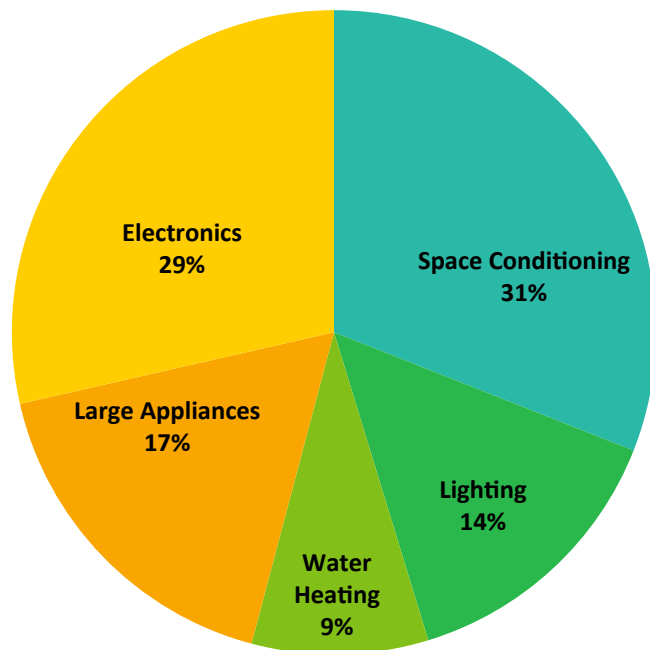# Engaging Consumers with Plug-level Energy Consumption Feedback
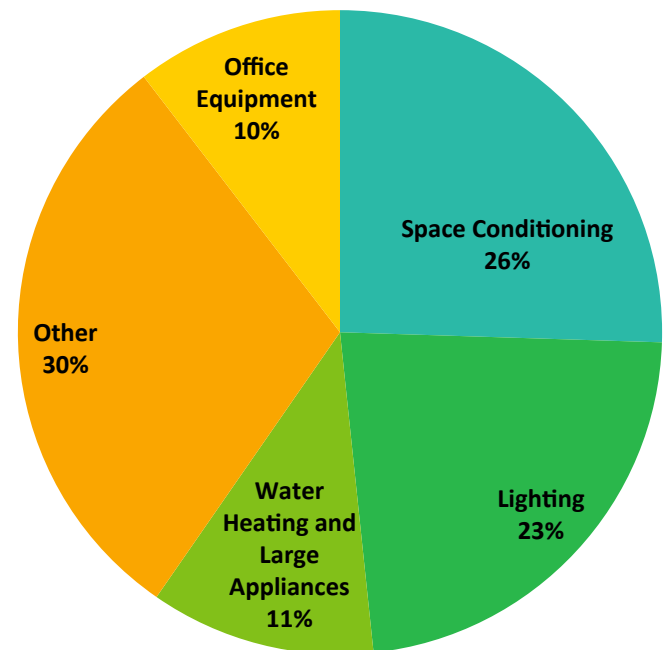
Heidi Perry, PhD

Director of Sustainability

ThinkEco, Inc

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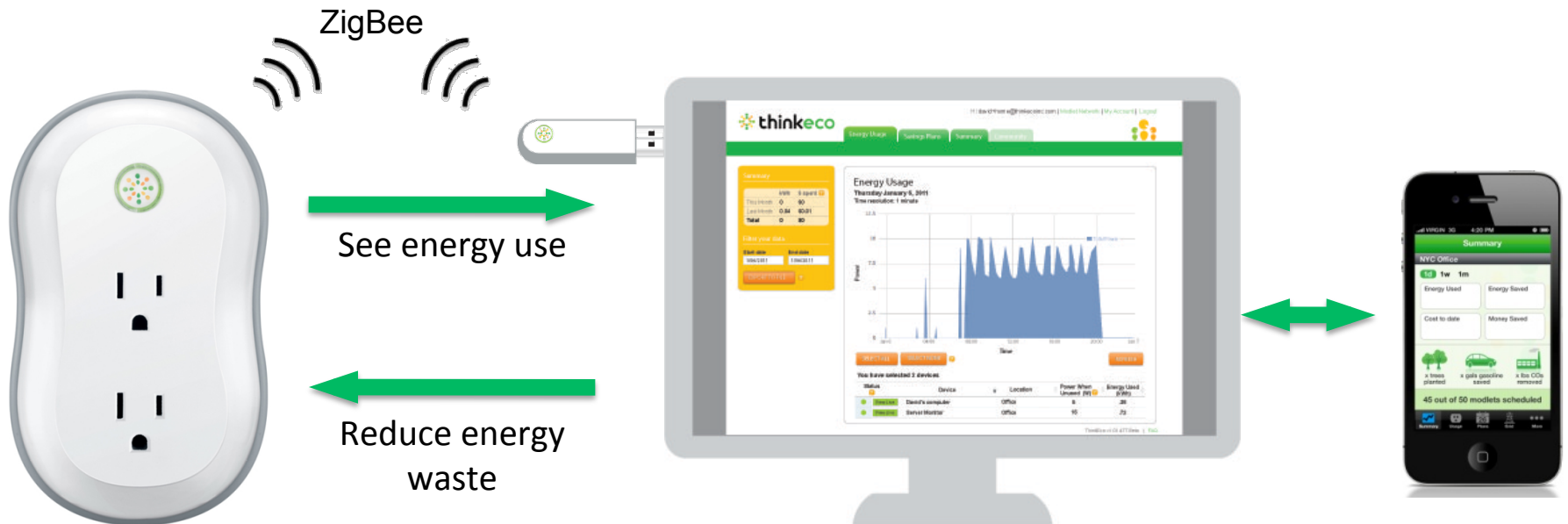# The Scale of Plug-Load Energy Use

Electricity End-Use By Category Residential

- Space Conditioning 31%
- Electronics 29%
- Large Appliances 17%
- Lighting 14%
- Water Heating 9%

Electricity End-Use By Category Commercial

- Other 30%
- Space Conditioning 26%
- Lighting 23%
- Water Heating and Large Appliances 11%
- Office Equipment 10%

Data from EIA Annual Energy Outlook 2012 Early Release

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Real-time Energy Consumption Measurements

ZigBee

See energy use

Reduce energy waste

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Case Study 1: coolNYC

smartAC thermostat   **modletBN**

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Opportunity to Control Power Demand

Typical Window AC Unit

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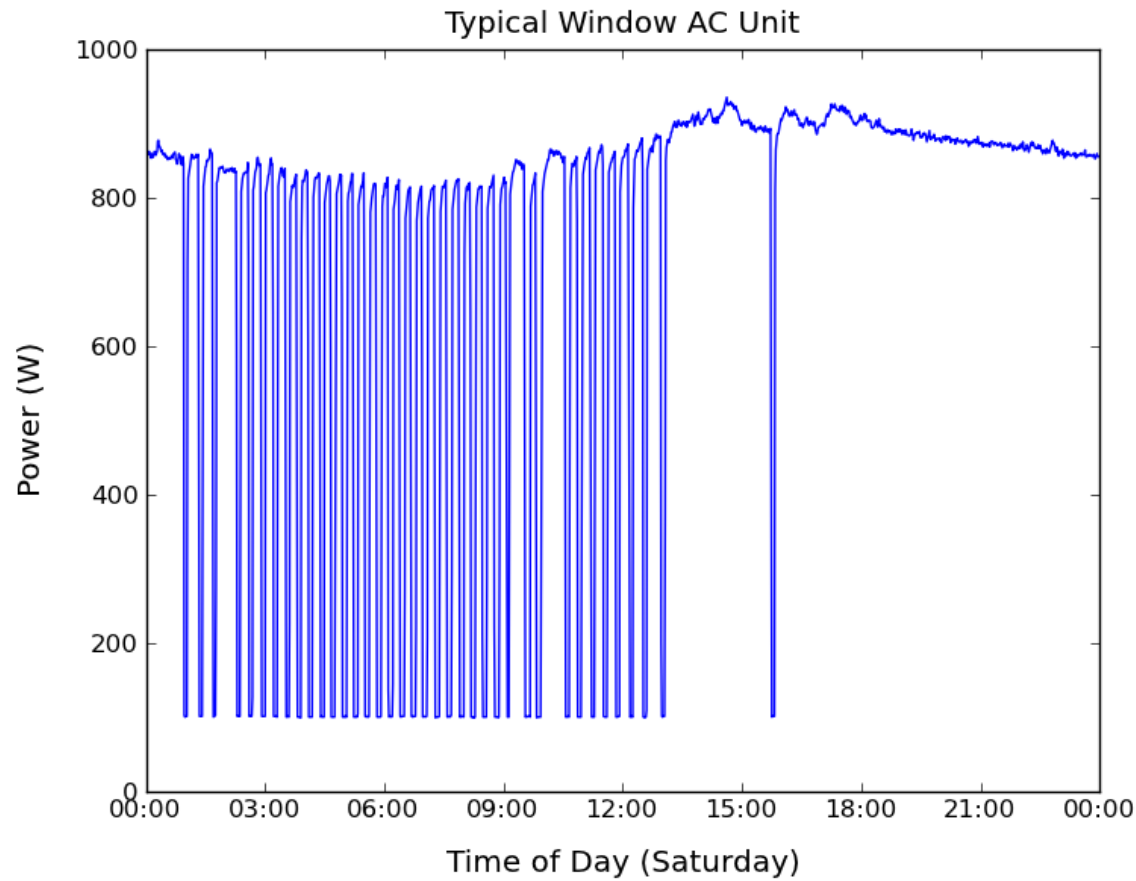
Significant Demand Reduction Achieved
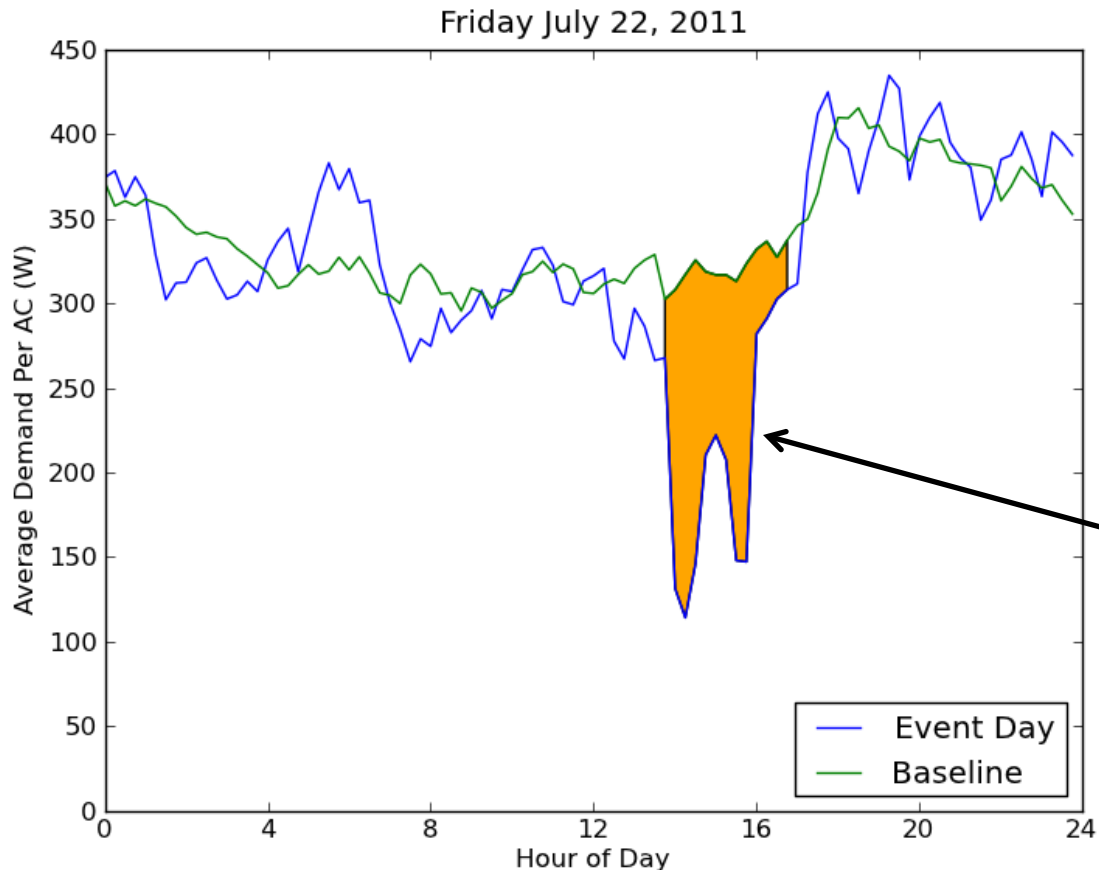
Friday July 22, 2011

Friday July 22, 2011
2:00 pm-5:00 pm

Average demand over event time:

Baseline 317 W
Event Day 209 W

34% reduction

Demand reductions for the five events ranged from 15-34%.

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Participant Feedback

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Case Study 1: coolNYC

coolNYC 2012: Enroll at www.coolnycprogram.com

smartAC thermostat   **modletBN**

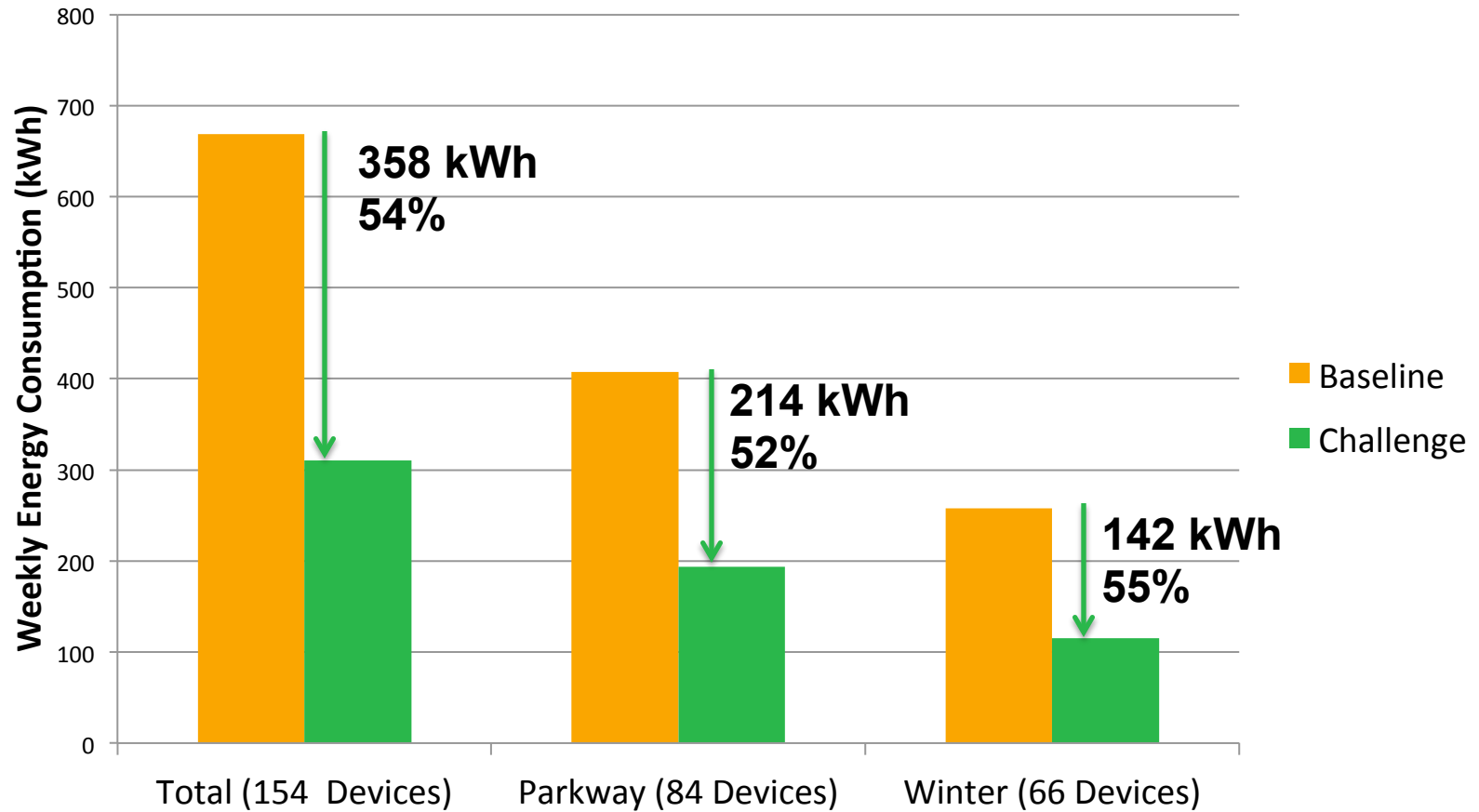thinkeco

Case Study 2 – The Modlympics

Confidential and Proprietary

Employee Engagement Dashboard
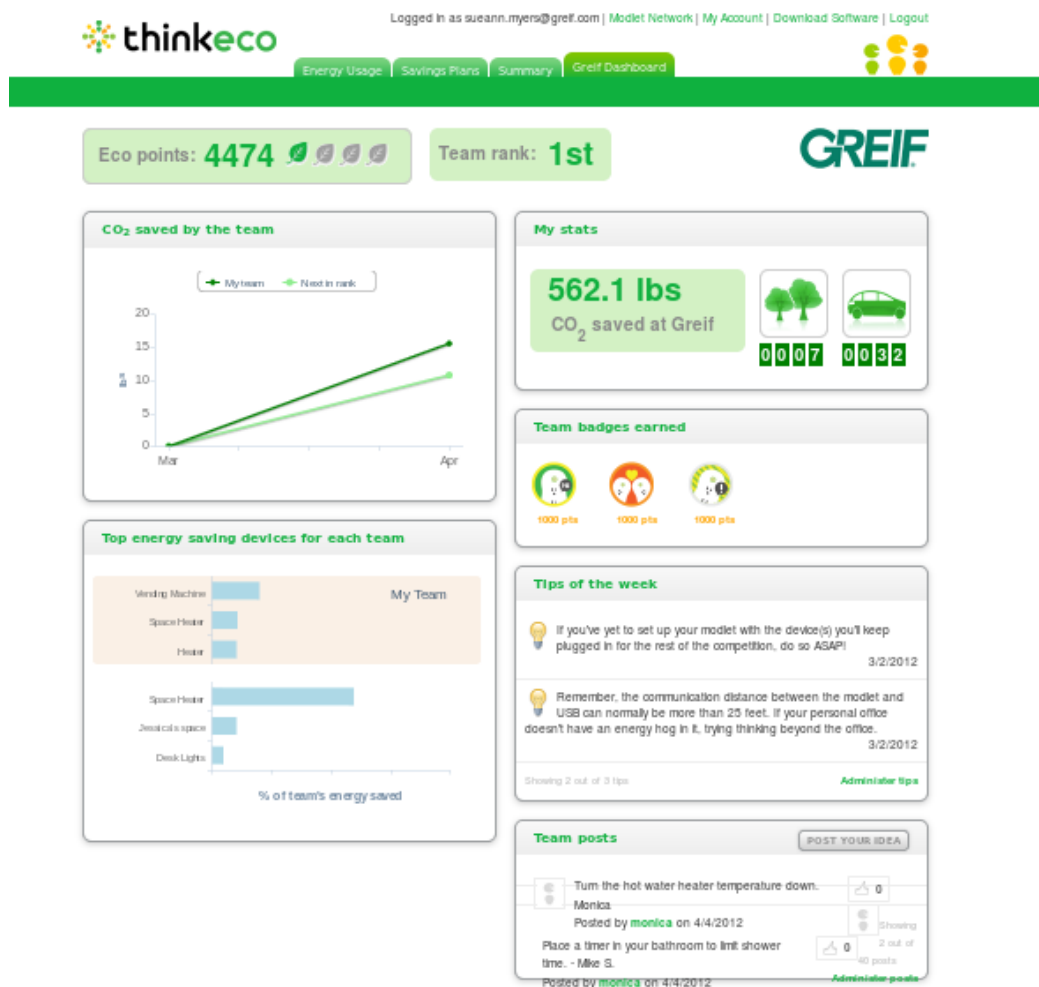
Reduction in [Monitored] Energy Consumption

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User Insights

- "Cycle off the soda machine in the vending area so that it provides cold soda during from 7 AM to 7PM and is not drawing power while it is not being used."

- "Team NA: Think about electrical sources which heat or cool."

- "TIP FOR CHALLENGE: Eliminate 1/2 of all printers in office area to reduce the amount of power used when printers enter standby mode following a print job. Added health benefit of walking to centralized network printer!"

- "Assess number of printers in building personnel and shared and determine if can redcue the number of personnel printers and use more of the shared printers and possibly reduce the number of shared as well"

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Case Study 2 – The Modlympics
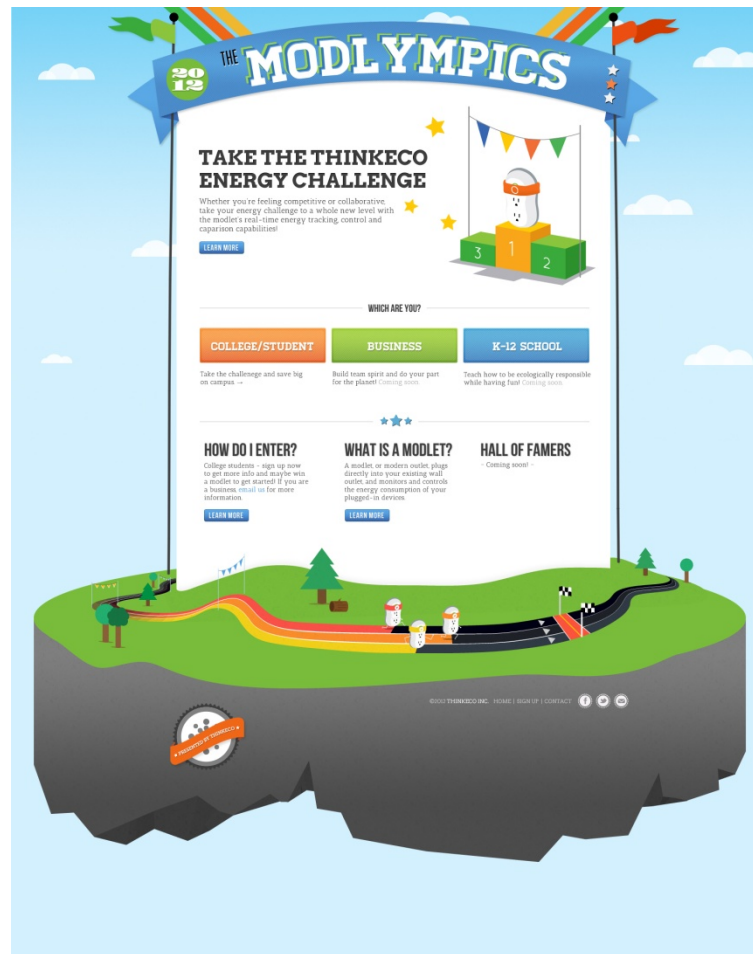
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Individualized feedback engages consumers in reducing energy consumption

See energy use

Reduce energy waste

For more information: Heidi Perry, heidi@thinkecoinc.com

coolNYC 2012: Enroll at **www.coolnycprogram.com**

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