
Zero Net Energy Homes Project

The Green Building Program is working with the City of Austin's [Neighborhood Housing and Community Development Department](#) to plan and develop a Zero Energy Homes subdivision. The tentative site is a 13-acre rectangular piece of land in East Austin between Vargas and 183. The City will own the land and spec-build up to 100 affordable homes and then finance qualified homeowners. The projected groundbreaking is June/July of 2004. The Green Building Program will seek input on the design of the homes during a Design Input Meeting in January.



**View of the potential Zero Energy Homes
Subdivision site in East Austin.**

Zero Energy Homes are designed to be as energy efficient as possible - this includes strategies such as proper siting, overhangs, efficient appliances, etc. Energy use in the homes will be modeled to determine typical energy consumption and enough photovoltaics (PVs) will be installed to (hopefully) meet the energy needs of the homes. All the homes will be connected to the grid so that when the PVs are not generating enough power for the

homes' needs, additional power will be drawn from the grid. The cost of the PV system and the installation will be entirely underwritten by Austin Energy - so AE will own the systems and be responsible for maintenance.

The "zero" net energy label is determined by a home's energy use over the course of an entire year. When the homes are generating more power than they can use, that power will be put into the grid for other consumers to use. Basically, the neighborhood becomes sort of a mini substation. At the end of the year, the energy put into the grid should be greater than or at least equal to the energy taken out. A good thing about using solar energy here in Austin is that in August, when our energy needs are the highest, the PV production is also the highest.

The purpose of the project is to determine if it will be feasible for AE to include residential distributed generation as part of its energy portfolio. If AE sees that residential distributed generation is viable, the next step will be to develop the policies and procedures needed to make Zero Energy homes, subdivisions, and buildings cost effective for developers, builders, and owners. If this subdivision is successful, building more neighborhoods like this should help mitigate the need for new power plants. Hopefully, more and more of these neighborhoods would be built in little pockets all around Austin.

AE is also in the process of developing a solar power incentive program to increase the use of PVs on all types of buildings in the AE service area. The current \$5 per watt rebate is the highest in the country, and higher rebates incentives will probably be offered for locally manufactured photovoltaics. There is also an expanded rebate for solar water heating in the works.

Green Building By The Numbers

The numbers are in for 2003. The impact of the Green Building Program as a whole has been figured at 9.15MW of peak load reduction. The total 21,600 megawatt-hour savings equals a \$1.8 million savings for AE customers. The big numbers come from several large commercial projects that were completed this year; however, the single-family program is still growing at a phenomenal speed. Our members rated 602 homes this year, about 22% of new homes built in the AE service area. Naturally, our favorite success measurement is in terms of pollution reduction:

- CO₂ = 18, 343 tons
- NO_x = 31.3 tons
- SO_x = 69 tons

To put this in a little perspective, the pollution reduction is equal to planting 17,900 trees or permanently removing 870 cars from the road.

Ten Reasons to Care About Biodiversity

by *David Braun, Attorney and Counselor, Braun & Associates*

Every day the impact of humans on the environment increases. From a myriad of human activities comes a dizzying reduction in the number of plants and animals the earth can support. Scientists refer to this, with alarm, as the loss of biological diversity. Where there were once hundreds or thousands of species, only dozens may remain. Texas stands to lose more than almost any other state. Within its borders are at least eleven distinct ecological regions, each with its own special plants and animals. Of thousands of species native to Texas, 350 are in imminent danger of extinction.

Extinction is the final and irreversible result of weakened and dwindling populations. The natural rate of extinction, which claimed prehistoric species, was one species every thousand years. Extinction, worldwide, is now occurring at the rate of approximately one species per day.

For those people who ask "So What? Why should I care about the loss of some obscure fish or bird?" here are ten reasons to preserve biological diversity.

"Because it's there" or The Moral Argument - We did not create life on earth and it is not our place to destroy it. We share this planet with millions of other species, and it violates all our civilized notions of respect and fairness to shove another species out of existence.

"Don't pop rivets on the spaceship" or The Practical Argument - Nature and all its creatures are one complex, interrelated machine. Killing species is like randomly popping out rivets on the spaceship earth; one or two are not likely to be noticed, but at some point the whole thing is going to come apart. To survive we depend on the whole interdependent ecosystem.

"There's gold in them thar hills" or The Economic Argument - We have not even begun to discover the economic potential of other species. A few dozen plants and animals provide the bulk of our food, clothing, and building materials. Many, many species are being lost before anyone has given any thought to their economic potential.

"Isn't Nature beautiful?" or The Aesthetic Argument - Nature is beautiful and interesting too. Our lives are enriched by its beauty. Our artists and writers are inspired by it. Our hearts are uplifted by the grandness of wild places. We all lose when such beauty is lost.

"Incest is for idiots" or The Genetic Strength Argument - In genetic diversity is the strength to adapt and survive. All plants and animal breeders know that a key to "improving" domesticated species is to replenish them with genes from wild stocks. With the loss of species, we impoverish the future gene pool for agriculture and other natural resource-based industries.

"Oh no! Bread mold in my petri dish" or The Research Argument - Everyone knows that penicillin was derived from bread mold. But did you know that more than half of all modern medicines can be traced to wild organisms? Thousands of species are being thoughtlessly destroyed before they can be thoroughly researched.

"Inquiring minds what to know" or The Education Argument - Nature is fascinating. Behaviors and adaptations of plants and animals can be as mind-expanding as they are interesting. In each generation, discovering the marvels of Nature can be the spark that ignites a lifelong quest for knowledge.

"It's better than television" or The Recreation Argument - Outdoor recreation is a connection to nature that most of feel is essential. Biodiversity supports numerous outdoor activities from hunting and fishing to birdwatching and spelunking. In fact, outfitting for camping, canoeing, hiking and related nature study has emerged as one of our fastest growing industries.

"Consider the lilies of the fields" or The Philosophy Argument - Humans have always asked the universal questions, Who are we? Why are we here? An appreciation of nature may not give the final answers but it shapes our understanding that we are only a part of a much larger creation.

"Were there really elephants, Mommy?" or The Legacy Argument - Can you honestly say you don't care that the world we leave our children won't have wild elephants or rhinoceroses? Or a million other species that were here when we came? Or vast prairies? Or rainforests? Or wilderness of any kind? If you can say you don't care, then let's hope the future children of the world don't care either. They won't have a choice.

Member Bulletin Board

Green Building Featured in Austin Monthly

The September 2003 issue of [Austin Monthly](#), titled "The Design Issue" featured two Green Building Program members. The "Easy Being Green" article featured a custom [Barley & Pfeiffer](#) house that is home to two families. Chris Krager and Christopher Robertson of [KRDB](#) were also featured for their work building sustainable modern and affordable homes in East Austin. KRDB worked with the city's [S.M.A.R.T. Housing program](#) to build two homes on Cedar Avenue. Their current S.M.A.R.T. Housing spec project, eight units which they intended to build on Astor Place, hit some snags with the Martin Luther King Jr. Neighborhood Association and will be relocated.

Green Building: It's Not Just For Hippies Anymore

Who would've thought that Green Building would be mentioned in Money Magazine of all places? The November 2003 issue has a story about Greg Brooks of [Innovative Builders](#) and the remodel he and wife, Suzee, did on their home. Looks like people are finally catching on to the message that Green Building can be financially efficient in both the short and long term.

Welcome to Our New and Provisional Members

Our very successful Green Building Basics seminar had a great turn-out. The Basics seminar is required for all members.

Welcome New and Provisional Green Building Program Members, cont.

Company Name	Contact Name	Phone Number
Anderson-Wise	Tim Dacey	
Blue Horse Building & Design	Fred Ballard	264-1366
Britton Schlinke Architect	Brit Schlinke	494-1629
Carter-Burgess	Randy Schrecengost	314-3160
Centex Remodelers	Rick Mahanax	917-7964
Clayton Levy	Paul Clayton	657-2644
Dick Ryan, Architect	Dick Ryan	478-8126
Duratherm Homes	Karl Kirkman	762-2338
FAB Architecture	Patrick Ousey	469-0775
Green Sol, LLC	Eddie Rodriguez	
HCS Development	Terence Bias	346-8100
Hopewell Construction	Purly Gates	847-5820
Miro Rivera Architects	Miquel Rivera	477-7016
MasterBuilder Homes &	Joe Bailey	261-4195

Construction		
Newcastle Homes	Mike Stoll	338-0064
Page Southerland Page	Peter Hoffmann	744-6668
Partners in Building	Donny Thomas	266-6701
Peter Riech	Peter Riech	258-7724
Plant Interscapes	Lisa Roberts	258-7357
Poss Homes, Inc	Monica Poss	775-0974
Powell Development	Doug Powell	
Star Homes of Texas	Farrell Kubena	563-9932
Texas Star Construction	Greg Guthrie	577-3957
White Construction Co.	Alan Harbert	302-1177
Woods Design	Anne Woods	899-8224

Xeriscape Advisory Board Looking for New Members

The City of Austin Xeriscape Advisory Board (XAB) is looking for new members. This Board, in association with the City of Austin Water Conservation, was formed in 1984 at the height of the Xeriscape movement. Xeriscaping has now become the norm in landscaping choices; however, the City of Austin Water Conservation continues to have programs and activities that relate to the promotion of Xeriscaping or WaterWise gardening. Past activities of the Board include the development of the award- winning SMARTscape booklet, an annual Xeriscape tour and a gardening school. Current programs include the "Garden Roadshow," a program to bring information about environmentally friendly landscaping to neighborhood groups.

The XAB meets currently every second Wednesday of the month at 3:00-4:30 pm at the Waller Creek Building on W. 10th. If you are interested in being on the Board, please contact Karen Stewart at 974-2978.