

Green Building in Austin, TX



**AUSTIN ENERGY
GREEN BUILDING**

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Objectives

Understand the development and history of Austin Energy Green Building

Understand the dynamics that make us effective

Explore some of the opportunities that our efforts have made available to the City of Austin

History

- 1982 – Austin begins efficiency programs
- 1985 – Austin Energy Star Homes Program
- 1990 – Austin Green Builder
 - 1992 Rio Conference on Sustainable Development Local Government Honours Award
- 1993 – Municipal Green Building guidelines
- 1995 – Commercial Green Building
- 1998 – Multifamily Green Building
- 2000 – USGBC LEED requirement for City buildings
- 2007 – Austin Climate Protection Plan

Evaluation tools

Locally developed and maintained rating tools for;

- Single family homes
- Multifamily buildings
- Commercial buildings

Local development allows several advantages

- Direct tie to local goals and policies
- Adaptable to local climate and industry conditions
- Ability to track results & identify weaknesses in submittals, site installation, and calculations

What We Measure

Energy: Generation capacity demand reductions in kW
Energy savings in kWh

Water: Indoor water use reductions
Irrigation water use reductions

Construction

Waste Management: Diversion from landfills in tons

Green Building Results

	FY '07	FY '08
Single Family Homes	981	1022
Multifamily units	288	1611
Commercial sq. footage	632,378	3.1 million

Green Building Results

Demand Reduced	15,914 kW	19,175 kW
Energy Saved	23,906 mWh \$2,151,540	47,200 mWh \$4,248,000
CO ₂ Reduced	15,270 M.tons	22,170 M.tons

Green Building Results

Construction Waste Diverted	3,321 tons	40,479 tons
Indoor Water Use Reduced	2,037,400 gal	14,090,287 gal

Energy Codes

- Since 1998 Green Building has worked with City Building Dept. to improve energy codes and code enforcement
 - Quality Control and training for inspectors and plan reviewers
 - Code development and adoption

Energy Codes

Green Building works with the leaders in the building industry to evaluate products, systems, and strategies that are effective and cost effective.

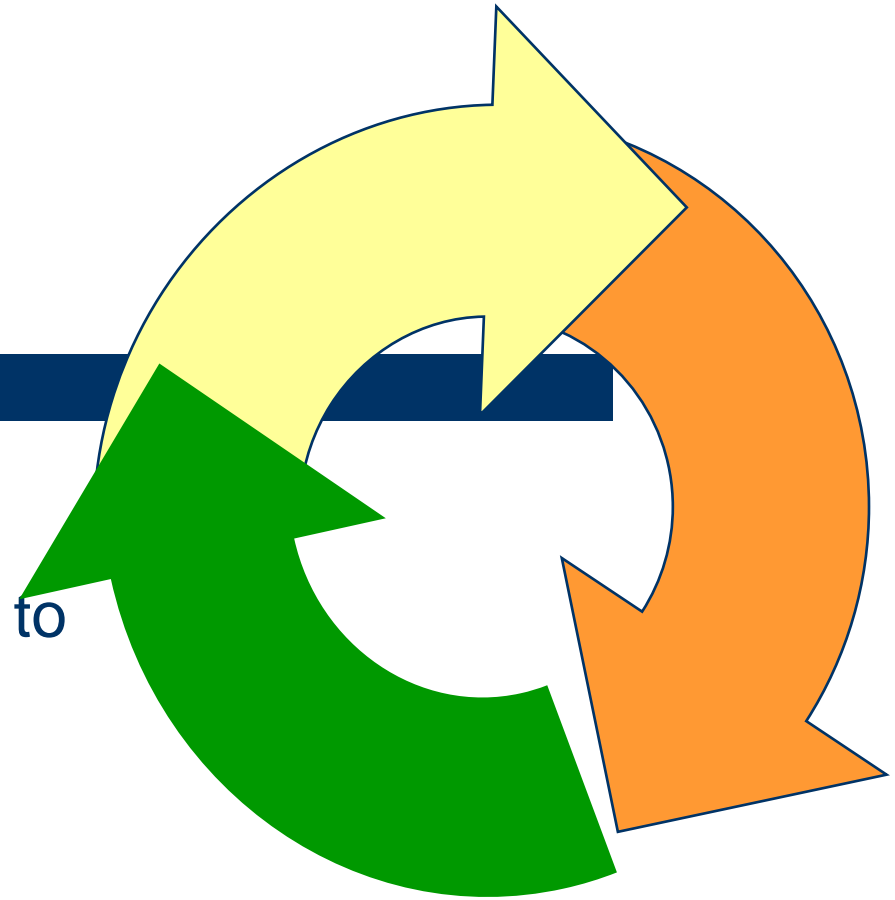
As these systems become available to the industry, Green Building moves them into the energy code in regular cycles.

Energy Codes

As the codes become more stringent, the Green Building rating tools have to become stronger to stay ahead of the codes.

Result:

A continuous improvement cycle that has led to a progressive energy code and a green building program recognized as the most advanced and effective in the U.S.



Voluntary to Mandatory

Energy Star Homes and early Green Building were voluntary

1999 – Affordable housing is required to be green rated

2003 – Downtown Design Ordinance mandates Green Building for central business district

2004 – Mueller Airport Redevelopment green building requirements

2007 – Planned Unit Developments and Private Development Agreements, PUD 2 Star

Austin Climate Protection Plan

Goal - To make Austin the leading city in the nation in the fight against global warming.

ACPP is actually 5 plans

- Municipal Plan
- Utility Plan
- Homes and Buildings Plan
- Community Plan
- Go Neutral Plan

Homes and Buildings Plan

Zero Energy Capable Homes – Make all new homes built in Austin Zero Energy Capable by 2015

Make all non-residential buildings 75% more efficient by 2015

Energy Efficient Upgrades – require energy audits and efficiency improvements in existing homes and buildings

Develop carbon neutral rating for homes and buildings

Lessons Learned

Moving forward must be a collaborative effort.

Our official role may sometimes be as regulator but we see ourselves as service providers to the industry.

Market your initiatives to the public as well as to the industry.

Make your results meaningful and transparent.

Good initiatives can not stand alone, voluntary initiatives can and should be tied to moving codes, standards, and other policies forward.

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Questions?