Johnson Controls
Enterprise Sustainability Platform

Chadd Currier, Central Region Higher Education Solutions
Dave Mosby, National Solutions Business Development Director -
  Former Director, Division of Facilities Management, Design & Construction
  State of Missouri
Topics of Discussion

- Value of Enterprise Information
- Versatility
- Gathering and Disseminating Information
- Analysis and Operations
- View from the Top
The Value of Enterprise Information

- **Provide Visibility**
  - A window into utility, energy, and operating programs and their affect on capital
  - Instantaneous snapshot across organizations

- **Provide Accountability**
  - Data availability to all with the click of a mouse

- **Provide Transparency**
  - Internal measurement & verification by internal staff

- **Provide Reporting**
  - Flexible, multiple formats, easy to develop
Sustainability Platform
Open Architecture

Our service links your data systems and devices together in a way that makes sense for your custom dashboard and control portal.
“Sustainability is a pursuit,” “It’s not a state that you arrive at.” – Alcalde – by Kate Galbraith
Sustainability Platform

How does it work?

Kiosk  Portal  Mobile

Data Collection  Analyze Data

Measure Results  Apply Changes

Composite Dashboard

“Sustainability is a pursuit,” “It’s not a state that you arrive at.” - Alcalde – by Kate Galbraith

Johnson Controls - more than meets the eye
The energy management solution gives students and administrators access to the **benchmarking data**, at all levels of detail, to properly manage and maintain their buildings in the most energy efficient manner possible.
Energy Management (Savings)

Through Benchmarking Consumption, We Discovered an Existing Steam Leak, Repaired it and Saved over $400K per year
Energy Management – Equipment Operations

Temperature Performance for typical VAV box

Performance Evaluation

Temperature Deviation from SetPoint

Chilled Water Plant: Cooling Tower
Lewis and Clark
- Occupied in FY05, 122,000 sqft, 400 Employees, Cost $17.5 M
- Moving from Excellent to Outstanding Performance FY07 ESP Deployed

Harry S. Truman
- Sq. Ft. – 753,138
- 2800 FTE
- Built in 1983
- PC 2005

Wainwright
- Sq. Ft. – 234,599 sq. ft.
- Building Population: 693
- Year Built: 1891
- Year Commissioned: 1981

- FY06 12.1 KWhs/SF
- FY08 11.6 KWhs/SF
- FY10 10.1 KWhs/SF
- **16.5 % Reduction**

- FY06 19.8 KWhs/SF
- FY08 24.0 KWhs/SF
- FY10 18.9 KWhs/SF
- **25.8 % Reduction**

- FY06 25.2 KWhs/SF
- FY08 24.0 KWhs/SF
- FY10 18.9 KWhs/SF
- **25.0 % Reduction**
“Gov. Nixon announces 5.6 percent reduction in state energy bill over past year - saving taxpayers more than $3 million.”

“In the first year of implementation of EO 09-18, Gov. Nixon's administration achieved the following reductions:

Electricity: **Decrease of 25 million kWh (kilowatt-hours), or 5.5 percent.** That's enough to power more than 2,500 Missouri households for an entire year, and it corresponds to 16,250 tons of carbon dioxide not being emitted into the atmosphere.

Gas (propane and natural gas): **Decrease of 180,000 MMBtu (1 million Btu), or 9.1 percent.** That's enough to run more than 7,000 residential water heaters in Missouri for an entire year, and it corresponds to almost 11,000 tons of carbon dioxide not being emitted into the atmosphere.”

*Governors Office Press release, April 26, 2010.*
Dashboard

Composite Applications
Demonstration

Role Based
Multi-tiered
Filtering
Export

Johnson Controls - more than meets the eye
For information, Contact:

Chadd Currier
Johnson Controls
913.209.9893
chadd.r.currier@jci.com