

California Academy Of Sciences

OVERVIEW

Applied Solar has been contracted by the Permastellista and Josef Gartner USA to engineer and install what will be the largest Photovoltaic glass canopy in the United States. Located in Golden Gate Park in the city of San Francisco, California, the California Academy of Sciences has started a comprehensive rebuilding project unprecedented among the world's largest natural history museums. Once completed, the new academy promises to be a symbol of excellence architecturally, environmentally, educationally, and scientifically.

Designed by Pritzker Prize-winning architect, Renzo Piano, the Photovoltaic canopy will consist of 720 custombuilt Applied Solar Architectural PV Glass panels that fully circumnavigate the building, generating over 172,000 watts of electricity. Each of the 750 custom built PV glass laminates consist of two layers of 5/16 inch thick glass. Laminated within is a circuit of 77 monocrystalline solar cells. These 125 mm cells have the highest conversion efficiency available at 20%. Coupled with utility interactive inverters, the power generated will directly offset power that would have been supplied by the local electrical company.

The Photovoltaic system and other elements of the project will prevent the annual generation of over 400,000 pounds of CO₂.



PV Glass



Project Info

To introduce an element of multi-functionality to building integrated Photovoltaic, creating systems, which produce energy while meeting required needs and desirable features of urban museum.

Full Address

Golden Gate Park, San Francisco

Project Start Date January 2007

Project End Date June 2007

Challenge

Provide 10% of the buildings energy load to gain 2 LEED points

Solution

Design and build custom PV glazing elements to fit into canopy per architect

System Size

172 kilowatts (kw) DC

Estimated Monthly Production

212,000 kilowatt hours (kwh)

Products Used

Applied Solar Custom Architectural PV Glass units

Installation Weight

10 lbs. per sq. ft.

Installation Size

18,000 sq. ft.

Roof Type

Fully glazed outdoor canopy, laminated glass-over-glass PV modules

