

ARCHIBUS Success Story



Hamilton County Reduces Energy Consumption and Improves Asset Use with ARCHIBUS

Long-time ARCHIBUS user Hamilton County, Ohio, has an extensive deployment of applications to manage the county's equally extensive real estate and facilities management tasks. Most recently, Hamilton County Director of Facilities Ralph Linne and his team have turned their attention to improving energy management at the county's 15 major buildings.

"As one of the county's largest cost areas, there is increasing pressure for greater energy efficiency due to market forces that continue to push prices up in spite of deregulation," says Linne. "Fuel costs and supplies will probably always remain volatile, and related transmission and distribution (T&D) charges are also significant. But meaningful reductions could only come from establishing accurate metrics on energy use."

To control energy costs while maintaining appropriate tenant comfort at its buildings, Hamilton County turned to the ARCHIBUS Energy Management application to automate the collection and analysis of energy use and cost information.

Meeting and Exceeding Energy Star Goals

For several years, the Facilities Department has benchmarked the performance of its facilities using the U.S. EPA Energy Star standards. This has allowed management to see where improvements in energy efficiency are needed in order to achieve its goal of meeting and exceeding an Energy Star performance rating of 75.

Presently, thirteen buildings are being entered into the EPA Energy Star Portfolio Manager and tracked. Six major buildings have been tracked since late 2004 and two additional major buildings have been added since 2008. In 2011, in fact, three buildings received the US EPA Energy Star Award and were the only County buildings in Ohio to receive such awards. Following extensive audits at its most energy-intensive buildings, another goal is to pursue the use of Performance Contracting for implementing new and previously unfunded energy savings measures for the Facilities Department.

In all of these efforts, the County has to be able to review utility consumption to determine water, natural gas and electricity use, verify usage and trends, as well as perform benchmarking using LEED, BOMA and Energy Star criteria. To reduce its use of 44,000,000 kilowatt hours of electricity (\$2.5 million/year, excluding T&D costs), over 114,000 million cubic feet of natural gas (\$2.1 million/year, excluding T&D costs), and 900,000+ cubic feet of water, the Facilities Department purchased the



Vital Statistics

Organization:

Hamilton County, Ohio, Board of County Commissioners

Location:

Southwest Ohio

Facilities Facts:

Over 3,000 properties, 275 buildings, 3.5 million sq. ft., 1,200 work requests/week

ARCHIBUS Applications:

Building Operations Management; Emergency Preparedness; Real Property & Lease Management; Space Management; Strategic Master Planning; Call Center Wizard; Asset Portal; Furniture & Equipment Management; Condition Assessment; Capital Budgeting; Project Management; Energy Management; Green Building; Smart Client Extension for AutoCAD; Preventive Maintenance; TEAMS Clean Building, MSDS, Compliance, Environmental Health & Safety applications

Benefits Gained:

Accurate energy usage data and automated energy data input for reduced costs; accurate space and allocation information; ability to track/plan/forecast space and equipment energy needs; administrative/training savings

Business Partners:

GBBN, ARCHIBUS Solution Center – Environment +Sustainability Services, BRG

Web Site:

www.hamilton-co.org

ARCHIBUS Energy Management application to replace Energy Watchdog software.

Automating Energy Data Collection/Analysis

“ARCHIBUS Energy Management provides us with the means to easily aggregate, evaluate, and optimize energy and utility spending decisions to reduce unnecessary consumption and costs,” Linne points out. “It allows the Facilities Department, to correlate and manage extensive cost data with real-time facility and infrastructure portfolio information to track energy expenditures against a business plan or objective benchmark.”

The Energy Management application offered the range of features Hamilton County was most interested in implementing to measure and more effectively manage its energy use. It can, for example, connect to local utility businesses to have the cost and usage details directly imported into the ARCHIBUS database using Electronic Data Interchange (EDI), saving time and eliminating the cost of manual data entry. It also provides audit capabilities to easily access, aggregate, and evaluate consumption patterns as the basis for renegotiating rates and consolidating energy providers. It even gathers weather data for each building, from the appropriately selected weather station and utilizes degree day data in usage comparison reporting.

“Just as important, it improves decision-making by aligning energy spending to business needs,” notes Linne. “We’re also able to deliver an enhanced annual energy report faster, with no manual inputs, and with better what-if analysis. The fact that there are no manual inputs means that we’ve eliminated data input mistakes, because electric energy costs and usage data, for example, are transferred directly to ARCHIBUS from the utility company. We have over 70 such accounts, so with this online arrangement, we don’t have to go through a stack of bills to find our actual usage for a certain building, which again saves time and ensures accuracy.”

ARCHIBUS provided the ability to track, manage and report on the assets that affect energy use with its Asset Management application. In combination with the Energy Management, Asset Management tracks changes in equipment energy use and identifies required preventive maintenance to be performed that keeps assets running at optimal efficiency. It also tracks changes in space usage by showing new energy-intensive data centers and server rooms and changes in those spaces, which adds important information to what-if energy projection planning.

The centralization and availability of all this usage and maintenance data is essential for establishing performance contracting compliance by both client and contractor alike, Linne stresses. It provides the County with the ability to show that it has met its obligation to monitor energy use and required preventive maintenance procedures, and to match energy usage against contractor benchmarks and projections. This is an investment of over \$17 million dollars which will pay for itself through decreased usage, and then lower costs as a result. It is the main tool for us to track energy usage and ensure the taxpayers of Hamilton County that our energy conservation measures were successful in both helping the environment and costing the taxpayers zero dollars over the ROI time frame.

“The result of monitoring energy usage using ARCHIBUS Energy Management and Asset Management,” says Linne, “has been the implementation of audit capabilities so we can easily access, aggregate, and evaluate consumption patterns as the basis to bid future electricity and natural gas contracts.”

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—Ralph Linne
Director of County Facilities,
Hamilton County, Ohio

