

Facts

Description:

920,000 GSF nine building corporate campus with central plant

Location:

Memphis, TN

Project Owner:

FedEx Corporation

Completion Date:

2011

Objective:

Implement energy efficiency strategies in a building with data centers and heavy technology use

Results

Targeting LEED EB O+M Silver

FEDEX WORLD TECH CENTER



After successfully supporting FedEx through the development and implementation of sustainable building operations and strategies at their World Headquarters facility, Paladino was engaged to facilitate the achievement of the same energy performance goals at their World Technology Center, a nine building “Silicon Valley” style corporate campus that houses 3,000 IT employees.

Paladino Approach

Given the nature of the high-load IT work performed inside, the building offered many opportunities to optimize energy efficiency. To support FedEx in positioning the facility to achieve their stated goals for energy performance and energy accountability, Paladino first conducted an energy use measurement and verification system survey and analysis and an ASHRAE Level I and II energy audit to determine baseline performance and identify opportunities for performance improvement. A follow-on investment grade energy audit was also performed to determine return on investment for more significant building upgrades.

The energy analysis work included historical energy use analysis using the EPA ENERGY STAR Portfolio Manager tool, energy audits, and energy use and predictive modeling; HVAC and central plant operation and sequence analysis; energy measurement and verification system analysis; M&V plan development; and system implementation support. Paladino also developed an energy efficiency optimization retrofit approach that included return on investment analysis based on cost of the retrofits and resulting utility bill savings.

About Paladino

Paladino is an industry-leading green building consulting firm providing sustainability expertise over a wide range of building and business issues. We work with high aspiration organizations of all sizes to develop advanced green building strategies for both new and existing construction.

A pioneer of the green building movement and one of the original creators of the LEED green building rating system, Paladino's esteemed clients include ConAgra Foods, Starbucks, PNC Financial Services, Microsoft, Verizon Wireless, Corporate Office Properties Trust and many more. At Paladino, we help our clients create business value by optimizing human, environmental and financial performance. Our customized technical approaches center on the unique concept of abundance as a driving force for organizational transformation. To learn more, visit www.paladinoandco.com.



*Paladino's abundance framework
(people, planet, prosperity)*

These efforts resulted in a recommendation for a campus-wide energy use monitoring program and an energy optimization plan for the central plant, buildings, and data center CRAC systems. The recommended approach had

an implementation cost of \$120,000 and an estimated energy reduction of 10%, resulting in an annual cost savings of \$240,000.

Paladino is currently providing implementation support for the capital improvements, and writing and implementing new sequences for central plant and building level HVAC control. Paladino is also supporting implementation of the campus-wide energy use M&V strategy and roll out of a nighttime computer hibernation routine to save overnight electrical energy waste.

Paladino Role

- Sustainable building consultant
- Energy auditing
- Advanced Commissioning services