



Go Solar Santa Cruz

COMMERCIAL SOLAR CASE STUDIES

Join your neighbors in saving energy and money!



Ecology Action-Cruzio Building

DOWNTOWN SANTA CRUZ

System Size: 51,840 Watt DC

System Details

- Number of panels: 216
- Panel Manufacturer & model: Sharp NU-U240F1, 240 watt-dc each
- Inverter manufacturer & model: SMA Sunny Boy 7000- US

Date Installed: December 2010

Installer: Real Goods Solar

Estimated solar production per year: 89,000 kWh (2013 actual)

Baseline utility energy usage: 118,000 kWh (2013 actual of EA)

Portion of electricity demand met by system: 75%

Average utility cost at time of installation: \$0.18/kWh

Cost of system before rebate and tax credit: \$280,676

State rebate amount: \$31,472

Federal Tax Grant amount: \$84,203

Type of financing: PPA

Final costs: \$248,680



See the City’s Commercial **Go Solar** brochure and worksheet for a comparison of the advantages and disadvantages of each financing option and guidance on decision-making.

Ecology Action and Cruzio purchased and renovated the building on the corner of Cedar St and Church St in 2009 and Ecology Action (EA) paid for a solar PV System to offset the building’s electricity needs. “Solar makes sense” was the message sent by Nancy Ogle, the Office Manager at EA. She oversees the building’s energy use and monitors the solar photovoltaic (PV) system’s performance. The decision to install solar PV was one that came naturally to EA, an organization committed to achieving environmental and economic sustainability.

According to the state of California the price to install solar in homes and business has gone down 37% since 2010.

The building was awarded LEED Gold Certification for its commitment to green building practices. EA selected the most efficient building materials and equipment and allocated as much roof space as possible to optimize the solar PV generation’s electricity offset potential. For example, the office space was designed to take advantage of natural lighting, by use of plenty of glass walls and materials like the Eco Stucco that lines the walls and provides thermal control and its white

beige color softly reflects light for energy efficiency and occupancy comfort.

Currently, the building’s largest electricity load comes from operations—computers, printers, electronics, compared to the traditional non-energy retrofitted building where the largest load is typically an oversized or inefficient HVAC system. Nancy Ogle tracks the electricity output of the system from an online dashboard and pays careful attention to times when efficiency might change, such as when the panels are cleaned. The panels are cleaned twice a year through a service contract with a local contractor and Nancy is happy to report that she noticed a difference in electricity output when comparing a set of days’ before and after the cleaning with similar hours of sunlight.

“Just do it” Nancy Ogle said when asked what advice she had for others considering commercial solar, “it is so helpful to offset your energy use and there’s a good payback. Consider your workspace needs with energy and you’ll find out it makes sense, especially if you’re running a business you know you’ll have computers on, printers going, internet access and that all uses electricity that can be offset by solar panels.”

Do you have any questions about solar installation in the City of Santa Cruz? Contact our Climate Action Program at (831) 420 - 5113!