Case Study:

Independent School Districts in Texas

Bridgeport Independent School District

Quick Facts

Location
Bridgeport, TX

Schools Participating
Bridgeport High School

PV Capacity
170 kilowatt (kW)

Annual Production
235,780 kilowatt-hour (kWh)

Land Use
Retrofit to Bridgeport H.S.

PV Cost
$900,000

PV Location
Rooftop, 5-degree tilt

PV Equipment
552 Sunpower 308-watt solar modules
Satcon 100 kW inverters

PV Installation
August 2011

Green Features
- Cool-white membrane roof
- High efficiency chilled water system
- Energy-efficient fluorescent lighting

Cost Savings
30 - 40% reduction in annual utility expenses

Funding
SECO Grant - $900,000; $180,000 match

Photo courtesy of Axium Solar

Summary

Bridgeport Independent School District (ISD) is a public school district in Bridgeport, TX. Bridgeport ISD has 4 campuses that serve the cities of Bridgeport, Lake Bridgeport, and Runaway Bay. In 2010 Bridgeport ISD pursued a grant from the State Energy Conservation Office (SECO) to fund the installation of a large solar array at the district's high school. In 2011 a 170 kW rooftop solar array was installed on a brand new energy efficient roof at Bridgeport High School. The installation of the array came on the tail of bond funded construction to update to energy efficient features, such as the roof, at the high school and intermediate school campuses.

Benefits of Solar Energy

Bridgeport ISD's adoption of solar energy created increased savings on annual utility bills, as well as provided educational opportunities within the district. At the time of receiving the grant, Bridgeport ISD was suffering from a budget shortfall which was going to affect them for the following two years. The district saw investing in energy efficiency as the only capital investment option because of the certainty of money savings. Additionally, Bridgeport ISD was able to partner with the local electric co-op, Wise County Electric Cooperative, to have a cooperative agreement for interconnection and parallel operation of distributed energy. That is, if the school's solar array ever produces more energy than it uses Wise County Electric Cooperative will buy it back generating extra revenue for the school district. Beyond the importance of cost savings to

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Benefits of Solar Energy Continued

the district, the solar installation was developed as an educational component for the district's students. To encourage interaction with the solar installation, Axium, the solar installer, incorporated a kiosk in the school library where faculty, parents, and students can go to look at current and historical energy production data.

Photo courtesy of Wise County Messenger

Funding

Bridgeport ISD applied for a grant from the State Energy Conservation Office (SECO) to help fund the solar installation. In 2010, the district began the application process and requested the maximum of $1 million dollars financial assistance. In 2011, Bridgeport ISD was awarded $900,000 dollars at a 20% match for the development of Bridgeport High School's solar installation. Since Bridgeport ISD was already financing energy efficient upgrades at the high school, SECO allowed them to count the money already spent for energy efficient upgrades as the $180,000 share. For more information about energy efficiency program grants offered by SECO, please visit: http://seco.cpa.state.tx.us/energy-efficiency/.

The North Central Texas Council of Governments recommends to have an energy audit done by the State Energy Conservation Office to establish where solar might fit into overall energy efficiency improvements and energy saving potential. For more information on the SECO Technical Assistance Program, please visit: http://seco.cpa.state.tx.us/energy-reporting/gov-assist.php/

The North Central Texas Council of Governments is working under contract with the State Energy Conservation Office (SECO) to expand best management practices for solar photovoltaic systems throughout the State of Texas. For more information about solar in Texas, please visit: www.GoSolarTexas.org.