

Sharp to Begin Mass Production of New Single Crystalline Solar Cells with High Conversion Efficiency at GREEN FRONT SAKAI

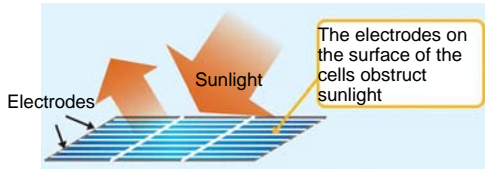
Sharp Corporation has developed a new single crystalline solar cell with high conversion efficiency. Sharp will begin mass producing this solar cell at an annual production capacity of 200 MW within fiscal year 2010 at its solar cell plant in GREEN FRONT SAKAI, located in Sakai City, Osaka Prefecture, Japan. The mass production will cover everything from solar cells to solar modules.

This single crystalline solar cell with high conversion efficiency uses a Back Contact structure (electrodes are connected on the back-side), which eliminates the need for electrodes to be set on the front-side. This new structure increases the light-receiving area on the front-side's surface. In addition, a new alignment technology (Alignment Sheet system), which reduces the connection resistance between adjacent cells, was also developed. A broad range of applications in the global market, including residential and industrial use, can be anticipated in the future.

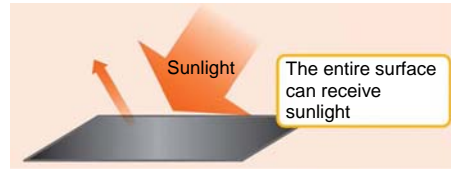
Overview of the Production of Single Crystalline Silicon Solar Cell Modules with High Conversion Efficiency

Location:	Solar cell plant, GREEN FRONT SAKAI 1 Takumi-cho, Sakai-ku, Sakai City, Osaka Prefecture, Japan
Production Capacity:	200 MW/year (initial phase)
Investment Amount:	Approximately 15 billion yen
Start of Operations:	Within fiscal year 2010 (plan)

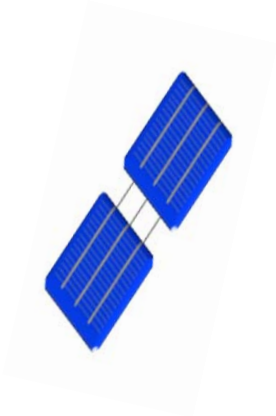
Conventional Structure



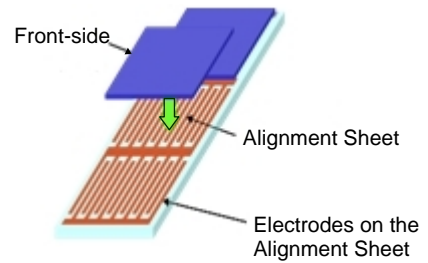
Back Contact Structure (electrodes are connected on the back-side)



Conventional System



Alignment Sheet System





Solar Cell Plant in GREEN FRONT SAKAI



Single Crystalline Silicon Solar Cell Module with High Conversion Efficiency