Consumer’s Attitude Towards Investments in Residential Energy-Efficient Appliances: How End-User Choices Contribute to Change Future Energy Systems

The proliferation of increasingly energy-efficient (EE) appliances is a key strategy to address the impacts of rising residential electricity demand (Danish Energy Agency 2017). To this end, governments and institutions are interested in understanding the drivers of consumer choice between conventional and environmentally friendly alternatives when purchasing new household electric appliances. This study employs empirical data from a survey conducted by the Danish Energy Agency to model the decision criteria behind Danish consumer investment in energy-efficient labeled appliances. The analysis uses logistic regression over a set of socioeconomic, demographic, and behavioral variables to predict purchase propensities. The findings are relevant for policy makers interested in targeting consumers in the appliance market, particularly for a relatively wealthy national context. The study concludes by integrating the predicted propensities with an energy-systems model to assess the nation-wide impact of efficient appliances’ uptake in terms of electricity, emissions and economic savings.

General information
State: Published
Organisations: Department of Management Engineering, Systems Analysis, Management Science, Operations Research
Contributors: Baldini, M., Trivella, A., Wente, J. W. H.
Pages: 53-54
Publication date: 2017

Host publication information
Title of host publication: 40th IAEE International Conference (Meeting the Energy Demands of Emerging Economies: Implications for Energy and Environmental Markets)
Source: PublicationPreSubmission
Source-ID: 134152799
Research output: Research › Article in proceedings – Annual report year: 2017