Solar Power Set to Shine Brightly

The solar industry is poised for a rapid decline in costs that could make it a mainstream power option in the next few years, according to a new report by global environmental research group, the Worldwatch Institute.

It found the global production of solar photovoltaic cells has risen sixfold since 2000 and grew 41% in 2006 alone. "Although grid-connected solar capacity still provides less than 1% of the world's electricity, it increased nearly 50% in 2006, to 5,000 MW, propelled by booming markets in Germany and Japan. Spain is likely to join the big leagues in 2007, and the United States soon thereafter."

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Worldwatch Senior Researcher and report author, Janet Sawin, said this growth, while dramatic, has been constrained by a shortage of manufacturing capacity for purified polysilicon, the same material that goes into semiconductor chips. "But the situation will be reversed in the next two years as more than a dozen companies in Europe, China, Japan, and the United States bring on unprecedented levels of production capacity", she said.

"In 2006, for the first time, more than half the world's polysilicon was used to produce solar PV cells. Combined with technology advances, the increase in polysilicon supply will bring costs down rapidly, by more than 40% in the next three years."

"Solar energy is the world's most plentiful energy resource, and the challenge has been tapping it cost-effectively and efficiently. We are now seeing two major trends that will accelerate the growth of PV: the development of advanced technologies, and the emergence of China as a low-cost producer."

China's leading PV manufacturer, Suntech Power, climbed from the world's eighth largest producer in 2005 to fourth in 2006. Experts believe that China, with its growing need for energy, large work force, and strong industrial base, could drive dramatic reductions in PV prices in the next few years, helping to make solar competitive with conventional power even without subsidies. ■

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