# Energy labels and their impact on consumer's decision at the point of investment

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## Overview

**NOTE:** This extended abstract is being submitted as part of a proposed **concurrent session** with the other **CONSEED** presentations. The final paper will be uploaded in August when all the results will be gathered together.

The European Union has set itself a 20% energy savings target by 2020, and at least 27% by 2030. This can help consumers lower their energy bills and reduce climate change. According to the European Commission's calculations consumers could save €100 billion annually with installing energy efficient appliances – about €465 per household – on their energy bills by 2020. To help consumers make energy-efficient purchases, all new electric appliances sold in Europe must carry labels that indicate their energy consumption. Similar labelling systems exist for cars while buildings are marked with energy performance certificates.

In this context, the goal of the EU energy efficiency policy is to encourage consumers to consider energy consumption in their purchasing and usage decisions in the most efficient way. For this reason, European Commission is supporting the Horizon 2020 programme project CONSEED (CONSumer Energy Efficiency Decision Making), whose main aim is to figure out how do the energy labels influence the investment decisions of the EU consumers.

CONSEED will examine the full suite of factors influencing consumer decision making at the point of sale, and will investigate in particular the relative role of energy efficiency policies aimed at influencing such consumer decisions. The policies considered will be the ones that are directly aimed at influencing choice decisions between products rather than in-directly through restrictions on the products available. As such, CONSEED will focus on the labelling directives and the Energy Star programme rather than policies which indirectly influence consumer choice (such as the Ecodesign directive and reporting requirements).

## Method

CONSEED will develop a model of consumer decision making using existing models and empirical data. A comprehensive database of empirical data on the factors a range of consumer groups (households, services, agricultural and industrial sectors) will be generated to consider at the point of sale for appliances/machinery, buildings and transport through focus groups (FGs), in-depth interviews (IDIs), consumer surveys, field trials and choice experiments. Using this database, the model of consumer decision making will be characterised and tested - in particular, the interaction of different consumers with existing energy efficiency policies aimed at influencing consumer decisions at the point of sale will be examined – and policy recommendations based on the empirical evidence collected will be proposed.

In the first stage project ran 19 FGs and 32 IDIs with four consumer groups (households, services, agriculture and industrial sectors) across the five partner countries to explore factors involved in consumer decisions with an EE element, as well as the relative importance of these factors. The geographical spread of the focus groups is designed to generate maximum sectoral coverage within the budgetary confines of the project. Sectors are chosen in particular countries based both on the characteristics of the country and the skill set of the project partners in that country.

In Slovenia 2 FGs were conducted for the household sector (property) and 8 IDIs for the industry sector (machinery). Among participants in the household sector there were first-time buyers (FG1) and landlords who are renting their property (FG2). Participants, which were diversified by the age, gender, education, income and many other demographic characteristics, were recruited from Ljubljana metropolitan area, which is the political and cultural heart of the Slovenian nation and the largest urban area in the country with more than half million residents. 8 IDIs were executed for industry consumers with the focus on the main energy use in machinery sector. Respondents, people who make investment decisions in their company (general managers, owners, head of purchasing) were recruited through experienced subcontractor partner who chose suitable industry organizations.

## Results

Respondents for the household sector associate the term energy efficiency with optimization of energy consumption. They understand the role of main factors that contribute to the energy consumption. However, top of mind associations show, energy efficiency is most tightly connected to heating, which is reflected through mentioned investments (e.g. replacement of the roof, windows, façade or furnace). Lower costs are by far most important benefit and motive of their efforts, while high initial investment represents the main barrier. Ecological benefits are of a secondary importance. Groups differed in the attitude towards Building Energy Rating (BER) card. Owners had a more positive attitude and higher trust. They also have more experiences with the system (have bought their property when BER card was obligatory). Renters on the other hand expressed negative attitude towards the card, since they perceive it as unnecessary expense and don't trust its data. Two BER suggestions with energy consumption expressed in monetary unit were presented to participants and both of them were received positively by all participants. They are easier to interpret and more useful for users (compared to original). Time frame of costs (1 year) is appropriate, based on the assumption that variations in intensity of seasons are included in the calculations. There was clear distinction between renters and owners regarding proposal preference. Owners preferred the version with annual costs per square meter that allows immediate clear comparison between different buildings, which is very practical in the property buying process.

In the industry sector companies do invest into energy efficiency but their primary goal represents lower fixed costs, which lead to savings and consecutively profit. When purchasing machines, energy efficiency is of secondary meaning. Companies need specific machines, which are meant for specific work in the production line. It is often the case there are only few providers they can choose from. Companies mainly choose their machines based on other factors: price, quality, delivery date, etc. Additionally, most respondents don't see any major differences in energy efficiency among machines in their consideration set. Companies do devote quite some attention to energy efficiency, however mainly through the perspective of the profit. Majority also doesn't follow subsidies connected to energy efficiency. In general, subsidies aren't perceived very positively, they are seen as a lot of work with little chance of success. When talking about energy label cards in general, most respondents share quite negative attitude. Because they don't perceive them as an important decision making factor and because presented data is not clear, they are perceived as a "mean to itself". They are a bit more open to home appliances BER cards, since they are a bit easier to understand. Additionally, they do not see any real value in energy label cards for machines, even with added energy consumption expressed in monetary unit. This is because company's prices for electricity vary (are individually negotiated one year in advance) and existing technical data is sufficient when making estimations about the energy consumption.

## Conclusions

Conclusions will be drawn once our empirical work is complete.

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