

PERALTA COMMUNITY COLLEGES

ENERGY STORAGE COUPLED WITH EV CHARGING COMES WITH NO UPFRONT COSTS

Location: Oakland, CA

Size: 27,000 students, faculty and staff

Customer Challenge

Address sustainability objectives with limited budget

ENGIE Storage Solutions

Energy storage coupled with EV charging

Why ENGIE Storage

- Energy storage mitigates risk of EV chargers producing costly spikes in electricity demand
- No-cost energy storage with shared savings financing model
- ENGIE Storage provided expertise to help move project through committees

Benefits

- Reduced monthly peak-demand charges
- Infrastructure makes it easier for more people to adopt lower carbon standards
- Increasing awareness of Peralta in the community, as more people are drawn to campus



Low-impact EV charging helps drive fulfillment of sustainability policies.

With four campuses serving northern Alameda County, California, the Peralta Community College District has been a premier destination for undergraduate and continuing education for more than 50 years. Because it promises to help students change their lives, Peralta must evolve as well, continually adapting to the students’ needs, as well as those of its employees, the surrounding communities, and the environment that sustains them.

As part of his duties as Peralta’s Energy and Environmental Sustainability Manager, Charles Neal is tasked with finding ways to reduce the district’s carbon footprint. Doing so, he says, requires not only money for technology and infrastructural improvements, but also behavioral change.

One of the behaviors Neal is targeting is the commute habits of Peralta staff and students. For those who drive to class or to work, electric or plug-in hybrid vehicles would be ideal, but the dearth of charging stations can be a significant obstacle. “Transportation is a primary contributor to our carbon footprint,” Neal says. “Providing EV charging stations here on campus makes it easier to adapt to lower carbon standards.”

Generous subsidies from a partnership between the Community College League of California and charging station provider NRG eVgo made installing EV charging stations an attractive option for Peralta. Operating them however, might have less-appealing side effects: Simultaneous use of the chargers—especially DC fast chargers—could cause spikes in the electricity pulled from the grid, triggering costly demand charges on Peralta’s energy bill.

“[ENGIE Storage] was instrumental in making expertise available during the committee meetings. It was a pleasure to work with them.”

– Charles Neal, Energy and Environmental Sustainability Manager, Peralta Community Colleges

ENERGY STORAGE MAKES EV CHARGING MORE FEASIBLE

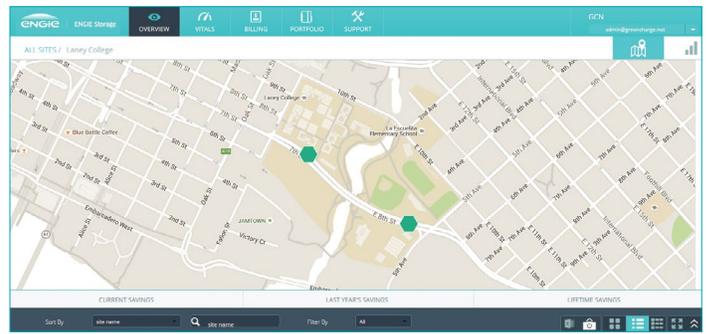
Consequently, when Neal was introduced to the GridSynergy® energy storage solutions offered by ENGIE Storage (formerly known as Green Charge), he supported the concept: “It makes good sense to draw energy at lower rates and then use the stored energy when rates are higher,” he says. ENGIE Storage would install and maintain the storage systems at no cost to Peralta, and share the accrued demand charge savings between them.

In the initial phase, ENGIE Storage coupled a 30kW energy storage tower with each of the DC fast chargers installed at the Peralta District office in Oakland and at the adjacent Laney College campus. ENGIE Storage monitors the energy storage systems over a dedicated network and populates a user portal with real-time performance data, including monthly demand charge savings. Designated staff members at Peralta Community Colleges, such as Neal, can securely log in and view this data at any time.

As the charging stations become more popular, the storage systems will adapt to the evolving energy use patterns. But even now, the project has put Peralta in the vanguard of EV initiatives in education, and has given the district insight into the impact of EV charging on energy use and cost as well as the behavior of energy consumers. As Neal explains, “It was a chance to look at how it works on a limited basis—on our own property—with an eye to deploying it on a larger scale later on.”

GAINING STAKEHOLDER TRUST

Though he is guided by the District’s Environmental Sustainability policy and has the full backing of the Chancellor’s office, Neal must still steer his environmental initiatives through multiple layers of approval. Like many educational institutions, the Peralta Community College District has a shared governance policy, which requires managers to collaborate with campus facilities committees on major projects, and to gain approval from the District’s board of trustees. “[ENGIE Storage] was instrumental in making expertise available during the committee meetings,” Neal says. “It was a pleasure to work with them.”



Using the GridSynergy portal, Peralta can click to view historical and real-time data for each storage system deployment (green hexagon) shown on the map.

GOODWILL A VEHICLE FOR FUTURE SAVINGS

ENGIE Storage calculated that the energy storage systems could reduce Peralta’s demand charges by more than \$12,000 annually. In its first summer online, the energy storage solution reduced demand charges at Laney College by approximately \$1,000 in a single month; Neal is eager to see if the cumulative data in the coming months confirms the initial estimate.

What is already apparent is that the charging stations are heavily used by the public. “Drawing drivers to the campuses to charge their vehicles is both generating goodwill and increasing awareness of Peralta Community Colleges in the community,” Neal says. What drivers may not be aware of is that EV charging at Peralta can continue to be feasible in the long run thanks to the demand charge reduction benefits of the GridSynergy storage systems.

engiestorage.com



4151 Burton Drive ■ Santa Clara, CA 95054
800.426.5010 (Toll Free) ■ 408.638.0072 (Local)
info@engiestorage.com

About ENGIE Storage

ENGIE Storage (formerly Green Charge) helps power the world more efficiently and sustainably. As the nation’s number one distributed energy storage company, we serve energy producers, distributors, and consumers, including utilities, network operators, and energy consumers in business and government.