

Title: Incentives and barriers of green energy adoption among residential consumers

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The development of renewable energy sources (RES) created some new possibilities for the electricity consumers. Consumers may now invest in the renewables and produce electricity and heat for their own needs. They may also sell the electricity surplus to the energy supplier. In such a way they may become *prosumers*. In some countries, the governments and local institutions offer subsidies to encourage consumers to invest in solar panels, photovoltaic, small wind or hydro generators. Such incentives increase consumers' interest in this sector of the energy market. Moreover, consumers may also choose the energy supplier who offers green electricity tariffs or allows participation in green energy programs. The prospect seems optimistic, but research survey and pilot programs show a very low engagement and enrollment rates among consumers.

This presentation will focus on consumers' energy behavior and their willingness to pay for RES. Social and psychological factors, that influence the adoption of RES will be discussed. Consumer engagement and acceptance of green energy are necessary to make the diffusion of these products possible and effective. Hence, following questions will be answered:

- How green energy (in particular: green electricity tariffs and small-scale generators) diffuse among the customers;
- What makes consumers adopt to the RES;
- What obstacles slow the diffusion and what factors may enhance the successful adoption;
- What are the main reasons of the intention-behavior gap among electricity consumers.

In conclusion some behavioral strategies that may help to speed up the diffusion of RES among consumers will be proposed.

Biography

Anna Kowalska-Pyzalska received the M.Sc. degree in management from Wroclaw University of Science and Technology, Wroclaw, Poland in 2001 and the Ph.D. degree in technical science – electrical power systems, from the same University in 2006. Since 2010 she is an assistant professor at Faculty of Computer Science and Management, Department of Operations Research. Anna has an experience in the energy market and economy. Her last papers are devoted to modeling diffusion and adoption of innovative goods in the energy market (e.g. dynamic electricity tariffs) as well as to social acceptance of these goods by the electricity consumers. She is also interested in distributed generation and its integration with the power system. She is a reviewer for JCR listed journals. She participated in realization of a few national or EU grants.

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Session name/ number:Challenges in renewable energy
Category: (Oral presentation/ Poster presentation) Oral presentation