

Green Machines Worldwide Solar Manufacturing Capacity Production, and Capacity Utilization Market Shares, Forecasts, and Strategies, 2008-2014

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Abstracts

The single most significant economic factor driving adoption of solar utility initiatives is the prospect of carbon use surcharges. As coal, gas, and oil usage are taxed to help prevent pollution and stimulate use of renewable energy sources, solar energy becomes more attractive to the utility grid electricity providers and ordinary households. The environmental impact of energy use choices promises to be an ongoing factor in energy grid supply.

Hybrid energy solutions are anticipated to evolve. The combinations of wind and solar energy are compelling. These systems only work if the energy storage systems are reliable and available.

Total global capacity in 2010 for solar manufacturing is anticipated to reach 26.5 gigawatt (GWp). Solar is emerging as the renewable energy electricity generation of choice. Storage is the biggest difficulty, and a combination of the grid, batteries, and hydrogen are anticipated to provide energy storage means.

Some of the very large enterprises in the solar manufacturing markets do not have very much manufacturing capacity. They have been waiting to see what technologies are the most efficient. As market trials begin to be successful, it is certain that there will be a significant number of acquisition and merger activities as companies move to achieve strategic advantage in the growing solar markets.

Adoption of solar energy has a simple market driving force. If people do not adopt solar energy, the planet will become unfit for human habitation. The fossil fuels are warming the planet at an increasing rate that makes life unsustainable if something does not

change.

Global warming drives solar markets. Solar is perceived as the best, perhaps the only widespread solution to global warming. Every large enterprise has adopted a social responsibility strategy that makes a nod toward solving the issues of global warming and embraces renewable energy. Every person in the world is aware of the problems that global warming is bringing.

High growth is forecast for Manufacturing Capacity solar markets as solar moves to take on a measurable supply of world energy. As penetration from .3% of the world energy supply raises to over 15% in five years, Manufacturing Capacity uses of solar energy will represent a significant part of the growth.

Manufacturing Capacity solar energy represents a measure of energy independence for every household, used as hybrid systems independently of, but not completely in place of traditional grid electricity.

Demand for energy is accelerating as more of the world becomes developed. Developing countries are anticipated to double the world's demand for energy in the next thirty years. Energy creation is becoming a central environmental issue with air quality, water quality, and flooding because of global warming having implications for the entire world.

Solar energy is a clean, reusable and affordable solution that is increasingly being recognized as the leading alternative energy source for the 21st century. While hybrid solutions are anticipated to evolve with wind, geothermal, and nuclear solutions, evolving as well, solar looks to be a dominant technology. The solar panel size is a trade-off between the amount of money wanted to invest and the amount of electricity needed to produce. A typical US home uses 13,000kWh per year or 5kWp.

On average, the sun radiates 2.6 gigawatts (GW) of energy onto a square mile of the earth's surface, and the most suitable way to harvest that light depends on two factors: cost and the available real estate. It does not matter that thin film solar panels are not more than 10% efficient initially, the roof of the home is not doing anything else except sit there. The sides of the home, the back fence can be used to collect solar energy and that energy can be stored for later use in vehicles and lighting.

World solar cell production reached 3,623 MW in 2007, up from 2,204 MW a year earlier in 2006. A German company Q-Cells is the market leader in productions, but Sharp is

the leader by far in manufacturing capacity. Japanese producers account for 26% of global solar equipment production. Chinese manufacturers raised their share from 20% in 2006 to 35% in 2007.

By 2009, Sharp continues to be a market leader in production, based on its low cost manufacturing capacity and broad distribution reach to commercial and consumer markets which are expected to develop rapidly now that thin film batteries and electric vehicles make solar energy attractive.

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Evergreen Solar
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