Enterprise Energy Management Platform
City Portfolio
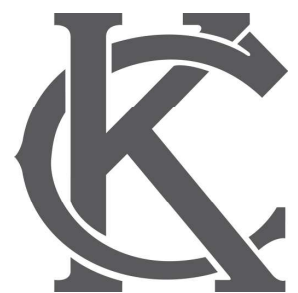
Energy Management for the City

EXECUTIVE SUMMARY

The City of Kansas City partnered with Talisen Technologies, Inc. to implement a enterprise-wide technology solution that allows the City to operate its facilities using a Total Cost of Ownership model.

Two major focus areas of this solution are: energy efficiency and operational savings. **Talisen's Enterprise Sustainability Platform (ESP)** was also used as the measurement and verification standard to manage and monitor all energy projects.

The initial project lasted over two years as the City worked with the Controls Vendor to bring the newly installed/upgraded systems online. The project continues to add additional buildings as the City continues moving towards its vision of becoming a national leader in sustainability.

CHALLENGE

Integrate building information regarding power usage, natural gas, water supply, pumping system, heating systems, etc, into one system and analyze the data to identify energy consumption inefficiencies and problems. And improve operational costs by automating the management of labor, maintenance and material planning.

- Promote cost avoidance in operations and maintenance activities
- Drive sustainability through energy and emissions reductions
- Provide a single secure portal for visibility and management or energy related entities
- Support the City Council's Mission to become a National Leader in Sustainability

Client Testimonial

"The City of Kansas City looks forward to leveraging the ESP platform to become a national leader in sustainability and as an example for other forward-looking communities. ESP has been a key component to helping out city achieve its vision. Energy consumption has been reduced and operational costs have decreased."

- Robert Rives, former Facility Manager, City of Kansas City, MO

Talisen
Technologies

SOLUTION

1 **ENERGY MANAGEMENT SYSTEM:** The integrated Enterprise Energy Management module of Talisen's ESP performs analysis to detect energy inefficiencies (i.e., air conditioning is running but building is still warm). Similarly, the system can analyze and notify if the water tower pumps are running more than they should, potentially indicating a problem.

The Talisen project team identified the points in the building control system regarding equipment performance and how the operation affects the energy the building is consuming. The data is collected every 5-15 minutes and sent to Talisen's Energy Management Center (EMC) in real-time for analysis.

ESP Statistics
- 5.5 Million Sq. Ft.
- 290+ Buildings
- 440+ Utility Accounts
- 17,000+ Utility Bills
- 16,500+ Data Points

2 **MEASUREMENT & VERIFICATION:** Tools that allow building owners to monitor investments made in building infrastructure.

- When maintenance has been performed and whether the problem was addressed
- Measures savings associated with specific projects to verify if the expected savings were achieved

3 **UTILITY ANALYTICS:** Understanding utility usage and cost information is a very important step in understanding total energy costs and mitigating environmental impacts.

- Collect, digitalize, and store all utility information providing organizations a full picture of their energy consumption and costs are by facility and by site
- Create historical baselines to take corrective action
- Provides standard to address additional energy-saving initiatives
- Mark the timeline when significant changes are made to building equipment that may affect energy to assist in understanding the benefits

4 **INTEGRATED WORKPLACE MANAGEMENT SYSTEM (IWMS):** Manage reactive maintenance (on-demand) and proactive maintenance (preventive/planned).

- Improve scheduling of resources and manage life expectancy of equipment
- Improve space management to free up rented space by re-locating departments to areas with available space
- Utilize ESP database to track leases to better manage when leases are due
- Continuously analyzing data for anomalies and opportunities to improve operations and save money, reinforcing the power of an integrated enterprise system

RESULTS

- Realized **$350,000+ in annual savings** after entering lease data into ESP for tracking and collecting rent
- Participation in a steam rate case before the Missouri Public Service Commission resulted in **savings of $250,000+** a year
- Installation of LED lighting along with wind and solar electricity generation in garage **saved $48,000+** a year
- Electricity consumption **reduced by 27%**, **saving $101,976** a year at the Health Department

Talisen Technologies, Inc. was founded in 1991 and is a privately owned business that empowers organizations to achieve their goals through strategic enterprise-wide solutions. Headquartered in St. Louis, Missouri, Talisen is a certified Minority Business Enterprise (MBE) and an SBA Small Disadvantaged Business (SDB) and houses a Class-A Network Operations Center. Talisen has been providing expertise in energy efficiency management, facility management and aerospace and defense supply chain integration for over a decade.

Talisen currently provides ESP software and services to seventeen (17) major clients across the United States and the United Arab Emirates. With its data analytic capabilities, utility bill management tools, and fault detection and diagnosis engine, ESP provides users the ability to: monitor utility usage and cost information, establish baseline facility performance, provide automated data analysis, and perform Measurement and Verification (M&V) for tracking energy conservation measures.

To learn more about Talisen, please visit our website at http://www.talisentech.com.

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CASE STUDY