

Concentrated Photovoltaic (PV) and Solar Photovoltaic Global Market (2009 - 2014)

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Abstracts

In the increasing trend to generate electrical power from renewable sources, solar PV cells were one of the first technologies considered for the conversion of solar energy to usable electrical energy. PV technology initially had to contend with issues such as low conversion efficiency and high initial investment. However, power output has significantly improved through the development of a new technology involving mirrors/reflectors that focus sunlight falling over a huge area onto a small set of PV cells.

CPVs are also often equipped with trackers following the sun's position, so that sun rays directly hit the panel of reflectors and are redirected to the PV cell arrays. As CPV reflectors usually require huge open areas, the technology often has to contend with the issue of water shortage for cooling the CPV cells. Air or the hybrid wet-dry cooling technology enables the use of CPV cells in deserts and isolated places. The CPV cells market is set for high growth with government initiatives in place for the generation of renewable power. The market also holds promise for new entrants as it currently has only a few players.

The report covers all the major types of CPV cells – i.e., of low, medium, and high concentration. The report also includes an in-depth analysis of solar PV submarkets, such as those for crystalline, thin film, and other PV cells. The report estimates and analyzes the markets for different cooling techniques, such as air and water cooling, which are vital for the functioning of CPVs. Issues like grid-parity have been also been explained and discussed in-depth.

The report includes an analysis of the global solar power market and the total energy scenario. It forecasts the size of each submarket; and also identifies the market trends

and factors that drive or inhibit market growth. More than 45 company profiles are provided for a deeper insight into the competitive landscape. The market tables are categorized as per geographies, products, and applications. An in-depth geographic analysis is conducted for each of the sub-segment in the major regional markets of Americas, Europe, Asia and ROW.

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