

GREEN BUILDING TOURS

November 6, 2009



Greater Houston Partnersh

LEED® Facts

Energy Center I Houston, Texas

LEED® for Core & Shell Silver Certification awarded October 2008

Silver	31*
Sustainable Sites	7/15
Water Efficiency	3/5
Energy & Atmosphere	4/14
Materials & Resources	6/11
Indoor Environmental Quality	6/11
Innovation & Design	5/5

*Out of a possible 61 points

ENERGY CENTER I HOUSTON, TEXAS 332,000 SF

35% recycled materials

39% water use reduction

59% local regional materials



Energy Center I

Efficiency in the Energy Corridor

Energy Center I becomes the largest LEED® certified speculative office building in Houston

PROJECT DESCRIPTION

Located adjacent to I-10 and Dairy Ashford, Energy Center I is an office building totaling 332,000 square feet strategically located within Houston's Energy Corridor. The first speculative office project to break ground in the Energy Corridor in over eight years, Energy Center I was completed in February 2008. Shortly after commencement of the project, the building was leased by global engineering and construction contractor and power equipment supplier, Foster Wheeler USA, in its entirety, for a new corporate headquarters. This 332,000-square-foot transaction, which was the largest office lease in the Houston area for 2007, brought significant national attention to the strength of the office market and kicked off a flurry of development activity in the Energy Corridor.

SUSTAINABLE SITES (7/15)

■ Provided open spaces, pedestrian areas and a water feature, together exceeding the footprint of the building and garage providing a campus-like setting ■ Storm water equipment was installed to treat over 90% of the storm events ■ Highly reflective roofing materials were used on 100% of the roof to reduce costs associated with cooling and HVAC equipment

WATER EFFICIENCY (3/5)

■ Drip irrigation was installed in lieu of sprinklers in the planting beds to improve water efficiency ■ Native and adaptive plants were used to reduce the amount of irrigation and fertilizers and pesticides used on the site ■ The decision was made to reduce the amount of irrigated turf by 49% by only irrigating the lawn in the front yard and courtyard areas ■ Low flow plumbing fixtures were installed in all bathrooms to reduce water consumption

ENERGY & ATMOSPHERE (4/14)

- Installed high efficiency chillers which, based on initial whole building energy simulation models, project the building to operate approximately 15% more efficient than baseline A Building Management System was installed to monitor and record tenant electrical consumption
- To minimize ozone depletion the building does not use any CFC based refrigerants

MATERIALS & RESOURCES (6/11)

■ Regional and local materials accounted for 59% of the building cost ■ 35% of the building materials used were manufactured with recycled content, a few of the largest contributors were steel, metal studs, glass, window framing ■ As a percent of cost, 52% of all new wood used in Energy Center I was FSC Certified

INDOOR ENVIRONMENTAL QUALITY (6/11)

■ A CO2-based demand controlled ventilation system is utilized to control the amount of outside air brought into the building ■ Adhesives and sealants were chosen for minimal contribution of volatile organic compounds to the building atmosphere ■ 100% of occupants enjoy access to views via high performance glass system

INNOVATION IN DESIGN (5/5)

■ A green cleaning program was implemented in the building, the program provides specifications for processes and products that are to be utilized by the cleaning contractors and incorporates corresponding training and contract considerations with selected contractors ■ The requirements for local/regional materials and recycled content were exceeded by 47% and 13% respectively ■ A non-chemical, pulsed-power, water treatment system was used to treat the building condenser water thereby eliminating the release of chlorine, zinc and phosphates into the atmosphere

ABOUT TRAMMELL CROW COMPANY

Trammell Crow Company, founded in 1948, is one of the nation's leading developers and investors in real estate. It has developed or acquired over 500 million square feet of buildings with a value exceeding \$50 billion. As of June 30, 2009, Trammell Crow Company had over \$6.6 billion of projects in process or in its pipeline. Trammell Crow Company is an independently operated subsidiary of CB Richard Ellis Group, Inc., the world's largest commercial real estate services firm (based on 2008 revenues). For more information visit www.TrammellCrow.com.

"We develop environmentally responsible buildings because they increase value for our investors and meet the long term objectives of our tenants, employees and the communities in which we live."

Adam Saphier, LEED® AP Principal, Trammell Crow Company





Owner: Trammell Crow Company

Principal Global Investors

Architect: HOK Architects
MEPF Engineer: Wylie Engineers
Structural Engineer: Haynes Whaley
Contractor: Manhattan Construction
Commissioning Agent: Wylie Cx

Project Size: 332,000 SF **Completion:** February 2008

Photographs Courtesy of: David Shutts

ABOUT LEED

The LEED Green Building Rating System is the national benchmark for the design, construction, and operations of high-performance green buildings. Visit the U.S.Green Building Council's Web site at www.usgbc.org to learn more about how you can make LEED work for you.