



ECOHABIT

SPONSORSHIP OPPORTUNITIES

Stevens Institute of Technology
Solar Decathlon 2013

stevens.edu/sd2013

About the Competition

- Competition hosted by U.S. Department of Energy every 2 years
- Involves 20 university teams from around the globe
- Objective: design, build, & operate the **most energy-efficient solar-powered home** within prescribed cost limits
- Teams will display houses in **Irvine, California in October 2013**
- The Solar Decathlon will be a part of the Orange County Great Park's **XPO, a world's fair of clean, renewable and efficient energy**
- For more information on the Decathlon, visit www.solardecathlon.gov

THE SOLAR DECATHLON

Home designs are tested, judged on, and scored in the following categories:

- 1 ARCHITECTURE
- 2 MARKET APPEAL
- 3 ENGINEERING
- 4 APPLIANCES
- 5 AFFORDABILITY
- 6 COMFORT ZONE
- 7 HOT WATER EFFICIENCY
- 8 HOME ENERGY
- 9 ENERGY BALANCE
- 10 COMMUNICATION

About Stevens

- Stevens Institute of Technology has trained leaders in the fields of science and engineering since 1870
- Stevens took home **two first prizes in hot water efficiency and affordability** in the 2011 Solar Decathlon
- **Stevens founders, faculty & alumni have been awarded 2 Nobel prizes**, discovered the neutrino, and co-founded General Motors and Texas Instruments
- **Stevens research collaborators** include NASA, Google, the Department of Homeland Security, and the Department of Defense
- Team includes a cross-disciplinary team of students with expertise in design, engineering, architecture, art, and computer science



Ecohabit Vision

At the heart of Ecohabit are a number of leading-edge technologies and new building innovations.

Ecohabit incorporates the latest technology, research, and “Smart House” principles to demonstrate that solar power is an affordable, viable, and reliable home energy source. It does so by automating energy systems with powerful software, while also placing full control of these systems squarely with the occupants.

This home will adapt to living patterns, activities, and family sizes. It will collect weather forecasts and automatically adjust heat, cooling and humidity. It will be easy to maintain: all plumbing, heating, and mechanical systems are combined in one small area. It is attractive: natural light enters windows year-round, yet the home’s walls seal in heat at night and in winter. And it can be controlled by all house users from a single tablet application.

Innovation *at the core*

1

The home will be remarkably intelligent. As we will demonstrate in California, it will quickly learn the habits of its occupants through sensor-gathered data: when they sleep, do the laundry, and watch television – as well as when the house is full or empty – and adjust energy use accordingly. An integrated software package will control all systems, and is easily accessible from a smart-device application.

2

The home will be made of newly created ‘phase-change’ materials in the walls. These walls collect the sun’s heat during the day, then release warmth back into the house during the evening. The roof will be constructed with Dow Solar Shingles, a fully integrated PV system that converts the sun’s rays into electricity to power the house.

3

The home will feature in-house design innovations such as on-demand hot water sensors that enable the user to only use the water they need, a misting system that reuses condensate to cool outdoor units, and modular furniture construction that can be reconfigured over time and adapt based on the needs of the users.

The Stevens Solar Decathlon team brings together a cross-disciplinary group of students with expertise in design, engineering, architecture, art, and computer science. Ecohabit supports the educational enrichment of students in the areas of sustainability, innovation, and green technology – this unique training prepares students to advance our nation’s clean-energy workforce.

Stevens faculty will advise the student design team, led by professors John Nastasi and Keith Sheppard. Professor Nastasi is an award-winning architect, a Stevens Industry Professor, and Director of Stevens’ Product-Architecture Program. He has consulted and served as a visiting design critic for clients and academic institutions worldwide. He received a Masters of Design, with distinction, from Harvard University in 2003. Professor Sheppard is a professor of Chemical Engineering & Materials Science, as well as Associate Dean of the Charles V. Schaefer, Jr. School of Engineering and Science with research specialties in the electrochemical aspects of materials, including corrosion. He received his PhD from Birmingham University.

Stevens Institute of Technology is a not-for-profit institution. All donations are fully tax deductible.

Support our Team



How you can help

FINANCIAL SUPPORT

- To help fund travel, research, construction, and transportation costs for the competition
- To help fund outreach when Ecohabit becomes a functional, livable home post-competition

IN-KIND DONATIONS

- Of materials, systems, & software
- Of tools & equipment

CONSULTATION

- Expertise
- Training

Membership Opportunities

Joining our team brings so many advantages.

Your company will be seen to support alternative energy, materials, and cutting-edge research by tens of thousands of Solar Decathlon attendees and interested consumers. You will benefit from multiple media placements, including social media, print, web, television, and radio outreach. And you will spend time with our internationally renowned faculty, talented students, and accomplished alumni.

Higher membership circles include benefits listed in previous circles.



ENGINEER'S CIRCLE

\$500 - \$4,999

- Your company's name listed in our quarterly newsletter and website
- Walk-through during build day
- An Ecohabit T-Shirt

INNOVATOR'S CIRCLE

\$5,000 - \$19,999

- A personal plaque commending your support
- A featured article about your company in our quarterly newsletter
- Your company's name and logo will be displayed at the Hoboken build site
- Invitation to our "Kickoff" party
- Your company's logo on our Ecohabit T-Shirt

BENEFACTOR'S CIRCLE

\$20,000 - \$49,999

- Private tour of the house with your company during construction in Hoboken
- Framed drawings of the house
- Logo listed as a major contributor on our website
- An invitation to dinner with other Benefactor's Circle sponsors

PRESIDENT'S CIRCLE

\$50,000 - \$99,000

- Physical, scaled model of our final design
- Name engraved on a panel in the house
- Your company's name and logo featured prominently on our website
- Name on all of our team's publicity materials
- An invitation to dinner with the President's Circle and the President of Stevens Institute of Technology

FOUNDER'S CIRCLE

\$100,000 +

- Naming rights to a room of your choice in the house
- The opportunity to host/attend events in California during the competition
- Access to the Hoboken build site for the duration of construction

Press Opportunities

Ecohabit sponsors and collaborators will receive high visibility and brand placement on an international stage.

Your company will be associated with innovation, responsible science, sustainable energy and state-of-the-art materials and practices. Ecohabit will also be seen to support the innovation that is making next-generation green technology a reality.

The 2011 competition was covered in nearly 300 newspapers with more than 175 million readers.

In addition, sponsors benefit from:

The 2011 competition was covered in nearly 300 newspapers with more than 175 million readers including The New York Times, Jersey Journal and (Bergen) Record; on radio broadcasts reaching 75 million listeners; and to viewers of television programs & networks including CNN, CBS, NBC, FOX News, The Today Show, Good Morning America and 60 Minutes.

- **Visibility at high-profile events** leading up to, during & after Decathlon
- **Exposure to key consumers** of “green” building materials
- **Interaction with Stevens board members**, administration, faculty, students, and influential alumni
- **A full suite of included media support** and outreach services from Stevens, including mentions in NewsPoints monthly e-newsletter (circ. 35,000)
- **Feature stories on Stevens web sites**
- **Press releases posted to online & print media**
- **Full social media support & recognition** on Stevens Facebook, LinkedIn, Twitter, & YouTube pages
- **Event participation, speaking, and video opportunities**

Timeline of Events



In the 2011 Solar Decathlon, Stevens and Parsons worked with Habitat for Humanity and donated Empowerhouse to an eligible candidate in the Deanwood neighborhood of Washington DC. Empowerhouse is currently the most energy-efficient home in the District of Columbia.

The Stevens Team hopes to find a permanent home for Ecohabit after the competition in Irvine, California, and plans to donate the house to a war veteran in the area.

1

DESIGN PHASE

- **Design Development in Fall 2012** including BIM model, drawings, project manual, health & safety plan, and target construction costs
- Visualizations and **animated walkthrough** created September through December 2012

2

CONSTRUCTION & TESTING PHASE

- Construction Documentation **finalized by February 14, 2013**
- House construction begins on the **Hoboken, New Jersey waterfront in March 2013**
- **Testing phase** of all mechanical and electrical systems begins in July 2013

3

TRANSPORTATION PHASE

- Ecohabit is disassembled into wet and dry modules to be **trucked to Irvine, California** in early August 2013

4

COMPETITION PHASE

- Ecohabit arrives at **Orange County Great Park** in Irvine, California by September 21, 2013
- Competition begins on September 22, 2013 and houses are **reassembled in the Solar Village**
- All homes are open for **public exhibit starting October 3 until October 13, 2013**. Teams give tours of the home to the public and display signage to promote their team

5

POST COMPETITION & FUTURE

- Ecohabit is to be donated to become a permanent home for a war veteran in the Southern California area

stevens.edu/sd2013



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