



Green Building The Austin Experience

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The Agenda

- Brief history of Green Building in Austin
- Why Green Building
- Program delivery
- Leveraging our resources
- Attracting & maintaining participation
- Best practices

Mission

To accelerate the integration of sustainable building practices and products into mainstream building through marketing, education and technology transfer.

“Sustainability” means meeting present needs without compromising future generation’s ability to meet their needs.

History

- First GB program in U.S. 1991
- Started as residential single family
- Added commercial aspect in 1996
- Became energy code administrator in 1997
- Moved from COA P, ECSD to Austin Energy in 1998
- Added multi-family in 1998

Why Green Building

- Municipally owned electric utility- Peak Load in new buildings, savings for customers
- Citywide concern for water conservation and water quality
- Landfill capacity- materials reduction and recycling
- IEQ—healthy homes & productive workplaces
- Community-greenspace and infrastructure impacts

Program Delivery

- Rating tools to evaluate sustainability of buildings
- Technical assistance to industry creates supply
- Marketing to public to create demand
- Measurement and verification of results

Rating Tools

- Distinct tools for single family, multi-family and commercial buildings
- Single family tool evaluates buildings in areas of
 - Energy Efficiency
 - Efficient materials use
 - Water conservation and quality
 - Health and Safety
 - Community Issues

Rating Tools

- Evaluates homes on a one star to five star level
- One star is entry level
- Five stars is highest possible
- FY 2004- 753 ratings
 - 1 star = 220
 - 2 star = 279
 - 3 star = 246
 - 4 star = 8
 - 5 star = 0

Rating Tools

- Building owner, design team or builder completes tool and submits to GB staff
- Staff review and comment
- Monitor at rough mechanical and final
- Issue certification after final monitoring visit

Technical Assistance

- One on one consultation
 - Plan and specification review & comment
 - Systems recommendations
 - Energy modeling and HVAC sizing
- Monthly member seminars
- Factsheets, Sourcebook, website, library
- Conferences and workshops

Technical Assistance

- Annual survey of program members shows that one on one consultation is the service most valued by our customers
- Marketing is second most valued
- Members use the website mostly to inform their clients about green building

Marketing

- Technical Assistance helps create supply, marketing is needed to create demand
- GBP uses many different approaches to market green building benefits and to promote builders and designers who participate in the program

Marketing

- Marketing benefits
 - Public workshops
 - Print media ads
 - Articles in print media
 - Trade shows
 - Public events
 - Website
 - Cool House Tours
- Marketing members
 - List ads of participating members
 - Ads promoting specific projects
 - Website member directory
 - Sponsorship opps

M & V

- Database lists every measure taken on every home
- Data is used to build models for energy and water savings due to program
- Emissions reductions based on AE fuel mix and dispatch priority
- Periodic third party verification

Results FY 2004

- Homes rated 753
- Multifamily units rated 1262
- Commercial projects under consultation
18 > 3MM sq. ft.
- Peak demand reduction 12.47 mW
- Customer energy savings 23,969 mWh
or \$1,893,551

Results FY 2004

- Emissions Reductions
 - CO₂ 13,867 Metric tons
 - SO_x 2.65 Metric tons
 - NO_x 13.37 Metric tons
 - Suspended particulates 3.47 Metric tons

Leveraging Resources

- GBP serves as clearing house for energy & water conservation incentive programs
- Collaboration with national groups to bring conferences to Austin
 - U.S. GBC
 - NAHB GB
 - Affordable Comfort

Leveraging Resources

- Collaboration with HBA, NARI, AIA, ASHRAE and many others
- Diverse staff with flexible job descriptions
- Marketing through utility bill inserts
- Providing marketing materials to participants

Attracting Participation

- Marketing benefits of GB to create demand
 - Lower utility costs
 - Healthier, safer homes
 - More durable homes
 - Higher resale values
 - Maintaining Austin's quality of life

Maintaining Participation

- Staff track membership requirements and call those falling behind
- Prompt, accurate response to requests for assistance
- Monthly seminars for members only
- Marketing and promotion

Best Practices

- Manual J review
- GB requirement for affordable housing
- Collaboration with everyone in the industry
- M&V program to justify program budget
- Dedicated, accessible professional staff
- Working on supply and demand sides

Manage it Green

- In house consulting group to assist other cities and utilities
 - Memphis Light, Gas and Water
 - CA PUC/PG&E
 - ICFConsulting/EPA Energy Star Homes
 - Dept. of Defense
 - U.S. Green Building Council

Summary

- **This program results in;**
 - **Reduced energy and water costs for customers**
 - **Reduced peak electrical demand for AE**
 - **Reduced stress on water and wastewater infrastructure**
 - **Reduction of thousands of tons of construction waste and debris going to landfills**

Summary

- **Improved indoor air quality for homeowners and workers**
- **Improved quality of life for the citizens of Austin and a higher level of efficiency for Austin's municipal utilities**
- **More durable homes and buildings**

Resources

- GB website
www.ci.austin.tx.us/greenbuilder
- AE rebate programs
www.austinenergy.com
- COA Waterconservation
www.ci.austin.tx.us/watercon
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**Austin—
Greening As It Grows**