

Photovoltaic Systems

As of 2009, Sonoma County Water Agency (SCWA) has three photovoltaic systems integrated into its operations. SCWA's average annual energy need is ~ 60,000 MW, making it the largest energy user in Sonoma County. With its three photovoltaic systems, SCWA generates 3.29 MWh of electricity to help offset its energy demand on the grid. While the total cost of all three systems is \$15.5M, these projects took advantage of \$4.49M in PG&E rebates. Utilizing a total of 11,272 solar panels, SCWA is able to save an estimated \$2.3M off its operational costs over the life of the systems. These three photovoltaic systems are part of SCWA's goal to produce carbon free water by 2015.

Carbon
Free
Water
by
2015

Overall Benefits

- Long-term Savings
- Hedge Against Power Costs
- Carbon Emissions Savings
- Supporting Sustainable Practices

Overall Challenges

- Location Constraints
- Environmental Regulations
- Negotiations & Contracts
- Project Timeline & Rebates
- Installation Delays
- System Downtime
- System Security

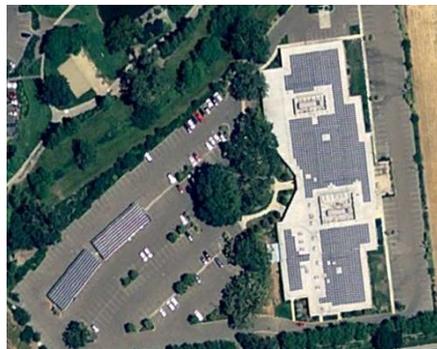
Hindsight Lessons

- Monitor Rebate/Incentive Deadlines
- Understand Characteristics of Location
- Incorporate Security Measures
- Plan for Future Component Replacements
- Evaluate Power Purchase Agreements

Have Questions?

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Document Revision: 11/25/09
File #: CF/46-0-1 SCWA
Photovoltaic Systems -
Correspondence and Outreach

Site Specific Details



Location: 404 Airport Boulevard
Type: Flush Roof Mount & Carport
Size: 523 kW
Average Annual Output: 670,000 kWh
of Modules: 2,752
Panel Lifespan: 25 Years
Total Cost: \$3.53M
PG&E Rebates: \$1.64M
Est. Savings: \$640k



Location: Airport Treatment Plant
Type: Fixed Ground Mount
Size: 596 kW
Average Annual Output: 830,000 kWh
of Modules: 3,312
Panel Lifespan: 25 Years
Total Cost: \$4.39M
PG&E Rebates: \$1.75M
Est. Savings: \$583k



Location: Sonoma Valley Treatment Plant
Type: Tracking Ground Mount
Size: 1,042 kW
Average Annual Output: 1,790,000 kWh
of Modules: 5,208
Panel Lifespan: 25 Years
Total Cost: \$7.59M
PG&E Rebates: \$2.78M
Est. Savings: \$1.1M