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# **THE WORLDWIDE SOLAR PANEL ASSEMBLY MARKET**

***Second Edition***

**A Strategic Report on the Worldwide Market  
for Photovoltaic (PV) Module Assembly,  
Including Opportunities for EMS Providers**

## **Report Highlights**

- **Technical Trends**
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- **Market Analysis and Forecasts, 2008–2023**
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# The Worldwide Solar Panel Assembly Market, 2nd Edition

## Synopsis

Electrical power production from solar photovoltaic (PV) systems is experiencing explosive growth that should continue for many years into the future. However, as with any exciting and high-growth market, there is much speculation about the impact and size of this market over time.

*New Venture Research* (NVR) in the **2nd Edition** of its report, **The Worldwide Solar Panel Assembly Market**, uses data from a wide variety of sources to present the most realistic picture available regarding this market.

The analysis and forecasts are provided in a variety of measures. Application and regional markets are defined in megawatts. Technology markets are defined in megawatts, modules, cost per module, and cost of goods sold (COGS).

COGS—the total manufacturing cost to produce PV cells and finished modules—is forecast instead of revenue for two reasons. First, COGS is the key measurement for manufacturers, material suppliers, and equipment makers who wish to participate in this market. Second, manufacturing cost is much more predictable than revenue. In a capital intensive industry such as PV cell manufacturing, revenue often swings wildly as supply and demand move in and out of balance.

This report also forecasts the move by PV cell and module manufacturers to outsource production to electronics manufacturing services (EMS) providers. The outsourcing forecast is defined in megawatts, modules, cost per module, and COGS.

This report is organized into six chapters. Chapter 1, “Introduction,” outlines the scope, organization, and methodology for the report.

Chapter 2, “Executive Summary,” presents top-level data from throughout the report.

Chapter 3, “Technical Trends,” examines the basis for PV electronics, reviews the fundamental materials science behind basic PV cells, and looks at some of the emerging PV technologies. This chapter also contains a brief compendium of recent news articles about the industry.

Chapter 4, “Market Analysis, 2008,” defines the leading technologies, applications, and regions for PV electronics. The chapter quantifies—insofar as is possible—the current market in terms of megawatts shipped, modules shipped, average cost per module, and cost of goods sold.

Chapter 5, “Market Forecast, 2009–2023” examines how the market for PV electronics is expected to grow by leading application area. As in Chapter 4, this chapter defines the leading technologies, applications, and regions. This chapter also forecasts how the EMS industry is expected to play an expanding role in the PV market.

Chapter 6, “Company Profiles,” reviews the products and strategies of the leading industry PV manufacturers. Profiles are also provided for some promising startup companies, as well as a number of material and production equipment providers.

**The Worldwide Solar Panel Assembly Market, 2nd Edition** will provide you with an effective and economical tool for assessing the future of this market. Please take a few moments to review the report's outline on the following pages. The report is available in electronic format only and is delivered by email as a single-user PDF file. The report sells for \$1995, with extra single-user licenses at \$350 each. Corporate licensing is available—contact us for pricing.

## About the Author

**Randall Sherman**, president of New Venture Research Corp. a California market research and business consulting firm focused on the EMS and OEM electronics manufacturing industries, continues to serve as principal analyst for this report. Mr. Sherman has more than 20 years' experience in technology and business research. He began his career as a telecom network design engineer. He has held senior positions at various market research firms including Creative Strategies and Frost and Sullivan. Mr. Sherman holds an MSEE from the University of Colorado and an MBA from Edinburgh School of Business.

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BP Solar	OptiSolar, Inc.
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