

Solar Photovoltaic Cell Market Report: 2011 Edition

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Abstracts

Solar energy accounts for a relatively small share in the global electricity production, but the prospects for its share increasing in the coming years are very high. Photovoltaic cells or PV cells are used to directly convert solar energy to electricity by photoelectric effect. Two main types of photovoltaic technologies include crystalline silicon and thin film, out of which crystalline silicon is the most widely used one. Past five years have witnessed tremendous increase in the PV installations worldwide, mainly due to the initiatives taken by the government to promote renewable energy, like Feed-in-Tariffs.

Europe is the largest PV market, followed by Japan and the US. Country wise, Germany is the leading player in the PV market. Although China does not have significant share in the PV installations presently, its share is expected to increase in the coming years. At the same time, China leads the market in terms of production, followed by Japan and Taiwan. The reason for China being the largest PV producer is the cost competitiveness enjoyed by PV manufacturers in China.

In future, the PV market is expected to enjoy growth in the emerging markets including China, India, Australia and South Africa. Also, the Sunbelt countries, where the solar irradiation is very high, have great potential which is largely untapped. Two such countries offering growth opportunities, China and India are also being profiled in the report.

Due to the solar energy having minimal environmental impact, and the increasing governmental initiatives, the PV industry is likely to boost up in the coming years. PV energy is very expensive and therefore, efforts are being made on making it more affordable. With the increasing population, the renewable energy sources (including photovoltaic solar energy) are expected to fulfill the increasing energy requirements of the future.

The present report analyzes the global PV market and the three leading regional markets, Europe, US and Japan. The trends, drivers and key issues of the PV industry are also discussed. Four leading players Suntech Power, First Solar, Trina Solar and Q-Cells have been profiled in the report.

By combining SPSS Inc.'s data integration and analysis capabilities with our relevant findings, we have predicted the future growth of the industry. We employed various significant variables that have an impact on this industry and created regression models with SPSS Base to determine the future direction of the industry. Before deploying the regression model, the relationship between several independent or predictor variables and the dependent variable was analyzed using standard SPSS output, including charts, tables and tests.

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