

Gardens by the Bay integrates solar photovoltaics in architecture

SolarGy, a renowned system integrator for solar PV systems based in Singapore, was proud to be associated with Singapore's iconic Gardens by the Bay project, located in Marina Bay.

SolarGy was awarded the 52 kWp solar photovoltaics (PV) project in October 2010. The award was based on the government's price-quality method, which means merit was given based on the experience and quality of the proposal apart from price.

SolarGy's scope of work was divided into two areas and nominated to two different main contractors – Precise Development Pte Ltd for the Gardens by the Bay Office and Swee Hong Limited for the Family Forrest. Each area of work had its own set of challenges.

Gardens by the Bay Office

The works at the Gardens by the Bay Office posed unique challenges for SolarGy. The solar panels had to be arranged to follow the curve profile of the roof. Since the panels are rectangular, SolarGy's design team put the panels into scaled CAD drawings to determine the optimum number of panels arranged in straight segments to best fit the curve.

The final layout appeared to be a smooth curve that matches the roof profile. SolarGy also took CPG Consultants's (the architect) challenge to design a Y-leg support that resembles a tree trunk instead of the usual two parallel legs as support for the solar structure. The Y-leg was made of welded aluminium sections and powder coated to a colour of the architect's choice.



Family Forrest

At the Family Forrest, the panels are installed on the metal roof. Again the panels were required to form a curve to follow the roof profile.

"The Gardens by the Bay is a successful example of integrating solar PV panels into the building roof," said Mr Albert Lim, Managing Director, SolarGy.

For further details, visit www.solargy.com.sg.

