Cal Poly Chosen for National Solar-Home Competition; Initial Designs on Display Dec. 5

SAN LUIS OBISPO -- Cal Poly is one of 19 teams chosen from around the world to compete in a two-year "Solar Decathlon" to design and build the most energy-efficient and innovative home possible, and the campus and public will soon get their first look at students' ideas.

Schematic design ideas by Cal Poly students will be on display from 2 to 5 p.m. Dec. 5 in Room 314 of the campus's Architecture and Environmental Design Building.

Teams from the United States, Puerto Rico, Canada and Spain were selected this fall by the U.S. Department of Energy and co-sponsors to build 500- to 800-square-foot solar-powered dwellings that can generate enough energy to power a household, operate a home-based business and run an electric vehicle. The results will be judged on the National Mall in Washington, D.C., in the fall of 2005.

The 10 separate contests that make up the decathlon include such things as design and livability, design presentation, interior comfort, lighting, and energy balance, as well as communicating information about the house, powering the kinds of electronics a home business requires and charging the electric car.

Cal Poly's Solar Decathlon team already includes students and professors from the colleges of Architecture and Environmental Design, Engineering, and Liberal Arts, and students from other colleges are expected to join in the project. To broaden participation, a student design competition will be launched during winter quarter, led by the campus's Renewable Energy Club. Special courses are expected in the spring.

Because the contest means building an actual small home, transporting it to the nation's capital, rebuilding it there, then bringing it home, it will be expensive -- an estimated $250,000 to $500,000. The team plans to raise the money through public and private donations.

"The Department of Energy has been eager to get Cal Poly involved," said Architecture Professor Robert Peña, "because of the reputation of this school as being a hands-on, technically and professionally oriented school."

Peña and professors Sandy Stannard (architecture) and Jesse Maddren (mechanical engineering) are anticipating an entry that is not only aesthetically and technically innovative but that also might serve as an
example for rethinking contemporary patterns of residential living. Among the issues the team is exploring are a high-quality, low-cost prototype design for disadvantaged populations, the use of new technologies and materials, and the thoughtful application of principles of sustainability.

For more information about Cal Poly's effort, contact Stannard at (805) 756-2076 or stannard@calpoly.edu.

This will be the nation's second Solar Decathlon. More information on the competition, including results of the first event, which concluded in 2002, is on the Internet at www.eere.energy.gov/solar_decathlon.

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