

## CRYSTAL GARDEN

### *Taiwan Power Co. (Taipower) Southern Exhibition Hall---The Crystal Garden*

On the sunshine-surrounded Heng-Chun peninsula, there stands a "Crystal Garden"

Located at the Taipower southern exhibition Hall area, this garden taking direct advantage of the plenty sunshine in Heng-Chun, mirroring the blue sky and the white clouds, accompanied by the ocean view, has star-

ted to the power grid, and the daily power yield can be recorded as well as monitored through the remote controlling system.

The double-glass transparent photovoltaic modules, not only use the sunshine to generate power, but also let the sun shine through the interspace, leaving interwea-



ted to operate at the end of summer 2006. Taking "crystallized silicon" as the design idea, empowered by the unexhaustable sun, the garden generates a power capacity of 50KWp and shows the beauty of the Building Integrated Photovoltaic System with her elegant figure lines made of steel.

The "Crystal Garden" made of crystallized silicon has her axis toward south, with a dip of 11° (not the optimal angle at the latitude because of the constraint of height). Equipped with 396 double-glass transparent photovoltaic modules, the system is connected

to the power grid, and the daily power yield can be recorded as well as monitored through the remote controlling system. The double-glass transparent photovoltaic modules, not only use the sunshine to generate power, but also let the sun shine through the interspace, leaving interweaving shadows. Along with the move of light and time, the interplay of light and shadow makes the photovoltaic "Crystal Garden" itself an attraction.

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To integrate the structure, the photovoltaic modules, the whole circuit disposition and the supporting structure, and to facilitate the construction, simplify the maintenance and keep the aesthetic requirements, the system designer and installer *abakus* has made great efforts. Not only designed the engineering system with care in advance, but also sent the engineers from Germany to Taiwan to supervise the installation of the photovoltaic modules and assist with the test run of the whole system.



Grid-connected PV system	
System size:	50 kWp
Number of modules:	396 double glass modules
Type of modules:	Scheuten Optisol
Element size:	1.65 x 0.72 m
Area of modules:	about 540 m <sup>2</sup>
Area of module projection:	about 640 m <sup>2</sup>
Number of inverters:	9
Type of inverters:	SMA SMC6000, SB3000