

CITY OF AUSTIN 2011 ACHIEVEMENTS IN SUSTAINABLE BUILDINGS AND SITES

(Resolutions 20071129-045 and 20071129-046)

The City of Austin (COA) continues to be a leader in implementing sustainable design practices. The COA added seven buildings which are Leadership in Energy and Environmental Design (LEED) certified buildings to its portfolio in 2011. Since 2000, 17 projects have achieved LEED certification including seven at the LEED-Gold level, six at the LEED-silver level and four LEED certified. LEED projects provide significant positive and environmental and societal impacts by reducing energy and water use and by diverting waste from landfills, among other benefits.

Consistent with LEED projects, the COA has continued to make investments in green infrastructure alternatives for water, drainage and transportation systems.

MAJOR HIGHLIGHTS

NEW BUILDINGS AND MAJOR RENOVATIONS

Out of seven projects completed in 2011, six buildings will achieve certification under LEED for New Construction and one under LEED for Commercial Interiors. Other COA projects either used the LEED scorecard or incorporated sustainability design criteria where LEED certification was not required due to scope and/or budget.

- Austin Animal Center achieved LEED-Gold
- Public Safety Training Facility achieved LEED-Silver
- Mexican American Cultural Center Phase 1-A achieved LEED-Certified
- Northwest Recreation Center Renovation on track for LEED-Gold
- ABIA Ground Transportation Staging Area (GTSA) on track for LEED-Gold
- Dittmar Recreation Center on track for LEED-Certified
- McBeth Recreation Center Renovation achieved LEED-CI Silver

Together these projects are projected to achieve:

Estimated annual electricity savings of 1,238,000 kWh
Estimated annual on-site renewable energy (Solar PV) generation: 249,000 kWh
Estimated annual water savings of 1,985,000 gallons
Construction waste diversion from the landfill: 2,750 tons

Emissions avoided are equivalent to:

Annual greenhouse gas emissions from 604 passenger vehicles
CO₂ emissions from the energy use of 267 average U.S. homes for one year

GREEN INFRASTRUCTURE

Green infrastructure investments were made at projects requiring site development permits, creek bank stabilization and projects within the Rights-of-Way. Rain gardens, which incorporate stormwater quality improvements within the landscape, were constructed at:

- One Texas Center
- Rio Grande and 10th Street traffic roundabout
- Crestview Neighborhood

The COA added 30 miles of bike lanes in 2011 making a total of 191 miles and has added 70 miles of sidewalks since the start of the pedestrian program in 2005.

EXISTING BUILDINGS AND OPERATIONS

The COA's first LEED-EB Certification:

- **Austin Convention Center (ACC)** is one of two LEED-EB Gold certified convention centers in the country and the first in facilities of its type in Texas. The ACC has achieved the highest LEED point total of all convention centers in this category.

Renewable Energy:

- All City-owned facilities use the “Green Choice” program for their electricity needs, which makes the COA the largest local government to commit to 100% renewable energy that eliminates CO2 emissions.
- Earlier this year, COA's electric vehicle charging infrastructure, known as the Plug-in EVerywhere Network – with more than 100 charging stations – became the first charging network in the country to be powered with 100% renewable energy. In 2011, 50 new electric charging stations were installed at various COA facilities.
- Solar photovoltaic systems were added to four new and existing COA facilities providing a total generating capacity of 122kW.

Building Efficiency:

- High efficiency lighting improvements and HVAC and other building system upgrades were made in multiple City facilities, among them HVAC, building automation, and domestic hot water upgrades at Technicenter and LED exterior parking garage lighting at One Texas Center.
- Out of its 200 buildings, the COA owns 25 buildings over 75,000 SF each, all of which have completed an energy benchmark rating in Energy Star Portfolio Manager in compliance with the Energy Conservation Audit and Disclosure (ECAD) ordinance. The ordinance is aimed at educating building owners on their buildings' energy performance compared to similar buildings and will help identify buildings for voluntary energy efficiency improvements.

- Austin Energy implemented an in-house Building Re-Commissioning program to evaluate energy efficiency of COA facilities. The program completed re-commissioning eight of the COA's largest facilities. It is estimated that the effort resulted in a 20% reduction in the buildings' energy use.
- Audits were completed in 150 smaller COA facilities with simple systems and controls. Work plans developed based on findings from these audits will be implemented in 2012.

Above improvements to existing buildings are projected to achieve:

Estimated annual savings of 2,223,000 kWh of electricity from high efficiency lighting, controls, HVAC upgrades, building automation systems and domestic hot water
 Estimated annual new on-site renewable energy (Solar PV) generation of 206,000 kWh
 Purchased 255,771,662 kWh of "GreenChoice" electricity

Emissions avoided (Including GreenChoice electricity) are equivalent to:

Annual greenhouse gas emissions from 28,090 passenger vehicles
 CO₂ emissions from the energy use of 12,404 average U.S. homes for one year

Water Conservation:

- ABIA partnered with Austin Water Utility to deliver reclaimed water to the airport reducing potable water consumption by 25 million gallons per year.

Waste Reduction:

- Building Services Division eliminated 208,000 trash liners in One Texas Center and 86,900 trash liners at City Hall; thereby saving \$4,403 annually while reducing waste.

PUBLIC/PRIVATE DEVELOPMENTS

Sustainability achievements go beyond those of City-owned and occupied buildings and infrastructure. The COA has been involved in several public/private developments for the last ten years. The largest of these developments is the Mueller Redevelopment; a LEED-ND Stage 2 Silver-certified pilot project. It consists of 45 commercial projects (1.5 million SF), 678 multi-family units and 735 single family homes that have achieved AEGB rating and/or LEED certifications to date.

Over the last 10 years, these commercial and residential developments at Mueller achieve:

Estimated electricity savings of 14,653 MWh annually
 Estimated electric demand savings of 5,327 kW annually
 Estimated indoor water savings of 7.39 million gallons of water annually
 Estimated outdoor potable water savings for irrigation of 22 million gallons annually
 Cumulative construction waste diversion from the landfill: 48,656 tons

Emissions avoided over the last 10 years are equivalent to:

Annual greenhouse gas emissions from 25,448 passenger vehicles
 CO₂ emissions from energy use of 11,237 average U.S. homes for one year

Other Public/Private developments include:

- ZACH Topfer Theatre, on track to achieve LEED-Silver
- City of Austin/ YMCA - North Austin Community Recreation Center, on track to achieve LEED-Silver

INTERDEPARTMENTAL SUSTAINABILITY WORKING GROUP (ISWG)

The ISWG comprises COA staff charged with ensuring City wide implementation of the Municipal Buildings LEED and Green Infrastructure Resolutions. ISWG maintains documentation and prepares an annual report for the City Manager. For details, refer to information at www.austintexas.gov/publicworks/sustainability.

ISWG RESOURCES

David Thomas	Austin Convention Center
Liana Kallivoka	Austin Energy Green Building
Sarah Talkington	Austin Energy
John Gillum	Austin Public Library
Heidi Tse	Austin Public Library
Aiden Cohen	Austin Resource Recovery
Woody Raine	Austin Resource Recovery
Robert Stefani	Austin Water Utility
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