

BY JENNIFER ORLANDO

Everyone wants to save money on energy. But, in a nation where electricity and oil are essential to everyday living, reducing energy costs is no simple task, especially as prices continue to rise. Individuals, businesses and schools across the country are going to great lengths to cut energy costs and, in doing so, are saving a lot more than money.

Sunny days ahead

In California, San Jose Unified School District’s innovative effort to cut electricity costs is protecting the environment as well. The district recently implemented a large-scale solar panel system with the support of Chevron Energy Solutions and Bank of America. Thought to be the largest and most energy-efficient of its kind, San Jose Unified’s solar panel project is slated to include roughly 70,000 solar panels upon completion. While 70,000 may seem like a large number, the eco-friendly benefits of the system are even more impressive.

Over the life of the system, the district will reduce its carbon dioxide emissions in excess of 37,000 tons, which equates to planting roughly 400 acres of trees.

“This innovative program demonstrates that school districts can play an important role in this new energy equation,” says Jim Davis, president of Chevron Energy Solutions.

It’s amazing what a few thousand solar panels can achieve.

Partner up

Under the program, Chevron Energy Solutions will design the solar panel system, procure the equipment and labor, and install the panels. The company will also maintain the panels during their 20-year contract with the district, leaving the district to bask in the benefits of the system while doing very little work.

If it sounds like this deal couldn’t be sweeter for San Jose Unified, think again. In addition to doing very little in terms of



Photos taken at **San Jose High Academy**

PHOTOS: COURTESY OF PATRICK YOST

Hello, Sunshine!

Solar power helps a California school district cut costs and go green.

installation and maintenance of the system, the district won’t be spending a dime of capital on the project.

San Jose Unified is also under a 20-year contract with Bank of America, the financier for the panels. The financial institution will own the solar arrays – groups of solar modules, which convert the energy from the sun to DC power – and sell the power generated from the system back to the district at fixed rates significantly below market utility costs. Over the course of the 20-year contract with Bank of America, the district will see energy cost savings near \$25 million. With a deal that good, it’s no wonder the district isn’t wasting any time installing the system.

“We’re going full bore at it right now,” says Ty Williams, director of school construction for the district. “We’re looking

at having a new (set of panels) come on line every month or so, so we should step through (the first phase) in the next three or four months.”

The project, which is being installed in two phases, began in January 2008 and is scheduled for a December 2008 completion.

San Jose Unified’s Solar Panel System

- 70,000 solar arrays
- 5.5 megawatt capacity
- Fixed energy costs
- Zero maintenance for district
- Zero capital investment from district
- \$25 million in savings
- Reduction of 37,500 tons of CO₂ emissions



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Jim Davis, president of Chevron Energy Solutions

“The solar panels will be mounted on top of carports built specifically for the project, as well as the rooftops of junior highs and high schools throughout the district,” says Williams.

Once installed, the system will start producing power immediately. Ideally, each individual panel will produce 175 watts; on a cloudless day the entire system has the capacity to produce nearly 5.5 megawatts of solar power.

Extra tax credit

Sure, San Jose Unified’s solar panel system is a sweet score: the district invests zero capital to fund the system, saves close to \$25 million over the life of the solar panels and gets to relish in fixed energy costs. But what do Bank of America and Chevron get out of the deal? A lot more than one might think.

In August 2005, President Bush signed the Energy Policy Act, a two-year tax break that offered consumers and businesses federal tax credit for purchasing energy-efficient homes, vehicles, buildings and equipment. From January 2006 to Dec. 31, 2007, businesses like Chevron and Bank of America were eligible for a 30 percent tax credit for improving the energy efficiency of buildings by installing solar energy equipment. According to Williams, “(the tax credit is) significant in that it’s not a reduction of (taxable revenue), it’s actually a reduction of tax. It’s easy to get people

on board when they’re saving that kind of money.”

The 2005 act was a one-time tax credit and has yet to be renewed. If it is not extended, the 30 percent tax credit will revert back to the permanent level of 10 percent, which may mean the end of public-private partnerships like the one in San Jose;



Energy Policy Act of 2005

The Energy Policy Act of 2005 offered consumers and businesses federal tax credits for purchasing fuel-efficient hybrid-electric vehicles and energy-efficient appliances and products. The program ran from January 2006 through December 2007 but has yet to be extended or refreshed. Through the energy act, investors were eligible for a 30 percent tax credit, up from the previous 10 percent, if they invested in the purchase of solar energy equipment like the solar panel system found in San Jose.

For more information about the Energy Policy Act of 2005, visit www.energy.gov/taxbreaks.htm.

a 10 percent tax break may not be enough incentive for private partners to invest in a multimillion dollar project.

San Jose Unified and its partners sealed the deal and purchased the solar equipment prior to the December 2007 cut-off date for the Energy Policy Act.

“If (Congress) doesn’t reinstate the tax credit in a future bill, no district will be able to afford a system like ours. The economics of it don’t allow for public agencies to do something like this,” says Williams.

A ray of hope

Although 2008 may bring with it the end of the 30 percent solar energy investment tax credit, it’s not the end of the line for projects like the one in San Jose. As man-made devices continue to deplete natural resources, green efforts and the push for sustainable energy will only increase. And with dozens of private, state and federal agencies promoting eco-consciousness and environmental protection, schools will have greater access to eco-friendly projects. ●