

## Zero Net Energy Homes Update

On January 29, the Green Building Program, along with the City's [Neighborhood Housing and Community Development \(NHCD\)](#) department, the [Austin Housing Finance Corporation](#), and [Steven Winter Associates](#) held a Design Input Meeting (DIM) for the Zero Net Energy Homes project. The purpose of the DIM was to bring together the key partners of the project and members of the Green Building Program to brainstorm planning and design concepts for the 13-acre site located in East Austin's Montopolis neighborhood.



**About 40 people showed up for the Design Input Meeting. .**

There were some brief opening remarks by Richard Morgan, Manager of the Green Building Program, then Robb Aldrich of Steven Winter Associates went through a short presentation that covered several new energy efficient technologies. Richard Frasier, AHFC Development Manager, provided overviews of AHFC funding processes and S.M.A.R.T. Housing. Rich MacMath led a discussion about the goals of the project, and spelled out some of the technical details about the site and the homes. For example, the basic neighborhood and home guidelines include:

- Square footage between 900-1,300 ft
- Appraised value of \$120,000 or less
- 3 bedroom / 2 bath
- Porch should occupy at least one half of front façade, minimum 8' deep
- Roof pitch between 4/12 to 6/12 with gable end facing street
- All air conditioning equipment and duct work within thermal barrier
- Garage/parking on side or rear of house
- Front facing entry
- Setbacks: 25' front, 5' side, 5' back, 10' second story setback
- Impervious cover 45%
- Visit ability access
- Natural gas available

Specific photovoltaic information was also provided, for example:

- PV panels require approximately 100 ft<sup>2</sup> roof area per kW - assume homes will require 4-4.5 kW
- Roof mounted solar water heating panels require minimal 4' x 8'

- Tilt angle for PV's:
  - 30° tilt optimal for South facing roof
  - 20° tilt optimal for SW facing roof

Participants were asked to form small groups and formulate ideas, concepts, and design considerations for the project. In the end, the ideas generated by the six groups shared several commonalities. For example: using plans that accommodate family growth, shading with overhangs, having PVs on garages or carport as well the house, and using [Hardie siding](#) and SIPs. Some participants even offered to donate plans from previous projects. Homeowner education came up as a big issue, with most groups recommending special training, education and follow-up for the new homeowners, along with some type of feedback mechanism that helps home owners to better understand their energy use. Overall, we felt it was a very successful meeting and we appreciate the time and efforts of our members.

*"Austin Energy's commitment to the successful construction of an entire subdivision incorporating net-zero energy consumption principles is proving them to be, yet again, the pioneers of Green Building in the United States."* Andrew McCalla, [Meridian Energy Systems](#).

#### **More on solar--**

[Solargenix Solar Hot Water Installation Workshop](#) in San Antonio, March 15-17, 2004  
[Solar Energy Workshop](#) in Austin, March 22-27, 2004  
[Texas Solar Energy Society](#)  
[Solar Energy International](#) (SEI)

#### **Have You Heard About the Solar Rebate Program?**

Austin Energy is unveiling the most ambitious solar initiative in the Nation and the first utility-sponsored solar rebate program in the state of Texas. The new Solar Rebate Program will benefit both residential and commercial customers. City Council will be asked to approve the program's budget on March 25. If the budget is approved, the program will offer some of the highest rebates available for solar installations. A typical residential photovoltaic installation ranges in size from 1 - 3 kW. The array covers 100 – 300 square feet and can be installed on roofs, poles, or on ground. The amount of electricity produced depends on the size of the system, orientation, and amount of sunlight available. A 1 kW solar system produces between 1,300 - 1,800 kWh per year, depending on the conditions, and costs about \$8,000 to install. People use an average of 12,000 kWh a year. Because of Austin's climate, energy use is much higher in the summer than the winter. This is part of what makes solar such a good choice for our region as PVs perform best in the summer when the need is highest.

Look for more information on the rebate program after Council approves the budget. Future stakeholder meeting will be held by the [Resource Management Commission](#).

**For more information contact:**

Fred Yebra 974-3405

Scott Jarman 974-3507

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## World Energy Engineering Congress Moves to Austin

The 27th annual [World Energy Engineering Congress \(WEEC\)](#) & High Performance Facilities Expo (HPFE) will be held in Austin September 22 - 24th, 2004. The [Association of Energy Engineers \(AEE\)](#) decided to move the WEEC conference from Atlanta to Austin in part because of Austin's leading GreenChoice program, and our reputation as the premier Green City in the U.S. The conference, hailed as "the most important energy event of national scope for end users and energy professionals in all areas of the energy field," will include a comprehensive exploration of the Green energy industry and several sessions will focus specifically on Green building. In fact, Green Building Program staff Maureen Scanlon, P.E. and Russell Shaver, E.I.T. will each chair a session. Russell will facilitate a session on Green Building Standards and Maureen will chair a session on Green Building Technologies. Gail Vittori of the [Center for Maximum Potential Building Systems](#) will be speaking in the Standards session and Norman Muraya, P.E. with Austin Energy, will be speaking in the Technology session.

[Sponsor and exhibitor spaces](#) are still available. The conference will attract about 2000 people, including industry leaders and media, as well as leading energy, power and facilities exhibitors & technology providers. Don't miss out on the opportunity to be a part of this important conference.

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## Member Bulletin Board

### **Lake/Flato Receives AIA's Most Prestigious Award**

[Lake/Flato](#) will accept the 2004 AIA Architecture Firm Award on March 3 at the American Architectural Foundation Accent on Architecture Gala in Washington DC. Lake/Flato is a San Antonio-based architecture firm that has been a member of the Green Building Program since 1996. One of Lake/Flato's recent projects is the [University of Texas Health Science Center at Houston Nursing School](#). The 200,000 square foot project will achieve a LEED Gold rating, in part by using 50% recycled materials and designing for a 40% energy use reduction. Past projects include the [Austin Lyric Opera](#) building on Barton Springs Road, the [Hotel San Jose](#) on South

Congress, and the [Church of Conscious Harmony](#) on Bee Caves Road. Congratulations Lake/Flato.

### **NAHB Conference March 14-16 in Austin**

Be sure to register for the NAHB National Green Building Conference. It's shaping up to be a great conference that will explore cutting edge building technologies and the future of green building in America. Look for presentations by Green Building Program manager Richard Morgan (Successful Green Building Programs) and GBP staff Rich MacMath (Green Building for High Production Builders Means Profits) and Dick Peterson (Water Conservation: A Reservoir of Ideas). Green Building Program members will also be presenting, including Paul McCutchen (Green Mortgages), and Peter Pfeiffer (The Latest Trends in Green Building Design). The conference is March 14-16 at the Austin Hilton Hotel and Convention Center. Learn, network, have fun, and support your local Green Building community all at one conference. Register online now.

### **From [Greenclips](#)**

#### **Survey Highlights What's Needed to Accelerate Growth of Green Building**

"Marketing sustainable design services is gaining increasing importance," according to a new report documenting a survey of building professionals. The report, "Marketing Sustainable Design Services," by Jerry Yudelson, sustainability director of Portland-based Interface Engineering, is based on a survey of 473 attendees of the U.S. Green Building Council's 2002 GreenBuild conference in Austin, Texas. Yudelson found 76 percent of respondents saying they had attracted new clients based on their green-building expertise. Yudelson also queried respondents about marketplace conditions that could help accelerate the growth of greener buildings. Among the needs: case study data, comparative cost information, demonstrable information on the benefits of green buildings, personal stories, and creation of a cadre of certified building assessors. To obtain the report, email [jerry\\_y@ieice.com](mailto:jerry_y@ieice.com). *The Green Business Letter, Dec. 2003, p 2 (paid subscription required)*.

#### **Free Exit Signs and VendingMisers**

From Austin Energy's Commercial Energy Management Department: Free VendingMisers and free Exit sign retrofits are available for commercial and multi-family buildings. AE would like to outfit buildings with VendingMisers before March 31, while they can still take advantage of some grant funding that helps defray the utility's costs. The VendingMisers will be available after March 31 but Austin Energy will bear the entire cost after that point. The free Exit signs, however, will be discontinued on March 31 (requests must be made by March 15). The retrofit kit will modify an existing 40-Watt incandescent exit sign by installing 2-Watt LEDs (light emitting diodes). Reimbursement for the signs will still be available.

[Read about the VendingMiser  
LED Retrofit Program Factsheet  
More on Austin Energy's Commercial Services](#)

[VendingMiser Participation Request Form](#)  
[Exit Sign Participation Request Form](#)

**Contact information:**

Vending Miser - [Paul Lustig](#) 974-3548

Exit Signs - [Joe Pena](#) 974-3568

**Cool House Tour**

The [Texas Solar Energy Society \(TXSES\)](#) is once again organizing the Cool House Tour on Sunday, May 23, 2004. The Green Building Program and the City of Austin Water Conservation Department are co-producing the event with TXSES and Central Market. We invite our members and others to [nominate tour locations](#). Typically, only one site from any one builder or architect will be selected but you may nominate more than one. Deadline for nominations is March 12.

**Speaking of House Tours...**

For the first time, the [AIA Austin](#) Homes Tour application includes a question about sustainability and asks for a list of sustainable features. You can support this interest in sustainability by applying to be on the October 2004 tour. A Q&A meeting for applicants will be held at the chapter office (503 W. 38th Street, 512.452.4332) on Tuesday, March 23rd at 6 p.m.

**Green By Design**

A great way for your clients to learn more about green building. Let them know that our next [Green By Design Workshop](#) will be May 1, 2004.