



# U.S. DEPARTMENT OF **ENERGY**

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### ***The University of North Carolina at Charlotte Wins People's Choice Award; All Student-Built Houses Produced More Energy Than They Consumed as the U.S. Department of Energy Solar Decathlon 2013 Concludes***

*Teams Built Net-Zero Houses at an Average Estimated Construction Cost Under \$280,000*

**Irvine, Calif.** – The U.S. Department of Energy Solar Decathlon 2013 concluded this weekend at the Orange County Great Park in Irvine, Calif. Approximately 4,000 collegiate students from 19 teams spanning four countries on two continents gained valuable hands-on experience while participating in the two-year project. In this prestigious, clean energy competition's West Coast debut, for the first time all the highly energy-efficient solar-powered houses designed by the student teams were net-zero during the contest period, producing more energy than they consumed.

Student competitors welcomed approximately 64,000 visitors and are estimated to have conducted more than 300,000 house visits during the public days, showing off the energy-saving products, renewable energy systems and design features that made each team's entry unique. In the end, Team Austria from the Vienna University of Technology was crowned the overall winner. At Saturday evening's Victory Reception, The University of North Carolina at Charlotte won the People's Choice Award for the Solar Decathlon's most popular house, which is based on an online voting poll among visitors, online followers and consumers.

"Over the past two years, these aspiring clean energy innovators, engineers and entrepreneurs have received unique training that prepares them to lead the future clean energy workforce," said Richard King, director of the Solar Decathlon for the U.S. Department of Energy. "Visitors and online followers of the competition have seen for themselves that affordable, energy-efficient solutions can help them save money by saving energy."

Statistics from the U.S. Department of Energy Solar Decathlon 2013 include:

- **All of the student-built houses produced more energy than they consumed** for the first time in the competition's history
- **Approximately 64,000 people visited Solar Decathlon 2013**, according to the Orange County Great Park and City of Irvine
- **It is estimated that more than 300,000 house visits** were provided to the public by the student teams
- **Three houses achieved estimated construction costs under \$250,000** -- Norwich University, Stanford University, and Kentucky/Indiana tied for first place in the Affordability Contest, showing the reasonable cost of many energy-saving home improvement products and design solutions; the average estimated construction cost for all 19 of the net-zero houses was under \$280,000
- Approximately **4,000 collegiate students** earned valuable experience by building an energy-efficient house with peers in other disciplines, helping them prepare to enter the clean energy workforce
- Collegiate teams from **four countries and two continents** participated

- **The 2013 teams and their houses represented a broad range of design solutions, geographic locations and climates** and were targeted toward urban, suburban and rural settings
- The houses were intended for different housing markets, including **veterans housing, disaster relief, retirement, second-home and single family.**

Many of this year's competition houses will become teaching tools for industry professionals and students across the nation, and some will be donated to communities for the disadvantaged or disabled. Teams have begun to disassemble their houses and will depart Irvine later this week. Over the coming months, the houses will travel across the country and the globe on educational tours and to their final destinations. Some of the houses are sold to recover costs or raise money for future teams. Many of the houses from previous competitions are used for continued research and are on display for public tours at their respective universities.

The Solar Decathlon is an award-winning competition that challenges collegiate teams from around the world to design, build and operate solar-powered houses that are affordable, highly energy efficient and attractive. The winner of the competition is the team that best blends affordability, consumer appeal and design excellence with optimal energy production and maximum efficiency. The top three overall finishers of Solar Decathlon 2013 were Team Austria, the University of Nevada Las Vegas, and Czech Republic, composed of students from Czech Technical University. The complete list of final results and team scores may be found below and on [www.SolarDecathlon.gov](http://www.SolarDecathlon.gov).

For full event information and high-resolution photos and videos, visit [www.SolarDecathlon.gov](http://www.SolarDecathlon.gov). To view final scores and standings for the overall competition and individual contests, see below or visit [www.SolarDecathlon.gov/scores.html](http://www.SolarDecathlon.gov/scores.html). B-roll footage of individual teams, houses and the overall competition is [available for download](#) copyright-free. You also may join the conversation on Facebook at [Facebook.com/DOESolarDecathlon](https://www.facebook.com/DOESolarDecathlon) and Twitter at [@SolarDecathlon](https://twitter.com/SolarDecathlon). Photos are also available on Flickr at [http://www.flickr.com/photos/solar\\_decathlon/](http://www.flickr.com/photos/solar_decathlon/).

### **Solar Decathlon 2013 teams competing at the Orange County Great Park**

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| <ul style="list-style-type: none"> <li>• <b>Arizona State University and The University of New Mexico</b></li> <li>• <b>Czech Republic</b> (Czech Technical University)</li> <li>• <b>Kentucky/Indiana</b> (University of Louisville, Ball State University, and University of Kentucky)</li> <li>• <b>Middlebury College</b></li> <li>• <b>Missouri University of Science and Technology</b></li> <li>• <b>Norwich University</b></li> <li>• <b>Santa Clara University</b></li> <li>• <b>Southern California Institute of Architecture and California Institute of Technology</b></li> <li>• <b>Stanford University</b></li> <li>• <b>Stevens Institute of Technology</b></li> </ul> | <ul style="list-style-type: none"> <li>• <b>Team Alberta</b> (University of Calgary)</li> <li>• <b>Team Austria</b> (Vienna University of Technology)</li> <li>• <b>Team Capitol DC</b> (The Catholic University of America, George Washington University, and American University)</li> <li>• <b>Team Ontario</b> (Queen's University, Carleton University, and Algonquin College)</li> <li>• <b>Team Texas</b> (The University of Texas at El Paso and El Paso Community College)</li> <li>• <b>University of Nevada Las Vegas</b></li> <li>• <b>The University of North Carolina at Charlotte</b></li> <li>• <b>University of Southern California</b></li> <li>• <b>West Virginia University</b></li> </ul> |
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## ***Solar Decathlon 2013 Final Scores and Standings***

1.	Team Austria	951.922
2.	Las Vegas	947.572
3.	Czech Republic	945.142
4.	Stevens	939.176
5.	Stanford	933.125
6.	Team Ontario	926.478
7.	Team Capitol DC	920.267
8.	Middlebury College	920.262
9.	Team Alberta	913.574
10.	University of So Cal	906.203
11.	Santa Clara	888.929
12.	Norwich University	876.928
13.	North Carolina	870.210
14.	SCI-Arc/Caltech	868.666
15.	Kentucky/Indiana	850.079
16.	Missouri S&T	840.455
17.	AZ State/New Mexico	823.165
18.	Team Texas	776.454
19.	West Virginia	774.742

## ***Solar Decathlon 2013 Individual Contest Winners***

### **Affordability (Awarded Thursday, October 10, 2013)**

Norwich University, Stanford University and Kentucky/Indiana tied for first and earned the full 100 points in the contest by constructing houses estimated to cost \$168,385, \$234,092 and \$248,423, respectively. The Affordability Contest encouraged teams to design and build affordable houses that combine energy-efficient construction and appliances with renewable energy systems. Teams earn the full 100 points for achieving a target construction cost of \$250,000 or less, as evaluated by a professional estimator. A sliding point scale was applied to teams with estimated house construction costs between \$250,001 and \$599,999. No points are awarded to any house that costs \$600,000 or more; however, none of the Solar Decathlon 2013 houses fell within this category.

### **Appliances (Awarded Saturday, October 12, 2013)**

The University of Southern California took first place and earned 99.665 out of 100 possible points by outperforming the other 18 houses in keeping its refrigerator and freezer cold, washing and drying loads of laundry during the contest week, and running a dishwasher during the competition. The Appliances Contest is designed to mimic the appliance use of an average U.S. house.

### **Architecture (Awarded Friday, October 11, 2013)**

Czech Republic took first place in the Architecture Contest and earned 98 points out of a possible 100. A jury of architects judged houses on the aesthetic and functional elements of the house design; integration and energy efficiency of electrical and natural light; inspiration and delight to Solar Decathlon visitors; and documentation including drawings, a project manual, and an audiovisual architecture presentation that accurately reflect the constructed project on the competition site.

**Comfort Zone (Awarded Saturday, October 12, 2013)**

Santa Clara University led the contestants in the Comfort Zone Contest, with 99.485 out of 100 points for maintaining indoor temperatures between 71 and 76 degrees Fahrenheit and relative humidity below 60 percent.

**Communications (Awarded Friday, October 11, 2013)**

Team Austria's communications efforts, including communications plans, student-led tours and team website, were judged by a jury of communications experts and won the contest with a score of 94 points out of a possible 100 points.

**Engineering (Awarded Saturday, October 12, 2013)**

Team Ontario won the Engineering Contest as judged by a group of prominent engineers that evaluated which solar-powered house best exemplified excellence in functionality, efficiency, innovation, reliability and documentation of its energy systems. Team Ontario scored 95 out of a possible 100 points.

**Home Entertainment (Awarded Saturday, October 12, 2013)**

Santa Clara University earned 98.794 out of a possible 100 points in this contest, which required students to use electricity generated by their solar houses to run interior and exterior lights, a TV, a computer and a kitchen appliance to boil water. Teams were also required to hold two dinner parties and a movie night for neighbors.

**Hot Water (Awarded Saturday, October 12, 2013)**

Six teams tied for first and earned the full 100 points in the Hot Water Contest's "hot water draws," which aimed to deliver 15 gallons of hot water in 10 minutes or less. Tying for top honors in this contest were: Middlebury College, Stevens Institute of Technology, Team Alberta, Team Austria, Team Ontario, and University of Nevada Las Vegas.

**Energy Balance (Awarded Saturday, October 12, 2013)**

For the first time in Solar Decathlon history, all teams tied for first and earned the full 100 points in the Energy Balance Contest. Teams earned points for producing at least as much energy as their houses needed during the contest week. The teams accomplished this by balancing production and consumption.

**Market Appeal (Awarded Thursday, October 10, 2013)**

University of Nevada Las Vegas won the Market Appeal contest, which evaluated whether the energy-efficient construction and solar technology in a team's design would create a viable product on the open market. Judges gauged market appeal based on three criteria: livability, marketability and constructability. UNLV earned 94 points out of a possible 100 as judged by the professional jury for its house that is intended for the second-home market in the desert U.S. Southwest.

For the first time, the Solar Decathlon was hosted alongside an XPO, a clean, renewable and efficient energy exposition, featuring visionary and innovative companies, products and educational opportunities, organized by the City of Irvine and Orange County Great Park. Through fun, interactive exhibits and activities, the XPO provided visitors with information about the broad spectrum of energy efficiency in home design, transportation, consumer products, food production and education. Visitors experienced a 21st-century festival of creativity, technology, design and educational experiences that inspired children and adults alike. Learn more at [www.TheXPO.org](http://www.TheXPO.org).