

**New Home Labeling:
Green Building
Labels and Programs
2003 National Symposium on
Market Transformation**

Marc Richmond, Austin Energy Green Building Program

Utilities

- **Austin Energy (R,MF,C,I)**
- **Portland General Electric (R,MF,C,I)**
- **Memphis Light Gas & Water (R)**
- **Good Cents Environmental Home (R)**

Home Builder Associations

- **Denver and other Colorado**
- **Albuquerque**
- **Atlanta**
- **Suburban Maryland**
- **Clark/Kitsap Counties**
- **King/Snohomish Counties**
- **Wisconsin**
- **Vermont**
- **New York State**
- **Kansas City**

Governments

- **Residential: Scottsdale, Boulder, Austin, Portland, Santa Rosa, San Ramon, Alameda/Marin/Contra Costa/San Mateo Counties, Virginia, Bellvue, Santa Barbara**
- **Commercial: Portland, Austin, San Jose, NY State, Santa Monica**
- **Multi-Family: Austin, Portland**
- **Institutional: Portland, Austin, Maryland, NYC, Santa Monica, Berkeley, LA, San Jose Pennsylvania, Seattle, Minneapolis, San Francisco, Armed Services, National Park Service, USPS, Federal/State Affiliated Programs**

Not-For-Profit Organizations

- **Local**: Atlanta's Southface Energy Institute (R,MF,C,I), LA Eco-Home (R), DC GreenHOME (R), Grand Rapids MI Green Built Inc., Cleveland Green Building Coalition, Pittsburgh Green Building Alliance (R,C,I)
- **Regional**: Wisconsin Energy Center (R), Northwest Eco-Builders Guild (R,MF,C), Global Green (R,MF,C,I), ADPSR (R,MF,C,I), NESEA (R,MF,C,I), Florida Green Building Coalition, Western North Carolina Green Building Council, Vermont Builders for Social Responsibility
- **National**: US Green Building Council (R,MF,C,I), NRDC (R,MF,C,I), EEBA (R,MF), SBIC (R,MF,C,I)

Growth in Green Building

- **GB Programs: 0 in 1990, 20+ in 2003**
- **USGBC members: <500 in 2000, >2500 in 2003**
- **Many federal, states, cities require LEED**
- **LEED has registered >700 projects & >81 M square feet by 2003**
- **6275 professionals have taken LEED workshops. 3400 took LEED Accredited Professional Exam**
- **USGBC is developing LEED-Homes program**
- **2002 - Austin GBP rated 57% of new homes**

Similar to an Energy Program.....But Goes Further

- **Market transformation program**
- **Rating system and seal of approval**
- **Requires education/marketing, training, and partnerships**
- **Driven much by energy issues as a base**

A Green Building Program is...

An educational program to mainstream a local building marketplace to design and construct buildings that:

- **consume less energy and water**
- **are durable and easier to maintain**
- **are healthier to build and occupy**
- **use resource efficient materials**
- **are integrated to the building site**

Program Components

- **Guidelines**
- **Rating System**
- **Professional Membership**
- **Professional and Public Training**
- **Technical Consultation**
- **Program Marketing**
- **Reference/Educational Materials**
- **Demonstration Center**
- **Incentives**

Tools

- **Case Studies, Fact Sheets**
- **Internet**
- **Modeling Software**
- **Guidelines, Specifications, Construction & Operations & Marketing Manuals**
- **Building Tours**
- **Demonstration Center**

Education / Outreach Goals

- **Influence Buying Decisions**
- **Create Awareness of Value of “Green”**
- **Educate Design, Construction, Supply, and Real Estate Professionals**

Education Strategies

- **Print, Radio, TV, Billboard Advertising**
- **Brochures, CD**
- **Articles in Local / National Publications**
- **Trade Shows**
- **Presentations, Seminars**
- **Demonstration Centers, Building Tours**
- **Internet**
- **Personal Outreach, Networking**
- **Partnerships**

What Does a Green Building Program Consider?

Multitude of aspects of:

- Materials
- Energy
- Health and Safety
- Water
- Community

How Does it Consider That?

- Uses Integrated, Whole-Systems Thinking
- Seriously Embraces Best Practices
- Considers Environmental and Human Impacts
- Pragmatic Use of Resources that Enhances Value (value measured in cost of operation, health, productivity, as well as all externalities)
- Plan to Reduce, Recover, Reuse, Recycle (understands that waste contains energy & capital)
- Promotes Community and Local Economics

Basic Requirements

- (E) Efficient HVAC (Manual J, 12 SEER)
- (E) 2 Ceiling Fans
- (M) Recycled-Content Material
- (H&S) Lower VOC (<150 gms.ltr) Paints
- (H&S) Pleated Media Filter
- (H&S) Non-toxic Pest Treatment
- (H&S) No Unvented Gas Appliances
- (C) Recycling Center
- Homeowner Info. (HVAC, humidity, IPM, lawns)

Energy

- Design (size, orientation, ventilation, appliance location)
- Envelope (insulation, windows, roofing)
- HVAC / DHW (efficiency, ducts, fans)
- Lighting / Appliances (efficiency)
- Testing (blower door, airflow, duct, backdraft)
- Additional

Materials

- Design / Structure (size, OVE, alt. systems)
- Finishes (recycled(able), local, efficient)
- Excess Resources (waste reduction)
- Additional

Water

- Indoor (appliances, plumbing design)
- Outdoor (plants, soil, rainwater use)
- Additional

Health and Safety

- Mold / Mites / Fiber (filter, hard surfaces)
- Humidity/Ventilation (monitor, exchange)
- Chem. Outgassing (finishes, materials)
- Combustion Gases (garage, CO2, sealing)
- Integrated Pest Mgt. (structure, treatment)
- Additional

Community

- Building (porch, access, recycling center, home office)
- Location (walkable to services)
- Site (size, infrastructure, trees, stormwater, compost, # of units)
- Additional

Different from an Energy Program

Program:

- Many more areas of education, communication, coordination, partnerships
- More voluntary and market driven, than code-driven
- Uses multiple individual certifications/eco-logos to build whole-house certification (NFRC, EStar, FSC)
- Greater issue of responsibility attached to the concept
- Implementation is a continuous learning process
- Need much more buy-in (owner, designer, PE, contractor, interior designer, L.Arch., subs, suppliers)
- Requires broader view, greater sophistication
- Education always changing

Difference from an Energy Program

Content:

- Integrated, whole-system thinking
- Adds embodied energy, site, water, materials, waste, landscape, indoor air quality, durability, community
- Requires new education for all stakeholders
- Legal issues of mold and construction quality/defects
- Deal with more code issues (land, atypical material and design issues)
- Deals more with operations and way of life
- Often less technology based

Difference from an Energy Program

Marketing:

- Less mature marketplace. Greater need for education.
- More attractive to consumers. Speaks to new, sexy, holistic, comfort, children, health, the yard, and the neighborhood. Appeals to a wider audience (Women, Children, Traditionalists as well as Modernists).
- Not just numbers sale. Tougher/easier/different sell for the whole package than the one idea.
- Has more of a “greenie” image to take advantage of or to fight negative impressions.

Difference from an Energy Program

Monitoring / Tracking

- LCA much beyond energy, is a long-term effort, and is always changing and improving
- Easier: electricity, gas, water, avoided pollution, material use/costs reduced, waste reduced
- Harder: improved health, productivity, comfort, marketability
- Which evaluation / certification is used?

Today's Homeowners Want

- **Reductions in Operating Costs (utilities & maintenance)**
- **Comfort and Wellness (daylighting, fresh air, quiet, control)**
- **Increased Safety (from IAQ & Mold)**
- **Higher Building Quality and Value**
- **Green Educator and Owner's Rep.**
- **Credible "Green" Seal of Approval**
- **Opportunity to Contribute to Environmental Protection**
- **Sense of Tradition and Community**
- **Things That are Fashionable, Sexy, New, High-Tech**

GB Program Positive Impacts for Governments

- **Resource Management Tool (Air, Water, Land)**
- **Increased Economic Development**
- **Jurisdiction's Improved Reputation, Citizen Satisfaction & Retention**
- **Value Added to the Local Built Environment**
- **Public and Professional Education**
- **Public Health & Safety**
- **Promotes Interdepartmental Cooperation**
- **Positive Relationship with Building Industry**

GB Program Positive Impacts for Building Professionals

- **Product Differentiation and Sales**
- **Public and Professional Education**
- **Reputation as Environmental Steward**
- **Improved Internal Processes, Fewer Call-Backs, Staff Morale**
- **Positive Relationship with Government**
- **Customer Satisfaction & Referrals**
- **Reduced Legal Exposure**

GB Program Positive Impacts for Utilities

- **Peak load reduction**
- **Emissions reduction**
- **Reduced uncollectables**
- **Recognition as environmental stewards and customer-friendly**
- **Utility restructuring requirements**

GB Program Positive Impacts for:

Affordable Housing Stakeholders

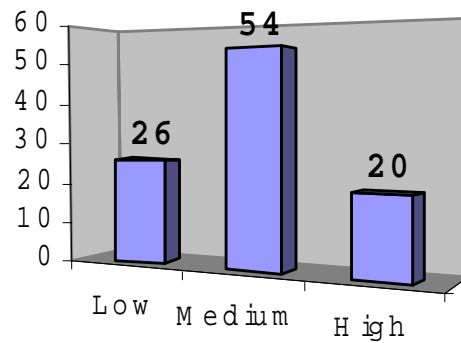
- **Housing that is truly affordable**
- **Durable communities**
- **Environmental equity**

Environmental Groups

- **Environmental protection**
- **Collaboration with industry and government**

Environmental Orientation

Importance of Green Features



American Lives, 2002

Green Market Research

Conducted by Professional Builder Magazine, 2002

- Consumer preferences
- How important are the issues?



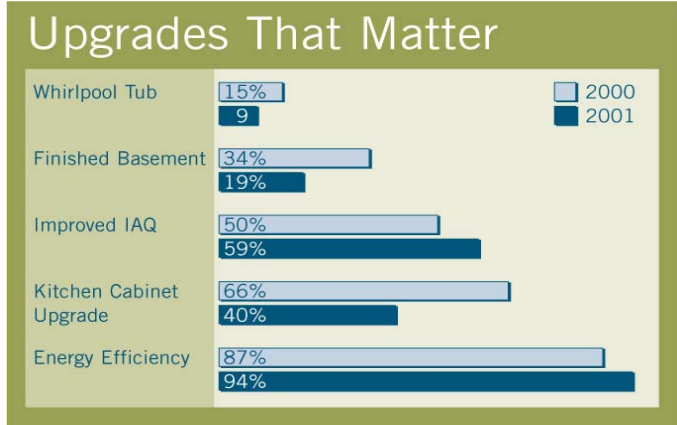
Green Market Research

- Benefits to the homeowner
- What are prospective homeowners looking for?



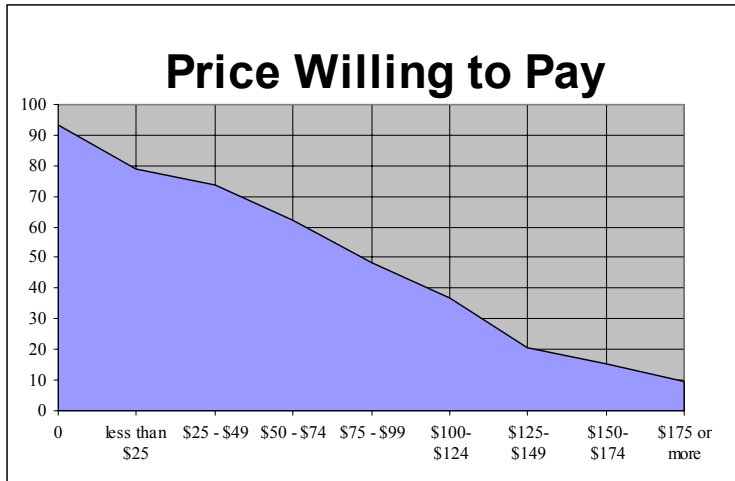
Green Market Research

- Upgrades – homeowner preferences



Local Market Research

conducted by American Lives, 2002



- Approximately **50%** of respondents would pay \$25-\$124 or more in added mortgage payments for a low energy home equating to \$3,750-26,250 - in value at 7% interest rate.

SF Bay Area Focus Group Conclusions

- Green has to provide all of the benefits of typical homes AND then help people and the planet.
- People are willing to “do the right thing” if they have quality information to understand it will make a difference
- Other factors (aesthetics, durability, amenities) are more important than price
- If you can get past the skepticism, they are willing to pay more if benefits are proven
- More education is needed to overcome mythology and concern about “greenwashing”

For More Information:

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