

Centre for intelligent electricity distribution - to empower the future Smart Grid

PhD: Understanding mechanisms and incentives for motivating user flexibility

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Challenge and objectives

Electricity end-users have until recently typically been considered as customers and passive market actors in the energy system. Current policies aimed at reducing energy consumption have often had a narrow view of the users as being consumers making conscious rational choices. Energy users have also commonly been regarded as recipients of technologies in the margins of a rather centralized system.

In the energy system of the future, people are expected to take more active roles as consumers, citizens and "flexibility providers". End-users are hence expected to change or shift some of their energy practices.

Significant results

For end-users of electricity, consumption and capacities for being flexible is primarily linked to routines and activities in the everyday life. Socioeconomic status, geography, and stages of life, is highly relevant.

Reflections and expectations of shifting/ changing/ shaving energy consumption triggers conflict of interests regarding practical considerations, safety, routines, economy, environment, community, moral, comfort and coziness, and needs in the grid, amongst others.

Research tasks

The research task of this project is to study householders experiences, expectations and reflections about energy consumption in the household and everyday life, exploring motivations and mechanisms for flexible energy-practices. Expectations towards householders from actors in industry and research, are also included to add perspectives from both designers and developers, and end-users.

Illustration



A homeowner's illustration of energy consumption in the household

Approach

In-depth interviews, written and drawn narratives with end-users of electricity (householders), and interviews with actors in industry and research (designers, developers, researchers etc).

Publication

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