ENGAGE investigates how real-time energy consumption feedback can be used as an effective tool for energy conservation. It applies insights from behavioral science to design optimal interventions for changing energy use behavior.

A real world energy behavior lab

With funding from the California Air Resource Board, ENGAGE has equipped 120 apartments at the University Of California, Los Angeles with appliance level electric metering to experiment with real-time information displays. ENGAGE frames energy consumption feedback to optimize the psychological motivation to reduce energy use.

ENGAGE develops novel methods to encourage consumers to conserve energy:

1) High detail, real-time information
   ENGAGE measures energy use in exceptional detail to provide real-time, appliance level usage data.

2) Targeted consumer messaging
   Different households have different reasons to conserve. For example, families with children are most motivated by health issues. ENGAGE develops messages targeted for different populations.

3) Behavioral science approach to motivate conservation
   People look to others to orient their behavior. ENGAGE employs neighborhood comparisons and public status displays to trigger conservation.

4) Comprehensive analytics
   ENGAGE generates detailed consumer energy behavior data, website usage and demographic data to provide effective energy feedback to consumers.
Real-time appliance level feedback

ENGAGE is among the largest real-time, appliance-level feedback experiments in the United States.

Team
ENGAGE brings together an interdisciplinary team of energy and sustainability experts, led by:

Professor Magali Delmas
Institute of the Environment and Sustainability / Anderson School of Management, UCLA

Professor William Kaiser
Department of Electrical Engineering, UCLA

Results & Potential
ENGAGE has realized significant energy savings among pilot study participants. First results indicate that consumers adjust usage in response to comparisons with neighbors and to messages addressing different impacts of electricity use.

Finding cost-effective ways to reduce consumption will have a measurable impact on air quality, greenhouse gas emissions, and electric reliability. In California alone, energy savings could amount to 5-20%, resulting in millions of dollars of savings, and significant reductions in CO2 emissions.

Learn about your electricity usage

This graph shows the current rate at which you use electricity, measured in watts (W). The graph updates every 30 seconds.

Care to be ENGAGEd?
The ENGAGE team is interested in the following projects to implement energy savings:
• Multi-family housing
• Commercial
• Industrial
Potential areas of interest include:
• Load shifting
• Social media and mobile interactive applications

Contact us
Stephen Locke, Project Coordinator
Institute of the Environment and Sustainability, UCLA
Phone: 310.267.5352
E-mail: energy@ioes.ucla.edu
www.engage.environment.ucla.edu