Overview:

• View real-time energy and water use information on publicly-accessible, touch-enabled displays. Compare the performance of many buildings, all on the same screen. Express consumption in intuitive, everyday units.
• Show breakdowns by floor or end use, track the status of participants in real-time energy reduction competitions, check weather forecasts and browse calendars of events with a variety of add-on modules.
• Explore photo galleries of LEED® or green building features, animated data-enabled illustrations of renewable energy and water systems, and green tips for resource conservation.
Visible, accessible and engaging touchscreen displays

We spend 90% of our lives in buildings, yet we have little or no idea how much energy and water we consume at work, school and in our homes. Your car has a dashboard – why not your building?

Building Dashboard® Kiosk™ enables occupants, visitors and the public to view energy and water use information on touchscreen displays. Comparative graphs, glowing orbs and other exciting visualizations make it easy to understand the performance of buildings and organizations. A variety of modules – including competitions, green features, events and more – make Building Dashboard Kiosk a feature-rich, visibility-enhancing solution for monitored buildings.

Building Dashboard is designed to transform passive consumers into active managers of resources, helping you to equip employees to lead your company toward energy reduction goals; engage students in energy competitions across residence halls; identify ways to save money on your apartment’s utility bills; and publicly demonstrate your organization’s commitment to stewardship of the planet’s resources.

About Lucid

Founded in 2004, Lucid Design Group, Inc. ("Lucid") is a privately held cleantech software company and a pioneer in providing real-time feedback to teach, inspire behavior change and save energy and water resources in buildings. Over the past six years, Lucid’s team has endeavored to make resource use visible, accessible and engaging so that building occupants have the data visualization and communication tools to manage and reduce consumption.

Today, tens of thousands of people live and work in schools, companies, and community and commercial buildings enhanced by Lucid’s web-based, award-winning Building Dashboard technology.

Our customers derive significant value from Building Dashboard including: education and research opportunities; increased visibility to the public; enhanced capacity for maintenance and troubleshooting; and credits toward LEED® certification.

Since 2005, Lucid Design Group has been a carbon-neutral company.
OVERVIEW OF FEATURES

Building Dashboard has been designed to be the most robust, technically capable and visually spectacular data monitoring and display system available for commercial and institutional facilities. Lucid’s award-winning display interface and data acquisition system meet the technical requirements of hundreds of unique building scenarios.

Universal connectivity

Building Dashboard connects to virtually all building automation systems and energy management systems, including Alerton, Automated Logic, Cisco, Honeywell, Johnson Controls, Siemens, Square D/Schneider Electric, Trane, Tridium and more. Building Dashboard also connects to all utility meters and submeters with either pulse or Modbus registers. Lucid’s own data logger can be used in buildings without sophisticated control systems or in standalone technology applications such as photovoltaic systems.

Automated data collection and real-time display over the web

Building Dashboard enables easy, reliable and fully automated data collection, processing, storage and real-time display over the web. A powerful data warehouse makes real-time data crunching possible across thousands of buildings simultaneously. Lucid’s hosted, off-site solution eliminates the need for on-site server hardware, lowering overall cost and allowing Building Dashboard to be broadcast to any personal computer, touchscreen display or web-enabled device anywhere in the world.

Rapid scalability

Building Dashboard is designed to rapidly scale from one building to hundreds or thousands of buildings for an organization. Scaling of monitored resources and buildings can take place incrementally, with additional resources and buildings added over time. Scaling of display methods is also possible incrementally and over time for any number of resources or buildings.

Comprehensive resource use monitoring

Building Dashboard is capable of monitoring and displaying all resources consumed and produced within a facility, including: electricity, water, natural gas, heating, cooling, solar electricity, wind electricity, solar thermal energy, geothermal energy, rainwater collection and recycling, wastewater recycling and more. Individual locations such as wings, floors and area loads; breakdowns of individual end uses such as HVAC, lighting, plugs and servers; and other variables such as temperature can also be monitored and displayed separately.

Comparisons and competitions

Building Dashboard allows users to make resource use comparisons and launch resource use reduction competitions between apartment units, floors or areas within buildings, or between neighboring buildings. Comparisons and competitions utilize building- and organization-specific cost and emissions data to convey resource usage in buildings across different locations.
OVERVIEW OF FEATURES (continued)

**Historical data access and carbon accounting**

Lucid’s Data Downloader tool allows building operators, facilities managers, sustainability officers, researchers and students to quickly and easily download archived data into an Excel® spreadsheet for carbon accounting, monitoring and verification, troubleshooting or further manipulation. Password protection provides access that is limited to specified variables within the database.

**Customization and branding**

Building Dashboard can be customized uniquely for your organization or buildings. Color palettes and background photos allow you to brand any dashboard to accommodate different physical, regional or audience-specific contexts, and brand, labeling and client or reseller identity requirements. Every Building Dashboard is one-of-a-kind.

**Touchscreen accessibility**

Building Dashboard enables access on most LCD monitors and touchscreens, as well as all popular web browsers. Lucid offers complete, out-of-the-box touchscreen packages designed to meet your public showcasing requirements.

**LEED® credits**

Building Dashboard facilitates your ability to earn Measurement and Verification and Innovation in Design credits toward the U.S. Green Building Council’s LEED certification for both LEED for New Construction and LEED for Existing Buildings.
Data Acquisition and Management

Building Dashboard® collects resource use information every 60 seconds from building automation systems and energy management systems, utility meters and sub-meters, and Lucid's own data acquisition system. Lucid's off-site servers process and store a continuous record of your building's performance. Real-time and historical data are then displayed on your Building Dashboard.

Integrate with your existing building automation system

Building Dashboard connects to virtually all building automation systems and energy management systems, including Alerton, Automated Logic, Cisco, Honeywell, Johnson Controls, Siemens, Square D/Schneider Electric, Trane, Tridium and more.

Lucid works with your facilities personnel to establish the data connection. Data are pushed to Lucid's remote servers, where it is stored and then published to the web.

Install Lucid's out-of-the-box data logger package

The data logger package is designed for buildings without existing metering or building automation infrastructure. This plug-and-play solution includes a network-enabled data logger and industry-grade electricity meter. All your building needs is an Internet connection.

The data logger is preconfigured to rapidly bring your building online -- just plug it in. This option also allows for expansion to monitor additional resources.

Lucid uses a powerful off-site, hassle-free system for collecting, processing and storing building performance data, which eliminates the need for additional information technology infrastructure on site, such as a server or networking devices.

Remote data service is offered as a 1-year service plan and includes technical support. More information about the service can be found in the Pricing Schedule.

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Building Dashboard Kiosk can be displayed using one of Lucid's recommended kiosk packages. Each touchscreen package includes a touchscreen monitor with integrated PC, tilting wall mount, and all necessary cables. All you need to provide is an electrical outlet and an Internet connection. PC computers ship preconfigured to automatically display your Building Dashboard right out of the box. All touchscreen displays come with Lucid's remote monitoring service to ensure uptime.

### 46” touchscreen package

- All-in-one 46” touchscreen monitor with integrated PC
- Tilting wall mount
- Display cables
- Remote uptime monitoring

### 32” touchscreen package

- All-in-one 32” touchscreen monitor with integrated PC
- Tilting wall mount
- Small form factor PC
- Display cables
- Remote uptime monitoring

Our most popular touchscreen package

Our most popular touchscreen package

Lucid's recommended kiosk packages include rugged, high-grade components designed for use in high-traffic public spaces. Warranties on hardware are carried solely by their respective manufacturers. Lucid does not provide on-site installation or mounting of display hardware.
Welcome screen

Greet new users of the dashboard with rotating photos and introductory text, welcoming them to the display while providing background information, context and company or organization branding.

Bar graphs

Easily track resource consumption and production patterns on beautiful animated graphs and color-coded glowing orbs. Examine usage for an entire building or floor, and look at usage per person or per square foot. Orbs tell you how a building is performing right now.
Comparisons
Select from automatically organized groups of buildings, wings, floors or end uses. Buildings at a single location or across multiple sites or campuses can be compared together on the same screen.

Historical views
Display resource use over the day, week, month or year. Compare current consumption with previous consumption, and watch how patterns change over time -- all on the same graph. Readouts in the graph show by how much you have increased or decreased consumption.

Contrasting views
See how the performance of one building stacks up to another. Graph two buildings, floors or end uses at the same time, and compare current and historical performance. Readouts on each side of the graph sum up consumption for the entire time period.
Unit equivalents

Instantly express resource use in intuitive, everyday units. Show electricity use in terms of dollars spent or pounds of carbon dioxide emitted, or show water in terms of equivalent toilet flushes. Unit equivalents make resource use data understandable for everyone.

Units library

Make use of unit equivalents across all aspects of the dashboard. Units are customized to reflect your unique cost data and local fuel mix. A full library of units for all resource types is available.
Competitions

Enable energy and water reduction competitions, and display the performance of buildings or floors on the same screen. The performance of individual buildings is tallied in real time and savings are expressed in multiple units. Select from a list to view concurrent or previous competitions.
### Green Features

Showcase building systems, green technologies, design features or energy conservation strategies employed throughout a building or organization. A thumbnail navigation menu allows users to easily browse individual features, each of which include large photos and descriptive text.

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<thead>
<tr>
<th>Green Features</th>
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<tr>
<td>Load Reduction</td>
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<td>Energy Recovery</td>
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### Renewables

Show the performance of renewable energy and water systems in the context of overall building consumption. Display total net consumption over the course of a day, month or year.

### Diagrams

Animated, data-enabled diagrams and illustrations explain how building systems work in real time. Show the performance of solar photovoltaic, solar thermal, rainwater catchment and geothermal systems, and more.
Events calendar

Give users another reason to check in on your Building Dashboard. Easily browse current or upcoming events. Connect to existing calendar systems, such as Google Calendar, for publishing and managing new events.

Green tips

Deliver a wide variety of resource use facts and green tips for conservation. Large photos and text make every tip highly visible.

Weather

Display local, up-to-date weather conditions and forecasts, including temperature, pressure, humidity, wind speed and forecasted highs and lows.

Dial it down. Moving your thermostat down just 2 degrees in winter and up 2 degrees in summer could save about 2,000 pounds of carbon dioxide per year.
Scalability and future projects

Building Dashboard® has been engineered to be highly scalable. In fact, it can accommodate hundreds of data points from dozens of buildings simultaneously, capturing real-time resource use information from across entire campuses. In the future, should you wish to pursue efforts towards campus-wide sustainability such as multi-building energy and water conservation competitions, automated building energy use assessments, comprehensive real-time carbon accounting and other projects, Building Dashboard is uniquely designed to meet these needs. Should the need arise to scale up the dashboard for only a single building, additional building profile pages may be purchased to show resource use or other building information as needed.

Because Building Dashboard is a truly flexible, web-based, modularized system for displaying building performance and showcasing the sustainability efforts of institutions and companies, you will benefit from the growing number of available apps and widgets that have come to make Building Dashboard the most comprehensive, rapidly evolving tool for displaying building and campus environmental performance.

Design and solicitation process

We want the content and look-and-feel of your Building Dashboard to be consistent with your organization’s goals and requirements. Lucid will solicit graphics, text and other information from your team to include in the setup of the dashboard, such as logos, photographs, text and color specifications. Please see the Building Dashboard Checklist in Excel® format, where you will be required to provide information and reference materials for use in the display.

Warranty and support services

Lucid provides support services as part of our Building Dashboard to ensure that the system is fully functional during your period of service. The Building Dashboard Remote Information Service is subject to the terms of your Support Agreement. Warranties on hardware are carried solely by their respective manufacturers. Lucid does not manufacture hardware and does not offer hardware warranty services.

General terms and conditions

Lucid has judged recommended materials to be highly suitable for the tasks described herein. However, Lucid is not responsible for failures of systems or software beyond its reasonable control, including the failure of third-party software products, any and all hardware products, network downtime, power outages and irregularities, acts of God, etc.

Software and service prices are valid for 30 days. Thereafter, software prices are subject to change without notice to you. Hardware prices, including kiosk computers, are subject to change at any time without notice. Everything in this document is Copyright © Lucid Design Group, Inc. All rights reserved. Patents pending.
Visit our website to learn more about Building Dashboard:

www.luciddesigngroup.com