

CASE STUDY



New Solar System at Butte College Inspires Green Curriculum

Butte College, located in Oroville, California is a two year academic institution, offering associate of arts or sciences degrees and general education units to transfer to a four year college or university. With national attention being focused on renewable energy policies, Butte College set an excellent example for its students and surrounding community this February by unveiling its newest set of solar panels at its Oroville campus.

The 2,400 185 watt Mitsubishi Electric solar modules make an impressive statement, absorbing sunlight into the solar cells and converting it into electricity. Mitsubishi Electric modules use 100% lead-free solder and were chosen due to their high reliability and power output.

This recent addition of three solar arrays (two ground mount and one rooftop array) totaling 450 kW DC will produce an estimated 675,000 kWh of solar electricity annually. By generating electricity from solar power rather than fossil fuels, these systems will save approximately 9,000 tons of CO2 from entering the environment over the 25 year life of the system. This is equivalent to driving 25 million miles.*

The project will help save the college money over time, save on emissions and encourage students interested in renewable energy careers. By taking advantage of the California Solar Initiative rebate, Butte College was able to save nearly \$700,000 of the total project cost.

The solar electric system was designed and built by Chico Electric, an electrical company with more than 49 years of experience. Chico Electric helped the school meet its goals for this project by donating a portion of the materials near the sewer treatment facility for educational use by students. Classes will assemble and disassemble the panels as training for future jobs in energy technology.

* Based on estimates from www.climatecare.org.



"This recent addition of solar panels is part of our goal of becoming carbon neutral by 2015 and we are excited to incorporate solar energy into our curriculum,"
Josh Pierce, associate faculty member for Butte College

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The college will also have an educational kiosk on campus where students can see the real-time performance of the solar system and touch an interactive monitor that teaches them how solar works.

With the solar industry currently lacking people who are trained for positions that will be developing as interest in new energy sources grows, Butte College's new "green" curriculum is timely. The campus is launching a certificate in sustainability studies, and offering green building courses and workshops on the weekends. The solar panels will be used at the college to show students solar technology at work, just as the green buildings on campus are toured as part of the curriculum.



PROJECT DETAILS:

System Size: 450 kW DC

Location: Oroville, Calif.

Solar Panels: 2,400 Mitsubishi Electric 185Wp modules

Inverters: SMA inverters

Mounting System: Unirac Large Array (U-LA)

System Integrator: Chico Electric

Estimated Annual kWh: 675,000 kWh

FOR MORE INFO:

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