

Photovoltaic Service Program

In-depth analysis of the PV industry based on comprehensive primary research

The Photovoltaic Service Program at Navigant Consulting, Inc. provides clients with comprehensive information and analysis about the photovoltaic industry, PV technologies, average module and system prices, and supply and demand by region, module size, country and U.S. state – all backed by 30-years of historical data. Clients receive an independent, expert perspective on the market, growth drivers and barriers, competitive landscape, and other insights. This information is an invaluable resource for executives and managers making strategic industry decisions.

The Photovoltaic Service Program is a market research group gathering primary data directly from companies active in the supply or distribution of photovoltaic technologies. A subscription to the program includes two comprehensive reports covering supply and demand, the *Solar Outlook* bi-monthly (six issues per year) update newsletter and five hours of analyst time. The reports and news-

letter subscription can each be purchased separately. The Photovoltaic Service Program is also available for specific research and/or consulting requests.

Reports

Photovoltaic Manufacturer Shipments & Competitive Analysis (*Spring 2008*)

This report provides extensive analysis of the supply side of the industry, including:

- » Average selling price for technology with a complete trend line from 1975 to 2007 and forecast out to 2017
- » Annual shipment and capacity data by region, manufacturer, and technology
- » Discussion of the top ten manufacturers in 2007, including shipment and revenue data
- » Competitive Analysis chapters which provide more detail on leading manufacturers and emerging players including product mix and corporate history

Who Will Benefit from the Photovoltaic Service Program?

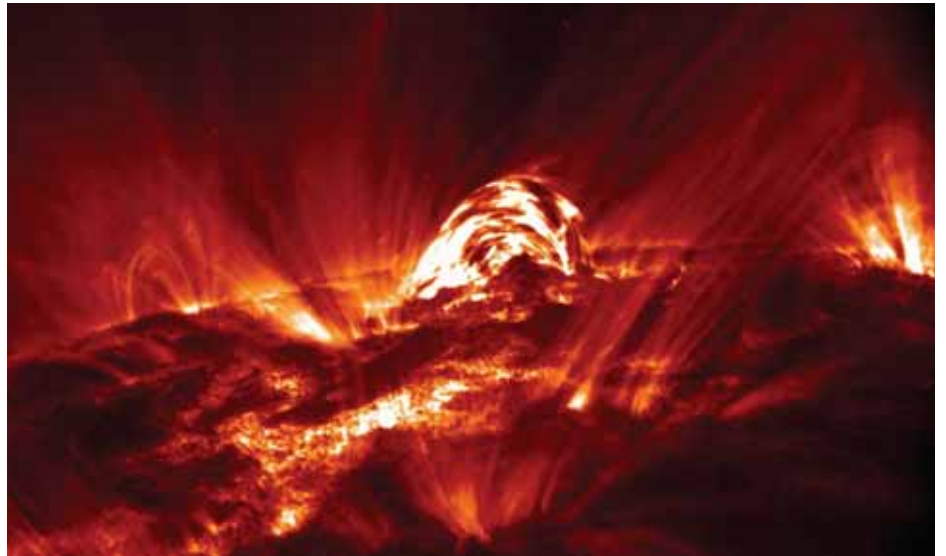
Cell and Module Manufacturers – to access the leading PV industry analysis and outlook of technology and market opportunities

Investors – for an ongoing, detailed analysis of the rapidly changing PV market as they evaluate investment options and opportunities

Governments – with a need to continually gauge PV technologies and trends as they shape and help drive energy choices for their constituencies

Universities – to stay current with PV technology and market trends and implications for existing or future research choices

...and other industry participants in need of a thorough analysis of the PV industry



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Brief extracts from recent reports

2006/2007 Analysis of Worldwide Markets

Globally, the development of different investment models for financing solar projects has led to strong growth in the grid-connected commercial market segment. These investment models change the paradigm of owning the means of production (a solar system), back to one the electricity customer understands, that of renting electricity. To be successful, and lower risk to the investors, all investment models, whether the model is in Asia, Europe or the U.S. require an extremely low system costs, that is, modules <\$3.00/Wp, and low cost BOS and labor. To be successful this model needs incentives in place to further lower the system cost to the investor, and therefore allow the investment team to offer low priced electricity. Typically, the price of the system is set by market forces with profit all along the chain. With the investment model there is no further mark up from the cost of installing the system. This model, if it continues to be successful, may be a driver to lower module costs.

2006/2007 Manufacturer Shipments Report

Despite a challenging year for raw material availability and warnings about softening demand and inventory stockpiles, the PV industry grew by another 41% in 2006. From 2001 to 2006 total shipments have realized a compounded annual growth rate of 41%. Thin film shipments, excluding amorphous silicon technology, grew by 147% for the third straight year.



Analysis of Worldwide PV Markets and Five-Year Application Forecast (Summer 2008)

This 300+ page report provides a detailed view of the world PV market, including:

- » Analysis of the selling channels for PV products
- » Data and market analysis for the five major application segments and 35 sub-segments
- » Data and market analysis for ten regions and 30 countries in both the industrialized and developing areas of the world
- » Five year applications forecast, 2007 – 2012, and ten year forecast to 2017

Solar Outlook (bi-monthly – 6 issues)

This bi-monthly newsletter follows industry current events providing commentary and analysis of PV industry activities. *Solar Outlook* also includes coverage of major conferences, interviews with industry leaders, and guest editorials.

Analyst Time

A subscription to Navigant Consulting's Photovoltaic Service Program includes five hours of analyst time. Clients may use this time to ask specific questions about PV technologies, markets and outlook. The cost of additional travel, if requested, must be provided by the client.

Program Developer, and Principle Analyst

Paula Mints is the Principle Analyst with the Photovoltaic Service Program and an Associate Director at Navigant Consulting. Ms. Mints joined Navigant Consulting from Strategies Unlimited, where she had been the director of their photovoltaic practice since 2002. Ms. Mints has been providing comprehensive industry analysis since 1998

and is widely recognized as a PV industry expert – published regularly in renewable energy journals and speaking at international solar industry events. Ms. Mints is the primary author of the Photovoltaic Service Program Reports and is executive editor of *Solar Outlook*.

Daniel Tomlinson, Consultant, joined Navigant Consulting's Photovoltaic Service Program in 2006 and is editor of *Solar Outlook*. Prior to joining Navigant Consulting, Mr. Tomlinson worked for a U.S. based renewable energy project finance group.

How to Participate in This Program

Organizations are invited to subscribe to Navigant Consulting's Photovoltaic Service Program at an annual cost of \$13,600. These service clients receive both comprehensive PV reports, a one year subscription to *Solar Outlook* (six issues), and five hours of consulting time, which may be used for additional questions and/or research requests.

Individual Component Prices

- » *Solar Outlook*: \$1,500
- » *Photovoltaic Manufacturer Shipments & Competitive Analysis*: \$5,500
- » *Analysis of Worldwide PV Markets and Five-Year Application Forecast*: \$5,500
- » *Five hours of consulting time included in the service*: \$1,750

For additional information, to subscribe to the program, or to purchase individual reports, please contact:

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