Finding the Right Tool: Texas State University Improves Energy Data Collection and Sharing for Actual Use Invoicing

Table of Contents

TEXAS ★ STATE
UNIVERSITY ®

Description: Texas State University (TxState) is the largest university in the Texas State University System and the fifth-largest university in Texas. The university provides undergraduate and graduate degree programs for more than 34,000 students at San Marcos and Round Rock campuses.

EnergyCAP Installation: August 2012

Tracking: Over 7,500,000 square feet representing 202 buildings and 1,044 account-meters. Purchased Utilities include: electric, water, sewer, natural gas, and propane commodities supplied by 27 vendors.

Summary

Texas State University's legacy utilities accounting program only recorded vendor payable consumption/cost information, and was data entry intensive. The University required more detailed, accurate reports, and an improved accounting process that could incorporate additional building level submetering. The solution required direct electronic data interchange with the enterprise accounts payable system, and an interface with a professional energy management system. In the software implementation process, valuable relationships were forged interdepartmentally and with a nearby university. Internal data sharing arrangements are now promoting greater efficiency, transparency, and accountability for utilities cost and energy use.

The Need

The shortcomings of the older system were obvious: the legacy utilities accounting software only provided limited data for internal cost allocations on a square footage basis; building level submetering was limited. Energy reporting was a time-consuming manual process, with staff entering data into spreadsheets and an aging, unreliable database. According to Brittany McCullar, Utilities Analyst for TxState, "Pulling reports entailed a lot of cutting and pasting, taking days to create final reports. This left room for error and data inaccuracies."

Energy data collection was also a challenge. McCullar stated, "Our [utilities] bills were previously received in paper format by Accounts Payable, coded, then sent via internal mail to the different departments for approval. Once the departments approved, the vendor bills were sent back to Accounts Payable to be entered and posted for payment. Utilities Operations would manually enter everything into our legacy software program to document consumption and cost details by meter."

EnergyCAP®

The Utilities Operations team recognized the value of maintaining and sharing accurate energy cost and consumption data. Now they needed to use their training and experience in accounting, analytics, customer service, and project coordination to help transform the University's process for collecting and distributing utilities information.

The Solution

Utilities Operations quickly found allies in their quest for utility accounting and energy management improvements. Leaders from the Department of Campus Recreation, the Department of Housing and Residential Life, Athletic Department, and Auxiliary Services at TxState were frustrated by the lack of visibility of energy usage data used to allocate utility costs. They supported a software tool that would facilitate transparency and an actual-use model. These university stakeholders realized that EnergyCAP energy management software could achieve both goals. The University purchased EnergyCAP, and software implementation began in August 2012. Working together, the department representatives developed a camaraderie that transcended their business objectives.
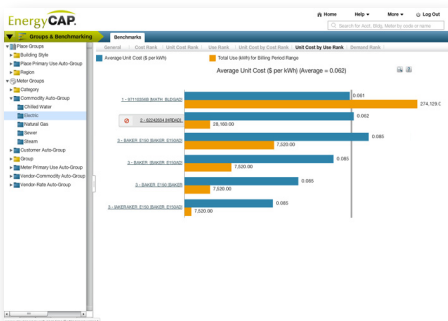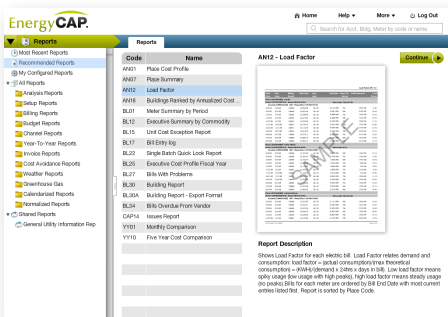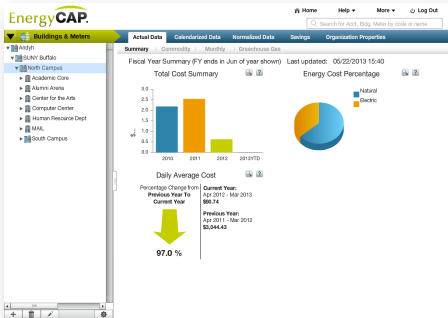
University Allies

Implementation assistance came from an unexpected source—another nearby university. McCullar said, "Our relationship with UTSA [The University of Texas at San Antonio] began with the implementation of EnergyCAP. Our Facilities Procurement team found we could contract directly from the UTSA EnergyCAP agreement. This saved us time and money, allowing us to implement EnergyCAP quickly. Once the software was installed, Scott Bair [EnergyCAP Senior Project Manager] connected me with Dagoberto Rodriguez, Energy Manager at UTSA. They attended our onsite training, and we collaborated to identify similar processes. Immediately we built a relationship with UTSA and identified the same diverse reporting/tree structure within EnergyCAP. It's comforting to know we will be able to lean on each other through set-up processes."

The accounts in EnergyCAP are organized so they can be viewed and reported by education and general and auxiliary fund centers and meters. McCullar organized the software Buildings and Meters display hierarchy so that summary energy data would be easily visible with various options to sort and display the data.

The implementation involved retrieving at least four years of energy data for most accounts. McCullar worked with Scott Bair to retrieve the necessary data via import and manual entry. Source records from the outdated software, as well as data available from spreadsheets, were transferred to the EnergyCAP database in approximately two months. Now, reports that took days to generate can be displayed and shared in seconds.

AP Interface

The data consolidation was only one piece of the puzzle. "A vital part of the EnergyCAP installation was the completion of the custom Accounts Payable reformatter," said McCullar. "This enabled EnergyCAP to export utility bill data in the precise data format required by the University's AP system. As a result, TxState has permanently reallocated 40 working hours per month to other duties by eliminating double data entry in the Utility Operations and Accounts Payable departments.

"All invoices are now received electronically, entered manually or by import into EnergyCAP, automated audits are run, and then [utility bills are] exported/imported directly into our accounting software for posting. We have created a workflow chart allowing all departments to give us approval to pay their utility invoices with agreement of EnergyCAP access and monthly distributed reports. This process has been seamless and everyone is happy with the new utility payment procedures. Once the monthly test file becomes active, 90% of our invoices will be imported.

"With EnergyCAP we will be able to provide input into creating and monitoring budgets accurately and pull reports in seconds. We have created a new methodology for utilities payments which has saved time and money."

Submetering Success

The final energy management challenge in cost allocation is the completion of a campus-wide building submetering network for granular energy reporting. A major submeter initiative is bringing the Department of Housing and Residential Life on board with EnergyCAP to audit and benchmark all student apartments. An additional 1,000 meter points will be tracked with the completion of this initiative.

"utiliVisor is software that provides an automated analysis of consumption data from all sub-meters on campus," explained Doug Bynum, Manager of Operations and Energy. "utiliVisor provides instantaneous utility consumption data which is collected every five minutes. We export a monthly file from this program and import it into EnergyCAP. In the future, we will use the consumption imported for sub-meters to invoice internal departments based on actual consumption. Consistent and accurate reports and monitoring consumption/cost allows us to run our utilities more efficiently."

"Facilities serve all education services, research and support functions for the University," McCullar added. "We held training sessions to explain how UtiliVisor connected with EnergyCAP, and how to search for data and pull reports. We created logins for each individual user and set permissions as needed. This allows EnergyCAP to be used as a transparent tool for management of energy costs and consumption."

Software Savings

Even though the full EnergyCAP implementation is not yet complete, cost savings have been realized in the first months. The account and meter setup process uncovered customer charges for inactive meters. This discovery resulted in savings of $15,000, with an additional $5,000 in savings attributed to adjustments in billing rates following an analysis of meter use and cost with the new reporting tools.

Texas State University staff can now use EnergyCAP to pull reports and quickly view cost/consumption. McCullar said, "We currently have 24 users set up and the roles range from Administrator-Full Access to mainly Building Manager-View Only." The monthly utilities consumption reports for various campus departments are now automated.

Conclusion

Texas State University needed utilities accounting tools that matched their energy management vision. Thanks to the submetering initiative and several software solutions, university staff members now possess data to track building level utilities consumption, energy efficiencies, and cost savings. The software acquisition process enhanced interdepartmental relationships, and enabled improvements in business efficiency related to utility bill processing.

Energy benchmarking is currently in development, and funding has recently been secured to implement energy retrofit and conservation measures across campus. The cost management and measurement and verification of the project success will be tracked through EnergyCAP.

Acknowledgement

Thanks to Brittany McCullar, Utilities Analyst; Doug Bynum, Manager of Operations and Energy; and Sheri Lara, Director of Utilities Operations at Texas State University for their assistance in preparing this Case Study.
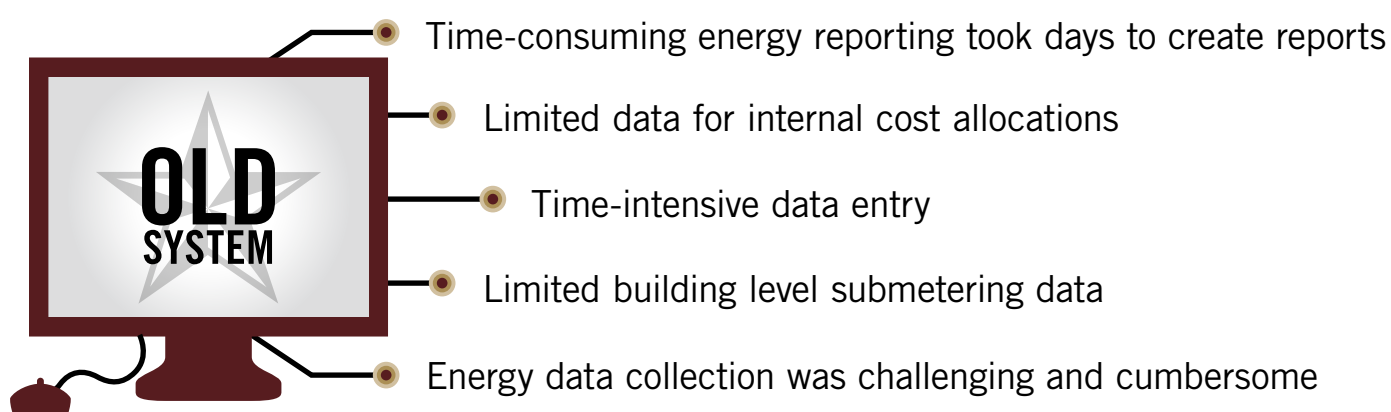
v1.1

TEXAS ★ STATE UNIVERSITY ®
ACHIEVES THEIR ENERGY MANAGEMENT VISION

Texas State University provides undergraduate and graduate degree programs for more than 34,000 students at San Marcos and Round Rock campuses.

The University's **older utilities accounting program** had obvious shortcomings.

OLD SYSTEM

- Time-consuming energy reporting took days to create reports
- Limited data for internal cost allocations
- Time-intensive data entry
- Limited building level submetering data
- Energy data collection was challenging and cumbersome

EnergyCAP Installation

The University purchased EnergyCAP energy management software and implementation began in August 2012.

Tracking:

7,500,000 square feet

202 buildings

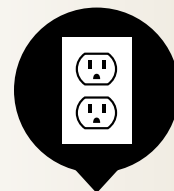**1,044** account-meters

Purchased Utilities include:

water   sewer   natural gas   propane   electric

EnergyCAP provides **utilities accounting tools** that match Texas State's energy management vision.

- Reports that took days to create now generate in seconds
- Instantaneous submeter data imports into EnergyCAP
- Energy data collection now automatic
- Energy data is visible to all stakeholders
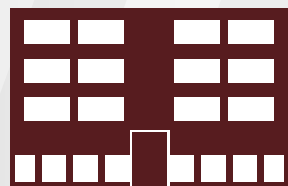- AP Interface reallocated 40 working hours per month

NEW SYSTEM

During implementation, leaders from:
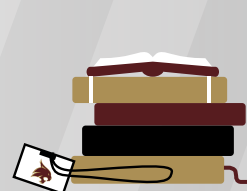
DEPT. OF CAMPUS RECREATION

DEPT. OF HOUSING & RESIDENTIAL LIFE

ATHLETIC DEPT.

AUXILIARY SERVICES

developed a camaraderie that transcended their business objectives.

Texas State also formed a valuable relationship with **The University of Texas at San Antonio (UTSA).**

Texas State contracted directly from the UTSA EnergyCAP agreement, **saving money** and **allowing them to implement EnergyCAP quickly.**