

DOE Picks University of Tennessee to Compete in the 2011 Solar Decathlon

DOE announced on April 15 the 20 collegiate teams selected to compete in the next Solar Decathlon, which will be held on the National Mall in Washington, D.C., in fall 2011. For two weeks, teams of college and university students from across the United States and around the world will compete to build and operate the most affordable, attractive, effective, and energy-efficient solar-powered houses. Hosted by DOE, the competition will highlight affordable homes that combine energy-efficient construction and appliances with renewable energy systems that are available today. Teams generally design and partially build their solar homes on or near their campus, then ship the homes by truck (and sometimes by barge) to the National Mall, where the teams have a limited number of days to finish construction. The teams then open their homes to the public while they compete in 10 contests.

Applications for the 2011 competition were evaluated by a panel of engineers, scientists, and experts from DOE's National Renewable Energy Laboratory. Teams were required to meet specific criteria to demonstrate their viability, including their ability to design and build an innovative, entirely solar-powered house; to raise additional funds; to support the project through a well-integrated curriculum; and to assemble the team necessary to carry the project through to completion. In addition, a panel of professionals from the American Institute of Architects, the National Association of Home Builders, the U.S. Green Building Council, building industry media, and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers evaluated conceptual designs from prospective teams. The results of their evaluations, combined with scores based on the four criteria listed above, determined the 2011 Solar Decathlon teams.

The University of Tennessee



A conceptual model of Living Light: UT Solar Decathlon House.

Living Light: UT Solar Decathlon House

The University of Tennessee's Living Light is inspired by the cantilever barns of Southern Appalachia. It uses common systems when adequate and innovative or complex systems when necessary. While developing the concept for Living Light, the team focused on:

- Harvesting the sun's energy using a rooftop photovoltaic array assembled from readily available products
- Leaving a small footprint by taking advantage of sustainable materials and construction methods
- Giving house residents control of light, view, and ventilation
- Organizing daily life around two cores: a public core that can enclose or extend as needed and a private core that can change from a sleeping space to a work space.