

SUCCESSFUL SCHOOL PROJECT PROVIDES GREEN POWER, LOWERS COSTS FOR ANAHEIM SCHOOLS

Students at Anaheim Transportation Academy recently completed a unique research and development project that saves energy, protects the environment and reduces operating expenses at Anaheim schools. Under a contract with Anaheim Union High School District, Anaheim Public Utilities provided solar energy equipment and the services of a project manager for what students named the “Los Matadores del Sol” project.

Anaheim Transportation Academy, located on the Anaheim High School campus, is a “school within a school” for students interested in careers in the transportation industry. Students there set out to prove that the use of solar energy could reduce the amount of electricity needed from the utility power grid to operate golf carts used for transportation by school staff on Anaheim campuses. Under the terms of the contract with the school district, Dina Predisik (Resource Program Specialist for Anaheim Public Utilities) would provide guidance in the development of acceptable testing and subsequent reporting. The project participants were divided into three teams.



The “Panel” team installing solar energy panels on golf carts at Anaheim schools

Students on the “Panel” team installed 11 SunCaddy™ 140-watt, 75-volt solar panels on the golf carts at Loara , Katella, Cypress and Anaheim High Schools, and also at Brookhurst and Dale Junior High Schools. They connected the solar panels to the golf cart batteries and also installed odometers and amp meters to measure the success of the project. Additionally, they conducted field tests to verify the solar energy panels were charging the golf cart batteries during daily use.

Each day, students on the “Data Collection” team recorded the mileage, net amps used and net amps charged. They analyzed the test results by comparing data taken from golf carts with the solar panels to golf carts without them, and also considered such variables as weather and different drivers.

Students on the third team developed a comprehensive report of their findings and submitted it to Anaheim Public Utilities. Final results showed that golf carts equipped with SunCaddy solar panels required 25.9 percent less electricity for battery recharging than golf carts not equipped with the solar panels.

“This has been a very rewarding project,” Predisik said. “The students had a practical, hands-on experience with solar energy. It has made them more aware of the benefits of this renewable energy source and the importance of exploring potential applications for it in the future.”