



1.1 Solar Industry Analysis

Green Mountain Solar will compete in a market of exceptional breadth and depth globally. Recent growth rates for solar have been impressive at 40+% in the last several years, but the newly published Solarbuzz Annual Report, Marketbuzz 2009, shows last year's rate exceeded those numbers.

World solar photovoltaic (PV) market installations reached a record high of 5.95 gigawatts (GW) in 2008, representing growth of 110% over the previous year

The global solar installation market more than doubled (growing 110%) to add 5.95 GW of solar PV and bring our cumulative solar capacity to more than 15 GW. The demand for Global World Primary Power (GWP¹) will grow from \$25 Trillion to \$250 Trillion in this century.²



Electricity from traditional solar panels costs about \$3 per watt. Conventional wisdom suggests that solar will not be competitive until it can produce electricity at \$1 per watt. Green Mountain Solar claims that its super-efficient manufacturing process can reduce the cost of making electricity from sunlight to a mere 30 cents per watt. If that holds true, solar may finally be competitive with coal.

A record 5.95 gigawatts in solar photovoltaic panels were installed last year, up from 2.83 GW in 2007³. In the assessment of PV demand in 2008, 81 countries contributed to the 5.95GW world market total.

The photovoltaic industry generated \$37.1b in global revenues in 2008, while successfully raising over \$12.5 billion in equity and debt, up 11% on the prior year⁴. Thin film production also recorded solid growth, up 123% in 2008 to reach 0.89 GW.

On the supply side, world solar cell production reached a consolidated figure of 6.85 GW in 2008, up from 3.44 GW a year earlier. Overall capacity utilization rose to 67% in 2008 from 64% a year earlier.

More than \$20.2 trillion will need to be invested to meet worldwide energy demand by 2030, and more than half of this total, \$11.3 trillion, is needed to expand solar energy production to meet worldwide demand.

According to solarbuzz.com, Solar Electric demand has grown consistently by 20-50 % each year over the pass 20 years. This is due to the increase in efficiency, manufacturing technology improvements and the economical reduction of cost when produce in large quantities. For this reason, large companies such as Shell have a strong interest in the development of renewable energy. At this rate, solar energy could be the main source that powers our homes in the next few decades.

¹ Gross world product

² Arthur H. Rosenfeld, Commissioner, California Energy Commission, 2006.

³ Solar Buzz March 2009

⁴ Richard Kessler, in Recharge March 16 2009