

Education

## Case Study: Athenian School

**CHALLENGE** Deploy a solar energy array to supply half of the school's electrical needs without a sizeable upfront capital outlay

**SOLUTION** SurePath™ Solar power purchase agreement with Tioga Energy

- BENEFITS**
- No upfront investment: *cash reserved for other priorities*
  - Low-cost, fixed priced energy: *acts as hedge against rising utility costs and provides for better cash flow management*
  - No ownership or maintenance responsibilities: *eliminates operation headaches*
  - Meets school's environmental stewardship goal: *aids in recruiting prospective faculty and students*

**HIGHLIGHTS** Tioga employed an innovative REC trading strategy that allowed the school to qualify as an EPA Green Power Partner while maintaining the economic benefits associated with the sale of solar RECs

### PROJECT SUMMARY

The Athenian School, a 450-student college preparatory institution, selected Tioga Energy and their EPC partner REC Solar to engineer, install, finance, own and operate a photovoltaic system to supply half the school's electrical needs. Environmental stewardship is one of the founding pillars of The Athenian School, and this green effort would send a positive message to the entire Athenian School community as well as prospective students and their families.

One of the largest photovoltaic systems at a private school in California, the hillside system array covers 30,000 square feet and comprises 1,300 solar panels arranged in the shape of the letter "A" for Athenian. Over 100 reinforced piers were specially designed and installed to meet unique soil conditions identified in the geotechnical survey. Over the next 20 years, the Athenian system is expected to produce 7.5 million kilowatt hours of clear, renewable electricity — preventing the release of over 4 million pounds of carbon dioxide.

***"REC and Tioga came in with the most complete package . . . they were good people to work with and they were determined to get the job done."***

– Bob Oxenburgh, Director of Finance & Operations, The Athenian School

Tioga's SurePath™ Solar power purchase agreement (PPA) allowed the school to deploy the large system without a sizable up-front capital outlay and without the ongoing cost and responsibility of maintenance — important considerations for the non-profit organization. Under the Power Purchase Agreement, Tioga Energy owns, operates and maintains the system. Tioga sells the solar electricity generated to the school at fixed rates over a 20-year period, providing a significant hedge against rising electricity rates and allowing for improved cash flow management. In the first year of operation, the solar facility provided more than 50% of the school's electricity at a rate below that of the utility.



**Highest Grade:** Hillside array of photovoltaic panels.

### Project Summary

**LOCATION**

The Athenian School  
Danville, CA

**EPC PARTNER**

REC Solar  
San Luis Obispo, CA

**INSTALLATION TYPE**

Ground mount solar array

**SYSTEM SIZE**

220kW

**SOLAR ARRAY**

1,300 Mitsubishi Electric solar panels  
30,000 sq. ft.

**ONLINE DATE**

December 2008

**FIRST YEAR POWER GENERATION**

391,385 kWh

**ENVIRONMENTAL BENEFITS**

Prevents the release of 95 tons of CO2 each year

**TIOGA ENERGY** enables commercial, government and non-profit organizations to reduce energy costs while lowering carbon emissions. Through its SurePath™ Solar power purchase agreement (PPA), Tioga owns and operates renewable energy systems that provide organizations a hedge against energy price volatility and accelerate their access to clean energy without any capital outlay.