

# Integrating end-user knowledge in the implementation of end-user flexibility

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## Challenge and objectives

Electricity end-users, including households, are envisioned to play a part in providing flexibility to the electricity grid in the future. The suggested means to achieve this include grid tariff reforms and flexibility markets.

There are many possible innovation paths that end-user flexibility could take in Norway and hence also a plurality of visions on end-users' role and the methods to engage them.

In the recent years more and more effort is put into mainstreaming Social Scientific and Humanities research into various fields of research that deal with societal challenges. However, to date this type of knowledge is used to a limited extent in the shaping of end-user flexibility.

This project will

- 1) Map out innovation paths for end-user flexibility
- 2) Examine how the role of the end-user as flexibility provider is construed
- 3) Aim at identifying aspects where integrating Social scientific knowledge and knowledge from end-users themselves would be beneficial

## Research tasks

The first part of the work examines experts' expectations on the implementation of flexibility solutions (notably new grid tariffs and flexibility markets), with a focus on what kind of role(s) end-users would have and how their engagement is conceptualized

The second part focuses on how end-users themselves view the flexibility provider role(s) and examines how pilot projects contribute to shaping end-users' role(s)

The third part focuses on knowledge integration: How can end-user perspective be better represented in the flexibility solutions?

How to account for the variety and heterogeneity of end-users in the design, testing and implementation of end-user flexibility?

## Approach

Theoretical approach used in this project is closest linked to Science and Technology Studies (STS), including Sociology of Expectations

Methods used include semi-structured interviews, document analysis and participant observation