent to which they can be influenced by their peers. The results indicate the degree to which such energy-related decisions can be affected by the prioritization among different goals, and also by demographic, economic, climatic and cultural factors. They are expected to be useful to governments and behavior researchers towards the design of more effective energy reduction strategies.