

LIFEREPORT

NOVEMBER 2006

UTSOLAR^D



Come LIVE LIFE in...

BLOOMhouse

UTsolarD is proud to present BLOOMhouse, our competition entry for the 2007 Solar Decathlon. It is built on five design principles found in LIFE: harvest, adaptation, community, endurance, delight.

BLOOMhouse embodies our playful personality with true Texas spirit. Louvers reminiscent of old Texan dance halls provide a simple solution for regulating heat and air circulation, and the east end of the home opens up to the outdoors,

allowing for natural flow of light, breezes and movement. Exterior sheathing performs like a layer of clothing, responding and adapting to its surroundings. The house also boasts radiant floors, an evaporative cooling water trough and thru-wall fiber-optic and LED lighting.

SAVE THE DATE!

Our design launch will be on
Wednesday, December 6
5:00 p.m. in Goldsmith Hall at
The University of Texas at Austin

What is UTsolarD?

The University of Texas at Austin Solar Decathlon Team is a collaborative interdisciplinary research group that provides leadership in the renewable energy revolution for a more livable, sustainable future through innovations in energy-efficient building design and environmental stewardship and competes in the biennial Solar Decathlons sponsored by the U.S. Department of Energy.

Learn more at www.utsolard.org
and www.solardecathlon.org

LIFEINBRIEF

UTsolarD Team Updates

Design Studio

We've wrapped up materials selection and are currently collaborating with other teams for energy-efficient measures and systems integration analyses. Up Next: Finish the base building construction documents package.

Engineering

Load calculations on soil-bearing pressure are complete, and we're finalizing the systems design and energy analysis. Up Next: Complete wind-load calculations, prepare for construction and transport, negotiate for equipment and support.

Logistics

We've launched our internal database, which will organize our transactions, inventory and contacts for generating custom reports and forms. Up Next: Finalize a construction schedule, contact manufacturers for specifications and estimates.

Economics

Preliminary scenarios for market financing and comparables for a marketable prototype are under way. Up Next: Develop a cost estimate for the marketable prototype, determining the economic feasibility of a multi-unit development.

Team wins BP Solar cells in design competition

Before the Solar Decathlon contests even begin, the UTsolarD team is already a winner.

Out of seven universities, UTsolarD won a preliminary design competition hosted by BP Solar last month. The competition evaluated design plans based on four specific criteria addressing commercial, economic, technical and overall efficient design.

For the grand prize, UTsolarD was awarded a set of BP Solar 7190 photovoltaic modules (190 watts/panel) valued at around \$50,000. The panels will be arranged in a

6.65 kW array on our butterfly-style roof. An innovative linear reflector will reflect additional solar radiation onto the PV panels to maximize their energy collection.

The PV array will be assembled on the ground and lifted on to the house as a completed unit using our original rack mounting system. This prototype installation and deployment design increases efficiency and reduces rooftop assembly safety risks.

"It's amazing to see how all the schools responded with innovative solutions," said Mary Shields, BP



Solar North America president. "It's this type of creativity that is taking the industry to the next level, making solar a cost effective alternative for the mainstream homeowner."

Meet some faces from the 2007 UTsolarD team!



Calendar of Events

November

11.29 NREL deliverable #2 due
11.29 Worldchanging Tour at BookPeople

December

12.06 BLOOMhouse DESIGN LAUNCH!!!

January

01.05-06 NREL workshop in Washington D.C.
01.10-12 Edison Lecture Series

LIFEINFACT

Enough sunlight falls on the earth's surface every hour to meet the world's energy demand for an entire year.

Source: <http://www.solarsource.co.uk/about-solar-hot-water.htm>

A 1-kilowatt home solar system will prevent approximately 170 lbs. of coal from being burned, 300 lbs. of CO₂ from being released into the atmosphere and 105 gallons of water from being consumed each month.

Source: <http://www.facts-about-solar-energy.com/facts-about-solar-energy.html>

Soak up the sun in a Dutchtub!



Architecture graduate student Ann Armstrong and Architecture senior Lindsey Jones take the Dutchtub for a trial soak at El Cosmico in Marfa, Texas.

UTsolarD is amplifying the fun factor with a colorful new outdoor addition to the BLOOMhouse.

After meeting with the team at Marfa, Texas in late September, Dutchtub offered to donate one of their unique hand-cast resin-hot tubs for the 2007 competition in Washington D.C.

The Dutchtub is naturally heated by the circulation of water through a wood-fired stainless steel coil and requires no electricity or plumbing.

"Dutchtub and the UTsolarD team share a general philosophy of lifestyle and 'experience,'" said Todd

Smith, Dutchtub U.S. representative. "UT also expressed to us a high quality of design since the start of considering our product for their system."

The team has fallen in love with the playful hot tub, which adds a substantial outdoor element to the house and has inspired a more open and dynamic design.

"We hope that the Dutchtub will provide the missing link of connecting sustainable systems and a progressive lifestyle," Smith said.

To find out more, visit Dutchtub at www.dutchtub.com.

LIFEIN GIVING

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BLUE

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LIFEINFOCUS Top left: Project coordinator Alex Miller stands in the center of a human sundial in Marfa, Texas. Top right: Business junior Ben Toscher shares information at a booth during the Renewable Energy Round-Up in Fredericksburg, Texas. Bottom right: Teams hard at work in the UTsolarD studio. Bottom left: Architecture senior Elli Keil roasts marshmallows over a Dutchtub flame in Marfa, Texas.



For more information about UTsolarD contact:

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Want to help the UTsolarD team? Contact us if you can help provide materials and services! We need:

Tools and equipment
Frequent Flyer miles/donations for travel
Printing services
Snacks, drinks and meals
Event planner
Treasurer/accountant