Project Solar shines light on sustainable energy in Yolo County

Summer program focuses sustainable energy in Yolo County

By Sarah Dowling

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Despite intense heat and a few sunburns, students got a taste of their futures while installing solar panels this summer.

Focusing on solar, wind, hydro and other forms of renewable energy, Project SOLAR — a five-week summer academy offered by the Yolo County Office of Education — gave students from six local high schools a chance to experience green career options.

Not all the work was done in the cool of the classroom. In fact, much of it was done in the hottest parts of the day.

"The goal of this program is to see where we could best integrate it into the classroom," said Deborah Bruns, curriculum coordinator with the Yolo County Office of Education. Over time, Bruns would like to see the program expand to the elementary and middle school levels, making renewable energy part of the year-round curriculum.

Through a partnership with Woodland Community College, the 25 students were from high schools in Woodland, Sacramento, Winters, West Sacramento and Davis spent the summer building solar ovens, installing solar panels, and going on field trips while earning college credit.

Bruns wants Project SOLAR to serve as a model for other districts. She would like to see Solano Community College, for example, develop a similar program for high school students in Solano County.

Bruns is just one of many people who worked together to make Project SOLAR a reality. She helped coordinate the activities, speaking at local high schools to recruit students, while instructors Jerry Del Sol and Jennifer McAllister worked together in the classroom.

"The kids are from all over, it's a regional project," McAllister said. The first three days of the program, students got to know each other through "ice-breaker" activities. McAllister said it was important to set up a foundation since many of the students had never met.

After introductions, "they found out that they have more in common than they thought," McAllister said.

Both instructors have taught students about sustainable energy in the past — Del Sol at Woodland High School, and McAllister at River City High in West Sacramento. Project SOLAR, which is in its first year, was a way for both instructors to not only teach students, but learn from each other.

Del Sol, who is also an adjunct professor at Woodland College, has taught similar concepts at the college level. Using this experience, Del Sol helped plan lessons, having each week of the summer course focus on something different.

From basic to complex concepts, the first week focused on where energy comes from, starting with plants, which harness energy from the sun through photosynthesis. To learn more about this process, students visited the Cache Creek Nature Preserve, which was the first of many field trips.

From there, students learned about capturing energy from the sun, using small solar panels, manipulating the angle of the panel to collect more sunlight, producing more energy. Once they grasped this concept, students worked together to design and build solar ovens.

For Baylee Cox, 15, from Woodland High, the solar ovens were her favorite part of the project. Her oven reached 305 degrees, baking peanut butter cookies for her classmates.

Like many of the students, Cox joined Project SOLAR to learn more about how energy is generated. After completing the course, Cox said she is definitely considering a career in solar

One of many partnerships Project SOLAR fostered this summer was with Grid Alternatives, a nonprofit organization that brings the benefits of solar technology to communities that would not otherwise have access.

Through this collaboration, students were able to install solar panels on a house in Woodland.

Students older than 18 were able to work on the roof, while others measured the energy output of the panels on the ground before hoisting them onto the roof one by one, using a ladder to guide them.

Kelly Neal, 17, is in charge of the environmental science club at Pioneer High School. She said Project SOLAR "obviously sounded like a perfect opportunity to get a lot of experience." She also enjoyed the "local aspect" and how utilizing renewable energy benefits communities.

Neal plans on majoring in environmental science in college.

For Gabe Hythier, 16, working with Grid Alternatives was meant to be. About four years ago, it was his house in North Davis receiving solar panels from the organization. Hythier was unable to assist with the installation on his home, but through Project SOLAR, was able to help install seven solar panels on another.

"It is nice to help out another family," he said.

Project SOLAR was the perfect combination of science and technology, two areas of interest for the teen, Hythier said. The hands-on nature of installing solar panels was also appealing, noting he added it to his list of things to try career-wise.

According to Becca Russell, project coordinator with Grid Alternatives, the solar industry grew by 20 percent in the past two years, and it is going to keep growing.

Bruns agreed, noting that there are so many different types of jobs, from installation and engineering to marketing and design, within the industry. "These are the jobs of the future," she said.

Project SOLAR will be offered again next summer to students throughout Yolo County.