

Project no. 338-020

Feedback motivated electricity savings in the home

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In this project, the utility companies' investments in interactive meters and broadband are used to develop new communication methods with feedback on regular consumption meter readings so that consumers can react to feedback. The effect of these methods is investigated by means of, among other things, a two-year trial involving 1000 households.

Project Status:

Feedback based on metering at total consumption level was completed in 2008. A system for the provision of feedback to households on their electricity consumption by text message and/or e-mail was developed and tested for one year. This test showed electricity savings of approx. 2 % in the trial households compared with the control group.

The original plan for testing the equipment developed was abandoned for various reasons. Instead, the equipment was installed and tested for around 5 months in 20 test houses. Despite technical problems and failures in many of the houses, the private test houses are seeing electricity savings of an estimated 10 % approximately. Another significant result is that the participating households were enthusiastic about the equipment and the options it gives them for controlling and monitoring electricity consumption in the home.

Anticipated final project results:

This project confirms trials in other countries, which find that better, faster and more precise information to consumers on their electricity consumption is the key to significant electricity savings. Although the project did not have the opportunity to implement the thorough scientific evaluation of feedback at final consumption (i.e. unit) level, the results from the 20 test households strongly indicate considerable extra savings compared with a system where the consumer receives feedback on total consumption level solely by text message and e-mail. The qualitative evaluations of the two systems also show that consumers are considerably happier with the more advanced system where they can monitor their electricity consumption at unit level by means of a well designed display located in the kitchen.