



Solar Decathlon

Energy We

Can Live

With

June/July 2002



Hans Harris, a decathlete with the University of Maryland, demonstrates a solar-powered water pump to visitors at Maryland Day.

A Month of Activity in Maryland

From a campus-wide event to a construction site cookout (not to mention, finals), this past month has been exciting for our University of Maryland (UMD) Solar Decathlon Team. The excitement began with Maryland Day on April 27, when more than 60,000 people visited the University of Maryland's College Park Campus. This family-centered event, with activities such as a student pie toss and autograph sessions with the NCAA Basketball National Championship Team, provided outreach opportunities for campus groups. Virtually every group on campus was represented in some way, including the UMD Solar Decathlon team.

Our team set up three tables for the event: one at the engineering school, one at the architecture school, and one at the construction site. In addition to plans and models of our house, each exhibit contained interactive solar demonstrations. At one exhibit, an evacuated heat tube produced steam

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Director's Note

We had a very productive spring. In late April, we met with all the organizers and sponsors of the Solar Decathlon. Representatives from the Department of Energy, the National Renewable Energy Laboratory (NREL), BP Solar, Home Depot, EDS, and the American Institute of Architects worked together for two days to prepare for the event this fall. Everyone is fully committed to making the inaugural Solar Decathlon a huge success.

We also met with the National Park Service (NPS) this spring. We presented detailed drawings of the solar village designed by the Virginia Tech Washington-Alexandria Architecture Consortium to NPS officials. The village drawings helped the Park Service better understand visually what will take place this fall. They were also impressed with the hard work and professional planning associated with the event. As a result, we alleviated some of their concern over constructing 14 houses at one time.

Because so much information remains to be conveyed to the teams, we are considering other means of communicating, including the possibility of holding another team meeting in August to answer questions and help prepare everyone for the event. We are currently targeting August 17, in Washington, D.C., one month before the event.

And one last detail: the TH!NK *neighbor* electric vehicles have been ordered and should be arriving at dealerships by mid-June. Dan Eberle should have contacted each team by now to make plans for pick-up and delivery. As soon as all required documentation has been provided to NREL, and approved, teams will be allowed to pick-up their vehicle. Eberle has also helped to write the regulations for the "Getting Around" contest and will be in charge of this transportation contest during the event. Dan Eberle organizes the American Solar Challenge solar car race, so he has ample experience. You can look forward to meeting Dan and participating in this fun part of the Decathlon.

Summer has arrived and all the teams are in the construction phase of their projects. This is a critical time. I wish you the best as you continue to prepare your entries.

I am really looking forward to late September when your houses and the village are assembled and constructed on the Mall. To be part of such a monumental effort, and to watch as a whole village is built up around us, will be impressive.

Richard King



A Month of Activity in Maryland

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instantly when water was sprinkled on the hot tip. At another table, solar panels powered a television and VCR playing solar power videos. But by far, the most popular demonstration was a simple water pump powered by a photovoltaic panel. Both children and adults were fascinated by the fact that they could shade the panel and watch the water stop pumping.

Two weeks after Maryland Day, our structurally insulated panels (SIPs) arrived. These panels make up the walls and roof of our house. After a year of planning, we finally got the chance to put things together. We invited many of our sponsors and the local press to share in our excitement and join us as we began to raise our house. Not only did this lead to many articles, but a local news station also ran a story on our house.

Since that first day of house construction last week, our team has worked nonstop. Like some other projects that we have tackled, construction took longer than we anticipated. We expected to have our SIPs in place and our house constructed in a few days, but it took a whole week. Working both day and night through our finals week, our team raced to get everything in place before we had to return the loaned forklift. By the end of the week and our last day of finals—we had a house.

Virginia Tech Team 'Let It Shine' on Earth Day 2002

The Virginia Tech solar decathletes unveiled their solar house plans on Earth Day 2002. They created a kick-off event for the first public display of their project, providing the university and its greater community an opportunity to see, feel, and experience the design concepts. Bob Schubert, Associate Dean for Research said, "Up to that point we'd been pretty protective of the design, but we thought Earth Day might be a very appropriate time to talk about an environmentally conscious building. We recognized that this was going to be one of the few opportunities for folks on campus to see our intentions."

Highly visible and centrally located on campus, a 10-foot-high exhibit served as the central point of information for the event. Here, students displayed some of the materials that will be incorporated into the house, including solar panels, batteries, wall panels, and fiberglass I-beams. A laptop and 42-inch plasma screen powered by the solar panels also served as a "working display," projecting a PowerPoint presentation about the project throughout the day.

Participants were also able to get a virtual view and walk-through of the house at the university's virtual

The team is thrilled to see our house standing proudly on campus. In honor of this major milestone, as well as the end of the semester, and the graduation of many of our teammates, we planned our third and final event of the month—a cookout celebration. We hosted a cookout at our construction site and hosted tours for students and faculty interested in our house. Again, we invited local media to cover the event. The cookout also marked the change in leadership of the team as the project manager and the seniors in the class graduated the following day. The new project manager and remaining teammates take over as the project transitions into a new phase of construction.

*Alex Yasbek and Robyn Hladish
University of Maryland*

Congratulations Glenn Murcutt

Congratulations to Glenn Murcutt, one of the jury members for the Design and Livability Contest. Murcutt received the 2002 Pritzker Architecture Prize, an international honor that has often been described as architecture's most prestigious award or as the "Nobel Prize" of architecture. For more details, and statements from the jury, visit the Pritzker Prize Web site at <http://www.pritzkerprize.com/>.

environment facility. Three students developed the virtual model of the house (using 3-D Studio software), which served a dual purpose—to have a virtual representation of the structure for the public and for the team to use as a design tool. "It's probably the most powerful tool we could have used to present these complex ideas to the public, but it's also been good for us to figure out where things go," says Schubert. "When you're limited on space, you're looking for every square inch that you have. Even trying to figure out where a particular wire would go—we could literally follow it underneath the floor or up the wall and through the ceiling."

With more than two dozen sponsors and a team of students working throughout the summer, the virtual house will soon become a reality.

More information about this project can be found at the team's Web site at www.caus.vt.edu/vtsolar/index.htm.

*Sarah Newbill
Virginia Polytechnic Institute and State University*



Reaching Out on the Mall

After two years of hard work planning, designing, constructing, transporting, and assembling your Solar Decathlon house, you'll have quite a story to tell. The Graphics and Communications contest, of course, requires you to tell that story via your Web sites, newsletters, and house tours. But you are only required to open your houses to the visiting public for just a few days out of the entire three-week event. We know you'll want to do more outreach, so the Solar Decathlon Organizers have come up with a few additional venues for reaching out to the media, visiting VIPs, and the public.

Opening and Closing Ceremonies

During the morning of Thursday, September 26, we will hold our Opening Ceremonies. We have not ironed out all the details yet, but you will be free to invite your own guests. We'll have speakers for about an hour. After that, we'll have a ribbon-cutting ceremony and the village will be open for all in attendance to tour the houses. Closing Ceremonies are planned for the morning of Saturday, October 5. Again, you will be free to invite your own guests, and the speaking portion of the ceremonies will be followed by tours for all in attendance. We will have a Victory Banquet that same evening, but attendees will be limited to teams, organizers, and title sponsors.

Team-organized Special Events

Several teams have expressed a desire to invite their team sponsors, school officials, school alumni, and U.S. senators and representatives to "private" events on the Mall. We encourage all teams to do so. But to ensure that all teams do not schedule an event at the same time, and to ensure compliance with NPS regulations, we'll need to do some coordination.

First, some ground rules. Receptions that involve food and beverage cannot be held on our area of the Mall. No alcoholic beverages are allowed anywhere on the Mall. Teams may hold private tours at which they serve bottled water and sodas, but receptions that involve food must be held off the Mall. There are many reception venues (e.g., hotels and restaurants) located nearby.

Designated days for private tours held by the teams are:

Friday, Saturday, and Sunday, September 27, 28, and 29, from 9:00 a.m. to 5:00 p.m.

Friday, October 4, 3:00 p.m. to 5:00 p.m.

Sunday, October 6, from 9:00 a.m. to 5:00 p.m.

You must inform the Organizers of your plans regarding private tours and receptions. Contact Linda Floyd at NREL (linda_floyd@nrel.gov or 303-275-3647) to schedule and get approval for your event.

Exhibits and Presentations

The Solar Decathlon is sure to draw a great deal of attention. Since the early planning stages of the competition, we've struggled with the conflict between the teams' needs to control access to their houses while, at the same time, meeting the educational needs of visitors. From Monday, September 30, to Friday, October 4, teams are not required to allow visitors into their houses. What does that mean? If weather and competition strategy permit, we expect that you will make your house available to visitors, especially visiting media. So please be flexible and plan accordingly.

In anticipation of the houses being closed, we will offer each team a 6-ft. table for tabletop exhibits in our main exhibit tent. We encourage you to bring your architectural models and any additional exhibit materials that will help to explain your design philosophy and approach, the energy efficiency and energy production features of your house, and any other information you think might interest the public. We will also install laptops in the tent for use as public Internet terminals. We will locate the terminals in such a way that two teams can share one terminal and use that terminal for exhibit purposes as well. If you have an electronic presentation that you would like us to load onto the hard drive of the laptop, we can do that. We cannot supply any power for your exhibits. We will have power for lighting in the tent, for the laptops and projector, but nothing more.

In addition to the tabletop exhibits, we would also like to plan a series of presentations by the teams. Most of you have already prepared presentations for potential sponsors and for various events in the past six months or so, and those would be perfectly adequate. We will have the laptops available for presentation files and an LED projector. Again, we cannot supply additional power for your exhibits.

Exhibit materials and presentations must be pre-approved by the Organizers. Please contact Linda Floyd at NREL (linda_floyd@nrel.gov or 303-275-3647) if you are interested in making a presentation and having an exhibit in the tent.

School Tours

We have invited elementary and middle schools in the Washington, D.C. area to visit the Solar Decathlon on Friday, October 4, from 10:00 a.m. to 5:00 p.m. We deliberately planned a day of activities for schools to occur on the last day of the energy-related contests. While teams will not be required to open their houses to the school groups, our hope is that some of the teams will. At a minimum, please be prepared to accommodate school groups in some way.

Ruby Nahan



The Price is Right

Potential Solar Decathlon Team sponsor...come on down! You're the next contestant on the Solar Decathlon 'Price is Right!'

Are you struggling with raising money for the Solar Decathlon? If you are, here are a few tips that will help you. When asking for cash donations, always remember to detail your expenses. You will demonstrate to potential sponsors that you have a solid plan and can provide the price tag for the support you need. You will also help the potential sponsor choose what best fits their organization and how they might benefit from sponsorship. Remember, sponsors like a win-win situation when donating money or services, so be creative in showing them how they will win!

Potential sponsors come in all walks of life, from school alumni, to your school's development office, to local professional associations. School alumni in general, and especially those who work in an industry related to the Solar Decathlon, can be a tremendous resource—from sponsoring your team to providing housing during the Decathlon (for alumni that reside in the Washington, D.C. area, of course) to pointing you in the direction of another sponsoring resource. Your school's development office may be an important resource as well. Development offices are in the business of raising money; they have connections and valuable experience. Professional organizations such as American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), American Institute of Architects (AIA), American Society of Mechanical Engineers (ASME), American Solar Energy Society (ASES), National Association of Home Builders (NAHB), and Solar Energy Industry Association (SEIA), just to name a few, are also another avenue through which to pursue sponsorship. They may provide sponsorship at the national or local-chapter level or refer you to one of their professional members.

Remember: detail your expenses, demonstrate how your sponsors will win, and get in touch with your potential sponsorship audience now.

If you have questions, please call Linda Floyd at (303) 275-3647.

Linda Floyd

Competition Registration

Please start thinking about registration for the event, in addition to other competition details. For example, where will you be staying in Washington, D.C.? Which team members will be driving the electric car? The registration process will begin about six weeks before construction on the Mall. So don't panic, but do be aware that registration will be a requirement for every participant.

Each team member, plus judges, officials, and observers, must complete a registration form. Apart from the usual name, address, affiliation, and telephone numbers, we will need a completed medical form for each team member. Photo ID badges will be issued to each participant—so be prepared to send digital photos if they are requested. We will also need your contact information in Washington, D.C., in case we need to contact you during the event.

We will be requesting additional information from the teams. For example, each team must identify three decathletes as designated drivers for the "Getting Around" contest. We will need a driver's license number and proof of insurance for each driver.

Registration forms will be available soon. We want to start the process early to ensure an efficient registration process. We also realize that we must be prepared for the possibility of heightened security in Washington, D.C.

*Pamela Gray-Hann
Wendy Larsen*

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