

Savvy students' solution can cut costs of power bills

May 29 2012

Consumers could save on power bills thanks to an energy saving solution devised by two savvy students at the University of Sydney's Faculty of Engineering and Information Technologies.

The 'MyPower Energy Platform' has been designed to monitor the power use of individual appliances and to help consumers decide how and when to use or replace them.

The system allows for continuous monitoring of major [household appliances](#) such as washing machines, clothes dryers, microwaves, electrical water heaters and refrigerators via a smart plug with an embedded GSM unit.

Developers of the technology are two PhD students, Mahboobeh Mogaddham and Waiho Wong. Wong says: "The plugs sense actual power usage and transmit the information via SMS reports to a cloud-based data warehouse every 30 minutes.

"The householder can then access their [electricity consumption](#) data and drill down to individual appliances' cost based on peak, shoulder and off-peak rates, through the MyPower website."

Fellow student Moghaddam says: "Access to this data will allow users to optimise their appliance usage and take advantage of lower [electricity rates](#) by remotely scheduling or switching off the appliance via the smart plug. We are excited because this platform can provide a technically and

economically feasible solution for households to reduce their electricity consumption by up to 10 percent - a significant cost reduction over the life of their appliances."

The pair is conducting their PhD under the supervision of Professor Joseph Davis, Director of the Knowledge Discovery and Management Research Group.

Professor Davis says research shows householders' ability to understand and reduce [energy consumption](#) is severely constrained by the aggregate nature of reporting found on power bills.

"The proposed solution 'MyPower Energy Platform' captures highly disaggregated data at the appliance level and transforms it into actionable knowledge via analytics-based applications."

The solution has been awarded the inaugural NASSCOM IT Technical Innovation Award, presented at CeBIT, with judges declaring it 'an example of practical innovation in taking a number of proven technology components and tackling a pressing issue'.

Professor Davis says the platform has the potential to be used by both manufactures and governments to develop incentive schemes for households to replace older, high-consumption appliances or to support education and awareness campaigns around energy efficiency and green house gas reduction.

Provided by University of Sydney

Citation: Savvy students' solution can cut costs of power bills (2012, May 29) retrieved 27 April 2024 from <https://phys.org/news/2012-05-savvy-students-solution-power-bills.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.