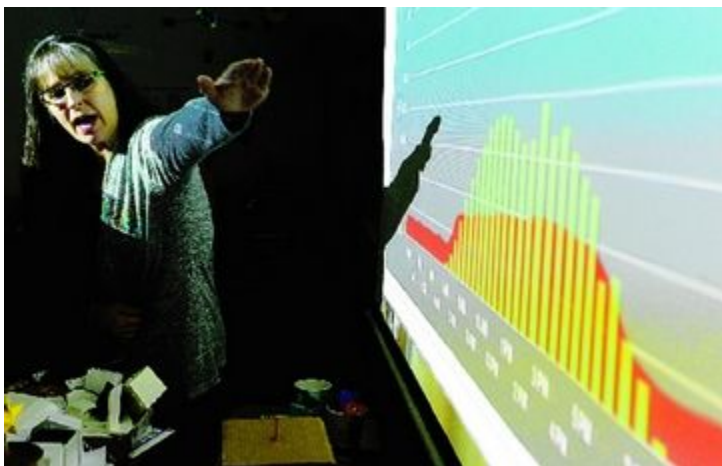


Solar is school's bright idea

South Stockton's academy incorporates own technology into curriculum



Teacher Jeannine Huffman shows a graph of energy provided by solar panels recently installed at the San Joaquin County Office of Education. The solar array is now part of the curriculum for SJCOE's energy academy. CALIXTRO ROMIAS/The Record

By [Alex Breitler](#)

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Toss those dated textbooks. Students in Jeannine Huffman's classroom find the light of knowledge in a new source.

This spring, solar panels have become a primary learning tool at New Energy Academy, after the San Joaquin County Office of Education installed carport panels across a 2-acre parking lot at the south Stockton complex.

An increasing number of schools, homes and businesses have contemplated going solar to save on energy bills. But the county office also is incorporating the technology into the curriculum.

A lesson on kilowatt-hours and consumption versus generation could have been deathly dull one morning last week. But with a few clicks of a mouse, Huffman produced a graph showing how much energy had been generated by the solar panels that very morning, compared with how much had been consumed on the premises.

Every 15 minutes, new data arrived. With the sun already high in the sky, the panels at that moment were generating twice as much energy as the county office's Wentworth Education Center was consuming.

That would reverse later in the evening, however. Even after everyone goes home, the center still requires limited energy to cover the "phantom load" of plugged-in electronic devices and computer servers.

All this real-life learning will be beneficial for students who might someday find themselves in the growing career field of alternative energy.

"It got a lot more interesting once we got the panels here," said 16-year-old Brian Tingle, who is thinking about becoming an engineer. "It's actually a lot more interesting than learning out of a textbook."

Pacific Gas and Electric Co. fronted \$200,000 to get the \$2.5 million solar project started, with additional assistance from contractor Solar City, which installed electric vehicle chargers to complement the panels. The bulk of the cost was covered by low-interest loans; sooner or later, the savings on monthly energy bills will pay for the project, said Barry Scott, the county office energy coordinator.

But energy savings were only one part of the deal.

Students at the New Energy Academy - a school within Venture Academy - visited the construction site and learned the fundamentals of solar energy. Now they routinely monitor the project's performance. They can compare energy usage with other schools.

The kids are learning so much that, over the course of five years, they're expected to begin educating staff. By reducing power usage by about 15 percent, the building could become energy-neutral.

"That's our objective: Kids teaching staff to make that system provide 100 percent of the power that the building uses now," Scott said.

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