

Building Dashboards: The Upcoming Standard

DASHBOARD- WEB TECHNOLOGY BASED WHERE REAL TIME INFORMATION IS COLLECTED FROM VARIOUS SOURCES IN THE FACILITY

- **Mostly used in regards to energy consumption/production**

- Gathers data from various meters to see where energy is going
- Energy and water data

- **Able to translate energy numbers into meaningful figures**

- Ex: kwh saved → trees planted
- Puts energy figures into perspective so it allows the user to understand the result of their energy conserving behavior

- **Competitions**

- Competitions bring out better performance
- Creates motivation for energy-saving behavior
- Can be tracked across multiple locations in real-time

- **Empathetic Gauges**

- Helps visualize energy and water consumption
- Various animated “creatures” give feedback based on results

- **Building Dashboard Orbs**

- Color of orb reflects instantaneous performance of the building

- **Community Feedback**

- Shows personal resource usage and city-wide performance
- How personal choices affect individual household costs and how these costs impact air and water quality at local and regional levels

- **Smart Grid**

- Demonstrates that real-time feedback on resource use can reduce consumption by between 10% and 56% in residential environments



Lucid Design Group
<http://www.luciddesigngroup.com>



QA Graphics
<http://www.qagraphics.com>

- **Smart Metering**

- New meters in homes that display energy consumption could lead to a 10% reduction in peak demand in US homes over the next 10-15 years, reducing the need to build some 30 new power plants
- In California, all homes will have smart meters by 2012

- Electric transmission has changed very little since the days of Thomas Edison
- Idea of new, smart grid that allows 2-way communication
 - Homeowner would know price of power throughout the day as it changes
- If half of America's households cut their energy by 10%, it would be the equivalent of taking 8 million cars off the road
- As of 2009, there were about 40 million smart meters worldwide, with plans to add another 100 million in the next few years



PulseEnergy
<http://www.pulseenergy.com>

- Energy Dashboard vs. Energy Education Dashboards
 - Energy dashboard focuses on technical information
 - Series of gauges, graphs, and live display values
 - Typically used by operation management
 - Energy education dashboard focuses on education about a building's efficiency and sustainable features
 - Gives occupants insight on how actions affect the building
- Benchmark data versus a baseline energy model
- Interactive quizzes, demonstrations, videos, pictures, LEED checklists
- Basic explanation of systems being used
 - Solar thermal, geothermal, PV panels
- Provides energy saving tips



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