



Landis+Gyr: Connecting smart metering with mobile technology

Development of a mobile energy monitoring application demonstrates successful combination of industry leadership in personal energy management and academic research excellence.

Bits to Energy, Landis+Gyr, Switzerland, January 2011 – Landis+Gyr, the world's leading provider of energy management solutions, has contributed to an innovative energy research project with the Bits to Energy Lab - a joint research initiative of Switzerland's leading universities ETH Zurich and University of St. Gallen. Bits to Energy combines core competencies from multiple disciplines, such as electrical engineering, computer science, marketing and psychology, to change behavior and foster residential energy efficiency.

The close collaboration between Bits to Energy and Landis+Gyr led to a prototype that connects smart meters with mobile phones and has been presented at Europe's largest industry convention Metering Europe 2010 in Vienna, Austria.

Landis+Gyr participated in the special interest group "Smart Metering and Energy-Aware Devices", a series of cross-industry events organized by the Bits to Energy Lab, when the idea for a joint research project to "evaluate mobile phones as energy consumption feedback devices" was launched. Findings from the resulting study "Smart Metering: Future Applications and User Integration" show that there is a strong correlation between better personal energy management and state of the art 'smart' mobile technology.

In addition to extensive research in the fields of Customer Segmentation, Ergonomic Factors, and Human-Computer-Interaction, the team around research director Thorsten Staake and project leader Markus Weiss developed a software application to enable individuals to remotely identify and monitor their domestic energy consumption in real-time, to call up historic usage information, and to identify the consumption of individual devices. "Device-level consumption information is important to allow users to better classify their electricity usage and draw effective measures to conserve energy", says Markus Weiss. The mobile phone application communicates with smart metering equipment from Landis+Gyr and can be installed on the iPhone generations 3 and 4 as well as on the iPad.

Experimental research and field installations of the prototype throughout Zurich helped to further improve the application. Presented to the public at the Metering Europe exhibition, the iPhone application received very positive feedback as the real time data of the meter shown on the application allows to identify the electricity consumption of individual household appliances, thus providing meaningful feedback to consumers.

"We are pleased to bring this innovation project to a successful completion," says Andreas Wirtz, Solution Product Manager at Landis+Gyr, "The eMeter iPhone application combines the unique academic research of the Bits to Energy Lab with the personal energy management experience and metering know-how of Landis+Gyr. It has attracted great attention at this year's release to the

public as it reinforces the value add of smart metering”. “Our research shows that energy feedback not only has to be presented on a device that is integrated into daily life, but also has to be part of a larger strategy to achieve sustainable saving effects”, adds Markus Weiss, Senior Researcher at the Bits to Energy Lab. “The developed prototype is a significant step into this direction.”

About Bits to Energy

The Bits to Energy Lab is a joint research initiative of the ETH Zurich (Chair of Information Management, D-MTEC and Institute for Pervasive Computing (D-INFK) and the University of St. Gallen (Institute of Technology Management, HSG). Funded by industry projects and research grants, it combines IT and behavioral science to stimulate energy conservation, efficiency, and sustainability. Founded in 2007 as a successor of the Mobile and Ubiquitous Computing Lab, the Bits to Energy Lab brings together core competencies from electrical engineering, computer science, marketing, and psychology to develop, implement, and evaluate concepts of consumption feedback, customer engagement, and data analytics – with an emphasis on economically attractive deployment and the ambition to significantly contribute to international research.

www.bitstoenergy.ch

About Landis+Gyr

Landis+Gyr is the leading provider of integrated energy management solutions tailored to energy company needs. With a global presence and a reputation for quality and innovation, Landis+Gyr is unique in its ability to deliver true end-to-end advanced metering solutions. Today, the Company offers the broadest portfolio of products and services in the electricity metering industry, essential technologies that are needed to enable the smart grid. With annualised sales of more than US\$ 1.3 billion, Landis+Gyr operates from 44 global bases in 30 countries across five continents, and employs almost 5,000 people with the sole mission of helping the world manage energy better.

www.landisgyr.eu

For further details please contact m.weiss@ethz.ch or andreas.wirtz@landisgyr.ch.