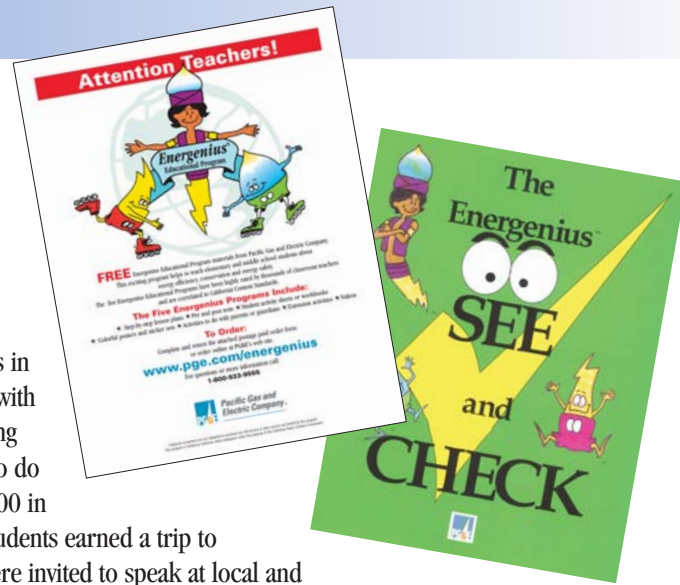


## ENERGENIUS® EDUCATIONAL MATERIALS AND OTHER EDUCATIONAL SUPPORT

PG&E's awarding winning Energenius program provides free energy educational materials correlated to California Content Standards for K-8 students. At free workshops, teachers learn energy saving practices for the classroom and how to incorporate energy efficiency into their curriculums. For more information, please visit [www.pge.com/energenius](http://www.pge.com/energenius).

### WCCUSD BENEFIT

Students at the WCCUSD Pinole Valley High School became active participants in the energy auditing process and demonstration classroom project. Working with Rebuild America, a PG&E partner, twenty students participated in the year long Energy Smart Schools program. These students were trained and later paid to do energy audits at the school and in the community, where they identified \$6,000 in potential energy savings. For their participation in the auditing project, six students earned a trip to Massachusetts Institute of Technology. In addition, several Pinole students were invited to speak at local and national conferences and received the prestigious U.S. EPA Earth Apple Award.



## SUMMARY

Finding additional funds to support educational activities at your school may be as simple as changing a light bulb. Like WCCUSD, your school may be eligible for these or other programs designed to help your school lower its energy bill. Contact the PG&E Business Customer Center today at 1.800.468.4743.

**West Contra Costa Unified School District** estimates that they have saved about \$600,000 annually on energy costs. According to District staff, "WCCUSD has worked closely with PG&E since the '70s. PG&E is a tremendous resource. They provide outstanding customer support, vital data, rebate programs, consulting services, and help with planning, number crunching, peer-review and idea generation. Any school that fails to take advantage of the many services they offer to schools is missing a huge opportunity."

The District has long championed energy management and the 10 year Facility Master Plans prepared by the staff helped convince the District of the importance of making energy management a part of their business plan.

*This program is funded by California utility customers and administered by the state's investor owned utilities, under the auspices of the California Public Utilities Commission.*



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# POWERFUL WAYS PG&E HELPS SCHOOLS SAVE MONEY

West Contra Costa Unified School District reduces costs by making buildings more energy efficient.

## PROBLEM

School districts can spend more money on energy, than they do on textbooks and computers combined. Except for salaries, energy expenses can be the largest line items in school districts budgets.

Faced with rising energy costs and operating budget shortfalls, West Contra Costa Unified School District (WCCUSD) decided to take advantage of some of the many resources offered by Pacific Gas and Electric Company to help them increase their energy efficiency and save the District money. As a result of managing their energy costs, practicing energy efficient behavior, and employing energy efficient technology, they have avoided approximately \$600,000 in annual energy expenses.

According to the U.S. Department of Energy, 25% of the money schools spend on energy is unnecessary. In California 73% of all school buildings are over 25 years old and nationwide over 70% of all the schools are over 43 years old. The equipment used in these buildings for heating, lighting, cooling and ventilation is outdated, inefficient, and often malfunctioning.

PG&E helps schools find ways to reduce their energy costs by offering both financial and technical assistance.

Your school district may also be eligible for these or other exciting money saving programs. To learn more about what is currently available that is right for your school district, contact the PG&E Business Customer Center at 1.800.468.4743.



## BENCHMARKING

### WCCUSD BENEFIT

The average age of WCCUSD's 59 buildings exceeds 50 years. In an effort to help WCCUSD reduce their energy costs, PG&E funded a benchmarking study to identify the actual costs of energy at various facilities. Analyzing 49 of their school buildings they learned that if the 24 schools using the most energy were brought down to the annual median energy cost per square foot, the District could save approximately \$300,800 annually. If the 35 highest consuming energy facilities were brought down to the energy cost of the median minus 15%, WCCUSD could save a total of \$464,220 per year. Although aggressive, median minus 15% is considered a reasonable target. Fourteen of the 49 facilities were already more efficient than the median minus 15%.

**Benchmarking** is a realistic comparison of the actual amount of energy consumed by similar facilities. This information serves as a practical tool to identify and prioritize high energy use facilities where improvements are most necessary.

## ENERGY AUDITS

### WCCUSD BENEFIT

Based on the results of the Benchmarking Report, PG&E helped WCCUSD select the four schools that consumed the most energy. PG&E then helped them apply for the California Energy Commission's Bright Schools Program. This program offers many services to schools, including free energy audits.

**Energy audits** evaluate the costs of operating electrical and gas equipment used in a building. This information is useful to better understand which energy efficiency upgrades and retrofits could yield the greatest return on dollars spent.

Additionally, PG&E performed energy audits for five schools. The annual combined energy bill for these five schools was approximately \$215,000. PG&E then recommended a number of low or no cost changes and other equipment improvements that qualified for rebates from the PG&E Express Efficiency or Standard Performance Contract programs. By implementing the PG&E recommendations, the District could reduce electric use by approximately 38% and gas use by approximately 28%. The potential savings for these five schools is approximately \$121,000 annually.

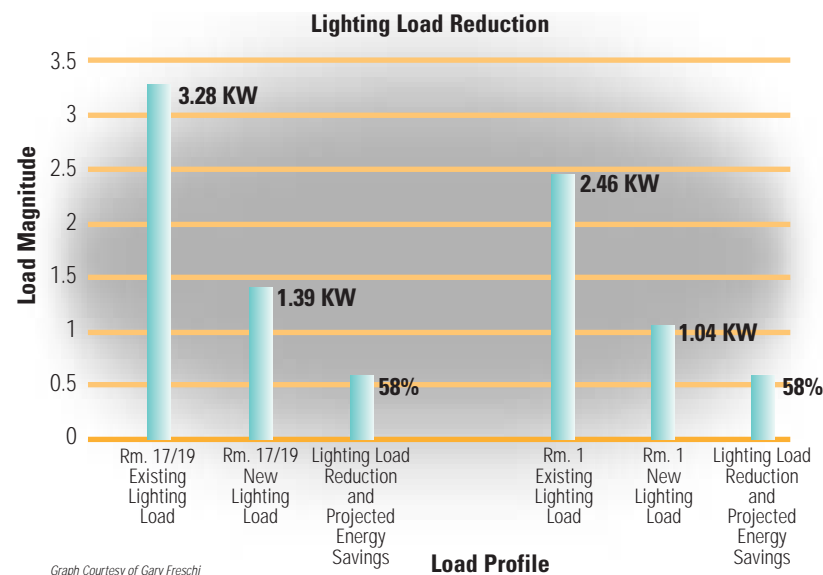
## DEMONSTRATION CLASSROOM PARTNERSHIP

Energy efficiency demonstration projects are an excellent way to see the advantages of new systems in action. In addition to allowing students and teachers the opportunity to experience first hand the comforts of new energy efficient technology, project planners have the opportunity to test different theories and equipment. Savings data gathered by monitoring the new systems can help make a financial case to obtain funding for larger scale retrofits and upgrades.

### WCCUSD BENEFIT

Partnering with Rebuild America, a department of the U.S. Department of Energy, and private manufacturers, PG&E helped WCCUSD establish two energy efficient demonstration classrooms. Through consultations with PG&E and by using equipment donated by manufacturers, WCCUSD ensured that the most appropriate energy efficiency technology was used. It reduced the District's costs significantly. Contributions from the City of Pinole further reduced the District's expenses. The new lighting system in the demonstration classrooms reduced energy use by 58%.

The energy used to heat the new computer and science classrooms was reduced by 47% and 68% respectively. The demonstration classrooms now serve as models for energy efficiency upgrades to be implemented throughout the District.



## PG&E Programs

PG&E can help school districts develop energy efficient designs for retrofits and new construction projects by providing consultation and analysis for proposed projects. PG&E has the resources and the contacts to help schools increase their energy efficiency.

PG&E's programs encourage energy efficiency through rebates, design incentives and energy audits.

### WCCUSD BENEFIT

WCCUSD received funding from three state bond measures to upgrade their facilities. PG&E began working with WCCUSD architects and bond team in the early planning stages. This ensured that the most appropriate energy efficient technology was considered in the designs. The expected benefits include:

- Student and teachers will enjoy a more comfortable and healthier environment and;
- The Madera School, in WCCUSD, is eligible for a \$5,965 rebate from the SBD Program. Their architectural team will receive a \$1,360 design award.
- WCCUSD can significantly lower their energy bills. If the energy efficiency recommendations suggested by PG&E are followed, the District can save approximately \$600,000 on energy costs over a 45 year period on the Madera School alone. These savings can be used for educational purposes.



**Express Efficiency:** This statewide program provides financial incentives to small- and medium-sized businesses for installing selected energy-efficient measures.

**Energy Audits:** A statewide program offering free energy evaluations to business customers. The energy audit shows the benefits of installing measures or adopting practices that can reduce the customer's utility bills. Types of audits include: phone, mail-in, CD-ROM, internet, and on-site audits.

**Standard Performance Contract:** This statewide program offers cash incentives for custom-designed energy savings retrofits. The program is designed primarily for large and medium businesses, but small and very small businesses can also participate.

**Building Operator Certification & Training:** This statewide program trains operators of medium and large commercial buildings to identify and implement energy savings opportunities as an integral part of their operations and maintenance activities.

**Savings By Design:** This statewide program influences nonresidential building owners and design teams to exceed Title 24 energy efficiency standards by 10% or more for their new construction or renovation/remodeling projects. It emphasizes early design involvement and offers building owners and their design teams education, design assistance, owner incentives and design team incentives.

**Collaborative for High Performance Schools (CHPS):** This program facilitates the design of high performance schools: environments that are not only energy efficient, but also healthy, comfortable, well lit and contain the amenities needed for a quality education. To help school districts and the architectural community, CHPS provides three Best Practices Manuals: Planning, Design and Maintenance and Operations.

For more information, please visit [www.pge.com/foryourbusiness](http://www.pge.com/foryourbusiness) or call our Business Customer Center at **1.800.468.4743**

## EDUCATIONAL SEMINARS

Recent research shows that energy efficient technologies, such as daylighting, can actually help boost student test scores. PG&E provides free workshops for administrators, financial officers, facility managers, custodial staff and teachers to share recent energy efficient technologies and applications including: budgeting and funding for energy efficient upgrades, facilities maintenance, energy efficient practices for the classroom, and educational curriculums for students. For more information, please visit [www.pge.com/education](http://www.pge.com/education).

### WCCUSD BENEFIT

WCCUSD fiscal officers attended a PG&E sponsored workshop on financing opportunities for energy efficiency retrofit projects. Facility engineers and maintenance officers learned about energy efficiency applications and equipment maintenance. A third workshop for the custodial staff concerned the best use of equipment, such as timers, occupancy sensors, and setback thermostats. Teachers were offered free student materials and some students participated in the Energy Smart School's program.