



Manage your energy consumption: Answering the challenge of communicating energy consumption measurements to the consumer

Teaching consumers about energy aware consumption routines has for decades been a central goal for national energy actors at the EU countries as well as a responsibility of the utility companies. Enrolment of smart meters across the EU has enabled apt and timely feedback for the consumers, but this has not proved effective. Instead, both the energy consumption level and the number of appliances in households has grown. In this policy brief based on a workshop with Belgian, Finnish, and Italian energy experts, we return to the basics of what kind of feedback the consumers benefit from and what are the most important thumb rules for national energy actors in promoting energy awareness.

Introduction to the topic

Energy consumption of households has increased markedly within last decades as the number of electric appliances has grown. Even if the appliances have become more energy efficient, current social norms about energy consumption leads to excessive use of it: for example, long hot showers daily, having more than one television, maintaining a house temperature at 21 °, are in many countries things that are considered normal.

As electricity is – in many countries at least for most households - cheap, consumers do not often reflect on their energy use. Energy bill is the only visible link between energy consumption and the consumer, but very few consumers look at their bills, very few use the monitoring services offered by the utility companies and even fewer consumers act based on the information that is available.

Daily choices and energy consumption routines can be effectively readjusted through consumption feedback. Energy actors' role is helping the consumers navigate consumption data and make informed decisions based on

their feedback. However, the practices in providing this feedback to consumers contain many problems.

Identified challenges

In a series of workshops organised with Belgian, Finnish and Italian energy experts focused on the issue of energy awareness in May-June 2021, some issues were raised in terms of communicating energy costs to the consumer.

The following viewpoints related to the feedback offered for consumers emerged:

1. **Use of difficult jargon:** Consumption metrics in kilowatts have limited information value for the average consumer.
2. **Lack of proper training:** Learning can be enhanced by investing in effective training activities and awareness building campaigns for citizens teaching them how to monitor energy consumption and implementing retrofitting projects in households.





3. **Targeting for “normal use”:** Feedback can help in detecting anomalies in energy consumption and fixing specific problems (related to appliances and their use as well as house technology), but feedback can also fortify existing routines and burden households. Communicating the need to reduce energy consumption together with offering tools for monitoring relative savings can be more effective than establishing criteria for normal use.
4. **Hiding consumption feedback:** All feedback on consumption will not reach the consumers and therefore will not reduce energy consumption. This concerns especially information hidden in e-bills and utility company apps.
5. **Providing knowledge in a difficult format:** Basic knowledge about energy consumption should be established already at school. Gamification may enable learning the basics about energy in the youngest groups. For grown-ups, campaigns should be carefully targeted according to consumer segment and type of housing. Simulation tools and appliances to monitor energy consumption can make citizens better aware of how much energy they consume at home.

Policy insights

The project makes the following recommendations to EU energy policymakers and energy awareness promoters in relation to advancing energy awareness across the EU countries:

- **Communicate better what is needed.** Promote using less energy rather than establish an average level of consumption. Turn the focus away from individual

appliances and energy labels to consumer action and best practices in energy consumption.

- **Make the messages focused.** Promote specific energy saving measures for specific target groups instead of making broad and generic recommendations.
- **Contextualize communication.** Appreciate the knowledge and the resources the consumers have and adapt communications accordingly.
- **Contextualize effects.** Create personal messages that work in the realities that individual consumers live in. For example, the issue of Demand-Side Flexibility (DSF) should be reframed in order to make it relatable to the consumers.
- **Create a social buzz.** Energy use and energy saving should not be seen as just individual or household issues. Energy saving efforts should be made visible within neighbourhoods and communities to reach their full potential.

Methodology for collecting results

The challenges and policy insights presented in this policy brief were collected during national-level policy seminars that were held by each ECO2 partner in May-June 2021. The seminars gathered policy-makers, academia, NGOs (incl. consumer organisations) and businesses and looked into EU level, as well as national and local level policy interventions for improving the impact of policy on consumers' behavior towards increased energy efficiency.

The ECO2 project in a nutshell

ECO2 (Energy Conscious Consumers) is a Horizon2020 funded project. Its main objective is to increase the awareness of EU consumers regarding their energy consumption and ways to improve the energy efficiency of their





homes. Since consumers play a key role in the transition towards more sustainable energy use, the project both engages and empowers them by enhancing their knowledge on how to consume energy more consciously in their everyday lives.

The main outcome of the ECO2 project is **ACT4ECO**, an interactive online platform available at www.act4eco.eu. It is aimed at motivating energy consumers to explore various solutions in terms of home improvements and implementation of energy-saving best practices.

ECO2 also aims at establishing a dialogue with policy-makers and innovators at national and EU level through policy seminars, to discuss energy efficiency measures available to households and their impact on consumer behaviour.

Project partners

Fonden Teknologirådet – Danish Board of Technology Foundation (DBT), Denmark – Project coordinator

Hebes Intelligence Single Member Private Company (HEBES), Greece

Sinergie Società Consortile a Responsabilità Limitata (SINERGIE), Italy

Helsingin Yliopisto – University of Helsinki (UH), Finland

Associação Portuguesa para a Defesa do Consumidor (DECO), Portugal

Strategic Design Scenarios (SDS), Belgium

Applied Research and Communications Fund (ARC Fund), Bulgaria

Asociacija Žinių Ekonomikos Forumas (KEF), Lithuania

University College Cork, National University of Ireland, Cork (UCC), Ireland

