

OF INTEREST TO:

Utilities, Energy Service Providers and Large Corporations

- accurate, appliance-level control and measurement of energy consumption
- cut energy use, costs and carbon



Software powered by:

zerofootprint™

appliance-level control and measurement of energy consumption

Talking plugs allow plugs in the home or office to communicate so that energy usage of every appliance can be measured, compared and changed. The hardware fits simply over any standard electrical socket, so users can monitor and control the power consumption of any device plugged into it.

1 *Appliance-Level Control and Measurement of Energy Consumption*

© TALKINGplug Inc. 2010. TALKINGplug™ is a trademark owned by TALKINGplug Inc. ZEROmeter™ is a trademark owned by Zerofootprint Software Inc. and is used under license. ZEROFOOTPRINT™ is a trademark owned by 0Footprint Inc. and is used under license. All rights reserved.

THE CHALLENGE

→ With ever-increasing power costs and the threats associated with global warming, companies are looking to reduce operating costs and energy use. Utilities are mandated to reduce consumption and flatten peak demand to minimize the emissions of expensive and dirty power required to meet it. Many companies have already addressed the low hanging fruit, but little has been done to address consumer behaviour when it comes to power consumption.

Today's electrical appliances can't respond to this reality. They operate in isolation and with no accountability for their energy consumption. Consumers have no awareness of the energy they are consuming and can't take advantage of off-peak pricing. By making devices smart, coupled with continuous and immediate feedback on energy usage, TALKINGplug™ will change the way we operate our personal, household and business equipment and appliances. Phantom power will soon seem like a wasted excess of the past as we all act deliberately knowing what our printers and space heaters consume.

HOW TALKINGplug™ WORKS

→ TALKINGplug innovation lies in its ability to intervene in the energy process between generation and consumption. Developed in a joint venture between Zerofootprint, leaders in carbon management software and 2D2C, an innovative manufacturer of electrical outlet systems, talking plugs create a revolutionary way to measure and compare energy in order to change behaviour.

Tagged with unique, patented RFID technology, talking plugs uniquely identify the devices plugged into in, measure its power draw, wirelessly communicate the data to the internet and receive control commands (turn on/off.) It's a turn-key system that allows "talking", or two-way communication.

ZEROmeter™ SOFTWARE

→ The device "talks" to us by measuring and wirelessly communicating power usage. Consumers access ZEROmeter™ software to see the data collected from the outlets. With that information, accessed through an easy-to-use, engaging interface, consumers can "talk back" to their appliances, as they can program specific appliances or devices to power off during specific times when they are not in use to save energy and money. With time-of-use pricing, customers can see exactly what each device is costing at all times. Users can access the software from multiple devices, from iPhones to wall-mounted display monitors in a corporate setting.

EASE OF DEPLOYMENT

→ The plugs are unique measurement tools that currently work with North American 110-volt outlets and plans are in the works for 220 volts. The ZEROmeter software is designed for enterprise-wide deployment so it is easy to integrate data and operate from an administrative perspective.

2 *Appliance-Level Control and Measurement of Energy Consumption*

© TALKINGplug Inc. 2010. TALKINGplug™ is a trademark owned by TALKINGplug Inc. ZEROmeter™ is a trademark owned by Zerofootprint Software Inc. and is used under license. ZEROFOOTPRINT™ is a trademark owned by 0Footprint Inc. and is used under license. All rights reserved.

THERE'S NO TIME LIKE NOW

→ Upgrading our hundred-year old energy infrastructure with the introduction of new smart grid elements has presented massive challenges. Getting “smart” devices to interpret information from “dumb” appliances is at the crux, as it will be years before the majority of consumers upgrade appliance to smart ones. Talking plugs can solve the problem today.

THE SOCIAL ASPECT: MEASURE COMPARE CHANGE

→ The problem with electricity is that it is invisible, and for change to occur, we need to make the invisible visible. By functioning at the level of the individual device that consumes energy, talking plugs bring electricity consumption into focus.

To create change, you need to compare things. ZEROmeter can compare talking plug users to their peers, their history or company goals so they engage on a personal level. Peer pressure and collaboration bring environmental consciousness to a new level.

Users will then be empowered to make better choices based on values and lifestyle. It's not just for the eco-enthusiasts, but for everyone who wants to save money and reduce their environmental footprint.

A TALKING PLUG SCENARIO

→ Considering two scenarios can help to illustrate the power of talking plug. If employees are given the carbon reading of their floor or department, it's merely an interesting statistic. If they are compared to their co-workers, there is certainly more motivation to turn off that computer at night! People are inspired and engaged as they become part of the solution, rather than just contributors to the problem.

BENEFITS FOR UTILITIES:

- Lessen spikes in energy demand
- Manage specific appliances across stakeholders
- Detect the exact location of power outages
- Make power usage personal
- Maximize return on demand-response initiatives

FOR COMPANIES:

- Inform individuals that motivates behaviour change
- Gain complete insight into your power use
- Identify where costs exist, to be able to focus on reducing them
- Cut phantom consumption and save money

FOR PRODUCT MANUFACTURERS:

- Track how products work in the home
- Mine aggregate data for marketing opportunities and customer management
- Research opportunities for lower energy usage predictions

FOR INDIVIDUALS:

- Save money and reduce energy use and environmental footprint
- Simple installation that doesn't require an electrician
- User-friendly dashboard makes power use visual and elicits behavioural change
- Make "dumb" legacy products "smart"

TALKINGplug → The TALKINGplug is in a testing phase, and we are looking for companies who are facing energy reduction and cost challenges and are looking to address them to participate in a pilot project.

For more information or to participate in a pilot program, please contact our sales team at +1.647.827.2625 or email us at info@talkingplug.com.

ABOUT ZEROFOOTPRINT → Zerofootprint is a socially responsible enterprise whose mission is to apply technology, design and risk management to the massive reduction of our environmental footprint. We operate both in the for-profit and charitable domains through two entities, Zerofootprint Software and Zerofootprint Foundation using shared technology.