

Santa Barbara Unified School District

Green and Sustainable Energy Programs

Our efforts have primarily focused on three approaches:

1. **Energy usage management.**
2. **Retrofitting** of existing products with higher performance products.
3. **Requiring sustainable, efficient designs** for renovations, remodels, and new buildings.

Energy Usage Management is a broad category that includes:

- automated building management systems,
- modifying the scheduling of some building activities to reduce the need for lighting/heating,
- covering swimming pools when not in use,
- usage of electronic controls to automatically adjust irrigation to current weather conditions,
- electronically shutting down computers and other devices in off-hours.

Retrofitting includes:

- replacing lighting with higher efficiency lamps and ballasts,
- replacing equipment that has failed or is failing with Energy Star and higher efficiency equipment; examples includes better insulated and higher heat conductive boilers and variable frequency drive motors,
- replacing old HVAC equipment with lower energy, better insulated units operated by efficient microprocessor controls; these units not only save money in direct energy costs, but their remote operation capabilities reduce the need for a technician to drive a truck to the site for troubleshooting and adjustment tasks,
- replacing traditional water fountains with units that include water bottle filling stations; the San Marcos Earth Club pioneered this concept in the SBSD in their very effective effort to reduce plastic water bottle usage.

Sustainable design refers to the guidelines expected of our design professionals and includes:

- considering formalized design options as expressed in the Green Building Standards Code, AB 32 (Global Warming Solutions Act), the LEED program, the California Solar Initiative, and the DSA Grid Neutrality program,
- incorporating proven sustainability concepts—both passive and active—into our buildings; examples of these concepts include daylighting (passive), automated

- lighting (active), high R-value insulation (passive), double-pane glass (passive), renewable energy options such as photovoltaics (passive), increasing recycling awareness (passive), and cafeteria food scrap programs (passive).
- reviewing each building material choice and method to minimize materials entering the waste stream—including excess building materials, scrap, run-off from the construction site, etc.—and to maximize the use of recycled and low environmental impact products.

It is important to note that many of these initiatives provide multiple benefits to the school districts and to the communities:

- Not only are we reducing energy consumption and reducing the amount of waste we are producing, but we are modeling successful environmental practices for our students and our communities. We are demonstrating prudent fiscal responsibility in that these practices decrease our cost of doing business; they can result not only in lower monthly utility usage but also in lower tariffs; and the products do not require the expensive abatement and/or disposal requirements when they will need to be replaced that past products have required.
- Many of our programs and initiatives have risen from the students and teachers in our schools. As mentioned earlier, the San Marcos Earth Club originated the water bottle filling stations in our districts and their commitment resulted in an award and a grant for the installations. Santa Barbara High School is developing a “Green Academy” that will showcase their environmental sciences programs and green building practices. Peabody Elementary and Open Alternative were two of the first schools in the districts to encourage the use of solar panels both as renewable energy sources and as important teaching tools.
- These programs have resulted in relationships with other businesses, school districts, and public entities that foster a cooperative approach to environmental management in our community and that provide an interactive opportunity for our students to work with community leaders and gain real-life applicable experience in environmental science, project development, financing, and management. Some of the partners we have worked with include the Community Environmental Council, Santa Barbara City College, Southern California Edison, SoCal Gas, and the City of Santa Barbara.

These examples offer an overview of just some of the energy saving and sustainability efforts we are involved with. These programs are continually growing and evolving and it is the intention of the Santa Barbara School Districts to remain a leader in integrating green and sustainable products, practices, and educational opportunities into our schools.