



## **ENVIRONMENTAL STEWARDSHIP AT ST. FRANCIS CATHOLIC HIGH SCHOOL**

### *In the Spirit of St. Francis of Assisi*

As a Catholic faith community, St. Francis is committed to environmental awareness, conservation and resources preservation. We endeavor to create environmentally sustainable practices and lead by example. We believe the benefit is both a learning opportunity and a commitment to our values.

### **ENERGY CONSERVATION**

#### ***Solar Power Installation***

In 2012, St. Francis installed 309.3 KW Photovoltaic (PV) System and began generating solar power. The 1,316 panels on the rooftops of seven campus buildings are projected to produce 30.6% of the school's current electricity requirements and save the school \$1 million over the next 25 years. The installation, the second largest school installation in SMUD's service territory, was funded through a US Treasury Grant, SMUD rebates, and reductions in electric utility bills. The SFHS solar project will generate the 426,595 KWH of electricity annually. A comparable amount of electricity generated by a coal fired plant would dispel 294 metric tons of CO<sub>2</sub> into the atmosphere, equivalent to 32,978 gallons of gasoline or to the energy use of 42 homes for one year.

#### ***New Building Construction meets LEED Standards***

Use of motion sensors and occupancy sensors in all new construction on campus (since 2002) including the use of Energy Star appliances in Food Service area in the new Dining Hall.

### **RESOURCE PRESERVATION ACTIVITIES**

#### ***Bottle Filler Stations***

In 2013, the school administration installed blue tower bottle fillers throughout campus to dispense cool, filtered water on demand for students and employees to eliminate the dependence on disposable water containers.

### **ONGOING CONSERVATION ACTIVITIES**

#### ***Water Conservation***

1. Reduction of water usage to meet the mandatory City of Sacramento conservation goals.
2. Elimination of lawn where possible to be replaced with low water alternatives.
3. Installation of drip irrigation and a heavy use of mulch to conserve water in landscaping beds.
4. Use of drought tolerant plants.
5. Repairs of all water leaks on campus.
6. Use of automatic shut off faucets.

#### ***Energy Conservation***

1. Scheduled conversion of fluorescent T-8 light fixtures to high efficiency ballasts or LED through SMUD.
2. Replacement of all under-eave T-8 lamps with LEDs
3. Participation in SMUD Complete Energy Solution and Automatic Demand Response (ADR) Program to be initiated this summer.



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### ONGOING CONSERVATION ACTIVITIES, CONT'D

#### *Campus Learning Environment Improvements in Air & Light Quality*

1. Installation of MERV 11 filters in HVAC air handlers to reduce air pollutants to "Clean Quality" air.
2. Fine-tuning of HVAC equipment, controls, and schedules for optimal performance.
3. Systematically replace existing "Warm White" and "Cool White" lamps to "Daylight" lamps to produce better reading light levels.
4. Add dimming ballasts and day lighting sensors where feasible.
5. Upgrade current low efficiency 32W ballasts and lamps to high efficiency ballasts with 25 watt high output lamps.

#### *Reduce, Reuse, Recycle and Resource Reduction Planning*

1. Convert existing flower and vegetable garden to all raised beds.
2. Install drip irrigation, weed barrier, and mulch.
3. Plant vegetables and herbs that can be used by food service provider.
4. Utilize vermiculture composting for all green waste and run pilot programs with food service for selected food waste recycling.
5. Utilize compost for planting and compost tea for sports fields.
6. Continue to recycle: green waste, paper, plastics, glass, aluminum, ferrous metals; batteries and electronic waste.
7. Toxic Substances Management & Disposal Plan in place to meet County Office of Environmental Health Regulations.
8. Utilize organic, non-toxic, non-chemical (corn gluten meal) as our pre-emergent herbicide.



# St. Francis High School: Solar

System Size: 309.0 kW DC  
Generating Since: February 24, 2012  
Last Updated: 12:15pm Jun 17, 2015

Home

Graph

How Solar Works

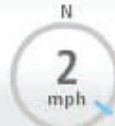
livedata  
SOLAR



Clear skies  
Irradiance: 708 W/m<sup>2</sup>



87°F



Minute

Today

3 Days

Week

Month

Year

TOTAL ENERGY GENERATED EQUALS

8,428

60 Watt Bulbs for 1 Year of 8  
Hour/Day Use



TOTAL CO2 OFFSET EQUALS

26,577

Trees



TOTAL ENERGY GENERATED EQUALS

1,060

Tons of CO2 Saved



TOTAL ENERGY GENERATED EQUALS

119,599

Gallons of Gas Saved



