

Mission Statement

"The Boulder Valley School District is committed to becoming a leader in environmental sustainability by creating healthy learning environments, while providing students with the skills to address the systemic challenges faced by the world in this new century."

—BVSD Sustainability Management System

Bond Highlight

Columbine Elementary was one of two schools to receive an entirely new building thanks to the 2006 Bond. The facility's design considered every element of the building and site in terms of energy efficiency, resource conservation and user comfort. To reduce energy consumption the building is oriented along an east/west axis to maximize southern exposure and make the most of passive solar heating. Water use was reduced with low-flow fixtures and drought tolerant landscaping. Many materials used in the building contain recycled content, are renewable or recyclable and are non-toxic. Furniture from the old building was reused or recycled. To improve indoor air quality, non-toxic low-VOC paints and other materials were used. The building also was designed to achieve superior acoustical performance using sound absorptive finishes.

Questions? Comments?

Contact the BVSD Energy Team:

Ghita L. Carroll, Ph. D.
Sustainability Coordinator

Operational Services

720.561.5181
ghita.carroll@bvsd.org

Jeffery Medwet
Architect, CCA, LEED-AP, EMIT
Project Manager of Energy Systems

Operational Services

720.561.6286
jeffery.medwet@bvsd.org

Board Approves Power Purchase Agreement

Schools throughout Boulder Valley School District will be sporting shiny new solar panels on their rooftops by spring 2012, thanks to an agreement approved by the Boulder Valley Board of Education.

The 20-year contract is with SolarCity, a leading solar power and energy efficiency service provider with operations centers in Denver and Parker. SolarCity will install & own the panels as part of this power purchase agreement (PPA) with BVSD. The firm will also be responsible for all maintenance and monitoring of the system for optimal performance.

In their proposal for the project, SolarCity said their approach is to maximize the potential savings to the district as well as the educational opportunities that solar energy installations present to BVSD's students. With SolarCity's solar monitoring system, students will be able to track how much power their solar system is producing in addition to viewing how much energy they're consuming. SolarCity noted that by providing unused roof space for the SolarCity projects, BVSD will be able to set a positive example, create a stimulating educational tool, and reduce its carbon footprint.

With a power purchase agreement, BVSD is able to go solar for little to no capital investment and only pay for



Photo courtesy of SolarCity

the clean power its PV arrays produce and the power its schools use. Owners of solar system installations have traditionally had access to solar specific federal tax credits. As a non-taxpaying public entity, BVSD is not entitled to utilize these tax credits. However, third-party investors such as SolarCity can qualify for the tax credit and can sell power to a public entity such as BVSD. This program leverages the tax incentives to place solar arrays on existing school rooftops with no upfront capital costs to the District.

Public institutional power purchase agreements have increased along the Front Range in recent years with the University of Colorado and Denver Public Schools as notable examples.

"Our primary goal with this initiative is to increase the amount of solar-sourced energy which the district uses," said BVSD Sustainability Coordinator Ghita Carroll, Ph.D. "Advantages of solar energy include its price stability and minimal impact on the environment."

The final, negotiated agreement includes the instal-

lation of solar PV on 16 BVSD schools. Total PV from these installations will be approximately 1.575 megawatts, enough to offset close to 15 percent of the schools' energy usage. Overall, this PPA will produce roughly 6.3 percent of the district's electricity needs. PV arrays will be located at

- ✓ Angevine Middle
- ✓ Aspen Creek K-8
- ✓ Boulder High
- ✓ Broomfield High
- ✓ Centaurus High
- ✓ Coal Creek Elementary
- ✓ Columbine Elementary
- ✓ Creekside Elementary
- ✓ Eisenhower Elementary
- ✓ Eldorado K-8
- ✓ Foothill Elementary
- ✓ Heatherwood Elementary
- ✓ Manhattan Middle
- ✓ Monarch High
- ✓ Sanchez Elementary
- ✓ Southern Hills Middle

"We are very excited about the opportunities for energy education that these projects will provide students in the schools," said Carroll.

This project will bring the total number of BVSD schools that have solar arrays to 30, which is more than half of BVSD's school buildings.

Did you know?

Up to 30% of a building's energy use can be influenced simply by occupant behavior! The Energy Team designed and will soon distribute stickers that will be placed on light switches to remind staff and students to conserve energy. Little things add up to make a difference.



AWARDS!



greenBVSD PROJECTS

Find back issues of this publication on the Web—<http://bvsd.org/green>

Congratulations to the students and staff of Arapahoe Campus for winning the first ever BVSD Green Month Challenge last February! The challenge was created by the Student Accountability Advisory Committee (SAAC) as a competition among BVSD high schools to reduce energy use. Arapahoe Campus received a travelling trophy from SAAC and \$2500 from BVSD's Office of Sustainability toward a resource conservation capital improvement project at the school.

Huge congratulations to Fairview High School and the Net Zero Club for receiving the Environmental Protection Agency's (EPA's) Presidential Youth Award. Ten awards were given out nationwide. The Net Zero Club's application for the grant was titled "Make Fairview Green." The sixteen students involved in the club were awarded for their recycling and waste reforms including; an audit of their school, successful grant writing for new recycling and zero waste bins, fundraising for and planting trees, reduction of junk mail, and raising awareness and support for environmental issues school-wide.

BVSD was selected as one of this year's award recipients for Info-World Green 15 Award. BVSD was selected because of our comprehensive sustainability efforts, and specifically our efforts to green IT through powering down computers, server virtualization and cutting down waste associated with packaging.

Bravo! to BCSIS, High Peaks, Douglass, and Horizons K-8 for being selected as the winner's of Boulder-ganic's Sustainability Award for pioneering the green star program.

The Earth Task Force at New Vista High School was recently awarded the Green Prize in Public Education from the National Environmental Education Foundation. This award is coupled with a \$10,000 prize to help fund sustainability initiatives at the school. They were selected from more than 100 applicants for their comprehensive efforts to make their school more sustainable, including raising funds for solar panels, greening their prom, hosting eat local lunches, supporting alternative transportation and much more.

BCSIS/High Peaks Constructs Outdoor Classroom



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A new outdoor laboratory to explore science, nature, and renewable energy was officially dedicated on September 16 at the BCSIS/High Peaks campus. At the heart of the classroom is a giant sundial of handmade tiles from all 600 students at the schools. The project came about when parents and teachers at the schools began looking for creative ways to explore solar energy and outdoor science education several years ago. Parents raised money through grants from GOCO Colorado (lottery funds), Boulder Arts

Council, Lowes, Home Depot, and with donations from Resource, the Rocky Mountain Institute, and many volunteers.

"The Outdoor Classroom and Mosaic Sundial are exciting new learning environments that were made possible by the generosity and creative energy of our parent community," said Lora De La Cruz and Phil Katsampes. "The children will experience nature in an atmosphere of purposeful learning and artistic beauty. We are thankful to the parents who made this possible!" De La Cruz is principal of High Peaks

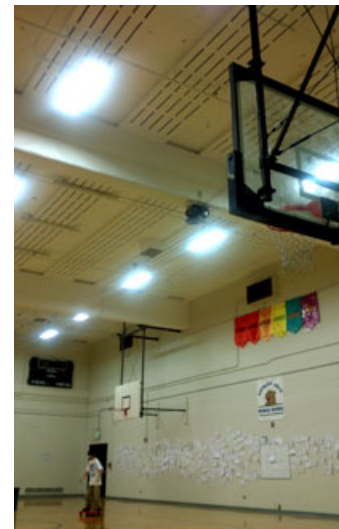
Elementary School and Phil Katsampes is principal of Boulder Community School of Integrated Studies (BCSIS). Both BVSD focus schools share the same facility, a building that was formerly a BVSD neighborhood school called "Aurora 7."

Boulders are arranged in a Fibonacci pattern. The tables illustrate the rock cycle with native stones, and demonstrate color's effect on heat. Constellations, fossils, animal footprints, and the Pythagorean Theorem can be found among the rocks.

"We don't have a wind power display, but we have poles with connections for students to make model windmills every year," said Beth Stade, a parent volunteer who has been an integral part in creating the outdoor classroom. "We don't have a water feature, but we do have a solar powered water pump to make one. The outdoor classroom is designed to grow and change with school, not be a fixed monument," Stade explained.

Lighting Retrofit at Southern Hills

New high-bay fluorescent light fixtures were installed in Southern Hills' auxiliary gym. The new lights replaced inefficient metal halide high intensity discharge (H.I.D.) lamps. The old light fixtures distributed light unevenly and required a warm up period when switched on. Consequently, the lights tended to be on all day long even when the gym was not in use. The new lighting has instant on-off capabilities and features an occupancy sensor on each fixture to help reduce energy use. BVSD should realize over \$1,000 per year in energy and maintenance costs. Principal Terry Gillach expressed his satisfaction with the retrofit, saying that "the new gym lights have completely transformed our gym here at SHMS. The space is brighter and quieter than our old canned lighting system and the teachers and kids all express how much better it is to have class in this gym now!"



Si desea ver este boletín traducido al español, por favor póngase en contacto con Ghita.Carroll@bvsd.org