FIRST SOLAR, INC.
Form 10-K
February 29, 2012

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

(Mark one)

[x] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2011

or

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission file number: 001-33156
First Solar, Inc.
(Exact name of registrant as specified in its charter)

Delaware	20-4623678
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

350 West Washington Street, Suite 600
Tempe, Arizona 85281
(Address of principal executive offices, including zip code)
(602) 414-9300
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common stock, $0.001 par value	The NASDAQ Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act:
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [x] No [ ]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes [ ] No [x]

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes [x] No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes [x] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer [x]	Accelerated filer [ ]	Non-accelerated filer [ ] (Do not check if a smaller reporting company)	Smaller reporting company [ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [ ] No [x]

The aggregate market value of the registrant's common stock, $0.001 par value per share, held by non-affiliates of the registrant on June 30, 2011, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $5,652,062,252 (based on the closing sales price of the registrant's common stock on that date). Shares of the registrant's common stock held by each officer and director and each person who owns 5% or more of the outstanding common stock of the registrant are not included in that amount, because such persons may be deemed to be affiliates of the registrant. This determination of affiliate status is not necessarily a conclusive determination for other purposes. As of February 24, 2012, 86,485,999 shares of the registrant's common stock, $0.001 par value per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this Annual Report on Form 10-K, to the extent not set forth herein, is incorporated by reference from the registrant's definitive proxy statement relating to the Annual Meeting of Shareholders to be held in 2012, which will be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year to which this Annual Report on Form 10-K relates.

FIRST SOLAR, INC. AND SUBSIDIARIES

FORM 10-K FOR THE FISCAL YEAR ENDED DECEMBER 31, 2011

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Throughout this Annual Report on Form 10-K, we refer to First Solar, Inc. and its consolidated subsidiaries as "First Solar," the "Company," "we," "us," and "our." Our last three fiscal years ended on December 31, 2011, December 31, 2010, and December 26, 2009.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Securities Exchange Act of 1934 and the Securities Act of 1933, which are subject to risks, uncertainties, and assumptions that are difficult to predict. All statements in this Annual Report on Form 10-K, other than statements of historical fact, are forward-looking statements. These forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. The forward-looking statements include statements, among other things, concerning our business strategy, including anticipated trends and developments in and management plans for our business and the markets in which we operate and plan to operate; future financial results, operating results, revenues, gross profit, operating expenses, products, projected costs, and capital expenditures; research and development programs; sales and marketing initiatives; and competition. In some cases, you can identify these statements by forward-looking words, such as “estimate,” “expect,” “anticipate,” “project,” “plan,” “intend,” “believe,” “foreca “foresee,” “likely,” “may,” “should,” “goal,” “target,” “might,” “will,” “could,” “predict,” and “continue,” the negative or plura words, and other comparable terminology. Our forward-looking statements are only predictions based on our current expectations and our projections about future events. All forward-looking statements included in this Annual Report on Form 10-K are based upon information available to us as of the filing date of this Annual Report on Form 10-K. You should not place undue reliance on these forward-looking statements. We undertake no obligation to update any of these forward-looking statements for any reason. These forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to differ materially from those expressed or implied by these statements. These factors include the matters discussed in the section entitled Item 1A: “Risk Factors,” and elsewhere in this Annual Report on Form 10-K. You should carefully consider the risks and uncertainties described under this section.

PART I

Item 1: Business

Overview

We manufacture and sell solar modules with an advanced thin-film semiconductor technology, and we design, construct, and sell photovoltaic (PV) solar power systems.

In addressing overall growing global demand for PV solar electricity, we have developed a differentiated, fully integrated systems business that can provide a low-cost turn-key utility-scale PV system solution for system owners and low cost electricity to utility end-users. Our fully integrated systems business has enabled us to increase module throughput, drive cost reduction across the value chain, identify and break constraints to sustainable markets, and deliver compelling solutions to our customers and end-users. With our fully integrated systems business, we believe we are in a position to expand our business in transition markets and eventually economically sustainable markets (in which support programs are minimal), which are expected to develop in areas with abundant solar resources and sizable electricity demand. We are committed to continually lowering the cost of solar electricity, and in the long term, we plan to compete on an economic basis with conventional fossil-fuel-based peaking power generation.

In furtherance of our goal of delivering the lowest cost of solar electricity and achieving price parity with conventional fossil-fuel-based peak electricity generation, we are continually focused on reducing PV solar system costs in four primary areas: module manufacturing, balance of systems (BoS) costs (consisting of the costs of the components of a solar power system other than the solar modules, such as inverters, mounting hardware, grid interconnection equipment, wiring and other devices, and installation labor costs), project development costs, and the cost of capital. First, with respect to our module manufacturing costs, our advanced technology has allowed us to reduce our average module manufacturing costs to the lowest in the world for modules produced on a commercial scale, based on

publicly available information. In 2011, our total average manufacturing costs were $0.75 per watt, which we believe is less than those of traditional crystalline silicon solar module manufacturers. By continuing to improve conversion efficiency, production line throughput, and lower material costs, we believe that we can further reduce our manufacturing costs per watt and maintain our cost advantage over traditional crystalline silicon solar module manufacturers. Second, with respect to our BoS costs, by continuing to improve conversion efficiency, leverage volume procurement around standardized hardware platforms, and accelerate installation times, we believe we can continue to make reductions in BoS costs, which represent over half of all of the costs associated with a typical utility-scale PV solar power system. Third, with respect to our project development costs, we seek optimal site locations in an effort to minimize transmission and permitting costs, and to accelerate lead times to electricity generation. Finally, with respect to our cost of capital, by continuing to demonstrate the financial viability and operational performance of our utility-scale PV solar power plants and increase our PV solar power system operating experience, we believe we can continue to lower the cost of capital associated with our PV solar power systems, thereby further enhancing the economic viability of our projects and lowering the cost of electricity generated by PV solar power systems that incorporate our modules

and technology.

We are the world’s largest thin-film PV solar module manufacturer and one of the world's largest PV solar module manufacturers. We produced nearly 2 gigawatts (GW) of solar modules in 2011. We manufacture our solar modules on high-throughput production lines and perform all manufacturing steps ourselves in an automated, proprietary, and continuous process. Our solar modules employ a thin layer of semiconductor material to convert sunlight into electricity. Our manufacturing process eliminates the multiple supply chain operators and expensive and time consuming batch processing steps that are used to produce crystalline silicon solar modules. Currently, we manufacture our solar modules at our Perrysburg, Ohio, Frankfurt/Oder, Germany, and Kulim, Malaysia manufacturing facilities and we conduct our research and development activities primarily at our Perrysburg, Ohio manufacturing facility.

Our fully integrated PV solar power systems business includes (i) project development, (ii) engineering, procurement, and construction (EPC) services, (iii) operating and maintenance (O&M) services including monitoring and diagnostics (M&D) services, and (iv) project finance expertise, all as described in more detail below.

- During project development, we obtain land and land rights for the development of solar power plants incorporating our modules, negotiate long-term power purchase agreements (PPA) with potential purchasers of the electricity to be generated by those plants or develop plants in regulated markets where feed-in-tariff (FiT) structures are in place, manage the interconnection and transmission process, negotiate agreements to interconnect the plants to the electric grid, and obtain the permits which are required prior to the construction of the plants, including applicable environmental and land use permits. We may also buy projects in various stages of development and continue developing those projects with system designs incorporating our own modules. We sell developed projects to system operators who wish to own generating facilities, such as utilities, or to investors who are looking for long-term investment vehicles that are expected to generate consistent returns.

- We provide EPC services to projects developed by our project development business, to projects developed by independent solar power project developers, and directly to system owners such as utilities. EPC services include engineering design and related services, advanced development of grid integration solutions, and construction contracting and management. The procurement component of our EPC services includes deployment of our modules as well as BoS parts that we procure from third parties. Depending on the market opportunity or geographic location, First Solar may provide our full EPC services or any combination of individual services within our EPC capabilities. An example of such combination of individual services would be providing engineering design and procurement of BoS parts and modules (EP services) for a third party constructing a PV solar power system.

- For solar power plants that we have developed and built, we may provide ongoing O&M services to the system owner under long-term service agreements. O&M services may include all or a combination of the following scopes of work: overseeing the day-to-day operation of the system, safety and security, maximizing energy production, and management of reliability, site services, PPA and other contractual compliance, environmental and permit compliance, grid compliance, regulatory requirements, recordkeeping, forecasting, warranty, preventative and scheduled maintenance, and spare parts inventory, and may also include certain guarantees relating to the availability or up-time of a project. M&D services, which are a subset of our broader O&M services, may include monitoring and reporting of plant performance and diagnosing performance matters to assist customers in maximizing the performance of their plants.

- Our project finance group is primarily responsible for negotiating and executing the sale of utility-scale power plant systems incorporating our modules which allows us to optimize the value of our project development portfolio. This group is experienced in structuring non-recourse project debt financing in the bank loan market and debt capital markets and raising project equity capital from tax oriented and strategic industry equity investors and can

provide support in arranging and/or facilitating financing for projects incorporating our modules.

We believe that combining our reliable, low-cost module manufacturing capability with our systems business enables us to more rapidly reduce the price of solar electricity, accelerate the adoption of our technology in utility-scale PV solar power systems, identify and remove constraints on the successful migration to sustainable solar markets around the world, and further our mission to create enduring value by enabling a world powered by clean, affordable solar electricity.

Long Term Strategic Plan

In December 2011 we announced a long term strategic plan ("Long Term Strategic Plan" or "LTSP") with a goal to transition to primarily sustainable opportunities by the end of 2014. In executing the LTSP we will focus on providing solar PV generation solutions to sustainable geographic markets that we believe have a compelling need for mass-scale PV electricity, including new

markets throughout the Americas, Asia, the Middle East, and Africa. As part of our LTSP, we expect to focus on opportunities in which our solar PV generation solutions will compete directly with fossil fuel offerings on a levelized cost of energy basis and decrease our focus on rooftop solar. Execution of the LTSP will entail a reallocation of resources around the globe, in particular dedicating resources to regions such as Latin America, Asia, the Middle East, and Africa where we have not traditionally conducted significant business to date. We will evaluate and manage closely the appropriate level of resources required as we transition into and penetrate these specific markets. We intend to dedicate significant capital and human resources to reduce the total installed cost of solar PV generation, to optimize the design and logistics around our solar PV generation solutions, and to ensure that our solutions integrate well into the overall electricity ecosystem of the specific region.

Segment Information

We operate our business in two segments. Our components segment involves the design, manufacture, and sale of solar modules which convert sunlight into electricity. Third-party customers of our components segment include project developers, system integrators, and operators of renewable energy projects.

Our second segment is our systems business, which involves the sale of our solar modules coupled with the engineering, procurement and construction of the solar PV power plant. As part of our systems offerings, we also offer O&M services, when applicable. We sell our systems offerings primarily through two channels: 1) direct to third-party customers, such as investor owned utilities, independent power developers and producers, commercial and industrial companies, and other system owners and 2) our in-house project development pipeline. Through our in-house project development pipeline, we combine the systems offerings with the sale of the project to third parties, which in certain situations include the facilitation of project finance. Historically, the sale of projects to third parties have included but are not limited to independent power producers and financial sponsors.

Our Chief Operating Decision Maker (CODM), consisting of certain members of our senior executive staff, has viewed the manufacturing and sale of solar modules from the components segment as the core driver of our resource allocation, profitability, and cash throughput. All sales or service offerings from our systems segment are for PV solar power systems that use our solar modules, which are designed and manufactured by our components segment. As a result, we have viewed our systems segment as an enabler to drive module throughput. Our systems segment enables solar module throughput by developing state of the art construction techniques and process management to reduce the installed cost of our PV systems and, accordingly, this business was not intended to generate profits that are independent of the underlying solar modules sold with such systems segment service offerings. Therefore, for the fiscal years 2011, 2010 and 2009, our CODM viewed the primary objective of our systems segment to acheive break-even results before income taxes. In our operating segment financial disclosures, we include all sales of solar modules manufactured by our components segment and installed in projects sold by our systems segment in “net sales” of our components business. See Note 24. “Segment and Geographical Information,” to our consolidated financial statements included in this Annual Report on Form 10-K.

Components Business

Our components segment involves the design, manufacture, and sale of solar modules which convert sunlight into electricity.

Solar Modules

Each solar module is a glass laminate approximately 2ft x 4ft (60cm x 120cm) in size that encapsulates a cadmium telluride (CdTe) thin-film semiconductor. Our solar modules had an average rated power of approximately 80 watts, 76 watts, and 75 watts for 2011, 2010, and 2009, respectively. Our semiconductor structure is a single-junction

polycrystalline thin-film that uses cadmium telluride as the absorption layer and cadmium sulfide as the window layer. Cadmium telluride has absorption properties that are highly matched to the solar spectrum and can deliver competitive conversion efficiencies using only about 1-2% of the amount of semiconductor material (i.e., silicon) that is used to manufacture traditional crystalline silicon solar modules.

Manufacturing Process

We have integrated our manufacturing processes into a continuous production line with the following three stages: the deposition stage, the cell definition stage, and the assembly and test stage. In the deposition stage, panels of treated glass are robotically loaded onto the production line where they are cleaned, heated, and coated with a layer of cadmium sulfide followed by a layer of cadmium telluride using our proprietary vapor transport deposition technology, after which the semiconductor-coated plates are cooled rapidly to increase strength. In the cell definition stage, we use high speed lasers to transform the large single semiconductor coating on the glass plate into a series of interconnected cells that deliver the desired current and voltage output. Our proprietary laser scribing technology is capable of accomplishing accurate and complex scribes at high speeds. Finally, in the

assembly and test stage, we apply busbars, inter-laminate material, and a rear glass cover sheet that is laminated to encapsulate the semiconductor. A junction box and termination wires are then applied to complete the assembly. Each solar module is then tested for current leakage and measured on a solar simulator. The final assembly stage is the only stage in our production line that requires manual processing.

Our manufacturing facilities in Perrysburg, Ohio, Frankfurt/Oder, Germany, and Kulim, Malaysia have each received an ISO 9001 quality system certification, an ISO 14001:2004 Environmental Management Systems certification, and the Occupational Health and Safety Standards Assessment Series (OHSAS) 18001 certification, an international occupational health and safety management system specification. We anticipate that any future manufacturing facilities will also obtain these certifications within 24 months of production start-up and qualification.

Research, Development, and Engineering

We continue to devote a substantial amount of resources to research and development with the primary objective of lowering the cost of electricity generated by PV systems using our solar modules. Within our components business, we focus our research and development activities on, among other areas, continuing to increase the conversion efficiency of our solar modules and improving manufacturing efficiencies, including throughput improvement, volume ramp, and material cost reduction. We believe the most promising ways of increasing the conversion efficiency of our solar modules include maximizing the number of photons that reach the absorption layer of the semiconductor material to facilitate conversion into electrons, maximizing the number of electrons that reach the surface of the semiconductor and minimizing the electrical losses between the semiconductor layer and the back metal conductor.

In the course of our research and development activities, we continuously explore and research technologies in our efforts to sustain competitive differentiation in our modules. We typically qualify process and product improvements for full production at our Ohio plant and then use our process to propagate them to our other production lines. We believe that our systematic approach to research and development will provide continuous improvements and ensure uniform adoption across our production lines. In addition, our production lines are replicas of each other and, as a result, a process or production improvement on one line can be rapidly deployed to other production lines.

In the past year we have set two new world records for CdTe PV solar module efficiency, achieving CdTe solar cell efficiency of 17.3 percent and total area module efficiency of 14.4 percent. Cell efficiency measures the proportion of light converted to energy in a single solar cell, whereas total area module efficiency measures light conversion across a production-size, multi-cell solar module, providing a more realistic assessment of real-world performance than cell efficiency. Both the cell and module record-setters were constructed using commercial-scale manufacturing equipment and materials at our Perrysburg, Ohio factory, and both records were confirmed by the U.S. Department of Energy's National Renewable Energy Lab.

Customers

With respect to our components business, during 2011, we sold the majority of our solar modules to solar power system project developers, system integrators, and operators headquartered in Germany, France, India, Italy, and the United States, which either resell our solar modules to end-users or integrate them into power plants that they own, operate, or sell. Our customers typically develop, construct, own, and operate solar power plants or sell turn-key solar power plants to end-users that include owners of land, owners of agricultural buildings, owners of commercial warehouses, offices and industrial buildings, public agencies, municipal government authorities, utility companies, and financial investors who desire to own large-scale solar power plant projects. As described above under “Business – Long Term Strategic Plan,” we are investing in sustainable market development, particularly in areas with abundant solar resources and sizable electricity demand, including the Americas, Asia, and the Middle East and Africa

(MENA).

As of December 31, 2011, we had supply contracts for the sale of solar modules entered into in prior years and expiring at the end of 2012 with thirteen solar power system project developers and system integrators headquartered within the European Union (Supply Contracts). These Supply Contracts historically accounted for a significant portion of our planned module production, but the committed volumes in 2012 are not expected to have as significant of an effect on our overall financial performance in 2012 compared to prior years. In the past, we have amended pricing, volume, delivery timing and other terms in our Supply Contracts on a prospective basis in order to remain competitive, and we may decide in the future to further amend these contracts in order to address the highly competitive environment for solar modules. Effective September 30, 2011, the rebate program under which we provided certain of our customers a price rebate for solar modules purchased from us, ended. We have begun early stage discussions with our customers under current Supply Contracts regarding replacement contracts for periods covering 2013 and beyond, but such replacement contracts are not expected to be long-term in nature. As we execute on our Long Term Strategic Plan, we expect these Supply Contracts to account for a declining portion of our planned module production. We

also enter into module sales agreements with customers worldwide for specific projects or volumes of modules in watts. For additional information regarding the rebate program, see Note 8. “Consolidated Balance Sheet Details,” to our consolidated financial statements included in this Annual Report on Form 10-K.

During 2011, the principal third-party customers of our components business were EDF EN Development and Belectric. During 2011, each of these two customers individually accounted for more than 10% of our components segment’s net sales. Each of our other customers individually accounted for less than 10% of our components segment’s net sales during 2011. The loss of any of our major components business customers could have an adverse effect on our business. As described above under “Business – Long Term Strategic Plan,” we are seeking to develop additional customer relationships primarily in sustainable markets and regions, which would reduce our customer and geographic concentration and dependence.

While our Supply Contracts have certain firm purchase commitments, these contracts are subject to amendments made by us or requested by our customers, such as the above mentioned amendments we have historically made. These amendments decreased the expected revenue under our Supply Contracts during 2009, 2010, and 2011. In addition, our Supply Contracts are substantially denominated in euro and, therefore, are subject to exchange rate fluctuations between the euro and U.S. dollar.

Competition

The renewable energy, solar energy, and solar module sectors are highly competitive and continually evolving as these sector participants strive to distinguish themselves within their markets and compete within the larger electric power industry. We face intense competition, which may result in significant price reductions, reduced margins, or loss of market share. With respect to our components business, our primary sources of competition are currently crystalline silicon solar module manufacturers, as well as other thin-film module manufacturers and companies developing solar thermal and concentrated PV technologies. Certain of our existing or future competitors may be part of larger corporations that have greater financial resources and greater brand name recognition than we do and, as a result, may be better positioned to adapt to changes in the industry or the economy as a whole. Certain competitors may have direct or indirect access to sovereign capital, which could enable such competitors to operate at minimal or negative operating margins for sustained periods of time. Among PV module and cell manufacturers, the principal methods of competition include price per watt, production capacity, conversion efficiency, reliability, warranty terms, and payment terms. In 2011, industry average module pricing declined significantly as competitors reduced prices to sell-through inventories in Europe and elsewhere. If competitors reduce module pricing to levels near or below their manufacturing costs, or are able to operate at minimal or negative operating margins for sustained periods of time, our results of operations could be adversely affected. At December 31, 2011, the global PV industry consisted of more than 150 manufacturers of solar modules and cells. In the aggregate, these manufacturers have installed production capacity that significantly exceeded global demand in 2011. We believe this structural imbalance between supply and demand (i.e., where production capacity significantly exceeds current global demand) will continue for the foreseeable future, and we expect that it will continue to put pressure on pricing, which could adversely affect our results of operations.

In addition, we expect to compete with future entrants to the PV industry that offer new technological solutions. We may also face competition from semiconductor manufacturers and semiconductor equipment manufacturers or their customers, several of which have already announced their intention to start production of PV cells, solar modules, or turn-key production lines.

We also face competition from companies that currently offer or are developing other renewable energy technologies (including wind, hydropower, geothermal, biomass, and tidal technologies) and other power generation sources that burn conventional fossil fuels.

Raw Materials

Our manufacturing process uses approximately 30 types of raw materials and components to construct a complete solar module. One critical raw material in our production process is cadmium telluride. Of the other raw materials and components, the following eight are also critical to our manufacturing process: front glass coated with transparent conductive oxide, cadmium sulfide, photo resist, laminate material, tempered back glass, cord plate/cord plate cap, lead wire, and solar connectors. Before we use these materials and components in our manufacturing process, a supplier must undergo a rigorous qualification process. We continually evaluate new suppliers and currently are qualifying several new suppliers and materials. When possible we attempt to use suppliers that can provide a raw material supply source that is local to our manufacturing locations, reducing the cost and lead times for such materials. A few of our critical materials or components are single sourced and most others are supplied by a limited number of suppliers. We have previously explored tellurium mineral claims in various locations with the intention of developing them, but after further analysis we have determined to cease such tellurium exploration and development activities.

Collection and Recycling Program

Consistent with the environmental philosophy of extended producer responsibility, we have established the solar industry's first comprehensive, pre-funded module collection and recycling program. The program is designed to maximize the recovery of valuable materials for use in new modules or other new products and minimize the environmental impacts associated with our modules at the end of their useful life. Approximately 90% of each collected First Solar module is recycled into materials for use in new products, including new solar modules. End-users can request collection and recycling of their solar modules by us at any time at no cost. We fund the estimated collection and recycling cost for the prior year’s module sales within 90 days of the end of the fiscal year, assuming for this purpose a minimum service life of 25 years for our solar modules. In addition to achieving substantial environmental benefits, our solar module collection and recycling program may provide us the opportunity to resell or redistribute working modules or recover certain raw materials and components for reuse in our manufacturing process. We currently have recycling facilities operating at each manufacturing facility (for manufacturing scrap, warranty returns, and modules collected at the end of their useful life) that produce glass suitable for use in the production of new glass products and unrefined semiconductor materials that will be further processed by a third party supplier and then used to produce semiconductor materials for use in our solar modules.

To ensure that the pre-funded amounts are available regardless of our financial status in the future, a trust structure has been established; funds are put into custodial accounts in the name of a trustee. Only the trustee can distribute funds from the custodial accounts and these funds cannot be accessed for any purpose other than for administering module collection and recycling, either by us or a third party executing the collection and recycling services. To provide further assurance that sufficient funds will be available, our module collection and recycling program, including the financing arrangement, is periodically reviewed by an independent auditor.

Solar Module Warranty

We have historically provided a limited warranty against defects in materials and workmanship under normal use and service conditions for 5 years following delivery to the owners of our solar modules. For solar module sales made subsequent to September 30, 2011, we have increased the limited warranty we provide against defects in materials and workmanship under normal use and service conditions from 5 years to 10 years.

We also warrant to our owners that solar modules installed in accordance with agreed-upon specifications will produce at least 90% of their power output rating during the first 10 years following their installation and at least 80% of their power output rating during the following 15 years. In resolving claims under both the defects and power output warranties, we have the option of either repairing or replacing the covered solar modules or, under the power output warranty, providing additional solar modules to remedy the power shortfall. For modules sold after September 30, 2011, we also have the option to make a payment for the then-current market module price to resolve claims. Our warranties are automatically transferred from the original purchasers of our solar modules to subsequent purchasers upon resale. As of December 31, 2011, our components business’ accrued warranty liability was $155.5 million, of which $77.0 million was classified as current and $78.5 million was classified as noncurrent. As of December 31, 2010, our components business’ accrued warranty liability was $26.5 million, of which $9.8 million was classified as current and $16.7 million was classified as noncurrent.

Systems Business

Through our fully integrated systems business, we provide a complete solar power system solution using our solar modules, which may include project development, EPC services, O&M services, when applicable, and project finance, when required.

Our systems business has grown over the past several years through a combination of business acquisitions and organic growth. In April 2009, we completed the acquisition of the project development business of OptiSolar Inc., which included a multi-gigawatt project pipeline. In July 2010, we completed the acquisition of NextLight Renewable Power, LLC (NextLight), a leading developer of utility-scale solar projects in the southwestern United States. The NextLight transaction expanded our pipeline of solar power projects in the southwestern United States and further expands our position in the U.S. utility-scale power market.

Our systems business is dependent upon successful completion of project development activities including: site selection and securing rights to acquire or use the site, obtaining in a timely manner the requisite interconnection and transmission studies, executing an interconnection agreement, obtaining environmental and land use permits, maintaining effective site control, and entering into a power purchase agreement with an off-taker of the power to be generated by the project. These activities culminate in receiving the right to construct and operate a solar power system. Depending on the market opportunity or geographic location, we may acquire projects in various stages of development or acquire project companies from developers in order to complete the development process, construct a PV power plant incorporating our modules and sell the system to investors. PPAs or FiT structures define the price and terms the utility customer or investor will pay for power produced from a project. Entering into a PPA generally

provides the underlying economics needed to finalize development including permitting, begin construction, arrange the financing, and market the project for sale to a long-term project owner. Depending primarily on the location, stage of development upon our acquisition of the project, and other site attributes, the development cycle typically ranges from one to five years. We may be required to incur significant costs for preliminary engineering, permitting, legal, and other expenses before we can determine whether a project is feasible, economically attractive, or capable of being built. If there is a delay in obtaining any required regulatory approvals, we may be forced to incur additional costs or write-down capitalized investments, and the right of the off-taker under the PPA to terminate may be triggered.

Our systems business' current and planned activities are focused on markets around the world.

In North America, we have as of February 28, 2012, a 2.7 GW AC pipeline of projects that we expect to construct. We are also developing other projects in North America that do not yet have PPAs. See Item 7: “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Financial Operations Overview – Net Sales – Systems Business,” for a listing of these projects.

In Europe, we are engaged in project development activities with respect to certain projects in Germany and Italy and we are actively evaluating additional project opportunities in matured European markets and emerging Eastern Europe.

In Asia (including India, China and Southeast Asia) and the Middle East and North Africa (MENA), we have been actively pursuing opportunities to offer our utility-scale PV systems solutions. We expect our focus on, and investment in, these markets to increase as we execute our Long Term Strategic Plan.

Customers

With respect to our systems business, our customers consist of investor owned utilities, independent power developers and producers, commercial and industrial companies, and other system owners who purchase from us completed solar power plants, EPC services, and O&M services when required. During 2011, the substantial majority of our systems business sales were generated in North America.

During 2011, the principal customer of our systems business was NRG Energy. During 2011, this customer individually accounted for the majority of our systems segment’s net sales. Each of our other customers individually accounted for less than 10% of our system segment's net sales during 2011.

Competition

With respect to our systems business, we face competition from other providers of renewable energy solutions, including developers of PV, solar thermal and concentrated solar power systems, and developers of other forms of renewable energy projects, including wind, hydropower, geothermal, biomass, and tidal projects. To the extent other solar module manufacturers become more vertically integrated, we expect to face increased competition from such companies as well. We also face competition from other EPC companies and joint ventures between EPC companies and solar companies.

EPC Warranty

In addition to our solar module warranty described above, for solar power plants built by our systems business, we typically provide a limited warranty against defects in workmanship, engineering design, and installation services under normal use and service conditions for a period of one to two years following the energizing of a section of a solar power plant or upon substantial completion of the entire solar power plant. In resolving claims under the

workmanship, design and installation warranties, we have the option of either remedying the defect to the warranted level through repair, refurbishment, or replacement. As of December 31, 2011, our systems business' accrued warranty liability was $2.2 million, of which $1.6 million was classified as current and $0.6 million was classified as noncurrent. As of December 31, 2010, our systems business' accrued warranty liability was $1.4 million, all of which was classified as current.

Support Programs

Support programs for PV solar electricity generation, depending on the jurisdiction, include feed-in tariffs (FiTs), quotas (including renewable portfolio standards and tendering systems), and net metering programs. In addition to these, financial incentives for renewables include tax incentives, grants, loans, rebates, and production incentives. Although we expect to become less impacted by, and less dependent on, support programs as we execute on our Long Term Strategic Plan and transition into sustainable markets, support programs will continue to play varying roles in accelerating adoption of our PV solar systems around

the world.

Under a basic FiT program, producers of renewable energy are paid a set rate for their electricity, usually differentiated according to the technology used and size of the installation. For PV solar, the rate has historically been set above market rates and is fixed for a period of up to 25 years. In most countries with FiTs, grid operators are obliged to provide priority and guaranteed access to the grid for renewable energy installations. The additional costs of these schemes are generally passed through to the electricity consumers by way of a premium on the kilowatt hour (kWh) end-user price. These FiT subsidies have been critical for the development of the solar industry because they provided the demand visibility required for module manufacturers and other participants in the solar value chain to reduce costs and drive scale. Prior to 2011, the majority of our module sales had been for grid-connected ground or commercial roof mounted solar power systems in Germany and other European Union countries with FiT subsidies.

Whereas FiT laws set the price and let the market determine capacity and generation, quota systems work in reverse. In general, governments mandate a minimum share of capacity or (grid-connected) generation of electricity to come from renewable energy sources. This share often increases over time, with a specific final target and end-date. The mandate can be placed on producers, distributors, or consumers.

There are two main types of quota systems used: obligation/certificate and tendering systems. A renewable portfolio standard (RPS) is in the former category. Under an RPS, regulated utilities are required to procure a specified percentage of their total electricity sales to end-user customers from eligible renewable resources, such as solar generating facilities, by a specified date. Some programs further require that a specified portion of the total percentage of renewable energy must come from solar generating facilities. The majority of states in the U.S. have enacted legislation adopting RPS mechanisms. RPS legislation and implementing regulations vary significantly from state to state, particularly with respect to the percentage of renewable energy required to achieve the state's RPS mandate, the definition of eligible renewable energy resources, and the extent to which renewable energy credits (paper certificates representing the generation of renewable energy) qualify for RPS compliance. Currently, there is no federal RPS mandate or clean energy standard, although the Obama Administration has called upon the United States Congress to create one. Measured in terms of the volume of renewable electricity required to meet its RPS mandate, California's RPS program is the most significant in the U.S., and the California market for renewable energy dominates the western U.S. region. First enacted in 2002, California's RPS statute has been amended several times to increase the overall percentage requirement as well as to accelerate the target date for program compliance. Pursuant to amendments enacted by the California Legislature in April 2011, the California RPS program now requires obligated load serving entities to procure 33% of their retail electricity demand from eligible renewable resources by 2020.

In contrast to an RPS system, tendering systems of procurement (such as those used in South Africa and India) are focused on specific targets for new capacity. In South Africa, for example, the government is procuring bids under a competitive tender with solicitation dates spread over about two years. The request for proposal (RFP) is the first major solicitation in support of a target of over 8 GW of renewable energy in South Africa's Integrated Resource Plan. Project proponents bid competitively at each solicitation date until all the capacity has been allocated. The tender solicitation approach allows governments or utilities to proscribe project construction time frames to achieve specific generation targets for the electricity system.

Net energy metering programs enable end-users to install renewable systems and to offset their retail energy consumption with production from on-site facilities and, in some cases, to sell excess solar electricity to their retail electricity provider. Because the bundled cost of retail electricity usually exceeds the cost of unbundled electricity, net metering programs provide an incentive to the end-user, based on the savings for the electricity system. The policies governing net energy metering vary by state and utility. Some utilities pay the end-user in advance, while others credit the end-user's bill.

Tax incentive programs exist in the United States at both the federal and state level and can take the form of investment and production tax credits, accelerated depreciation and sales and property tax exemptions. At the federal level, investment tax credits for business and residential solar systems have gone through several cycles of enactment and expiration since the 1980's. In October 2008, the United States Congress extended the 30% federal investment tax credit (ITC) for both residential and commercial solar installations for eight years, through December 31, 2016. The ITC is a primary economic driver of solar installations in the United States. Its extension through 2016 has contributed to greater medium term demand visibility in the U.S.; however, its expiration at the end of 2016 (unless extended) underscores the need for the levelized cost of electricity from solar systems to continue to decline toward grid parity. Two federal programs related to renewable energy ended in 2011: (i) the Department of Energy Section 1705 loan guarantee program for renewable energy projects, renewable energy manufacturing facilities and electric power transmission projects and (ii) the Department of the Treasury Section 1603 cash grant program, which provided cash grants equal to 30% of the cost of the system for solar installations that were placed into service during 2009, 2010 and 2011 and for certain solar installations for which construction began prior to December 31, 2011. This cash grant was available in lieu of receiving the 30% federal investment tax credit. The intent of this program was to ensure that investors who had historically

supported the renewable energy programs would not be constrained from investing in these transactions by tax losses they may have suffered during the recent credit crisis.

In Europe, renewable energy targets, in conjunction with FiTs, have contributed to the growth in PV solar markets. Renewable energy targets prescribe how much energy consumption must come from renewable sources, while FiT policies are intended to support new supply development by providing investor certainty. A 2001 European Union (EU) directive for promoting renewable energy use in electricity generation (Directive 2001/77/EC) set varying national indicative targets for renewable energy production from individual member states. A 2009 EU directive on renewable energy (Directive 2009/28/EC), which replaced the 2001 directive, sets varying targets for all EU member states in support of the directive's goal of a 20% share of energy from renewable sources in the EU by 2020, and requires national action plans that establish clear pathways for the development of renewable energy sources. The following is a description of FiT policies adopted in certain critical markets in support of renewable energy targets.

Germany, which accounted for approximately 23% of our 2011 net sales, will account for a declining percentage of our net sales over the next three years due to changing levels of policy support and demand. The German government continues to evaluate changes to the German Renewable Energy Law, or the EEG, and recently proposed significant and accelerated FiT reductions for projects up to 10 MW and an elimination of FiTs for projects over 10 MW. These proposed FiT changes, if adopted, would particularly impact the competitiveness in Germany of our core offering of large-scale free field PV systems and modules to be installed in such systems. If these policy changes proposed by the German Environment and Economy Ministers are approved without change by the German Parliament, they will negatively affect long-term demand and price levels for our PV products in Germany, which could adversely impact our results of operations.

In France, which accounted for approximately 15% of our 2011 net sales, the government adopted a decree introducing a new market support framework in the first quarter of 2011. The new framework foresees a tender process for large rooftop and free-field systems and is expected to have a negative effect on the total volumes of PV deployed in France in 2012. As previously announced, we have postponed the construction of our previously announced 2-line plant in France until global supply and demand dynamics support the additional manufacturing capacity.

In Ontario, Canada, a FiT program was introduced in September 2009 and replaced the Renewable Energy Standard Offer Program (RESOP) as the primary subsidy program for renewable energy projects. In order to participate in the Ontario FiT program, certain provisions relating to minimum required domestic content and agricultural land use restrictions for solar installations must be satisfied. The domestic content and land restriction rules do not apply to our solar projects governed by RESOP contracts. However, PV solar power systems incorporating our modules do not presently satisfy the domestic content requirement under the FiT program currently in effect. Trade challenges have been initiated at the World Trade Organization (WTO) to contest the Ontario FiT’s domestic content requirements. It is possible that such requirements could be removed from the program in response to a WTO decision.

In Australia, which accounted for less than 1% of our 2011 net sales, the solar industry is driven by several regulatory initiatives that support the installation of solar PV modules in both rooftop and free-field applications, including the federal government’s nationwide Renewable Energy Target which has set a renewable energy goal for Australia of 20% by 2020. Australia’s recently legislated Clean Energy Future package results in a carbon pricing mechanism commencing on July 1, 2012, with a fixed carbon price that will transition to a flexible-price cap-and-trade scheme on July 1, 2015. This will support the creation of the AUD 10 billion Clean Energy Finance Corporation (CEFC), a commercially orientated fund established to drive the deployment of non-wind renewable energy. In addition, the Australian Government has legislated the establishment of a new independent statutory body, the Australian Renewable Energy Agency (ARENA), to manage over AUD 3.2 billion in renewable energy investments.

In India, which accounted for nearly 8% of our 2011 net sales, the National Solar Mission includes a goal of installing 22 GW of solar power generation capability by 2022. India also announced a FiT policy for the first phase of the National Solar Mission in 2010. In addition, some States including Gujarat, Rajasthan, and Karnataka have developed or are developing state-level solar procurement programs. 150 MWs of PPAs were signed under the National Solar Mission Phase 1 batch 1 and 933 MWs of PPAs were signed under Gujarat state's program. An estimated 400 MWs of these PPAs were installed in 2011.

In China, governmental authorities recently adopted a national FiT policy for large scale projects. China also expanded the Golden Sun Program, an upfront cost subsidy program, aimed primarily at distributed generation. In addition, according to the current draft of the 12th 5-year plan for solar energy, the government intends to raise the 2015 goal for total cumulative solar energy capacity to 15 GW and 50 GW by 2020. In 2011, we executed two small demonstration projects with key Chinese generating companies to test module performance in China. In 2009, we entered into a memorandum of understanding with the Ordos, China City Government relating to the construction of a utility scale PV power plant located within the Ordos New Energy Industry Demonstration Zone in China, and are in the process of completing a feasibility study for the first 30 MW phase.

In the Middle East and North Africa (MENA), several countries have announced sizeable solar targets, although policy mechanisms are not yet firmly established. In the Kingdom of Saudi Arabia, a solar policy with targets and incentives is expected in 2012. The size of the program is expected to be tens of gigawatts of solar by 2030, or as early as 2020. In the United Arab Emirates, Abu Dhabi has set a target of sourcing 7% of electricity supply from renewables by 2020 and in 2011 issued a tender for the first of three 100 MW PV projects. In January 2012, Dubai announced plans for a 1 GW solar farm by 2030. In Morocco, the government has set a 2 GW solar goal by 2020. Other markets such as Algeria, Egypt, Jordan, Kuwait, Oman, Qatar, and Tunisia are also actively promoting solar and issuing tenders.

While the potential of the above-referenced MENA markets are significant, policy promulgation and market development are especially vulnerable to governmental inertia, political instability, geopolitical risk, fossil fuel subsidization, and/or potentially stringent localization requirements.

For more information about risks related to economic incentives, please see Item 1A: “Risk Factors — Reduced growth in or the reduction, elimination, or expiration of government subsidies, economic incentives, and other support for on-grid solar electricity applications, including potential mid-year FiT reductions or other program changes in Germany and certain other core markets, could reduce demand and/or price levels for our solar modules, and limit our growth or lead to a reduction in our net sales, and adversely impact our operating results.”

Intellectual Property

Our success depends, in part, on our ability to maintain and protect our proprietary technology and to conduct our business without infringing on the proprietary rights of others. We rely primarily on a combination of patents, trademarks and trade secrets, as well as associate and third party confidentiality agreements, to safeguard our intellectual property. We regularly file patent applications to protect inventions arising from our research and development, and are currently pursuing patent applications in the U.S. and worldwide. Our patent applications and any future patent applications might not result in a patent being issued with the scope of the claims we seek, or at all, and any patents we may receive may be challenged, invalidated, or declared unenforceable. In addition, we have registered and/or have applied to register, trademarks and service marks in the U.S. and a number of foreign countries for “First Solar” and “First Solar and Design.”

With respect to proprietary know-how that is not patentable and processes for which patents are difficult to enforce, we rely on, among other things, trade secret protection and confidentiality agreements to safeguard our interests. We believe that many elements of our PV manufacturing process, including our unique materials sourcing, involve proprietary know-how, technology, or data that are not covered by patents or patent applications, including technical processes, equipment designs, algorithms, and procedures. We have taken security measures to protect these elements. All of our research and development personnel have entered into confidentiality and proprietary information agreements with us. These agreements address intellectual property protection issues and require our associates to assign to us all of the inventions, designs, and technologies they develop during the course of employment with us. We also require our customers and business partners to enter into confidentiality agreements before we disclose any sensitive aspects of our modules, technology, or business plans.

We have not been subject to any material intellectual property claims.

Environmental, Health, and Safety Matters

Our operations include the use, handling, storage, transportation, generation, and disposal of hazardous materials and hazardous wastes. We are subject to various national, state, local, and international laws and regulations relating to the

protection of the environment, including those governing the discharge of pollutants into the air and water, the use, management, and disposal of hazardous materials and wastes, occupational health and safety, and the cleanup of contaminated sites. Therefore, we could incur substantial costs, including cleanup costs, fines, and civil or criminal sanctions and costs arising from third party property damage or personal injury claims as a result of violations of, or liabilities under, environmental and occupational health and safety laws and regulations or non-compliance with environmental permits required for our operations. We believe we are currently in substantial compliance with applicable environmental and occupational health and safety requirements and do not expect to incur material expenditures for environmental and occupational health and safety controls in the foreseeable future. However, future developments such as more aggressive enforcement policies, the implementation of new, more stringent laws and regulations, or the discovery of unknown environmental conditions may require expenditures that could have a material adverse effect on our business, results of operations, or financial condition. See Item 1A: “Risk Factors - Environmental obligations and liabilities could have a substantial negative impact on our financial condition, cash flows, and profitability.”

Corporate History

In February 2006 we were incorporated as a Delaware corporation. Our common stock has been listed on The NASDAQ Global Select Market under the symbol “FSLR” since our initial public offering in November 2006. In October 2009, our common stock was added to the S&P 500 Index, making First Solar the first, and currently only, pure-play renewable energy company in the index.

Associates

As of December 31, 2011, we had approximately 7,000 associates (our term for full- and part-time employees), including approximately 5,800 in manufacturing positions. The remainder of our associates are in research and development, sales and marketing, and general and administrative positions, including associates who are engaged in or support our systems business. None of our associates are currently represented by labor unions or covered by a collective bargaining agreement. As we expand domestically and internationally, however, we may encounter either regional laws that mandate union representation or associates who desire union representation or a collective bargaining agreement. We believe that our relations with our associates are good.

Information About Geographic Areas

We have significant marketing, distribution, and manufacturing operations both within and outside the United States. Currently, we manufacture our solar modules at our Perrysburg, Ohio, Frankfurt/Oder, Germany, and Kulim, Malaysia manufacturing facilities.

In 2011, 43% of our net sales were generated from customers headquartered in the European Union. As part of our Long Term Strategic Plan, we are in the process of expanding our operations, particularly with respect to our systems business, to various countries worldwide, including countries in Asia, the Middle East and Africa. As a result, we are subject to the legal, tax, political, social and regulatory requirements, and economic conditions of an increasing number of jurisdictions. The international nature of our operations subjects us to a number of risks, including fluctuations in exchange rates, adverse changes in foreign laws or regulatory requirements and tariffs, taxes, and other trade restrictions. See Item 1A: “Risk Factors — Our substantial international operations subject us to a number of risks, including unfavorable political, regulatory, labor, and tax conditions in foreign countries.” and "Risk Factors — We may be unable to execute on our Long Term Strategic Plan, which could have a material adverse effect on our business, results of operations or financial condition." See Note 24. “Segment and Geographical Information,” to our consolidated financial statements included in this Annual Report on Form 10-K for information about our net sales and long-lived assets by geographic region for the years ended December 31, 2011, December 31, 2010, and December 26, 2009. See also Item 7: “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” for other information about our operations and activities in various geographic regions.

Available Information

We maintain a website at http://www.firstsolar.com. We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy statements, and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after we electronically file these materials with, or furnish them to, the SEC. The information contained in or connected to our website is not incorporated by reference into this report. We use our website as one means of disclosing material non-public information and for complying with our disclosure obligations under the SEC’s Regulation FD. Such disclosures will typically be included within the Investor Relations section of our website (http://investor.firstsolar.com). Accordingly, investors should monitor such portions of our website in addition to following our press releases, SEC filings, and public conference calls and webcasts.

The public may also read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports and other information regarding issuers, such as First Solar, that file electronically with the SEC. The SEC's Internet website is located at http://www.sec.gov.

Executive Officers of the Registrant

Our executive officers and their ages and positions as of February 29, 2012, were as follows:

Name	Age	Position
Michael J. Ahearn	55	Interim Chief Executive Officer
Mark R. Widmar	46	Chief Financial Officer and Chief Accounting Officer
James G. Brown, Jr.	49	President, Global Business Development
Mary Beth Gustafsson	52	Executive Vice President, General Counsel and Secretary
Carol Campbell	60	Executive Vice President, Human Resources
Maja Wessels	52	Executive Vice President, Global Public Affairs
David Eaglesham	50	Chief Technology Officer

Michael J. Ahearn, Chairman of the Board of Directors, was appointed Interim Chief Executive Officer in October 2011. Mr. Ahearn served as Chief Executive Officer from August 2000 through September 2009 and as Executive Chairman from October 2009 through December 2010. Mr. Ahearn is currently Chairman and Managing Partner of True North Venture Partners, L.P., a venture capital firm he launched in 2011 to invest primarily in early stage companies in the energy, water, agriculture and waste sectors. Mr. Ahearn currently serves as a member of the Board of Directors of Cox Enterprises, Inc.; a member of the Board of Trustees of Thunderbird School of Global Management; a member of the Board of Trustees of The German Marshall Fund; a member of the Board of Directors of Endeavor Global, Inc.; a member of the Global Advisory Board of Beijing Climate Policy Initiative; and a member of the Advisory Board of BDT Capital Partners. Mr. Ahearn holds a B.A. in Finance and a J.D. from Arizona State University.

Mark R. Widmar joined First Solar in April 2011 as Chief Financial Officer. Mr. Widmar has served as First Solar's Chief Accounting Officer since February 1, 2012. Prior to joining First Solar, Mr. Widmar served as Chief Financial Officer of GrafTech International Ltd., a leading global manufacturer of advanced carbon and graphite materials, from May 2006 through March 2011, as well as President, Engineered Solutions from January 2011 through March 2011. Prior to joining GrafTech, Mr. Widmar served as Corporate Controller of NCR Inc. from 2005 to 2006, and was a Business Unit Chief Financial Officer for NCR from November 2002 to his appointment as Controller. He also served as a Division Controller at Dell, Inc. from August 2000 to November 2002 prior to joining NCR. Mr. Widmar also held various financial and managerial positions with Lucent Technologies Inc., Allied Signal, Inc., and Bristol Myers/Squibb, Inc. Mr. Widmar holds a B.S. in Business Accounting and a Masters of Business Administration from Indiana University.

James G. Brown, Jr. was appointed President, Global Business Development in December 2011. Mr. Brown joined First Solar in 2008 as Vice President, Project Finance, and has been involved in project finance and business development during his tenure. He most recently served as the Company's President, Utility Systems Business Group. Prior to joining First Solar, Mr. Brown worked for 19 years in project and structured finance at Chase Manhattan, Société Générale, WestLB and HSBC, specializing in the power, oil and gas, petrochemical and general industrial sectors. Before that, Mr. Brown was a Captain in the U.S. Army where he was a helicopter pilot and commanded an Air Cavalry Troop. He earned a B.S. degree in Engineering from the United States Military Academy at West Point.

Mary Beth Gustafsson joined First Solar in October 2008 as Vice President, General Counsel and was named Executive Vice President, General Counsel and Secretary in November 2009. Prior to joining First Solar, Ms. Gustafsson was the Senior Vice President, General Counsel and Secretary of Trane Inc. (formerly American Standard Companies Inc.) from January 2005 through June 2008. From June 2008 through September 2008, Ms. Gustafsson was Vice President and Deputy General Counsel of Ingersoll-Rand Ltd., following Ingersoll-Rand's acquisition of Trane. From 2001 through 2005, Ms. Gustafsson held positions of increasing responsibility at American Standard Companies Inc., including Chief Corporate Counsel and General Counsel for the company's global air conditioning business. Ms. Gustafsson holds a B.A. in English Literature from Boston University and a J.D. from The University of Michigan Law School.

Carol Campbell joined First Solar in March 2006 as Director of Human Resources and was named Vice President of Human Resources in March 2007. She became the Company's Executive Vice President of Human Resources in November 2009. Prior to joining First Solar, she was the Regional Director of Human Resources for North America at the Dana Corporation, where she was responsible for all Dana plants in the United States, Canada, and Mexico. Ms. Campbell was with Dana for 20 years, progressing through levels of greater responsibility in the Legal and Human Resource Departments. Ms. Campbell holds a Professional Human Resources certification through the Society of Human Resources Management and has extensive experience successfully developing and running highly effective HR organizations in complex and rapidly changing environments. Ms. Campbell holds a B.A. in Business from Heidelberg College.

Maja Wessels joined First Solar in May 2008 as Vice President of Government Affairs for the Europe, Middle East and Africa

region and was named Executive Vice President, Public Affairs in May 2009. Prior to joining First Solar, Ms. Wessels served four years as senior vice president, Government Affairs at Honeywell for the EMEA region and three years as President, United Technologies International Operations for Europe. Ms. Wessels chaired the American Electronics Industry Association Europe from 2006 to 2007, and prior to that she was president of the American Chamber of Commerce to the EU from 2003 to 2007. From 1997 to 2000 she was employed by Daimler Chrysler as vice president of Government Affairs in Europe. Ms Wessels holds a B.A. from Dartmouth College and a master's degree in international economics and European studies from the School of Advanced International Studies of Johns Hopkins University.

David Eaglesham joined First Solar in June 2006 as Vice President, Technology and became Chief Technology Officer in November 2009. Prior to joining First Solar, he was Director of Advanced Technologies at Applied Materials. He also previously worked as Chief Technologist at Lawrence Livermore and as Director of Electronic Device Research at Bell Labs. He was Materials Research Society President in 2005. Mr. Eaglesham has a PhD in Physics from the University of Bristol.

Item 1A: Risk Factors

An investment in our stock involves a high degree of risk. You should carefully consider the following information, together with the other information in this Annual Report on Form 10-K, before buying shares of our stock. If any of the following risks or uncertainties occur, our business, financial condition, and results of operations could be materially and adversely affected and the trading price of our stock could decline.

Risks Related to Our Markets and Customers

An increased global supply of PV modules has caused and may continue to cause structural imbalances in which global PV module supply exceeds demand, which could have a material adverse effect on our business, financial condition and results of operations

Solar manufacturers have installed production capacity that significantly exceeded global demand in 2011. We believe this structural imbalance between supply and demand (i.e., where production capacity significantly exceeds current global demand) will continue for the foreseeable future, and we expect that it will continue to put pressure on pricing. In light of the increase in global production capacity, we recently decided not to proceed any further with the development of our previously announced 4-line plant in Vietnam, and have also postponed the commissioning of our previously announced 4-line plant in Mesa, Arizona and the construction of our previously announced 2-line plant in France until such time as global supply and demand dynamics support the additional manufacturing capacity. There can be no assurance that we will not be required to take further actions to address global production supply and demand in those geographic areas. Additionally, in 2011, industry average sales prices per watt ("ASPs") declined significantly, as competitors reduced ASPs to sell-through inventories in Europe and elsewhere. If our competitors reduce module pricing to levels near or below their manufacturing costs, or are able to operate at minimal or negative operating margins for sustained periods of time, or if demand for PV modules does not grow sufficiently to justify the current production supply, our business, financial condition and results of operations could be adversely affected.

If PV technology is not suitable for widespread adoption at economically attractive rates of return, or if sufficient additional demand for solar modules does not develop or takes longer to develop than we anticipate, our net sales and profit may flatten or decline and we may be unable to sustain profitability.

The solar energy market is at a relatively early stage of development, in comparison to fossil fuel-based electricity generation. If PV technology proves unsuitable for widespread adoption at economically attractive rates of return or if additional demand for solar modules fails to develop sufficiently or takes longer to develop than we anticipate, we

may be unable to grow our business or generate sufficient net sales to sustain profitability. In addition, demand for solar modules in our targeted markets, including North America, Europe, India, China, the Middle East, Australia and other foreign jurisdictions, may develop to a lesser extent than we anticipate. Many factors may affect the viability of widespread adoption of PV technology and demand for solar systems and modules, including the following:

- cost-effectiveness of the electricity generated by PV power systems compared to conventional energy sources, such as natural gas and coal, and other non-solar renewable energy sources, such as wind;
- performance, reliability and availability of energy generated by PV systems compared to conventional and other non-solar renewable energy sources and products;
- success of other renewable energy generation technologies, such as hydroelectric, tidal, wind, geothermal, solar

thermal, concentrated PV, and biomass;

- fluctuations in economic and market conditions that affect the price of, and demand for, conventional and non-solar renewable energy sources, such as increases or decreases in the price of natural gas, coal, oil, and other fossil fuels;

- fluctuations in capital expenditures by end-users of solar modules, which tend to decrease when the economy slows and when interest rates increase; and

- availability, substance, and magnitude of government targets, subsidies, incentives, and renewable portfolio standards to accelerate the development of the solar energy industry.

Reduced growth in or the reduction, elimination, or expiration of government subsidies, economic incentives, and other support for on-grid solar electricity applications, including recently announced mid-year feed-in-tariff reductions or other program changes in Germany and certain other core markets, could reduce demand and/or price levels for our solar modules, and limit our growth or lead to a reduction in our net sales, and adversely impact our operating results.

Although our Long Term Strategic Plan provides for First Solar to transition over time toward operating in sustainable markets, in the near-term our net sales and profits remain subject to variability based on the availability and size of government subsidies and economic incentives. Federal, state, and local governmental bodies in many countries have provided subsidies in the form of FiT, rebates, tax incentives, and other incentives to end-users, distributors, systems integrators, and manufacturers of PV products. Many of these jurisdictions, including the majority of U.S. states and numerous European Union countries, have adopted renewable portfolio standards in which the government requires jurisdictions or regulated utilities to supply a portion of their total electricity from specified sources of renewable energy, such as solar, wind, and hydroelectric power. Many of these government incentives expire, phase out over time, require renewal by the applicable authority, or may be amended. A summary of recent developments in the major government subsidy programs that can impact our business appears under Item 1: “Business – Support Programs.” To the extent these government incentives are reduced earlier than previously expected, or free-field or conversion land applications are disadvantaged, such changes could reduce demand and/or price levels for our solar modules, lead to a reduction in our net sales, and adversely impact our operating results.

Germany, which accounted for approximately 23% of our 2011 net sales, will account for a declining percentage of our net sales over the next three years due to changing levels of policy support and demand. The German government continues to evaluate changes to the German Renewable Energy Law, or the EEG, and recently proposed significant and accelerated FiT reductions for projects up to 10 MW and an elimination of FiTs for projects over 10 MW. These proposed FiT changes, if adopted, would particularly impact the competitiveness in Germany of our core offering of large-scale free field PV systems and modules to be installed in such systems. If these policy changes proposed by the German Environment and Economy Ministers are approved without change by the German Parliament, they will negatively affect long-term demand and price levels for our PV products in Germany, which could adversely impact our results of operations.

In France, the government introduced a new market support framework during the first quarter of 2011. The level of this new market support framework is inadequate for us to pursue an expansion strategy in France. As a result, we have postponed the construction of our previously announced 2-line plant in France until global supply and demand dynamics support the additional manufacturing capacity.

The American Recovery and Reinvestment Act of 2009 (ARRA) and the 2010 Tax Act provide for certain measures intended to benefit on-grid solar electricity generation and other renewable energy initiatives. The expiration of the Department of Treasury’s Section 1603 cash grant program on December 31, 2011, may adversely affect our ability to arrange financing for utility-scale projects by forcing reliance on less abundant tax equity financing and may

otherwise adversely affect the attractiveness of the U.S. solar market. The expiration of the Department of Energy Section 1705 loan guarantee program for renewable energy projects, renewable energy manufacturing facilities and electric power transmission projects may adversely affect our ability to arrange financing in the future for utility-scale projects by increasing our cost of capital, and may also otherwise affect the attractiveness of the U.S. solar market.

In Ontario, Canada, a FiT program was introduced in September 2009 and replaced the Renewable Energy Standard Offer Program (RESOP) as the primary subsidy program for renewable energy projects. In order to participate in the Ontario FiT program, certain provisions relating to minimum required domestic content and agricultural land use restrictions for solar installations must be satisfied. The domestic content and land restriction rules do not apply to our solar projects governed by RESOP contracts. However, PV solar power systems incorporating our modules do not presently satisfy the domestic content requirement under the FiT program currently in effect, and thus projects incorporating our modules would not qualify for the Ontario FiT. In the event the Ontario domestic content requirement rules are not eliminated, we will not be able to participate in the Ontario FiT program,

and thus our ability to pursue an expansion strategy in Ontario, Canada beyond our remaining RESOP projects would be adversely affected.

In Australia, the solar industry is driven by several regulatory initiatives that support the installation of solar PV modules in both rooftop and free-field applications, including the federal government's nationwide Renewable Energy Target, which has set a renewable energy goal for Australia of 20% by 2020. The creation of the Clean Energy Finance Corporation (CEFC) and the establishment of the Australian Renewable Energy Agency (ARENA) also occurred in 2011 and will begin implementation in 2012. If such programs or other initiatives are not successfully executed in addressing Australia's renewable energy goals, the size and attractiveness of Australia's solar market may be limited and we may be unable to sell modules or systems in Australia at an attractive price, limiting one of our anticipated growth markets.

In India, the National Solar Mission includes a goal of installing 22 GW of solar by 2022. There is no guarantee that India will maintain this goal or adopt the required policies to meet that goal, without which, the size and attractiveness of India's solar market may be limited and we may be unable to sell modules or systems in India at an attractive price, limiting one of our anticipated growth markets.

In China, governmental authorities recently adopted a national FiT but the specific terms and future of the program are unclear. It is currently assumed that the term is 25 years and the FiT will be in place in 2012 but not clear if there will be a digression beyond that. The FiT is economically viable given local generation company low return requirements but project costs are depressed given high competition in component manufacturing (i.e. over 400 local module manufacturers are selling into the market). Participation in the Golden Sun Program for distributed generation also includes an implicit requirement for local manufacturing.

In the Middle East and North Africa (MENA), several countries have announced sizeable solar targets, although policy mechanisms are not yet firmly established. Policy promulgation and market development are especially vulnerable to governmental inertia, political instability, geopolitical risk, fossil fuel subsidization, and potentially stringent localization requirements. This vulnerability may adversely affect our ability to expand in or enter into such markets, or may otherwise affect the attractiveness of such solar markets.

Reduced growth in or the reduction, elimination, or expiration of government subsidies and economic incentives for on-grid solar energy applications, could limit our growth or cause our net sales to decline and adversely affect our business, financial condition, and results of operations.

We could be adversely affected by any violations of the U.S. Foreign Corrupt Practices Act ("FCPA") and foreign anti-bribery laws.

The FCPA generally prohibits companies and their intermediaries from making improper payments to non-U.S. government officials for the purpose of obtaining or retaining business. Other countries in which we operate also have anti-bribery laws, some of which prohibit improper payments to government and non-government persons and entities. Our policies mandate compliance with these anti-bribery laws. We currently operate in, and pursuant to our Long Term Strategic Plan intend to further expand into, many parts of the world that have experienced governmental corruption to some degree and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. In addition, due to the level of regulation in our industry, our entry into new jurisdictions, including India, China, and the Middle East, requires substantial government contact where norms can differ from U.S. standards. Although we implement policies and procedures designed to facilitate compliance with these anti-bribery laws, our employees, subcontractors and agents may take actions in violation of our policies and anti-bribery laws. Any such violation, even if prohibited by our policies, could subject us to criminal or civil penalties or other sanctions, which could have a material adverse effect on our business, financial condition, cash flows and

reputation.

We may be unable to fully execute on our Long Term Strategic Plan, which could have a material adverse effect on our business, results of operations or financial condition.

We face numerous difficulties in executing our Long Term Strategic Plan, particularly in new foreign jurisdictions, including each of the risks described in the Risk Factors entitled “Our substantial international operations subject us to a number of risks, including unfavorable political, regulatory, labor, and tax conditions in foreign countries.” and “Reduced growth in or the reduction, elimination, or expiration of government subsidies, economic incentives, and other support for on-grid solar electricity applications, including recently announced mid-year feed-in-tariff reductions or other program changes in Germany and certain other core markets, could reduce demand and/or price levels for our solar modules, and limit our growth or lead to a reduction in our net sales, and adversely impact our operating results,” as well as the following:

- difficulty in accurately prioritizing geographic markets which we can most effectively and profitably serve with our utility scale PV offerings, including miscalculations in overestimating or underestimating our addressable market demand;

- difficulty in overcoming the inertia involved in changing local electricity ecosystems as necessary to accommodate large-scale PV solar deployment and integration;

- protectionist or other adverse public policies in countries we operate in and/or are pursuing, including local content requirements or capital investment requirements;

- difficulty in timely identifying, attracting and retaining qualified sales, technical and other personnel in geographies targeted for expansion;

- the possibility of having insufficient capital resources necessary to acheive an effective localized business presence in targeted jurisdictions;

- difficulty in competing against competitors who may have greater financial resources and/or a more effective or established localized business presence;

- difficulty in competing against competitors who may gain in profitability and financial strength over time by successfully participating in the global rooftop PV solar market, which is a segment we intend to de-emphasize as part of our Long Term Strategic Plan;

- difficulty in developing any necessary partnerships with local businesses, on commercially acceptable terms; and

- difficulty in balancing market demand and manufacturing production in an efficient and timely manner, potentially causing us to be manufacturing capacity constrained in some future periods or over-supplied in others.

An increase in interest rates or lending rates or tightening of the supply of capital in the global financial markets (including a reduction in total tax equity availability) could make it difficult for end-users to finance the cost of a PV system and could reduce the demand for our solar systems or modules and/or lead to a reduction in the average selling price for PV modules.

Many of our customers and our systems business depend on debt and/or equity financing to fund the initial capital expenditure required to develop, build and purchase a PV system. As a result, an increase in interest rates or lending rates, or a reduction in the supply of project debt financing or tax equity investments, could reduce the number of solar projects that receive financing or otherwise make it difficult for our customers or our systems business to secure the financing necessary to develop, build, purchase or install a PV system on favorable terms, or at all, and thus lower demand for our solar modules which could limit our growth or reduce our net sales. In addition, we believe that a significant percentage of our end-users install PV systems as an investment, funding the initial capital expenditure through a combination of equity and debt. An increase in interest rates and/or lending rates could lower an investor's return on investment in a PV system, increase equity return requirements or make alternative investments more attractive relative to PV systems, and, in each case, could cause these end-users to seek alternative investments. As described above under Item 1: "Business — Support Programs," the 30% grant in lieu of the federal investment tax credit under the ARRA expired December 31, 2011 and unless extended, will not be available for solar installations that begin construction on or after January 1, 2012. If such program is not extended, total tax equity availability could be reduced which may adversely affect our ability to arrange financing for utility-scale projects and may adversely affect the attractiveness of the U.S. solar market.

We currently depend on a limited number of customers within our components business. The loss of, or a significant reduction in orders from, any of these customers could significantly reduce our net sales and negatively impact our operating results.

Within our components business, we continue to sell a sizeable portion of our solar modules to customers headquartered throughout the European Union, although this portion is expected to continue to decline as we execute our Long Term Strategic Plan. During 2011, our two largest customers for our components business each accounted for more than 10% of our components business' net sales. Our customer base within our components business is still concentrated to a significant extent in Germany and, therefore, additional German FiT reductions could reduce demand and/or price levels for our modules sold to these customers. The loss of any of our large customers, their inability to perform under their contracts, or their default in payment could significantly reduce our net sales and adversely impact our operating results. Our customers may face significant challenges under current economic conditions, including lack of capital to finance solar projects and rising costs associated with leasing or otherwise acquiring land and rooftops for solar projects. Although we believe that we can mitigate this risk in part by re-allocating modules

to other customers if the need arises, we may be unable, in whole or in part, to mitigate the reduced demand for our modules. Further, in the event that we determine that our planned production of solar modules exceeds the demand we anticipate, we may decide to reduce or halt production of solar modules in our manufacturing facilities. However, we may incur costs in doing so and we may be unable to anticipate and respond to the oversupply of solar modules because we have limited visibility into our customers' inventories.

Risks Related to Regulations

Existing regulations and policies and changes to these regulations and policies may present technical, regulatory, and economic barriers to the purchase and use of PV products, which may significantly reduce demand for our solar modules.

The market for electricity generation products is heavily influenced by foreign, federal, state, and local government regulations and policies concerning the electric utility industry, as well as policies promulgated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of customer-owned electricity generation. In the United States and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. These regulations and policies could deter end-user purchases of PV products and investment in the research and development of PV technology. For example, without a mandated regulatory exception for PV systems, utility customers are often charged interconnection or standby fees for putting distributed power generation on the electric utility grid. If these interconnection standby fees were applicable to PV systems, it is likely that they would increase the cost of using PV systems to our end-users, which could make them less desirable, thereby adversely affecting our business, prospects, results of operations, and financial condition. In addition, with respect to utilities that utilize a peak hour pricing policy or time-of-use pricing methods whereby the price of electricity is adjusted based on electricity supply and demand, electricity generated by PV systems currently benefits from competing primarily with expensive peak hour electricity, rather than the less expensive average price of electricity. Modifications to the peak hour pricing policies of utilities, such as to a flat rate for all times of the day, would require PV systems to achieve lower prices in order to compete with the price of electricity from other sources.

We anticipate that our solar systems and modules will be subject to oversight and regulation in accordance with national and local ordinances relating to building codes, safety, environmental protection, utility interconnection and metering, and other matters. It is difficult to track the requirements of individual jurisdictions and design equipment to comply with the varying standards. Any new government regulations or utility policies pertaining to our solar modules may result in significant additional expenses to us or our customers and, as a result, could cause a significant reduction in demand for our solar systems and modules.

Environmental obligations and liabilities could have a substantial negative impact on our financial condition, cash flows, and profitability.

Our operations involve the use, handling, generation, processing, storage, transportation, and disposal of hazardous materials and are subject to extensive environmental laws and regulations at the national, state, local, and international levels. These environmental laws and regulations include those governing the discharge of pollutants into the air and water, the use, management, and disposal of hazardous materials and wastes, the cleanup of contaminated sites, and occupational health and safety. We have incurred and will continue to incur significant costs and capital expenditures in complying with these laws and regulations. In addition, violations of, or liabilities under, environmental laws or permits may result in restrictions being imposed on our operating activities or in our being subjected to substantial fines, penalties, criminal proceedings, third party property damage or personal injury claims, cleanup costs, or other costs. Such solutions could also result in substantial delay or termination of projects under construction within our systems business, which could adversely impact our results of operations. While we believe we are currently in substantial compliance with applicable environmental requirements, future developments such as more aggressive

enforcement policies, the implementation of new, more stringent laws and regulations, or the discovery of presently unknown environmental conditions may require expenditures that could have a material adverse effect on our business, results of operations, and financial condition.

In addition, our solar modules contain cadmium telluride and cadmium sulfide. Elemental cadmium and certain of its compounds are regulated as hazardous material due to the adverse health effects that may arise from human exposure. Although the risks of exposure to cadmium telluride are not believed to be as serious as those relating to exposure to elemental cadmium, the toxicological properties of cadmium telluride have not been thoroughly investigated and reported. In our manufacturing operations, we maintain engineering controls to minimize our associates' exposure to cadmium or cadmium compounds and require our associates who handle cadmium compounds to follow certain safety procedures, including the use of personal protective equipment such as respirators, chemical goggles, and protective clothing. In addition, we believe the risk of exposure to cadmium or cadmium compounds from our end-products is limited by the encapsulated nature of these materials in our products and the physical properties of cadmium compounds used in our products, and further minimized by the voluntary implementation in 2005 of our collection and recycling program for our solar modules. While we believe that these factors and procedures are sufficient

to protect our associates, end-users, and the general public from adverse health effects that may arise from cadmium exposure, we cannot ensure that human or environmental exposure to cadmium or cadmium compounds used in our products will not occur. Any such exposure could result in future third party claims against us, as well as damage to our reputation and heightened regulatory scrutiny of our products, which could limit or impair our ability to sell and distribute our products. The occurrence of future events such as these could have a material adverse effect on our business, financial condition, or results of operations.

The use of cadmium in various products is also subject to governmental regulation in several countries. More restrictive regulation in this area and/or expansion of such regulation to additional countries could impact the manufacture, sale, collection, and recycling of solar modules and could require us to make unforeseen environmental expenditures or limit our ability to sell and distribute our products.

Risks Related to our Operations, Manufacturing, and Technology

Our operating history to date may not serve as an adequate basis to judge our future prospects and results of operations.

Our historical operating results may not provide a meaningful basis for evaluating our business, financial performance, and prospects. We may be unable to achieve similar growth, or grow at all, in future periods. Our ability to achieve similar growth in future periods is also affected by current economic conditions. Our past results occurred in an environment where, among other things, capital was at times more accessible to our customers to finance the cost of developing solar projects and economic incentives for solar power in certain core markets (such as the German FiT) were more favorable. Accordingly, you should not rely on our results of operations for any prior period as an indication of our future performance.

We face intense competition from manufacturers of crystalline silicon solar modules, as well as thin-film solar modules, and solar thermal and concentrated PV systems; if global supply exceeds global demand, it could lead to a reduction in the average selling price for PV modules, which could reduce our net sales and adversely affect our results of operations.

The solar energy and renewable energy industries are highly competitive and continually evolving as participants strive to distinguish themselves within their markets and compete with the larger electric power industry. Within the global PV industry, we face competition from crystalline silicon solar module manufacturers, other thin-film solar module manufacturers and companies developing solar thermal and concentrated PV technologies. Existing or future solar manufacturers might be acquired by larger companies with significant capital resources, thereby intensifying competition with us. In addition, the introduction of a low cost disruptive technology could adversely affect our ability to compete, which could reduce our net sales and adversely affect our results of operations.

Even if demand for solar modules continues to grow, the rapid manufacturing capacity expansion undertaken by many solar module manufacturers, particularly manufacturers of crystalline silicon solar modules, has created and may continue to cause periods of structural imbalance during which supply exceeds demand. See “An increased global supply of PV modules has caused and may continue to cause structural imbalances in which global PV module supply exceeds demand, which could have a material adverse effect on our business, financial condition and results of operations.” In addition, we believe a significant decrease in the cost of silicon feedstock would provide significant reductions in the manufacturing cost of crystalline silicon solar modules and lead to further pricing pressure for solar modules and potentially the oversupply of solar modules.

During any such period, our competitors could decide to reduce their sales prices in response to competition, even below their manufacturing costs, in order to generate sales. Other competitors may have direct or indirect access to

sovereign capital, which could enable such competitors to operate at minimal or negative operating margins for sustained periods of time. As a result, we may be unable to sell our solar modules at attractive prices, or for a profit, during any period of excess supply of solar modules, which would reduce our net sales and adversely affect our results of operations. Also, we may decide to lower our average selling price to certain customers in certain markets in response to competition.

Thin-film technology has a short history, and our thin-film technology and solar modules and systems may perform below expectations; problems with product quality or performance may cause us to incur significant and/or unexpected warranty and related expenses, damage our market reputation, and prevent us from maintaining or increasing our market share.

Researchers began developing thin-film semiconductor technology over 25 years ago, but were unable to integrate the technology into a solar module production line until about a decade ago. Our thin-film technology and solar modules may not have a sufficient operating history to confirm how our solar modules will perform over their estimated 25-year useful life. We perform a variety of quality and life tests under different conditions. However, if our thin-film technology and solar modules perform below expectations, we could lose customers and face substantial warranty expense.

We have historically provided a limited warranty against defects in materials and workmanship under normal use and service conditions for 5 years following delivery to the owners of our solar modules. For solar module sales made subsequent to September 30, 2011, we have increased the limited warranty we provide against defects in materials and workmanship under normal use and service conditions from 5 years to 10 years.

We also warrant to our owners that solar modules installed in accordance with agreed-upon specifications will produce at least 90% of their power output rating during the first 10 years following their installation and at least 80% of their power output rating during the following 15 years. As a result, we bear the risk of extensive warranty claims long after we have sold our solar modules and recognized net sales. As of December 31, 2011, our accrued warranty liability was $157.7 million, of which, $78.6 million was classified as current and $79.1 million was classified as noncurrent.

During the period from June 2008 to June 2009, a manufacturing excursion occurred whereby certain modules manufactured during that time period may experience premature power loss once installed in the field. The root cause of the manufacturing excursion was identified and addressed in June 2009. Beginning in 2009, we initiated a voluntary remediation program beyond our standard warranty pursuant to which we made commitments to customers with systems containing modules affected by the manufacturing excursion that we would cover certain costs of remediation efforts. We have expensed $215.7 million total to-date for the estimated costs of remediating systems affected by modules manufactured during the relevant period, including $145.6 million for remediation expenses beyond our limited warranty obligations and $70.1 million in product warranty expense reflecting the net increase in the expected number of replacement modules required in connection with our remediation efforts. This estimate is based on our evaluation and consideration of the currently available information, including the estimated number of affected modules in the field, historical experience related to our remediation efforts, customer-provided data related to potentially affected systems, and the estimated costs of performing the logistical services covered under our remediation program. In addition to those customers with systems affected by modules manufactured during the relevant period that we have already identified, we are working with a number of additional customers who may have affected modules to complete our analysis of their claims. Based upon our experience to date with our remediation approach, together with the data currently available, we estimate that, if we ultimately remediate these systems under our current remediation program, we could incur additional costs related to our voluntary remediation program of up to approximately $44 million. This includes approximately $24 million beyond our limited warranty obligations in connection with these claims, including the costs of actual remediation and the costs of additional compensation payments to customers under certain circumstances, and approximately $20 million related to additional product warranty liability.

If any of our estimates related to the above referenced manufacturing excursion prove incorrect, we could be required to accrue additional expenses, which could adversely impact our financial position, operating results and cash flows. Although we believe we have taken corrective actions to avoid similar manufacturing excursions in the future, we cannot guarantee that our internal quality and testing programs will prevent a future manufacturing excursion from occurring. Any future manufacturing excursions including any commitments made by us to take remediation actions in respect of affected modules beyond our limited warranty could adversely impact our financial position, operating results and cash flows.

Although our power output warranty extends for 25 years, our oldest solar modules manufactured during the qualification of our pilot production line have only been in use since 2001. Because of the limited operating history of our solar modules, we have been required to make assumptions regarding the durability and reliability of our solar modules. Our assumptions could prove to be materially different from the actual performance of our solar modules, causing us to incur substantial expense to repair or replace defective solar modules in the future. For example, our glass-on-glass solar modules could break, delaminate, or experience power degradation in excess of expectations, and our manufacturing operations could be subject to process variations that could cause affected modules to

underperform compared to our expectations. These risks could be amplified as we implement design and process changes in connection with our efforts to accelerate module conversion efficiency improvement and manufacturing production throughput as part of our Long Term Strategic Plan. In addition, as we increase the number of installations in non-temperate climates, in accordance with our Long Term Strategic Plan, we may experience increased failure rates due to deployment into such hot climates. Any widespread product failures may damage our market reputation, cause our sales to decline, require us to repair or replace the defective modules, and cause us to take voluntary remedial measures beyond warranty terms to enhance customer satisfaction, which could have a material adverse effect on our financial results.

In addition to our solar module warranty described above, for solar power plants built by our EPC team, we currently typically provide a limited EPC warranty against defects in workmanship, engineering design, and installation services under normal use and service conditions for a period of one to two years following the substantial completion of a solar power plant or an energized section of a solar power plant. In resolving claims under both the workmanship and design warranties, we have the option of either remedying the defect to the warranted level through repair, refurbishment, or replacement. Any widespread failures of solar power plants built by us could damage our market reputation, cause our sales to decline, cause us to incur unexpected costs to remedy defects or otherwise negatively affect our results of operations.

If our estimates regarding the future cost of collecting and recycling our solar modules are incorrect, we could be required to accrue additional expenses at and from the time we realize our estimates are incorrect and face a significant unplanned cash burden.

We pre-fund our estimated future obligation for collecting and recycling our solar modules based on the present value of the expected future cost of collecting and recycling the modules, which includes the cost of packaging the solar modules for transport, the cost of freight from the solar module's installation site to a recycling center, the material, labor, and capital costs of the recycling process, and an estimated third party profit margin and return on risk for collection and recycling. We base our estimate on our experience collecting and recycling solar modules that do not pass our quality control tests and solar modules returned under our warranty, and on our expectations about future developments in recycling technologies and processes and economic conditions at the time the solar modules will be collected and recycled. If our estimates prove incorrect, we could be required to accrue additional expenses at and from the time we realize our estimates are incorrect and also face a significant unplanned cash burden at the time we realize our estimates are incorrect or end-users return their solar modules, which could harm our operating results. In addition, our end-users can return their solar modules at any time. As a result, we could be required to collect and recycle our solar modules earlier than we expect.

Our failure to further refine our technology and develop and introduce improved PV products could render our solar modules or systems uncompetitive and reduce our net sales, profitability, and/or market share.

We need to continue to invest significant financial resources in research and development to continue to improve our module conversion efficiency, lower the levelized cost of electricity (LCOE) of our PV systems, and otherwise keep pace with technological advances in the solar energy industry. However, research and development activities are inherently uncertain, and we could encounter practical difficulties in commercializing our research results. We seek to continuously improve our products and processes, and the resulting changes carry potential risks in the form of delays, additional costs, or other unintended contingencies. In addition, our significant expenditures on research and development may not produce corresponding benefits. Other companies are developing a variety of competing PV technologies, including copper indium gallium diselenide and amorphous silicon, which could produce solar modules or systems that prove more cost-effective or have better performance than our solar modules or systems. In addition, other companies could potentially develop a highly reliable renewable energy system that mitigates the intermittent power production drawback of many renewable energy systems, or offers other value-added improvements from the perspective of utilities and other system owners, in which case such companies could compete with us even if the LCOE associated with such new system is higher than that of our systems. As a result, our solar modules or systems may be negatively differentiated or rendered obsolete by the technological advances of our competitors, which would reduce our net sales, profitability and/or market share.

In addition, we often forward price our products and services in anticipation of future cost reductions, and thus an inability to further refine our technology and execute our long-term manufacturing cost and LCOE reduction objectives could adversely affect our margins and operating results.

Our failure to protect our intellectual property rights may undermine our competitive position and litigation to protect our intellectual property rights or defend against third party allegations of infringement may be costly.

Protection of our proprietary processes, methods, and other technology is critical to our business. Failure to protect and monitor the use of our existing intellectual property rights could result in the loss of valuable technologies. We rely primarily on patents, trademarks, trade secrets, copyrights, and contractual restrictions to protect our intellectual property. We regularly file patent applications to protect inventions arising from our research and development, and are currently pursuing such patent applications in the U.S. and worldwide. Our existing patents and future patents could be challenged, invalidated, circumvented, or rendered unenforceable. Our pending patent applications may not

result in issued patents, or if patents are issued to us, such patents may not be sufficient to provide meaningful protection against competitors or against competitive technologies.

We also rely upon unpatented proprietary manufacturing expertise, continuing technological innovation, and other trade secrets to develop and maintain our competitive position. Although we generally enter into confidentiality agreements with our associates and third parties to protect our intellectual property, such confidentiality agreements are limited in duration and could be breached and may not provide meaningful protection for our trade secrets or proprietary manufacturing expertise. Adequate remedies may not be available in the event of unauthorized use or disclosure of our trade secrets and manufacturing expertise. In addition, others may obtain knowledge of our trade secrets through independent development or legal means. The failure of our patents or confidentiality agreements to protect our processes, equipment, technology, trade secrets, and proprietary manufacturing expertise, methods, and compounds could have a material adverse effect on our business. In addition, effective patent, trademark, copyright, and trade secret protection may be unavailable or limited in some foreign countries, especially any developing countries into which we may expand our operations. In some countries we have not applied for patent, trademark, or copyright protection.

Third parties may infringe or misappropriate our proprietary technologies or other intellectual property rights, which could have a material adverse effect on our business, financial condition, and operating results. Policing unauthorized use of proprietary technology can be difficult and expensive. Also, litigation may be necessary to enforce our intellectual property rights, protect our trade secrets, or determine the validity and scope of the proprietary rights of others. We cannot assure you that the outcome of such potential litigation will be in our favor. Such litigation may be costly and may divert management attention and other resources away from our business. An adverse determination in any such litigation may impair our intellectual property rights and may harm our business, prospects, and reputation. In addition, we have no insurance coverage against litigation costs and would have to bear all costs arising from such litigation to the extent we are unable to recover them from other parties.

Some of our key raw materials and components are either single-sourced or sourced from a limited number of third party suppliers and their failure to perform could cause manufacturing delays and impair our ability to deliver solar modules to customers in the required quality and quantities and at a price that is profitable to us.

Our failure to obtain raw materials and components that meet our quality, quantity, and cost requirements in a timely manner could interrupt or impair our ability to manufacture our solar modules or increase our manufacturing cost. Some of our key raw materials and components are either single-sourced or sourced from a limited number of third party suppliers. As a result, the failure of any of our suppliers to perform could disrupt our supply chain and impair our operations. In addition, some of our suppliers are small companies that may be unable to supply our increasing demand for raw materials and components as we continue to expand rapidly. We may be unable to identify new suppliers or qualify their products for use on our production lines in a timely manner and on commercially reasonable terms. A constraint on our production may cause us to be unable to meet our capacity ramp plan and/or our obligations under our customer contracts, which would have an adverse impact on our financial results.

A disruption in our supply chain for cadmium telluride, our semiconductor material, could interrupt or impair our ability to manufacture solar modules and could adversely impact our profitability and long-term growth prospects.

A key raw material we use in our production process is a cadmium telluride compound. Tellurium, one of the main components of cadmium telluride, is mainly produced as a by-product of copper refining and, therefore, its supply is largely dependent upon demand for copper. Our supply of cadmium telluride could be limited if any of our current suppliers or any of our future suppliers are unable to acquire an adequate supply of tellurium in a timely manner or at commercially reasonable prices. If our competitors begin to use or increase their demand for cadmium telluride, supply could be reduced and prices could increase. If our current suppliers or any of our future suppliers cannot obtain sufficient tellurium, they could substantially increase prices or be unable to perform under their contracts. We may be unable to pass increases in the cost of our raw materials through to our customers because our customer contracts do not adjust for raw material price increases and are generally for a longer term than our raw material supply contracts. A substantial increase in tellurium prices could adversely impact our profitability and long-term growth objectives.

Our future success depends on our ability to effectively balance manufacturing production with market demand and, when necessary, continue to build new manufacturing plants over time in response to such demand and add production lines in a cost-effective manner, all of which are subject to risks and uncertainties.

Our future success depends on our ability to effectively balance manufacturing production with market demand and increase both our manufacturing capacity and production throughput over time in a cost-effective and efficient manner. If we cannot do so, we may be unable to expand our business, decrease our manufacturing cost per watt, maintain our competitive position, satisfy our contractual obligations, or sustain profitability. See “An increased global supply of PV modules has caused and may continue to cause structural imbalances in which global PV module supply exceeds demand, which could have a material adverse effect on our business, financial condition and results of

operations." Our ability to expand production capacity is subject to significant risks and uncertainties, including the following:

- making changes to our production process that are not properly qualified or that may cause problems with the quality of our solar modules;
- delays and cost overruns as a result of a number of factors, many of which may be beyond our control, such as our inability to secure successful contracts with equipment vendors;
- our custom-built equipment taking longer and costing more to manufacture than expected and not operating as designed;
- delays or denial of required approvals by relevant government authorities;

- being unable to hire qualified staff;
- failure to execute our expansion plans effectively;
- manufacturing concentration risk resulting from a majority of production lines worldwide being located in one geographic area, Malaysia;
- difficulty in balancing market demand and manufacturing production in an efficient and timely manner, potentially causing us to be manufacturing capacity constrained in some future periods or over-supplied in others; and
- Incurring manufacturing asset write-downs, write-offs and other charges and costs, which may be significant, during those periods in which we idle, slow down or shut down manufacturing capacity.

If our future production lines are not built in line with our committed schedules it may impair our growth plans. If our future production lines do not achieve operating metrics similar to our existing production lines, our solar modules could perform below expectations and cause us to lose customers.

If we are unable to systematically replicate our production lines as necessary over time and achieve and sustain similar operating metrics in our future production lines as we have achieved at our existing production lines, our manufacturing capacity could be substantially constrained, our manufacturing costs per watt could increase, and this may impair our growth plans and/or cause us to lose customers, resulting in lower net sales, higher liabilities, and lower net income than we anticipate. For instance, future production lines could produce solar modules that have lower conversion efficiencies, higher failure rates, and higher rates of degradation than solar modules from our existing production lines, and we could be unable to determine the cause of the lower operating metrics or develop and implement solutions to improve performance. In addition, we might be unable to produce enough solar modules to satisfy our contractual requirements under our customer contracts.

Some of our manufacturing equipment is customized and sole sourced. If our manufacturing equipment fails or if our equipment suppliers fail to perform under their contracts, we could experience production disruptions and be unable to satisfy our contractual requirements.

Some of our manufacturing equipment is customized to our production lines based on designs or specifications that we provide to the equipment manufacturer, which then undertakes a specialized process to manufacture the custom equipment. As a result, the equipment is not readily available from multiple vendors and would be difficult to repair or replace if it were to become damaged or stop working. If any piece of equipment fails, production along the entire production line could be interrupted. In addition, the failure of our equipment suppliers to supply equipment in a timely manner or on commercially reasonable terms could delay our expansion plans and otherwise disrupt our production schedule or increase our manufacturing costs, all of which would adversely impact our financial results.

If we are unable to further increase the number of sellable watts per solar module and reduce our manufacturing cost per watt, our profitability could decline.

Our profitability could decline if we are unable to continue to reduce our manufacturing cost per watt. Furthermore, our failure to reduce cost per watt by increasing our efficiency may impair our ability to enter new markets that we believe will require lower cost per watt for us to be competitive and may impair our growth plans.

We may be unable to manage the expansion of our operations effectively.

We expect to continue to expand our business in order to provide utility-scale PV generation to existing and new geographic markets and to maintain or increase market share. To manage the continued expansion of our operations, we will be required to continue to improve our operational and financial systems, procedures and controls, and expand, train, and manage our growing associate base. Our management will also be required to maintain and expand our relationships with customers, suppliers, and other third parties and attract new customers and suppliers. In addition, our current and planned operations, personnel, systems, and internal controls and procedures might be inadequate to support our future growth. If we cannot manage our growth effectively, we may be unable to take advantage of market opportunities, execute our business strategies or respond to competitive pressures.

Implementing a new enterprise resource planning system could interfere with our business or operations and could adversely impact our financial position, results of operations, and cash flows.

We are in the process of implementing a new enterprise resource planning (ERP) system. Phase 1 of this implementation was completed in the second half of 2010, and the second phase of this implementation was completed in the second half of 2011. This project requires significant investment of capital and human resources, the re-engineering of many processes of our business, and the attention of many associates and managers who would otherwise be focused on other aspects of our business. Any disruptions, delays, or deficiencies in the design and implementation of the new ERP system could result in potentially much higher costs than we had anticipated and could adversely affect our ability to process customer orders, ship products, provide services and support to customers, bill and track our customers, fulfill contractual obligations, file SEC reports in a timely manner and/or otherwise operate our business, or otherwise impact our controls environment, and any of these consequences could have an adverse effect on our financial position, results of operations, and cash flows.

Our substantial international operations subject us to a number of risks, including unfavorable political, regulatory, labor, and tax conditions in foreign countries.

We have significant marketing, distribution, and manufacturing operations both within and outside the United States. In 2011, 43% of our net sales were generated from customers headquartered in the European Union. We expect to continue to expand our operations into China, India, other countries in Europe, Asia, the Middle East, and elsewhere; as a result, we will be subject to the legal, political, social, tax, and regulatory requirements, and economic conditions of many jurisdictions. Risks inherent to international operations, include, but are not limited to, the following:

- difficulty in enforcing agreements in foreign legal systems;
- varying degrees of protection afforded to foreign investments in the countries in which we operate, and irregular interpretations and enforcement of laws and regulations in these jurisdictions;
- foreign countries may impose additional income and withholding taxes or otherwise tax our foreign operations, impose tariffs, or adopt other restrictions on foreign trade and investment, including currency exchange controls;
- fluctuations in exchange rates may affect product demand and may adversely affect our profitability in U.S. dollars to the extent the price of our solar modules and cost of raw materials, labor, and equipment is denominated in a foreign currency;
- inability to obtain, maintain, or enforce intellectual property rights;
- risk of nationalization or other expropriation of private enterprises;
- changes in general economic and political conditions in the countries in which we operate, including changes in the government incentives we are relying on;
- unexpected adverse changes in foreign laws or regulatory requirements, including those with respect to environmental protection, export duties, and quotas;
- opaque approval processes in which the lack of transparency may cause delays and increase the uncertainty of project approvals;
- difficulty in staffing and managing widespread operations;
- difficulty in repatriating earnings;

- difficulty in negotiating a successful collective bargaining agreement in applicable foreign jurisdictions;

- trade barriers such as export requirements, tariffs, taxes, local content requirements, and other restrictions and expenses, which could increase the price of our solar modules and make us less competitive in some countries; and

- difficulty of, and costs relating to, compliance with the different commercial and legal requirements of the overseas countries in which we offer and sell our solar modules.

Our business in foreign markets requires us to respond to rapid changes in market conditions in these countries. Our overall success as a global business depends, in part, on our ability to succeed in differing legal, regulatory, economic, social, and political conditions. We may not be able to develop and implement policies and strategies that will be effective in each location where we

do business.

Risks Related to Our Systems Business

Project development or construction activities may not be successful and projects under development may not receive required permits, real property rights, power purchase agreements (PPAs), interconnection and transmission arrangements or financing or construction may not commence or proceed as scheduled, which could increase our costs and impair our ability to recover our investments.

The development and construction of solar power electric generation facilities and other energy infrastructure projects involve numerous risks. We may be required to spend significant sums for land and interconnection rights, preliminary engineering, permitting, legal, and other expenses before we can determine whether a project is feasible, economically attractive, or capable of being built. Success in developing a particular project is contingent upon, among other things:

- obtaining satisfactory land rights, including environmental mitigation lands;
- receipt from governmental agencies of required land use and construction permits and approvals;
- receipt of rights to interconnect the project to the electric grid or to transmit energy;
- payment of interconnection and other deposits (some of which are non-refundable);
- negotiation of satisfactory engineering, procurement, and construction agreements;
- entering into financeable arrangements for the purchase of the electrical output and renewable energy attributes generated by the project;
- securing a project site and necessary rights of way;
- obtaining construction financing, including debt, equity and funds associated with the monetization of tax credits and other tax benefits; and
- timely implementation and satisfactory completion of construction.

Successful completion of a particular project may be adversely affected by numerous factors, including:

- delays in obtaining and maintaining required governmental permits and approvals, including appeals of approvals obtained;
- potential challenges from project stakeholders, including local residents, environmental organizations, and others who may not support the project;
- unforeseen engineering problems;
- construction delays and contractor performance shortfalls;
- work stoppages;

- cost over-runs;
- labor, equipment and materials supply shortages or disruptions;
- additional complexities when conducting project development or construction activities in foreign jurisdictions, including operating in accordance with the U.S. Foreign Corrupt Practices Act and applicable local laws and customs;
- unfavorable tax treatment;
- adverse weather conditions;

- adverse environmental and geological conditions; and
- force majeure and other events out of our control.

If we are unable to complete the development of a solar power facility, we fail to meet one or more agreed target construction milestone dates, any agreed upon system-level capacity or energy output guarantees or warranties (including, for some projects, twenty-five year energy performance or system-level module degradation warranties and guarantees), or other contract terms, or our projects cause grid interference or other damage, we may be subject to forfeiture of significant deposits under power purchase agreements or interconnection agreements or termination of such agreements, significant liquidated damages, penalties and/or other obligations under the EPC agreement or other agreements relating to the project (including obligations to repair, replace and/or supplement additional modules and balance of system materials for the project), particularly if our liabilities are not capped under the terms of such agreement, and we typically will not be able to recover our investment in the project. Some of these penalties might require us to repurchase the project from the buyer or to down-size the project, under certain circumstances. If we were required to repurchase a project, we may have insufficient cash or capital resources necessary to make the repurchase payment or we may be unable to resell the project in a timely manner or on terms commercially satisfactory to us, which would adversely impact our results of operations. Some of these investments are included as assets on our consolidated balance sheet under the line item “Project assets.” If we are unable to complete the development of a solar power project, we may write-down or write-off some or all of these capitalized investments, which would have an adverse impact on our net income in the period in which the loss is recognized. In 2012, we expect to invest a significant amount of capital to develop projects owned by us or third parties, which may limit the availability of capital to use for other purposes, such as contract damages or repurchase payments.

We may enter into fixed-price EPC contracts in which we act as the general contractor for our customers in connection with the installation of their solar power systems. All essential costs are estimated at the time of entering into the EPC contract for a particular project, and these are reflected in the overall fixed-price that we charge our customers for the project. These cost estimates are preliminary and may or may not be covered by contracts between us or the subcontractors, suppliers, and other parties to the project. In addition, we require qualified, licensed subcontractors to install most of our systems. Shortages of such skilled labor could significantly delay a project or otherwise increase our costs. Should miscalculations in planning a project occur (including those due to unexpected increases in inflation, commodity prices or labor costs) or delays in execution occur and we are unable to increase commensurately the EPC sales price, we may not achieve our expected margins or we may be required to record a loss in the relevant fiscal period.

We may be unable to acquire or lease land, obtain necessary interconnection and transmission rights, and/or obtain the approvals, licenses, permits and electric transmission grid interconnection and transmission rights necessary to build and operate PV power plants in a timely and cost effective manner, and regulatory agencies, local communities, labor unions or other third parties may delay, prevent, or increase the cost of construction and operation of the PV plants we intend to build.

In order to construct and operate our PV plants, we need to acquire or lease land and rights of way, obtain interconnection rights, and obtain all necessary local, county, state, federal, and foreign approvals, licenses, and permits as well as rights to interconnect the plants to the transmission grid and transmit energy generated from the plant. We may be unable to acquire the land or lease interests needed, may not obtain satisfactory interconnection rights, may not receive or retain the requisite approvals, permits, licenses and interconnection and transmission rights, or may encounter other problems which could delay or prevent us from successfully constructing and operating PV plants.

Many of our proposed PV plants are located on or require access through public lands administered by federal and state agencies pursuant to competitive public leasing and right-of-way procedures and processes. The authorization for the use, construction, and operation of PV plants and associated transmission facilities on federal, state, and private lands will also require the assessment and evaluation of mineral rights, private rights-of-way, and other easements; environmental, agricultural, cultural, recreational, and aesthetic impacts; and the likely mitigation of adverse impacts to these and other resources and uses. The inability to obtain the required permits and, potentially, excessive delay in obtaining such permits due, for example, to litigation or third party appeals, could prevent us from successfully constructing and operating PV plants in a timely manner and could result in a potential forfeiture of any deposit we have made with respect to a given project. Moreover, project approvals subject to project modifications and conditions, including mitigation requirements and costs, could affect the financial success of a given project.

In addition, local labor unions may increase the cost of, and/or lower the productivity of, project development in Canada, California, and elsewhere. We may also be subject to labor unavailability and/or increased union labor requirements due to multiple simultaneous projects in a geographic region.

Lack of transmission capacity availability, potential upgrade costs to the transmission grid, and other systems constraints could significantly impact our ability to build PV plants and generate solar electricity power sales.

In order to deliver electricity from our PV plants to our customers, our projects need to connect to the transmission grid. The lack of available capacity on the transmission grid could substantially impact our projects and cause reductions in project size, delays in project implementation, increases in costs from transmission upgrades, and potential forfeitures of any deposit we have made with respect to a given project. These transmission issues, as well as issues relating to the availability of large systems such as transformers and switch gear, could significantly impact our ability to build PV plants and generate solar electricity sales.

Our systems business is largely dependent on us and third parties arranging financing from various sources, which may not be available or may only be available on unfavorable terms or in insufficient amounts.

The construction of the large utility-scale solar power projects under development by us is expected in many cases to require project financing, including non-recourse project debt financing in the bank loan market and institutional debt capital markets. Uncertainties exist as to whether our projects will be able to access the debt markets in a magnitude sufficient to finance their construction. If we are unable to arrange such financing or if it is only available on unfavorable terms, we may be unable to fully execute our systems business plan. In addition, we generally expect to sell our projects by raising project equity capital from tax- oriented, strategic industry, and other equity investors. Such equity sources may not be available or may only be available in insufficient amounts, in which case our ability to sell our projects may be delayed or limited and our business, financial condition, or results of operations may be adversely affected. Even if such financing sources are available, the counterparty to many of our fixed-price EPC contracts, which own the project we are constructing, are often special purpose vehicles that do not have significant assets other than their interests in the project and have pledged all or substantially all of these assets to secure the project-related debt and certain other sources of financing. If the owner defaults on its payment or other obligations to us, we may face difficulties in collecting payment of amounts due to us for the costs previously incurred or for the amounts previously expended or committed to be expended to purchase equipment or supplies (including intercompany purchases of PV modules), or for termination payments we are entitled to under the terms of the related EPC contract. If we are unable to collect the amounts owed to us, or are unable to complete the project because of an owner default, we may be required to record a charge against earnings related to the project, which could result in a material loss.

In addition, for projects to which we provide EPC services but are not the project developer, our EPC activities are in many cases dependent on the ability of third parties to finance their PV plant projects, which, in turn, is dependent on their ability to obtain financing for such purchases on acceptable terms. Depending on prevailing conditions in the credit markets, interest rates and other factors, such financing may not be available or may only be available on unfavorable terms or in insufficient amounts. If third parties are limited in their ability to access financing to support their purchase of PV power plant construction services from us, we may not realize the cash flows that we expect from such sales, and this could adversely affect our ability to invest in our business and/or generate revenue. See also the risk factor above entitled “An increase in interest rates or lending rates or tightening of the supply of capital in the global financial markets (including a reduction in total tax equity availability) could make it difficult for end-users to finance the cost of a PV system and could reduce the demand for our solar modules and/or lead to a reduction in the average selling price for PV modules.”

Developing solar power projects may require significant upfront investment prior to the signing of an EPC contract and commencing construction, which could adversely affect our business and results of operations.

Our solar power project development cycles, which span the time between the identification of land and the commercial operation of a PV power plant project, vary substantially and can take many months or years to mature. As a result of these long project cycles, we may need to make significant upfront investments of resources (including, for example, payments for land rights, large transmission and PPA deposits or other payments, which may be

non-refundable) in advance of the signing of EPC contracts and commencing construction and the receipt of any revenue, much of which is not recognized for several additional months or years following contract signing. Our potential inability to enter into sales contracts with potential customers after making such upfront investments could adversely affect our business and results of operations. Furthermore, we may become constrained in our ability to simultaneously fund our other business operations and these systems investments through our long project development cycles.

Our liquidity may be adversely affected to the extent the project sale market weakens and we are unable to sell our solar projects on pricing, terms and timing commercially acceptable to us.

We may not be able to obtain long-term contracts for the sale of power produced by our projects at prices and on other terms favorable to attract financing and other investments.

Obtaining long-term contracts for the sale of power produced by the projects at prices and on other terms favorable to us is essential for obtaining financing and commencing construction of our projects. We must compete for power purchase agreements

against other developers of solar and renewable energy projects. Further, other sources of power, such as natural gas-fired power plants, have historically been cheaper than the cost of solar power and power from certain types of projects, such as natural gas-fired power plants, can be delivered on a firm basis. The inability to compete successfully against other power producers or otherwise enter into PPAs favorable to us would negatively affect our ability to develop and finance our projects and negatively impact our revenue. In addition, the availability of power purchase agreements is a function of a number of economic, regulatory, tax and public policy factors.

We may be subject to unforeseen costs, liabilities or obligations when providing O&M services.

For solar power plants which we have developed and built, we may provide ongoing O&M services to the system owner under fixed-price long-term service agreements, pursuant to which we generally perform all scheduled and unscheduled maintenance for the system, perform operating and other asset management services for the system and provide an availability guarantee for the system. Our costs to perform these services are estimated at the time of entering into the O&M agreement for a particular project, and these are reflected in the fixed-price that we charge our customers under the O&M agreement. We do not have extensive experience in performing O&M services for PV solar power plants and estimating actual costs to serve under our O&M agreements relative to the price that we charge our customers, particularly in foreign jurisdictions in which we plan to offer PV systems solutions as part of our Long Term Strategic Plan. Should miscalculations in estimating these costs occur (including those due to unexpected increases in inflation or labor or BoS costs), our growth strategy and results of operations could be adversely affected. Because of the long-term nature of these O&M agreements, such as 25 years, such adverse impacts on results of operations could be significant, particularly if our liabilities are not capped or subject to an above-market liability cap under the terms of the O&M agreement. We also could be subject to substantial costs, liabilities or obligations in the event our solar systems do not meet any agreed-upon system-level availability, energy or performance guarantees or warranties.

Other Risks

We may not realize the anticipated benefits of past or future acquisitions, and integration of these acquisitions may disrupt our business and management.

We have made several acquisitions in the last several years, and in the future we may acquire additional companies, project pipelines, products, or technologies or enter into joint ventures or other strategic initiatives. We may not realize the anticipated benefits of an acquisition and each acquisition has numerous risks. These risks include the following:

- difficulty in assimilating the operations and personnel of the acquired company;
- difficulty in effectively integrating the acquired technologies or products with our current products and technologies;
- difficulty in maintaining controls, procedures, and policies during the transition and integration;
- disruption of our ongoing business and distraction of our management and associates from other opportunities and challenges due to integration issues;
- difficulty integrating the acquired company’s accounting, management information, and other administrative systems;
- inability to retain key technical and managerial personnel of the acquired business;
- inability to retain key customers, vendors, and other business partners of the acquired business;

- inability to achieve the financial and strategic goals for the acquired and combined businesses;
- incurring acquisition-related costs or amortization costs for acquired intangible assets that could impact our operating results;
- potential impairment of our relationships with our associates, customers, partners, distributors, or third party providers of technology or products;
- potential failure of the due diligence processes to identify significant issues with product quality, legal and financial liabilities, among other things;
- potential inability to assert that internal controls over financial reporting are effective;

- potential inability to obtain, or obtain in a timely manner, approvals from governmental authorities, which could delay or prevent such acquisitions; and

- potential delay in customer purchasing decisions due to uncertainty about the direction of our product offerings.

Mergers and acquisitions of companies are inherently risky, and ultimately, if we do not complete the integration of acquired businesses successfully and in a timely manner, we may not realize the anticipated benefits of the acquisitions to the extent anticipated, which could adversely affect our business, financial condition, or results of operations.

Our future success depends on our ability to retain our key associates and to successfully integrate them into our management team.

We are dependent on the services of our executive officers and other members of our senior management team. The loss of one or more of these key associates or any other member of our senior management team could have a material adverse effect on us. We may not be able to retain or replace these key associates, and we may not have adequate succession plans in place. Several of our current key associates including our executive officers are subject to employment conditions or arrangements that contain post-employment non-competition provisions. However, these arrangements permit the associates to terminate their employment with us upon little or no notice and the enforceability of the non-competition provisions is uncertain.

Our current chief executive officer has been serving on an interim basis since October 2011. We could be subject to management disruptions or distractions resulting from any extended delay in hiring a new chief executive officer or from such new chief executive officer’s integration into the Company.

If we are unable to attract, train, and retain key personnel, our business may be materially and adversely affected.

Our future success depends, to a significant extent, on our ability to attract, train, and retain management, operations, and technical personnel. Recruiting and retaining capable personnel, particularly those with expertise in the PV industry and thin-film technology, are vital to our success. There is substantial competition for qualified technical personnel and there can be no assurance that we will be able to attract or retain our technical personnel. If we are unable to attract and retain qualified associates, or otherwise experience labor disruptions our business may be materially and adversely affected.

Certain types of services provided by onsite workers are subject to the Davis-Bacon Act. The Davis-Bacon Act requires that a contractor pay all personnel assigned to the contract at least the prevailing wage and fringe benefits, as established by and in accordance with the regulations promulgated by the Department of Labor. We have an established policy pursuant to which we evaluate Davis-Bacon Act requirements and ensure our compliance with these requirements. If the Department of Labor were to determine that anyone working under such contracts were not properly classified, or were being paid the incorrect prevailing wage, we could incur additional liability with respect to such workers. Any such liability incurred above our anticipated costs for these services could have an adverse effect on our financial condition and results of operations.

We may be exposed to infringement or misappropriation claims by third parties, which, if determined adversely to us, could cause us to pay significant damage awards or prohibit us from the manufacture and sale of our solar modules or the use of our technology.

Our success depends largely on our ability to use and develop our technology and know-how without infringing or misappropriating the intellectual property rights of third parties. The validity and scope of claims relating to PV technology patents involve complex scientific, legal, and factual considerations and analysis and, therefore, may be highly uncertain. We may be subject to litigation involving claims of patent infringement or violation of intellectual property rights of third parties. The defense and prosecution of intellectual property suits, patent opposition proceedings, and related legal and administrative proceedings can be both costly and time consuming and may significantly divert the efforts and resources of our technical and management personnel. An adverse determination in any such litigation or proceedings to which we may become a party could subject us to significant liability to third parties, require us to seek licenses from third parties, which may not be available on reasonable terms, or at all, or pay ongoing royalties, require us to redesign our solar module, or subject us to injunctions prohibiting the manufacture and sale of our solar modules or the use of our technologies. Protracted litigation could also result in our customers or potential customers deferring or limiting their purchase or use of our solar modules until the resolution of such litigation.

Currency translation and transaction risk may negatively affect our net sales, cost of sales, and gross margins and could result in exchange losses.

Although our reporting currency is the U.S. dollar, we conduct our business and incur costs in the local currency of most countries in which we operate. As a result, we are subject to currency translation and transaction risk. For example, 43% and 73% of our net sales were denominated in euros for the years ended December 31, 2011 and December 31, 2010, respectively, and we expect a large percentage of our net sales to be outside the United States and denominated in foreign currencies in the future. In addition, our operating expenses for our manufacturing plants located outside the U.S. and our operations for our systems business in foreign countries will generally be denominated in the local currency. Changes in exchange rates between foreign currencies and the U.S. dollar could affect our net sales and cost of sales and could result in exchange gains or losses. For example, during 2011 our net sales was reduced by $6.3 million due to a decrease in the blended exchange rate between the euro and the U.S. dollar. In addition, we incur currency translation risk whenever one of our operating subsidiaries enters into either a purchase or a sales transaction using a different currency from our reporting currency. For example, our Supply Contracts specify pricing in euros through 2012 and do not adjust for changes in the U.S. dollar to euro exchange rate. We cannot accurately predict the impact of future exchange rate fluctuations on our results of operations.

We could also expand our business into emerging markets, many of which have an uncertain regulatory environment relating to currency policy. Conducting business in such emerging markets could cause our exposure to changes in exchange rates to increase.

Our ability to hedge foreign currency exposure is dependent on our credit profile with the banks that are willing and able to do business with us. Deterioration in our credit position or a significant tightening of the credit market conditions could limit our ability to hedge our foreign currency exposure; and therefore, result in exchange gains or losses.

The ongoing sovereign debt crisis in Europe could adversely impact our business.

The ongoing sovereign debt crisis in Europe and its impact on the balance sheets and lending practices of European banks in particular could negatively impact our access to, and cost of, capital, and therefore could have an adverse effect on our business, results of operations, financial condition and competitive position. It could also similarly affect our customers and therefore limit the sales of our modules and demand for our systems business as well. The European sovereign debt crisis may also cause European governments to reduce, eliminate or allow to expire government subsidies and economic incentives for solar energy, which could limit our growth or cause our net sales to decline and materially and adversely affect our business, financial condition, and results of operations.

The Estate of John T. Walton and its affiliates have significant control over us and their interests may conflict with or differ from interests of other stockholders.

Our largest stockholder, the Estate of John T. Walton and its affiliates, including JCL Holdings, LLC and JTW Trust No. 1 UAD 9/19/02 (collectively, the Estate), owned approximately 31% of our outstanding common stock at December 31, 2011. As a result, the Estate has substantial influence over all matters requiring stockholder approval, including the election of our directors and the approval of significant corporate transactions such as mergers, tender offers, and the sale of all or substantially all of our assets. The interests of the Estate could conflict with or differ from interests of other stockholders. For example, the concentration of ownership held by the Estate could delay, defer or prevent a change of control of our company or impede a merger, takeover, or other business combination which a majority of stockholders may view favorably.

If our goodwill or project assets become impaired, we may be required to record a significant charge to earnings.

We may be required to record a significant charge to earnings in our financial statements should we determine that our goodwill or project assets are impaired. Such a charge might have a significant impact on our financial position and

results of operations. During the fourth quarter of 2011 we recorded goodwill impairment expense of $393.4 million related to our components reporting unit as discussed further in Note 5. “Goodwill and Intangible Assets,” to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

As required by accounting rules, we review our goodwill for impairment at least annually in the fourth quarter or more frequently if facts and circumstances indicate that it is more likely than not that the fair value of a reporting unit that has goodwill is less than its carrying value. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill might not be recoverable include a significant decline in our stock price and market capitalization, a significant decline in projections of future cash flows and lower future growth rates in our industry. We review project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We consider a project commercially viable and recoverable if it is anticipated to be saleable for a profit once it is either fully developed or fully constructed. If our projects are not considered commercially viable, we would be required to

impair the respective project assets.

Unanticipated changes in our tax provisions, the adoption of a new U.S. tax legislation, or exposure to additional income tax liabilities could affect our profitability.

We are subject to income taxes in the United States and the foreign jurisdictions in which we operate. Our tax liabilities are affected by the amounts we charge for inventory, services, licenses, funding, and other items in inter-company transactions. We are subject to potential tax examinations in these various jurisdictions. Tax authorities may disagree with our inter-company charges, cross-jurisdictional transfer pricing or other tax positions and assess additional taxes. We regularly assess the likely outcomes of these examinations in order to determine the appropriateness of our tax provision in accordance with ASC 740, Income Taxes. However, there can be no assurance that we will accurately predict the outcomes of these potential examinations, and the amounts ultimately paid upon resolution of examinations could be materially different from the amounts previously included in our income tax expense and therefore, could have a material impact on our tax provision, net income, and cash flows. In addition, our future effective tax rate could be adversely affected by changes to our operating structure, loss of our Malaysian tax holiday, changes in the mix of earnings in countries with tax holidays or differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in tax laws, and the discovery of new information in the course of our tax return preparation process. In addition, recently announced proposals for new U.S. tax legislation could have a material effect on the results of our operations; if enacted.

Our credit agreements contain covenant restrictions that may limit our ability to operate our business.

We may be unable to respond to changes in business and economic conditions, engage in transactions that might otherwise be beneficial to us, and obtain additional financing, if needed, because our revolving credit agreement with JPMorgan Chase Bank, N.A., as Administrative Agent, and our Malaysian and German facility agreements contain, and any of our other future debt agreements may contain, covenant restrictions that limit our ability to, among other things:

- incur additional debt, assume obligations in connection with letters of credit, or issue guarantees;
- create liens;
- enter into certain transactions with our affiliates;
- sell certain assets; and
- declare or pay dividends, make other distributions to stockholders, or make other restricted payments.

Under our revolving credit agreement and our Malaysian and German facility agreements, we are also subject to certain financial condition covenants. Our ability to comply with covenants under our credit agreements is dependent on our future performance, which will be subject to many factors, some of which are beyond our control, including prevailing economic conditions. In addition, our failure to comply with these covenants could result in a default under these agreements and any of our other future debt agreements, which if not cured or waived, could permit the holders thereof to accelerate such debt and could cause cross-defaults under our other facility agreements and the possible acceleration of debt under such other facility agreements, as well as cross-defaults under certain of our key project and operational agreements. In addition, we cannot assure you that events that occur within the Company, or in the industry or the economy as a whole, will not constitute material adverse effects under these agreements. If it is determined that a material adverse effect has occurred, the lenders can, under certain circumstances, restrict future borrowings or accelerate the due date of outstanding loan balances. If any of our debt is accelerated, we may in the

future not have sufficient funds available to repay such debt, and we may experience cross-defaults under our other debt agreements or project and key operational agreements, which could materially and negatively affect our business, financial condition and results of operations.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

Our principal properties consisted of the following:

Nature	Primary Segment(s) Using Property	Location	Held	Major Encumbrances
Manufacturing Plant	Components	Perrysburg, Ohio, United States	Own	State of Ohio Loan (1)
Manufacturing Plants	Components	Frankfurt/Oder, Germany	Own	German Facility Agreement (1)
Manufacturing Plants	Components	Kulim, Kedah, Malaysia	Lease Land/Own Buildings	Malaysian Ringgit Facility Agreement (1)
Manufacturing Plant (2)	Components	Ho Chi Minh City, Vietnam	Lease Land/Own Building	n/a
Manufacturing Plant (3)	Components	Mesa, Arizona, United States	Own	n/a
Corporate Headquarters	Components & Systems	Tempe, Arizona, United States	Lease	n/a
Administrative Office	Systems	Bridgewater, New Jersey, United States	Lease	n/a
Administrative Office	Components & Systems	New York, New York, United States	Lease	n/a
Administrative Office	Systems	Oakland/San Francisco, California, United States	Lease	n/a
Research and Development Facility	Components	Santa Clara, California, United States	Lease	n/a
Administrative Office	Components & Systems	Mainz, Germany	Lease	n/a

(1) See Note 15. “Debt,” to our consolidated financial statements included in this Annual Report on Form 10-K for additional information.

(2) We have determined that we will not proceed with our previously announced 4-line plant in Vietnam.

(3) Under construction. We have postponed production from our 4-line plant in Mesa, Arizona until global supply and demand dynamics support the additional manufacturing capacity. Until such time this facility will be used as office space for certain business functions and as temporary storage space for systems business solar modules, balance of systems parts and certain machinery and equipment.

In addition, we lease small amounts of office and warehouse space in several other U.S. and international locations.

Item 3: Legal Proceedings

In the ordinary conduct of our business, we are subject to periodic lawsuits, investigations, and claims, including, but not limited to, routine employment matters. Although we cannot predict with certainty the ultimate resolution of lawsuits, investigations, and claims asserted against us, we do not believe that any currently pending legal proceeding to which we are a party will have a material adverse effect on our business, results of operations, cash flows, or financial condition.

On September 23, 2011, the Company informed the staff of the Securities and Exchange Commission (the “SEC”) that the Company was commencing an internal investigation regarding a possible violation of Regulation FD. The possible

violation arose in connection with disclosures on September 21, 2011, relating to the failure of the Topaz Solar Farm project to meet the statutory deadline to receive a federal loan guarantee from the US Department of Energy. This internal investigation was conducted on behalf of the Company's board of directors by independent outside counsel. Following completion of the internal investigation, the Company appointed a new Vice President of Investor Relations. The SEC, pursuant to an order dated November 17, 2011, is investigating the matter. The Company is cooperating with the SEC's investigation.

Item 4: Mine Safety Disclosures

None.

PART II

Item 5: Market for Registrant's Common Equity, Related Stockholder Matters, and Issuer Purchases of Equity Securities

Price Range of Common Stock

Our common stock has been listed on The NASDAQ Global Select Market under the symbol "FSLR" since November 17, 2006. Prior to this time, there was no public market for our common stock. The following table sets forth the range of high and low sales prices per share as reported on The NASDAQ Global Select Market for the periods indicated.

	High	Low
Fiscal Year 2011		
First Quarter	$175.45	$130.24
Second Quarter	$163.00	$111.40
Third Quarter	$134.21	$61.55
Fourth Quarter	$67.72	$29.87
Fiscal Year 2010		
First Quarter	$142.46	$98.71
Second Quarter	$152.53	$100.19
Third Quarter	$148.16	$112.06
Fourth Quarter	$153.30	$120.90

The closing sales price of our common stock on The NASDAQ Global Select Market was $35.58 per share on February 24, 2012. As of February 24, 2012, there were 61 record holders of our common stock. This figure does not reflect the beneficial ownership of shares held in nominee names.

Dividend Policy

We have never paid, and it is our present intention for the foreseeable future not to pay, dividends on our common stock. Our revolving credit facility imposes restrictions on our ability to declare or pay dividends. The declaration and payment of dividends is subject to the discretion of our board of directors and depends on various factors, including the continued applicability of the above-referenced restrictions under our revolving credit facility, our net income, financial condition, cash requirements, future prospects, and other factors deemed relevant by our board of directors.

Equity Compensation Plans

The following table sets forth certain information, as of December 31, 2011, concerning securities authorized for issuance under all equity compensation plans of our company:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options and Rights (a)(1)(3)	Weighted-Average Exercise Price of Outstanding Options and Rights (b)(2)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))(c)(4)
Equity compensation plans approved by our stockholders	2,130,564	$89.04	9,457,850

Equity compensation plans not approved by our stockholders	—	$—	—
Total	2,130,564	$89.04	9,457,850

(1) Includes 1,964,504 shares issuable upon vesting of RSUs granted under the 2006 and 2010 Omnibus Incentive Compensation Plans. The remaining balance consists of outstanding stock option grants.

(2) The weighted average exercise price does not take into account the shares issuable upon vesting of outstanding RSUs, which have no exercise price.

(3) Includes our 2003 Unit Option Plan and our 2006 and 2010 Omnibus Incentive Compensation Plans.

(4) Includes our 2003 Unit Option Plan and 2010 Omnibus Incentive Compensation Plan.

Stock Price Performance Graph

The following graph compares the cumulative 5-year total return on our common stock relative to the cumulative total returns of the S&P 500 Index, the Guggenheim Solar Index, and two customized peer groups of companies (Old Peer Group and New Peer Group). The Old Peer Group includes Q-Cells SE, SolarWorld AG, SunPower Corporation, Suntech Power Holdings Company Limited, Trina Solar Limited, and Yingli Green Energy Holding Company Limited. The New Peer Group includes Canadian Solar Inc., Hanwha Solarone Company Limited, SolarWorld AG, SunPower Corporation, Suntech Power Holdings Company Limited, Trina Solar Limited, and Yingli Green Energy Holding Company Limited. We believe that each peer group consisting of comparable issuers and the Guggenheim Solar Index is representative of the solar industry as a whole. In the stock price performance graph included below, an investment of $100 (with reinvestment of all dividends) is assumed to have been made in our common stock, in each index, and in each of the peer groups on December 30, 2006, and its relative performance is tracked through December 31, 2011. No cash dividends have been declared on shares of our common stock. This performance graph is not “soliciting material,” is not deemed filed with the SEC, and is not to be incorporated by reference in any filing by us under the Securities Act of 1933, as amended (the “Securities Act”), or the Exchange Act, whether made before or after the date hereof, and irrespective of any general incorporation language in any such filing. The stock price performance shown on the graph represents past performance and should not be considered an indication of future price performance.

	12/30/06	12/29/07	12/27/08	12/26/09	12/31/10	12/31/11
First Solar, Inc.	$100.00	$891.55	$452.45	$448.39	$436.13	$113.14
S&P 500	$100.00	$105.49	$66.46	$84.05	$96.71	$98.75
Old Peer Group	$100.00	$278.53	$50.50	$64.82	$34.29	$11.75
New Peer Group	$100.00	$258.79	$41.36	$72.71	$40.79	$13.31
Guggenheim Solar		$100.00	$27.38	$36.07	$25.83	$8.76

Recent Sales of Unregistered Securities

During the year ended December 31, 2011, 8,316 Holdback Shares (as defined below) were issued to OptiSolar Holdings LLC, a Delaware limited liabilty company (Optisolar Holdings). As previously reported in a Current Report on Form 8-K filed with the Securities and Exchange Commission on April 9, 2009, on April 3, 2009, we completed the acquisition of the solar power project development business (the Project Business) of OptiSolar, Inc., a Delaware corporation (OptiSolar). Pursuant to an Agreement and Plan of Merger (the Merger Agreement) dated as of March 2, 2009 by and among First Solar, First Solar Acquisition Corp., a Delaware corporation (Merger Sub), OptiSolar, and OptiSolar Holdings, Merger Sub merged with and into OptiSolar, with OptiSolar surviving as a wholly-owned subsidiary of First Solar (the Merger). Pursuant to the Merger, all of the outstanding shares of common stock of OptiSolar held by OptiSolar Holdings were exchanged for 2,972,420 shares of First Solar common stock, par value $0.001 per share (the Merger Shares), including (i) 732,789 shares that have been issued and deposited with an escrow agent to support certain indemnification obligations of OptiSolar Holdings, and (ii) 355,096 shares that were issuable upon satisfaction of conditions relating to the satisfaction of certain then existing liabilities of OptiSolar (the Holdback Shares). The Merger Shares and certain Holdback Shares were issued, and any remaining Holdback Shares will be issued in a private placement exempt from registration pursuant to Section 4(2) of the Securities Act of 1933, as amended. First Solar has prepared and filed with the Securities and Exchange Commission a registration statement under the Securities Act covering the resale of 2,801,435 of the Merger Shares.

As of December 31, 2011, all of the Holdback Shares had been issued to OptiSolar Holdings.

Purchases of Equity Securities by the Issuer and Affiliate Purchases

None.

Item 6: Selected Financial Data

The following table sets forth our selected consolidated financial data for the periods and at the dates indicated.

The selected consolidated financial information from the consolidated statements of operations and consolidated statements of cash flows for the fiscal years ended December 31, 2011, December 31, 2010, and December 26, 2009 and the selected consolidated financial data from the consolidated balance sheets for the fiscal years ended December 31, 2011, December 31, 2010 has been derived from the audited consolidated financial statements included in this Annual Report on Form 10-K. The selected consolidated financial data from the consolidated balance sheets for the fiscal years ended December 26, 2009, December 27, 2008 and December 29, 2007 and selected consolidated financial information from the consolidated statements of operations and consolidated statements of cash flows for the fiscal years ended December 27, 2008 and December 29, 2007 have been derived from audited consolidated financial statements not included in this Annual Report on Form 10-K. The information presented below should be read in conjunction with Item 7: “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and our consolidated financial statements and the related notes thereto.

	Years Ended				
	Dec 31, 2011	Dec 31, 2010	Dec 26, 2009	Dec 27, 2008	Dec 29, 2007
	(In thousands, except per share amounts)				
Statement of Operations:					
Net sales	$2,766,207	$2,563,515	$2,066,200	$1,246,301	$503,976
Cost of sales	1,794,456	1,378,669	1,021,618	567,908	252,573
Gross profit	971,751	1,184,846	1,044,582	678,393	251,403
Research and development	140,523	94,797	78,161	33,517	15,107
Selling, general and administrative	412,541	321,704	272,898	174,039	82,248
Production start-up	33,620	19,442	13,908	32,498	16,867
Goodwill impairment	393,365	—	—	—	—
Restructuring	60,366	—	—	—	—
Operating (loss) income	(68,664)	748,903	679,615	438,339	137,181
Foreign currency gain (loss)	995	(3,468)	5,207	5,722	1,881
Interest income	13,391	14,375	9,735	21,158	20,413
Interest expense, net	(100)	(6)	(5,258)	(509)	(2,294)
Other income (expense), net	665	2,273	(2,985)	(934)	(1,219)
Income tax (benefit) expense	(14,220)	97,876	46,176	115,446	(2,392)
Net (loss) income	$(39,493)	$664,201	$640,138	$348,330	$158,354
Net (loss) income per share data:					
Basic net (loss) income per share:					
Net (loss) income per share	$(0.46)	$7.82	$7.67	$4.34	$2.12
Weighted average shares	86,067	84,891	83,500	80,178	74,701
Diluted net (loss) income per share:					
Net (loss) income per share	$(0.46)	$7.68	$7.53	$4.24	$2.03
Weighted average shares	86,067	86,491	85,044	82,124	77,971
Cash dividends declared per common share	$—	$—	$—	$—	$—

	Years Ended				
	Dec 31, 2011	Dec 31, 2010	Dec 26, 2009	Dec 27, 2008	Dec 29, 2007
	(In thousands)				
Cash Flow Data:					
Net cash (used in) provided by operating activities	$(33,463)	$705,492	$675,193	$463,067	$205,951
Net cash used in investing activities	(676,457)	(742,085)	(701,690)	(308,441)	(547,250)
Net cash provided by (used in) financing activities	571,218	150,451	(22,021)	177,549	430,421

	Years Ended				
	Dec 31, 2011	Dec 31, 2010	Dec 26, 2009	Dec 27, 2008	Dec 29, 2007
	(In thousands)				
Balance Sheet Data:					
Cash and cash equivalents	$605,619	$765,689	$664,499	$716,218	$404,264
Marketable securities, current and noncurrent	182,338	348,160	449,844	105,601	265,399
Accounts receivable, net	310,568	305,537	226,826	61,703	18,165
Inventories, current and noncurrent	536,618	238,591	174,516	121,554	40,204
Property, plant and equipment, net	1,815,958	1,430,789	988,782	842,622	430,104
Project assets, current and noncurrent	374,881	320,140	132,496	—	—
Deferred tax assets, current and noncurrent	381,418	259,624	152,194	71,247	55,701
Total assets	5,777,614	4,380,403	3,349,512	2,114,502	1,371,312
Total debt	663,648	237,391	174,958	198,470	108,165
Accrued solar module collection and recycling liability	167,378	132,951	92,799	35,238	13,079
Total liabilities	2,133,751	925,458	696,725	601,460	274,045
Total stockholders' equity	3,643,863	3,454,945	2,652,787	1,513,042	1,097,267

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes thereto included in this Annual Report on Form 10-K. In addition to historical consolidated financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties, and assumptions as described under the "Note Regarding Forward-Looking Statements," that appears earlier in this Annual Report on Form 10-K. Our actual results could differ materially from those anticipated by these forward-looking statements as a result of many factors, including those discussed under Item 1A: "Risk Factors," and elsewhere in this Annual Report on Form 10-K.

Overview

We manufacture and sell solar modules with an advanced thin-film semiconductor technology, and we design, construct, and sell photovoltaic (PV) solar power systems.

In furtherance of our goal of delivering the lowest cost of solar electricity and achieving price parity with conventional fossil-fuel-based peak electricity generation, we are continually focused on reducing PV solar system costs in four primary areas: module manufacturing, balance of systems (BoS) costs (consisting of the costs of the components of a solar power system other than the solar modules, such as inverters, mounting hardware, grid interconnection equipment, wiring and other devices, and installation labor costs), project development costs, and the cost of capital. First, with respect to our module manufacturing costs, our advanced technology has allowed us to reduce our average module manufacturing costs to the lowest in the world for modules produced on a commercial scale, based on publicly available information. In 2011, our total average manufacturing costs were $0.75 per watt, which we believe is less than those of traditional crystalline silicon solar module manufacturers. By continuing to improve conversion efficiency and production line throughput, lower material costs, and drive volume scale to further decrease overhead costs, we believe that we can further reduce our manufacturing costs per watt and maintain our cost advantage over traditional crystalline silicon solar module manufacturers. Second, with respect to our BoS costs, by continuing to improve conversion efficiency, leverage volume procurement around standardized hardware platforms, and accelerate installation times, we believe we can continue to make reductions in BoS costs, which represent over half of all of the costs associated with a typical utility-scale PV solar power system. Third, with respect to our project development

costs, we seek optimal site locations in an effort to minimize transmission and permitting costs, and to accelerate lead times to electricity generation. Finally, with respect to our cost of capital, by continuing to strengthen our financial position, demonstrate the financial viability and operational performance of our utility-scale PV solar power plants, and increase our PV solar power system operating experience, we believe we can continue to lower the cost of capital associated with our PV solar power systems, thereby further enhancing the economic viability of our projects and lowering the cost of electricity generated by PV solar power systems that incorporate our modules and technology.

We believe that combining our reliable, low-cost module manufacturing capability with our systems business enables us to

more rapidly reduce the price of solar electricity, accelerate the adoption of our technology in utility-scale PV solar power systems, identify and remove constraints on the successful migration to sustainable solar markets around the world, and further our mission to create enduring value by enabling a world powered by clean, affordable solar electricity.

We operate our business in two segments. Our components segment designs, manufactures, and sells solar modules primarily to solar project developers and system integrators. Through our systems segment, we have the capability to provide a complete PV solar power system, using our solar modules, for utility-scale or large commercial systems. Providing a complete PV solar power system includes project development, engineering, procurement, and construction (EPC), operating and maintenance (O&M) services and monitoring and diagnostics (M&D) services, when applicable, and facilitating project finance, when required. We view the sale of solar modules from the components segment as the core driver of our profitability, return on net assets, and cash throughput. We view our systems segment as an enabler to drive module throughput for our components business with the objective of achieving break-even results before income taxes for our systems segment. See also Note 24. “Segment and Geographical Information,” to our consolidated financial statements included in this Annual Report on Form 10-K.

Market Overview

The solar industry experienced a challenging environment in 2011. The year was categorized by intense pricing competition, bankruptcies of several solar companies, many solar companies with little or no operating income, and toward the end of the year, announcements of manufacturing shut-downs or slow-downs. At December 31, 2011, the global PV industry consisted of more than 150 manufacturers of solar modules and cells. In the aggregate, these manufactuers have installed production capacity that significantly exceeded global demand in 2011. As a result, industry average module pricing declined significantly as competitors reduced prices to sell-through inventories in Europe and elsewhere. We believe this structural imbalance between supply and demand (i.e., where production capacity significantly exceeds current global demand) may continue for the foreseeable future, and we expect it will continue to put pressure on pricing and our results of operations in 2012. In light of such market realities, we have begun to execute our Long Term Strategic Plan under which we are focusing on our competitive strengths, notably providing utility-scale PV generation solutions to sustainable geographic markets that have an immediate need for mass-scale PV electricity.

In addressing overall growing global demand for PV solar electricity, we have developed a differentiated, fully integrated systems business that can provide a low-cost turn-key utility-scale PV system solution for system owners and low cost electricity to utility end-users. Our fully integrated systems business has enabled us to increase module throughput, drive cost reduction across the value chain, identify and break constraints to sustainable markets, and deliver the most compelling solutions to our customers and end-users. With our fully integrated systems business, we believe we are in a position to expand our business in transition markets and eventually economically sustainable markets (in which support programs are minimal), which are expected to develop in areas with abundant solar resources and sizable electricity demand. We are committed to continually lowering the cost of solar electricity, and in the long term, we plan to compete on an economic basis with conventional fossil-fuel-based peaking power generation.

The major European governments continue to seek to balance subsidy costs with their commitment to the EU directive’s goal of a 20% share of energy from renewable sources in the EU by 2020. Governments in Germany, France, and Italy continue to evaluate changes to their FiT structures, market caps, and/or tender processes. In many instances, such proposed FiT structures would particularly impact the competitiveness of our core offering of large-scale free field PV systems and modules to be installed in such systems. For instance, the German government recently proposed significant and accelerated FiT reductions for projects up to 10 MW and an elimination of FiTs for projects over 10 MW. The resulting market uncertainties, together with increased European financing environment

constraints, have contributed to demand pauses and increased customer difficulties in 2011, which, in conjunction with increased industry-wide manufacturing capacity, have contributed to excess industry channel inventories. In 2011, industry average module pricing declined significantly as competitors reduced prices to sell-through inventories in Europe and elsewhere in light of these factors. Lower industry module pricing, while currently challenging for solar manufacturers, in particular those with high cost structures, is expected to continue to contribute to global market diversification and volume elasticity. Over time, declining average selling prices are consistent with the erosion of one of the primary historical constraints to widespread solar market penetration, namely its overall affordability. In the near term, however, in light of continually evolving FiT structures in our core European markets and increased industry-wide manufacturing capacity, it is uncertain whether growing demand from other countries and markets could absorb industry-wide module supply without further inventory build-up and/or price reductions, which could adversely affect our results of operations. If competitors reduce module pricing to levels below their manufacturing costs, or are able to operate at minimal or negative operating margins for sustained periods of time, our results of operations could be further adversely affected. We continue to mitigate this uncertainty in part by executing on and building our North American utility-scale systems pipeline as a buffer against demand fluctuations in Europe and elsewhere; by accelerating our thin-film module efficiency improvements and cost reduction roadmaps to increase our competitive advantage, profitability and capital efficiency; by adjusting our production plans and capacity utilization to match expected demand, and by

continuing the development of other geographic markets, including those in India, Australia, the Middle East, South America, and China.

The development of market demand outside of the European Union continued during 2011, in part aided by demand elasticity resulting from declining industry average selling prices, which make solar power more affordable to new markets. In India, we entered into a 100 MW direct current (DC) module supply agreement (the largest PV module supply agreement in India to date) with one of India's leading power generation companies. In Australia, we were contracted to provide our modules, EPC, and O&M services for Australia's first utility-scale solar power project, a 10 MW alternating current (AC) solar farm that will help power the Southern Seawater Desalination Plant in Western Australia.

In North America, we have continued to execute on our utility-scale systems pipeline. We made substantial construction progress on the 290 MW AC Agua Caliente project in Arizona during 2011, the financial impact of which is reflected below under "Results of Operations." On September 30, 2011, we announced the sales and construction plans for what will be two of the world's largest solar PV facilities, both in California. The two projects sold in the third quarter are the 550 MW AC Desert Sunlight Solar Farm, located west of Blythe, California, and the 230 MW AC Antelope Valley Solar Ranch One project, located just north of Los Angeles, California. In January 2012, we announced completion of the sale of the 550 MW AC Topaz Solar Farm, located in San Luis Obispo County, California.

In the PV module segment, we continue to face intense competition from manufacturers of crystalline silicon solar modules and other types of solar modules and PV systems. Solar module manufacturers compete with one another in several product performance attributes, including reliability and module cost per watt, and, with respect to solar power systems, return on equity (ROE) and levelized cost of electricity (LCOE), meaning the net present value of total life cycle costs of the solar power project divided by the quantity of energy which is expected to be produced over the system's life. The ability to expand manufacturing capacity quickly is another source of differentiation among solar module manufacturers, and certain of our competitors may have a faster response time to capacity expansion than we do and/or an ability to expand capacity in finer increments than we can. We are the lowest cost PV module manufacturer in the solar industry for modules produced on a commercial scale, based on publicly available information, and our average manufacturing cost per watt declined from $0.77 during 2010 to $0.75 during 2011. This cost advantage is reflected in the price at which we sell our modules or fully integrated systems and enables our systems to compete favorably in respect of their ROE or LCOE. Our cost competitiveness is based in large part on our proprietary technology (which enables conversion efficiency improvements and enables us to produce a module in less than 2.5 hours using a continuous and highly automated industrial manufacturing process, as opposed to a batch process), our scale, and our operational excellence. In addition, our modules use approximately 1-2% of the amount of semiconductor material (i.e., silicon) that is used to manufacture traditional crystalline silicon solar modules. The cost of polysilicon is a significant driver of the manufacturing cost of crystalline silicon solar modules, and the timing and rate of change in the cost of silicon feedstock and polysilicon could lead to changes in solar module pricing levels. Polysilicon costs declined in 2011, contributing to a decline in our manufacturing cost advantage over crystalline silicon module manufacturers. Although we are not a crystalline silicon module manufacturer, we estimate, based on industry research and public disclosures of our competitors, that a $10 per Kg increase or decrease in the price of polysilicon could increase or decrease, respectively, our competitors' manufacturing cost per watt by approximately $0.05 to $0.08 over time. Given the lower conversion efficiency of our modules compared to crystalline silicon modules, there may be higher BoS costs associated with systems using our modules. Thus, to compete effectively on the basis of LCOE, our modules need to maintain a certain cost advantage per watt compared to crystalline silicon-based modules. During 2011, we reduced our manufacturing cost per watt by 3% from our cost per watt in 2010 and continued to reduce BoS costs associated with systems using our modules.

While our modules currently enjoy competitive advantages in these product performance attributes, there can be no guarantee that these advantages will continue to exist in the future to the same extent or at all. Any declines in the competitiveness of our products could result in additional margin compression, further declines in the average selling prices of our solar modules, erosion in our market share for modules, decreases in the rate of revenue growth, and/or declines in overall revenues. We have taken, and continue to take, various actions to mitigate the potential impact resulting from competitive pressures, including adjusting our pricing policies as necessary in core market segments to drive module volumes, accelerating progress along our module and BoS cost reduction roadmaps, and focusing our research and development on increasing the conversion efficiency of our solar modules.

As we expand our systems business into transition and sustainable markets, we can offer value beyond the PV module, reduce our exposure to module-only competition, provide differentiated offerings to minimize the impact of solar module commoditization, and provide comprehensive utility-scale PV systems solutions that significantly reduce solar electricity costs. Thus, our systems business allows us to play a more active role than many of our competitors in managing the demand for our solar modules. Finally, we seek to form and develop strong partner relationships with our customers and continue to develop our range of offerings, including EPC capabilities and O&M or M&D services, in order to enhance the competitiveness of systems using our solar modules.

Long Term Strategic Plan

In December 2011 we announced a long term strategic plan ("Long Term Strategic Plan" or "LTSP") with a goal to transition to primarily sustainable opportunities by the end of 2014. In executing the LTSP we will focus on providing solar PV generation solutions to sustainable geographic markets that we believe have a compelling need for mass-scale PV electricity, including new markets throughout the Americas, Asia, the Middle East, and Africa. As part of our LTSP, we expect to focus on opportunities in which our solar PV generation solutions will compete directly with fossil fuel offerings on a levelized cost of energy basis and decrease our focus on rooftop solar. Execution of the LTSP will entail a reallocation of resources around the globe, in particular dedicating resources to regions such as Latin America, Asia, the Middle East, and Africa where we have not traditionally conducted significant business to date. We will evaluate and manage closely the appropriate level of resources required as we transition into and penetrate these specific markets. We intend to dedicate significant capital and human resources to reduce the total installed cost of solar PV generation, to optimize the design and logistics around our solar PV generation solutions, and to ensure that our solutions integrate well into the overall electricity ecosystem of the specific region.

Manufacturing Capacity

As of December 31, 2011, we operated 36 production lines with an annual global manufacturing capacity of approximately 2.4 GW at our manufacturing plants in Perrysburg, Ohio, Frankfurt/Oder, Germany, and Kulim, Malaysia. In order to better align production with expected market demand, we expect to produce between approximately 1.5 GW to 1.8 GW of solar modules in 2012, reflecting a manufacturing capacity utilization rate of approximately 60% to 70%, compared to an expected manufacturing capacity of approximately 2.5 GW at the end of 2012. We expect to adjust such production plans in the future to match the then current expected market demand. We plan to idle half of our production capacity in our Frankfurt/Oder manufacturing facility for a period of time beginning in March 2012. We also plan to strategically idle additional production capacity to implement upgraded process technologies across existing manufacturing lines as part of our accelerated conversion efficiency improvement initiatives. We plan to take the Kulim production lines down on a rolling schedule for maintenance and equipment upgrades during 2012. The balancing of our production capabilities with market demand is a core component of our manufacturing capacity expansion strategy and our Long Term Strategic Plan. To that end in February 2012 we decided not to proceed with our previously announced 4-line plant in Vietnam. See Note 4. “Restructuring and Acquisitions,” to our consolidated financial statements included in this Annual Report on Form 10-K. We have also postponed the commissioning of our previously announced 4-line plant in Mesa, Arizona and the construction of our previously announced 2-line plant in France until such time as global supply and demand dynamics support the additional manufacturing capacity in such geographic areas.

2008-2009 Manufacturing Excursion

During the period from June 2008 to June 2009, a manufacturing excursion occurred whereby certain modules manufactured during that time period may experience premature power loss once installed in the field. The root cause of the manufacturing excursion was identified and addressed in June 2009. Beginning in 2009, we initiated a voluntary remediation program beyond our standard limited warranty pursuant to which we made commitments to customers with systems containing modules manufactured during the relevant period that we would cover certain costs of remediation efforts. These remediation efforts included module removal, replacement and logistical services and additional compensation payments to customers under certain circumstances. Our best estimate for costs of our voluntary remediation program, as of and in each fiscal period in question, has been based on evaluation and consideration of the then-currently available information, including the estimated number of affected modules in the field, historical experience related to our voluntary remediation efforts, customer-provided data related to potentially affected systems and the estimated costs of performing the logistical services covered under our remediation program.

As part of our voluntary remediation program, we have worked with our customers to identify systems that are potentially affected by modules manufactured during the relevant period. Although we have been able to identify potentially affected systems, the logistics costs of identifying, testing and replacing individual affected modules within a site once they have been installed renders searching for and replacing individual affected modules impracticable for us when we are not the owner or operator of the site. In many cases we elected to remediate our customers' sites such that their overall site performance matched the customers' expectations, and in doing so we determined that it was more efficient to either replace all modules within a site, for certain smaller sites below a size threshold, or, for larger sites, to identify groups, or strings, of modules that are underperforming, and replace the entire group or string with new modules. The additional information provided from sites that we have already remediated and modules we have removed and tested, permits us to identify the expected total number of modules necessary to remediate sites with potentially affected modules to match customers' expectations, and to refine the cost estimates for our voluntary remediation program. As we have continued remediation efforts under our voluntary remediation program, we have learned that, in light of the impracticality of identifying and replacing individual affected models, in order to remediate the energy loss impact at a system level, we are required to remove and replace several modules in the aggregate, including modules that might not have been affected by the manufacturing excursion. Removed modules are returned to us and are further tested to determine if the module can be resold or whether the module requires recycling under our solar module collection and recycling program.

In the fourth quarter of 2011, we accrued additional expenses in excess of standard product warranty liability relating to our voluntary remediation program. A principal driver behind such additional accrual was our greater understanding as of year-end, obtained through the processing of thousands of claims as described below, of the number of modules not affected in the manufacturing excursion that needed to be removed (and subsequently replaced) in order for us to be able to identify and remedy the number of modules actually affected by the manufacturing excursion. For additional information regarding accrued expenses in excess of standard product warranty liability relating to our voluntary remediation program, see Note 8. “Consolidated Balance Sheet Details,” to our consolidated financial statements included in this Annual Report on Form 10-K. Our voluntary remediation program, and the related manufacturing excursion, also resulted in changes in estimates to our product warranty liability. For additional information regarding these changes, see Note 16. “Commitments and Contingencies,” to our consolidated financial statements included in this Annual Report on Form 10-K.

In response to our communications to customers regarding our intent to undertake a voluntary remediation program, we received more than five thousand customer claims, which covered an installed base greater than our entire production output during the June 2008 - June 2009 timeframe. In our processing of these claims to date, we have determined that we will take remediation actions in accordance with our voluntary remediation program with respect to approximately 1,100 of such claims, approximately an additional 200 claims could, pending receipt of additional information, qualify for remediation, and the balance of approximately 4,000 claims have been or will be rejected as they did not meet the criteria for participation in our voluntary remediation program (including claims containing insufficient data necessary to evaluate them). We have expensed $215.7 million total to-date for the estimated costs of remediating systems affected by modules manufactured during the relevant period, including $145.6 million for remediation expenses beyond our limited warranty obligations and $70.1 million in product warranty expense reflecting the net increase in the expected number of replacement modules required in connection with our remediation efforts, as described in more detail under “-Results of Operations-Fiscal Years Ended December 31, 2011 and December 31, 2010-Cost of Sales” and “-Results of Operations-Fiscal Years Ended December 31, 2011 and December 31, 2010-Selling, General and Administrative.”

In addition to those customers with systems containing modules affected by the manufacturing excursion that we have already identified, we are working with a number of additional customers who have made claims and may have affected modules. We are in the process of gathering information to complete our analysis of these remaining claims. Based upon our experience to date with our remediation approach, together with the data currently available, we estimate that, if we ultimately remediate these systems under our current remediation program, we could incur additional costs of up to approximately $44 million. This includes approximately $24 million beyond our limited warranty obligations in connection with these claims, including the costs of actual remediation and the costs of additional compensation payments to customers under certain circumstances, and approximately $20 million related to additional product warranty liability.

Module Installation in Non-Temperate Climates

We believe our PV modules are potentially subject to increased failure rates in hot climates. This assumption is based on technical literature, data that we have developed internally including through accelerated-life testing, our analysis of modules returned under warranty, and our analysis of performance data from systems that we monitor under O&M agreements. Processes that are accelerated by higher ambient temperatures include stress corrosion cracking in glass, polymer creepage and impurity diffusion processes. For more information about risks related to thin film module product performance, please see Item 1A: “Thin-film technology has a short history, and our thin-film technology and solar modules and systems may perform below expectations; problems with product quality or performance may cause us to incur significant and/or unexpected warranty and related expenses, damage our market reputation, and prevent us from maintaining or increasing our market share.” First Solar has an extensive deployment history in temperate

climates, such as Europe. Our deployed volume into hot climates, such as the southwestern United States, is mostly recent. We have increased our warranty reserve by $37.8 million to reflect our exposure to this shift in the mix of geographic regions where our modules are installed. As we execute on our Long Term Strategic Plan, we expect to install higher volumes in non-temperate climates as part of our utility-scale offerings in Asia, the Middle East, Africa, Australia and the southwestern United States. Accordingly, we will continue to review our warranty reserve in the future to reflect actual installations in such non-temperate climates and adjust such reserve as appropriate. For additional information regarding changes in estimates to our product warranty liability see Note 16. “Commitments and Contingencies,” to our consolidated financial statements included in this Annual Report on Form 10-K.

Financial Operations Overview

The following describes certain line items in our statement of operations and some of the factors that affect our operating results.

Net Sales

Components Business

During 2011, the majority of our net sales were generated from the sale of solar modules. We generally price and sell our solar modules per watt of power. During 2011, we sold the majority of our solar modules to solar power system project developers, system integrators, and operators headquartered in Germany, France, India, Italy, and the United States, which either resell our solar modules to end-users or integrate them into power plants that they own, operate, or sell.

As of December 31, 2011, we had supply contracts for the sale of solar modules with thirteen solar power system project developers and system integrators headquartered within the European Union expiring at the end of 2012 (Supply Contracts). Our sales prices under the Supply Contracts are primarily denominated in euros, exposing us to risks from currency exchange rate fluctuations. During the year ended December 31, 2011, 78% of our components business net sales were denominated in euros and were subject to fluctuations in the exchange rate between the euro and U.S. dollar. In the past, we have amended pricing, volume, and other terms in our Supply Contracts on a prospective basis in order to remain competitive, and we may decide in the future to further amend these contracts in order to address the highly competitive environment for solar modules. Effective September 30, 2011, the rebate program where we provided certain of our customers a price rebate for solar modules purchased from us, ended. We have begun early stage discussions with our customers under current Supply Contracts regarding replacement contracts for periods covering 2013 and beyond, but such replacement contracts are not expected to be long-term in nature. For additional information regarding the rebate program, see Note 8. “Consolidated Balance Sheet Details,” to our consolidated financial statements included in this Annual Report on Form 10-K.

We also enter into one-time module sales agreements with customers for specific projects.

Under our customer contracts, we transfer title and risk of loss to the customer and recognize revenue upon shipment. Our customers do not have extended payment terms or rights of return under these contracts.

During 2011, the principal third party customers of our components business were EDF EN Development and Belectric. During 2011, each of these two customers individually accounted for more than 10% of our components segment’s net sales. Each of our other customers individually accounted for less than 10% of our net sales during 2011.

Systems Business

Through our fully integrated systems business, we provide a complete solar power system solution using our solar modules, which may include project development, EPC services, O&M services, when applicable, and project finance, when required.

Net sales from our systems segment may include the following types of transactions:

Transaction	Description
Engineer and Procure (EP) Contract	Design for a customer of a solar electricity generation system that uses our solar modules; includes the procurement of all BoS components from third party suppliers.
Engineer, Procure, and Construct (EPC) Contract	Design and construction for a customer of a turn-key solar electricity generation system that uses our solar modules; includes the procurement of all BoS

	components from third party suppliers.
Sale of Project Assets	Sale of project assets to a customer at various stages of development. This generally includes a single project consisting of costs incurred for permits, land or land rights, and/or power off-take agreements.
Operating and Maintenance (O&M) Agreement	Typically a fixed-price long-term services agreement.

Net sales from our systems segment are impacted by numerous factors, including the magnitude and effectiveness of renewable portfolio standards, economic incentives, the competitiveness of our systems offering in comparison to our competitors solar systems and other forms of electricity generation and other PV system demand drivers.

During 2011, the majority of our systems business sales were generated in North America. Net sales from our systems business during 2010 resulted primarily from revenue recognition for utility scale solar power projects in North America and Europe. During 2009, net sales from our systems business resulted primarily from the sale of two utility-scale solar power systems in the fourth fiscal quarter to utilities in the United States and Canada.

We recognize revenue for arrangements entered into by the systems business generally using two revenue recognition models, following the guidance in ASC 605, Accounting for Long-term Construction Contracts or, for arrangements which include land or land rights, ASC 360, Accounting for Sales of Real Estate.

For construction contracts that do not include land or land rights and thus are accounted for under ASC 605, we use the percentage-of-completion method using actual costs incurred over total estimated costs to complete a project (including module costs) as our basic accounting policy, unless we cannot make reasonably dependable estimates of the costs to complete the contract, in which case we would use the completed contract method. We periodically revise our contract cost and profit estimates and we immediately recognize any losses that we identify on such contracts. Incurred costs include all direct materials, costs for solar modules, labor, subcontractor costs, and those indirect costs related to contract performance, such as indirect labor, supplies, and tools. We recognize direct material costs and costs for solar modules as incurred costs when the direct materials and solar modules have been installed. When construction contracts or other agreements specify that title to direct materials and solar modules transfers to the customer before installation has been performed, we defer revenue and associated costs and recognize revenue once those materials are installed and have met all other revenue recognition requirements. We consider direct materials to be installed when they are permanently attached or fitted to the solar power systems as required by engineering designs.

For arrangements recognized under ASC 360, typically when we have gained control of land or land rights, we record the sale as revenue using one of the following revenue recognition methods, based upon the substance and the terms and conditions of such arrangements:

We apply the percentage-of-completion method to certain arrangements covered under ASC 360, when the sale has been consummated, when we have transferred the usual risks and rewards of ownership to the buyer, the initial or continuing investment criteria have been met, we have the ability to estimate our costs and progress toward completion, and other revenue recognition criteria have been met. Depending on the value of the initial and continuing payment commitment by the buyer, we may align our revenue recognition and release of project assets to cost of sales with the receipt of payment from the buyer for sales arrangements accounted for under ASC 360.

We record revenue for certain other arrangements covered under ASC 360 after construction of a project is complete, we have transferred the usual risks and rewards of ownership to the buyer, and we have received payment from the buyer.

The below tables summarize, as of February 28, 2012, our 2.7 GW AC utility systems advanced project pipeline. As of December 31, 2011, for such pipeline, we have recognized revenue with respect to the equivalent of approximately180 MW AC. Such amount refers to the total cumulative revenue recognized with respect to projects in our pipeline, divided by total contracted revenue for such projects multiplied by the total MW AC for such projects.

Projects Sold/Under Contract
(includes uncompleted sold projects, projects under contracts for sale subject to conditions precedent, EPC contracts, and partner developed contracts)

Project/Location	Project Size in MW AC (1)	Power Purchase Agreement (PPA)	Third Party Owner/Purchaser
Topaz, California	550	PG&E	MidAmerican
Sunlight, California	550	PG&E / SCE	NextEra/GE
Agua Caliente, Arizona	290	PG&E	NRG / MidAmerican
AV Solar Ranch One, California	230	PG&E	Exelon
Copper Mountain 2, Nevada	150	PG&E	Sempra (2)
Imperial Energy Center South, California	130	SDG&E	Tenaska (2)
Alpine, California	66	PG&E	NRG (2)
St. Clair, Ontario, Canada	40	OPA (4)	NextEra
Walpole, Ontario, Canada	20	OPA (4)	GE/Plutonic
Belmont, Ontario, Canada	20	OPA (4)	GE/Plutonic
Mount St. Mary’s, Maryland	16	UOG (3)	Constellation
Amherstburg 1, Ontario, Canada	10	OPA (4)	GE/Plutonic
Greenough River, Australia	10	WA Water	Verve/GE (2)
Total	2,082		

Projects Permitted - Not Sold

Project/Location	Project Size in MW AC (1)	Power Purchase Agreement (PPA)
Silver State North, Nevada	50	NV Energy
Total	50	

Projects in Development with Executed PPA

Project/Location	Project Size in MW AC (1)	Power Purchase Agreement (PPA)
Stateline, California	300	SCE
Silver State South, Nevada	250	SCE
Total	550	

Key:

(1) The volume of modules installed in MW DC (direct current) will be higher than the MW AC size pursuant to a DC-AC ratio ranging from 1.2-1.4. Such ratio varies across different projects due to various system design factors.
(2) EPC contract or partner developed project
(3) UOG = Utility Owned Generation
(4) OPA = Ontario Power Authority RESOP program

Cost of Sales

Components Business

Our cost of sales includes the cost of raw materials and components for manufacturing solar modules, such as tempered back glass, transparent conductive oxide coated front glass, cadmium telluride, laminate, connector assemblies, laminate edge seal, and other items. Our cost of sales also includes direct labor for the manufacturing of solar modules and manufacturing overhead such as engineering, equipment maintenance, environmental health and safety, quality and production control, and procurement costs. Cost of sales also includes depreciation of

manufacturing plant and equipment and facility-related expenses. In addition, we accrue warranty and solar module collection and recycling costs to our cost of sales.

Overall, we expect our cost of sales per watt to continue to decrease over the next several years due to an increase in sellable

watts per solar module, an increase in unit output per production line, and more efficient absorption of fixed costs driven by economies of scale. This expected decrease in cost per watt would be partially offset during periods in which we underutilize manufacturing capacity.

Systems Business

Within our systems business, project-related costs include standard EPC costs (consisting primarily of BoS costs for inverters, electrical and mounting hardware, project management and engineering costs, and installation labor costs), site specific costs, and development costs (including transmission upgrade costs, interconnection fees, and permitting costs). As further described in Note 24. “Segment and Geographical Information,” to our consolidated financial statements included within this Annual Report on Form 10-K, at the time when all revenue recognition criteria are met, we include the sale of our solar modules manufactured by our components business and used by our systems business (excluding inter-company profit) as net sales of our components business. Therefore, the related cost of sales are also included within our components business at that time.

Deferred project costs represent (i) costs that we capitalize for arrangements that we account for as real estate transactions after we have entered into a definitive sales arrangement, but before we have met all criteria to recognize the sale as revenue, (ii) recoverable pre-contract costs that we capitalize for arrangements accounted for as long-term construction contracts prior to entering into a definitive sales agreement, or (iii) costs that we capitalize for arrangements accounted for as long-term construction contracts after we have signed a definitive sales agreement, but before all revenue recognition criteria have been met. As of December 31, 2011, deferred project costs capitalized on our balance sheet were $320.4 million, of which, $197.7 million was classified as current and $122.7 million was classified as noncurrent. As of December 31, 2010, our deferred project costs were $14.4 million, all of which was classified as current.

Gross Profit

Gross profit is affected by numerous factors, including our module average selling prices, foreign exchange rates, the existence and effectiveness of subsidies and other economic incentives, competitive pressures, market demand, market mix, our manufacturing costs, BoS costs, project development costs, the effective utilization of our production facilities, and the ramp of production on new plants due to a reduced ability to absorb fixed costs until full production volumes are reached. Gross profit is also subject to competitive pressures, most notably pressures resulting from declines in industry average selling prices. Gross profit margin is also affected by the mix of net sales generated by our components and systems businesses. Our systems business generally operates at a lower gross profit margin due to the pass-through nature of certain BoS components procured from third parties. Gross profit for our systems business excludes the sales and cost of sales for solar modules, which we include in the gross profit of our components business.

Research and Development

Research and development expense consists primarily of salaries and personnel-related costs, the cost of products, materials, and outside services used in our process, and product research and development activities. We acquire equipment for general use in further process developments and record the depreciation of this equipment as research and development expense. Currently, the majority of our research and development expenses are attributable to our components segment.

See Note 4. “Restructuring and Acquisitions,” to our consolidated financial statements included in this Annual Report on Form 10-K.

We maintain a number of programs and activities to improve our technology and processes in order to enhance the performance and reduce the costs of our solar modules and PV systems using our modules.

Selling, General and Administrative

Selling, general and administrative expense consists primarily of salaries and other personnel-related costs, professional fees, insurance costs, travel expenses, and other selling expenses. We expect selling expenses to increase in the near term in order to support the planned growth of our business as we expand our sales and marketing efforts. Over time, we expect selling, general and administrative expense to decline as a percentage of net sales as our net sales increase.

Our systems business has certain of its own dedicated administrative key functions, such as accounting, legal, finance, project finance, human resources, procurement, and marketing. Costs for such functions are recorded and included within selling, general and administrative costs for our systems segment. Our corporate key functions consist primarily of company-wide corporate tax, corporate treasury, corporate accounting/finance, corporate legal, investor relations, corporate communications, and executive

management functions. Based primarily on the significant growth of the systems business, we have concluded the corporate functions benefit both the components and systems segments. We allocate corporate costs to the components or systems segment as part of selling, general and administrative costs, based upon the estimated benefits to each segment from the corporate functions.

Production Start-Up

Production start-up expense consists primarily of salaries and personnel-related costs and the cost of operating a production line before it has been qualified for full production, including the cost of raw materials for solar modules run through the production line during the qualification phase. It also includes all expenses related to the selection of a new site and the related legal and regulatory costs, and the costs to maintain our plant replication program, to the extent we cannot capitalize these expenditures. We incurred production start-up expense of $13.9 million during the year ended December 26, 2009 related to plant four of our Malaysian manufacturing center and our Ohio plant expansion. We incurred production start-up expense of $19.4 million during the year ended December 31, 2010 related to our eight-line Malaysian, four-line German, one-line Ohio, and two-line France manufacturing expansions, including legal, regulatory, and personnel costs. Production start-up expense for the year ended December 31, 2011 was $33.6 million related to our eight-line Malaysian, four-line German, two-line France, four-line Vietnam and four-line Arizona manufacturing expansions, including legal, regulatory, and personnel costs. In general, we expect production start-up expense per production line to be higher when we build an entirely new manufacturing facility compared with the addition of new production lines at an existing manufacturing facility, primarily due to the additional infrastructure investment required when building an entirely new facility. Production start-up expense is attributable to our components segment. The balancing of our production capabilities with market demand is a core component of our manufacturing capacity expansion strategy and our Long Term Strategic Plan. To that end in February 2012 we decided not to proceed with our previously announced 4-line plant in Vietnam. See Note 4. “Restructuring and Acquisitions,” to our consolidated financial statements included in this Annual Report on Form 10-K. We have also postponed the commissioning of our previously announced 4-line plant in Mesa, Arizona and the construction of our previously announced 2-line plant in France until such time as global supply and demand dynamics support the additional manufacturing capacity in those geographic areas.

Goodwill Impairment

During the fourth quarter of 2011, we determined that goodwill related to our components segment was impaired and recorded expense of $393.4 million.

Restructuring

In December 2011, executive management approved a set of restructuring initiatives intended to accelerate operating cost reductions and improve overall operating efficiency. In connection with these restructuring initiatives, we incurred total charges of $60.4 million in the fourth quarter of 2011 and we expect to incur an additional $1.6 million in 2012 related to such restructuring initiatives. These charges consisted primarily of (i) $53.6 million of asset impairment and related charges due to a significant reduction in certain research and development activities that had been focused on an alternative PV product, and (ii) $6.8 million in severance benefits to terminated employees as described below, most of which is expected to be paid out by the end of 2012.

We are refocusing our research and development center in Santa Clara, California on the development of advanced CdTe PV technologies, compared to a broader research and development effort up until now. We eliminated 101 positions company-wide as part of the restructuring initiatives.

In February 2012, executive management completed an evaluation of and approved a set of manufacturing capacity and other initiatives primarily intended to adjust our previously planned manufacturing capacity expansions and global manufacturing footprint. The primary goal of these initiatives is to better align production capacity and geographic location of such capacity with expected geographic market requirements and demand. In connection with these initiatives, we expect to incur total charges to operating expense of up to $135 million during the first half of 2012 and up to $140 million in total by the time such initiatives are complete, which is expected to be by the end of 2012. These expected charges consist primarily of (i) between $60 million to $100 million of asset impairment and related charges due to our decision in February 2012 not to proceed with our 4-line manufacturing plant under construction in Vietnam (carrying value of $134.4 million as of December 31, 2011), (ii) between $20 million and $30 million of asset impairment and related charges due to our decision in February 2012 to cease the use of certain manufacturing machinery and equipment intended for use in the production of certain components of our solar modules (carrying value of $28.5 million as of December 31, 2011), and (iii) between $5 million to $10 million of asset impairment and related charges primarily due to our decision in February 2012 to cease use of certain other long-lived assets (carrying value of $7.2 million as of December 31, 2011).

Based upon expected future market demand and our focus on providing utility-scale PV generation solutions primarily to

sustainable geographic markets, we have decided not to proceed with our previously announced 4-line plant in Vietnam. We expect to actively market the plant for sale after all necessary construction has been completed, which is currently expected to occur in the first half of 2012. Once certain criteria are met including the completion of all necessary construction activities and active marketing of the Vietnam plant, we expect to meet the “held for sale” criteria, at which time we expect to record an impairment charge based primarily upon the then-current fair value of the Vietnam plant.

Foreign Currency Gain (Loss)

Foreign currency gain (loss) consists of gains and losses resulting from holding assets and liabilities and conducting transactions denominated in currencies other than our functional currencies.

Interest Income

Interest income is earned on our cash, cash equivalents, marketable securities, and restricted cash and investments. Interest income also includes interest received from notes receivable and interest collected for late customer payments.

Interest Expense, Net

Interest expense, net of amounts capitalized, is incurred on various debt financings. We capitalize interest expense into our property, plant and equipment, project assets, and deferred project costs when such costs qualify for interest capitalization.

Income Tax Expense

Income taxes are imposed on our income by taxing authorities in the various jurisdictions in which we operate, principally the United States, Germany, and Malaysia. The statutory federal corporate income tax rate in the United States is 35.0%, while the tax rates in Germany and Malaysia are approximately 28.5% and 25.0%, respectively. In Malaysia, we have been granted a long-term tax holiday, scheduled to expire in 2027, pursuant to which substantially all of our income earned in Malaysia is exempt from income tax.

Critical Accounting Estimates

In preparing our financial statements in conformity with generally accepted accounting principles in the United States (GAAP), we make estimates and assumptions about future events that affect the amounts of reported assets, liabilities, revenues and expenses, as well as the disclosure of contingent liabilities in our financial statements and the related notes thereto. Some of our accounting policies require the application of significant judgment by management in the selection of the appropriate assumptions for making these estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. We base our judgments and estimates on our historical experience, our forecasts, and other available information, as appropriate. Our significant accounting policies are described in Note 2. “Summary of Significant Accounting Policies,” to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

Our critical accounting estimates, which require the most significant management estimates and judgment in determining amounts reported in our consolidated financial statements included in this Annual Report on Form 10-K, are as follows:

Revenue Recognition - Percentage of Completion Method. We recognize revenue for arrangements entered into by the systems business generally using two revenue recognition models, following the guidance in ASC 605, Accounting

for Long-term Construction Contracts or, for arrangements which include land or land rights, ASC 360, Accounting for Sales of Real Estate. We use the percentage-of-completion method using actual costs incurred over total estimated costs to complete a project (including module costs) for our construction contracts that do not include land or land rights and thus are accounted for under ASC 605, as our basic accounting policy, unless we cannot make reasonably dependable estimates of the costs to complete the contract, in which case we would use the completed contract method. We periodically revise our contract cost and profit estimates and we immediately recognize any losses that we identify on such contracts. Such estimates include significant judgment. Incurred costs include all direct materials, costs for solar modules, labor, subcontractor costs, and those indirect costs related to contract performance, such as indirect labor, supplies, and tools. We recognize direct material costs and costs for solar modules as incurred costs when the direct materials and solar modules have been installed. When construction contracts or other agreements specify that title to direct materials and solar modules transfers to the customer before installation has been performed, we defer revenue and associated costs and recognize revenue once those materials are installed and have met all other revenue recognition requirements. We consider direct materials to be installed when they are permanently attached or fitted to the solar power systems as required by engineering designs.

We also apply the percentage-of-completion method to certain arrangements covered under ASC 360, when the sale has been consummated, when we have transferred the usual risks and rewards of ownership to the buyer, the initial or continuing investment criteria have been met, we have the ability to estimate our costs and progress toward completion, and other revenue recognition criteria have been met. Such estimates include significant judgment. Depending on the value of the initial and continuing payment commitment by the buyer, we may align our revenue recognition and release of project assets to cost of sales with the receipt of payment from the buyer for sales arrangements accounted for under ASC 360.

Accrued Solar Module Collection and Recycling Liability. At the time of sale, we recognize an expense for the estimated fair value of our future obligation for collecting and recycling the solar modules that we have sold when they have reached the end of their useful lives. We base our estimate of the fair value of our collection and recycling obligations on the present value of the expected probability weighted future cost of collecting and recycling the solar modules, which includes the cost of packaging the solar modules for transport, the cost of freight from the solar module installation sites to a recycling center, the material, labor, and capital costs of the recycling process, and an estimated third-party profit margin and return on risk for collection and recycling services. We base this estimate on our experience collecting and recycling our solar modules and on our expectations about future developments in recycling technologies and processes, about economic conditions at the time the solar modules will be collected and recycled, and about the expected timing of when our solar modules will be returned for recycling. In the periods between the time of our sales and our settlement of the collection and recycling obligations, we accrete the carrying amount of the associated liability by applying the discount rate used for its initial measurement. During the fourth quarter of 2011, we completed an annual cost study and updated our estimates for the expected future recycling costs. As a result, we adjusted our module collection and recycling liability accordingly. At December 31, 2011, our estimate of the fair value of our liability for collecting and recycling solar modules was $167.4 million. A 10% decrease in our estimate of the future cost of collecting and recycling a solar module would reduce this estimated liability by $16.7 million, to $150.7 million; a 10% increase in our estimate of the future cost of collecting and recycling a solar module would increase this estimated liability by $16.7 million, to $184.1 million.

Product Warranties and Manufacturing Excursion. We have historically provided a limited warranty against defects in materials and workmanship under normal use and service conditions for 5 years following delivery to the owners of our solar modules. For solar module sales made subsequent to September 30, 2011, we have increased the limited warranty we provide against defects in materials and workmanship under normal use and service conditions from 5 years to 10 years.

We also warrant to the owners of our solar modules that solar modules installed in accordance with agreed-upon specifications will produce at least 90% of their power output rating during the first 10 years following their installation and at least 80% of their power output rating during the following 15 years. In resolving claims under both the defects and power output warranties, we have the option of either repairing or replacing the covered solar module or, under the power output warranty, providing additional solar modules to remedy the power shortfall. For modules sold after September 30, 2011, we also have the option to make a payment for the then current market module price to resolve claims. Our warranties are automatically transferred from the original purchasers of our solar modules to subsequent purchasers upon resale. When we recognize revenue for module sales, we accrue a liability for the estimated future costs of meeting our limited warranty obligations for those modules. We make and revise this estimate based on the number of our solar modules under warranty at customer locations, our historical experience with warranty claims, our monitoring of field installation sites, our in-house testing of and the expected future performance of our solar modules, and our estimated per-module replacement cost. Such estimates have changed, and may in the future change, based primarily upon additional information received from completed voluntary remediation efforts at certain sites and from the evaluation of information available after completion of the analysis on certain outstanding claims. Such additional information provides further understanding of, and additional data regarding, the number of replacement modules expected to be required in connection with our voluntary remediation efforts.

We must also make an estimate for the cost of the remediation program described further in "—2008-2009 Manufacturing Excursion." Our estimates for the remediation program have changed, and may in the future change, significantly in light of our ongoing remediation efforts and our continued analysis of remaining claims. In the fourth quarter of 2011, we processed approximately 40% of the claims related to the manufacturing excursion that we received. In light of the additional data we gained from processed claims, as well as experience from our remediation efforts, our estimates have been subject to change.

Our estimate for such remediation costs is based on evaluation and consideration of currently available information, including the estimated number of affected modules in the field, historical experience related to our remediation efforts, customer-provided data related to potentially affected systems, the estimated costs of performing the removal, replacement and logistical services, and the post-sale expenses covered under our remediation program.

Accounting for Income Taxes. We are subject to the income tax laws of the United States, and its states and municipalities and those of the foreign jurisdictions in which we have significant business operations. These tax laws are complex and subject

to different interpretations by the taxpayer and the relevant governmental taxing authorities. We must make judgments and interpretations about the application of these inherently complex tax laws when determining our provision for income taxes and must also make estimates about when in the future certain items affect taxable income in the various tax jurisdictions. Disputes over interpretations of the tax laws may be settled with the taxing authority upon examination or audit. We regularly assess the likelihood of assessments in each of the taxing jurisdictions resulting from current and subsequent years' examinations, and we record tax liabilities as appropriate.

We establish liabilities for potential additional taxes that may arise out of tax audits in accordance with FASB Accounting Standards Codification Topic (ASC) 740, Income Taxes. Once established, we adjust the liabilities when additional information becomes available or when an event occurs requiring an adjustment. Significant judgment is required in making these estimates and the actual cost of a legal claim, tax assessment, or regulatory fine or penalty may ultimately be materially different from our recorded liabilities, if any.

In preparing our consolidated financial statements, we calculate our income tax expense based on our interpretation of the tax laws in the various jurisdictions where we conduct business. This requires us to estimate our current tax obligations and the realizability of uncertain tax positions and to assess temporary differences between the financial statement carrying amounts and the tax bases of assets and liabilities. These temporary differences result in deferred tax assets and liabilities, the net current amount of which we show as a component of current assets or current liabilities and the net noncurrent amount of which we show as other assets or other liabilities on our consolidated balance sheet.

We must also assess the likelihood that each of our deferred tax assets will be realized. To the extent we believe that realization of any of our deferred tax assets is not more likely than not, we establish a valuation allowance. When we establish a valuation allowance or increase this allowance in a reporting period, we generally record a corresponding tax expense in our consolidated statement of operations. Conversely, to the extent circumstances indicate that a valuation allowance is no longer necessary, that portion of the valuation allowance is reversed, which generally reduces our overall income tax expense.

We also consider the earnings of our foreign subsidiaries and determine whether such amounts are indefinitely reinvested outside the United States. We have concluded that, except for the earnings of our Canadian subsidiary and with respect to previously taxed income, all such accumulated earnings are currently indefinitely reinvested. Accordingly, no additional taxes have been accrued that might be incurred if such amounts were repatriated to the United States. If our intention to indefinitely reinvest the earnings of our foreign subsidiaries changes, additional taxes may be required to be accrued. See Note 20. "Income Taxes," to our consolidated financial statements included in this Annual Report on Form 10-K for additional information.

Long-Lived Asset Impairment. We are required to assess the recoverability of the carrying value of long-lived assets when an indicator of impairment has been identified. We review our long-lived assets each quarter to assess whether impairment indicators are present. We must exercise judgment in assessing whether an event of impairment has occurred.

For purposes of recognition and measurement of an impairment loss, a long-lived asset or assets is grouped with other assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. We must exercise judgment in assessing the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities.

For long-lived assets, when impairment indicators are present, we compare undiscounted future cash flows, including the eventual disposition of the asset group at market value, to the asset group's carrying value to determine if the asset group is recoverable. This assessment requires the exercise of judgment in assessing the future use of and projected value to be derived from the assets to be held and used. Assessments also consider changes in asset group utilization, including the temporary idling of capacity and the expected timing of placing this capacity back into production.

For an asset group that fails the test of recoverability described above, the estimated fair value of long-lived assets may be determined using an “income approach”, “market approach”, “cost approach”, or a combination of one or more of these approaches as appropriate for the particular asset group being reviewed. All of these approaches start with the forecast of expected future net cash flows including the eventual disposition at market value of long-lived assets. If there is an impairment, a loss is recorded to reflect the difference between the asset groups fair value and carrying value. This may require judgment in estimating future cash flows and relevant discount rates and residual values applied in the income approach used in estimating the current fair value of the impaired assets to be held and used.

Our estimates are based upon our historical experience, our commercial relationships, and available information about future trends. We believe fair value assessments are most sensitive to market changes and the corresponding impact on volume and average selling prices and that these are more subjective than manufacturing cost and other assumptions. We believe our current

assumptions and estimates are reasonable and appropriate.

Goodwill. Goodwill represents the excess of the purchase price of acquired businesses over the estimated fair value assigned to the individual assets acquired and liabilities assumed. We do not amortize goodwill, but instead are required to test goodwill for impairment at least annually in the fourth quarter and, if necessary, we would record any impairment in accordance with ASC 350, Intangibles - Goodwill and Other. We will perform an impairment test between scheduled annual tests if facts and circumstances indicate that it is more-likely-than-not that the fair value of a reporting unit that has goodwill is less than its carrying value.

We may first make a qualitative assessment of whether it is more-likely-than-not that a reporting unit's fair value is less than its carrying value to determine whether it is necessary to perform the two-step goodwill impairment test. The qualitative impairment test includes considering various factors including macroeconomic conditions, industry and market conditions, cost factors, a sustained share price or market capitalization decrease, and any reporting unit specific events. If it is determined through the qualitative assessment that a reporting unit's fair value is more-likely-than-not greater than its carrying value, the two-step impairment test is not required. If the qualitative assessment indicates it is more-likely-than-not that a reporting unit's fair value is not greater than its carrying value, we must perform the two-step impairment test. We may also elect to proceed directly to the two-step impairment test without considering such qualitative factors.

The first step in a two-step impairment test is the comparison of the fair value of a reporting unit with its carrying amount, including goodwill. Our two reporting units are the components and systems reporting units, which are the same as our reportable segments as described in Note 24. “Segment and Geographical Information,” to our consolidated financial statements. In accordance with the authoritative guidance over fair value measurements, we define the fair value of a reporting unit as the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. We primarily use the income approach methodology of valuation, which includes the discounted cash flow method, and the market approach methodology of valuation, which considers values of comparable businesses to estimate the fair values of our reporting units. We do not believe that a cost approach is relevant to measuring the fair values of our reporting units.

Significant management judgment is required when estimating the fair value of our reporting units including the forecasting of future operating results, the discount rates and expected future growth rates that we use in the discounted cash flow method of valuation, and in the selection of comparable businesses that we use in the market approach. If the estimated fair value of the reporting unit exceeds the carrying value assigned to that unit, goodwill is not impaired and no further analysis is required.

If the carrying value assigned to a reporting unit exceeds its estimated fair value in the first step, then we are required to perform the second step of the impairment test. In this step, we assign the fair value of the reporting unit calculated in step one to all of the assets and liabilities of that reporting unit, as if a market participant just acquired the reporting unit in a business combination. The excess of the fair value of the reporting unit determined in the first step of the impairment test over the total amount assigned to the assets and liabilities in the second step of the impairment test represents the implied fair value of goodwill. If the carrying value of a reporting unit's goodwill exceeds the implied fair value of goodwill, we would record an impairment loss equal to the difference. If there is no such excess then all goodwill for a reporting unit is considered impaired.

During the fourth quarter of 2011, we determined through a two-step goodwill impairment test that the $393.4 million in goodwill for our components reporting unit was fully impaired as discussed further in Note 5. “Goodwill and Intangible Assets” to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

Results of Operations

The following table sets forth our consolidated statements of operations as a percentage of net sales for the years ended December 31, 2011, December 31, 2010, and December 26, 2009:

	Years Ended		
	December 31, 2011	December 31, 2010	December 26, 2009
Net sales	100.0 %	100.0 %	100.0 %
Cost of sales	64.9 %	53.8 %	49.4 %
Gross profit	35.1 %	46.2 %	50.6 %
Research and development	5.1 %	3.7 %	3.8 %
Selling, general and administrative	14.9 %	12.5 %	13.2 %
Production start-up	1.2 %	0.8 %	0.7 %
Goodwill impairment	14.2 %	— %	— %
Restructuring	2.2 %	— %	— %
Operating (loss) income	(2.5)%	29.2 %	32.9 %
Foreign currency gain (loss)	— %	(0.1)%	0.3 %
Interest income	0.5 %	0.6 %	0.5 %
Interest expense, net	— %	— %	(0.3)%
Other income (expense), net	— %	0.1 %	(0.1)%
Income tax (benefit) expense	(0.5)%	3.8 %	2.2 %
Net (loss) income	(1.4)%	26.0 %	31.1 %

Fiscal Years Ended December 31, 2011 and December 31, 2010

Net Sales

	Years Ended		Year Over	
(Dollars in thousands)	2011	2010	Year Change	
Net sales	$2,766,207	$2,563,515	$202,692	8 %

The 8% increase in net sales for 2011 compared to 2010 was primarily due to an 85% increase in net sales by our systems business and a 7% increase in the volume in watts of solar modules sold, partially offset by a 10% decrease in our module average selling price (ASP).

The 10% decline in our module ASP was attributable to a 15% decrease of our non-systems module ASP due to competitive pressures and geographic mix, partially offset by a 5% increase of our systems module ASP driven primarily by the mix of systems projects.

Net sales for our systems business increased by $320.0 million during 2011 compared to 2010, primarily due to an increase in the number and size of the various utility-scale solar power systems under construction by us in 2011.

Cost of Sales

	Years Ended		Year Over	
(Dollars in thousands)	2011	2010	Year Change	
Cost of sales	$1,794,456	$1,378,669	$415,787	30 %
% of net sales	64.9 %	53.8 %		

The increase in cost of sales was primarily due to increases of $218.9 million in BoS and other construction costs from an increase in the number and size of the various utility-scale solar power systems under construction by us in 2011, $71.2 million in personnel and other manufacturing costs related to the increase in volume of modules sold, $31.6 million of expense from voluntary remediation efforts for module removal, replacement and logistical services related to the manufacturing excursion discussed in "—2008-2009 Manufacturing Excursion" above, $70.1 million of expense due to an increase in the expected number of replacement modules required for such remediation efforts, $37.8 million for

an increase in the expected number of warranty claims primarily related to potential module performance in certain climates, as described in “Module Installation in Non-Temperate Climates” above, and $13.8 million for certain inventory write-downs, primarily related to refurbished modules returned under the voluntary remediation efforts, as a result of ASP declines during the fourth quarter of 2011. These increases were partially offset by continuous cost reductions in our manufacturing operations.

We expensed $99.7 million total-to-date in connection with our voluntary remediation efforts for module removal, replacement and logistical services related to the manufacturing excursion and $70.1 million in warranty expense accruals related to an increase in the expected number of required replacement modules in connection with our remediation efforts. Such amounts include $132.3 million of expense in 2011 and $94.0 million in expenses in the fourth quarter of 2011, reflecting our most recent best estimate for these remediation efforts. See Note 8. “Consolidated Balance Sheet Details,” and Note 16. “Commitments and Contingencies,” to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

Our average manufacturing cost per watt declined by $0.02 per watt, or 3%, from $0.77 in 2010 to $0.75 in 2011 and included $0.01 of non-cash stock based compensation.

Gross Profit

	Years Ended			Year Over	
(Dollars in thousands)	2011		2010	Year Change	
Gross profit	$971,751		$1,184,846	$(213,095)	(18)%
% of net sales	35.1	%	46.2	%	

Gross profit as a percentage of net sales decreased by 11.1 percentage points in 2011 compared with 2010. This decrease was attributable to the following: a 6.1 percentage point reduction due to a decline in our module ASP, a 1.5 percentage point reduction relating to voluntary remediation efforts for affected module removal, replacement and logistical services related to the manufacturing excursion discussed in Item 7: “2008-2009 Manufacturing Excursion” in this Annual Report on Form 10-K, a 3.3 percentage point reduction due to an increase in the expected number of required replacement modules for such excursion related remediation efforts, a 1.8 percentage point reduction due to an increase in expected warranty claims for potential module performance in certain climates, and a 0.6 percentage point reduction due to inventory write-downs. These decreases were partially offset by a 1.9 percentage point increase attributable to continued manufacturing scale and reductions in our manufacturing cost per watt, a 0.2 percentage point increase due to segment mix between our components and systems businesses, and a 0.1 percentage point increase due to the weakening of the euro against the U.S. dollar exchange rate. We expect that gross profit will continue to be impacted in future periods by the product mix between our components and systems businesses.

Research and Development

	Years Ended			Year Over	
(Dollars in thousands)	2011		2010	Year Change	
Research and development	$140,523		$94,797	$45,726	48%
% of net sales	5.1	%	3.7	%	

The increase in research and development expense was primarily due to a $19.3 million increase in personnel-related expenses (including a $4.5 million increase in share-based compensation expense) resulting from hiring for increased investment in various research and development projects, a $25.6 million increase in testing and qualification material cost, and a $2.3 million increase in facilities and utilities expenses. These increases were partially offset by a decrease in other expenses of $1.5 million. During 2011 we continued the development of our solar module technology by increasing the conversion efficiency of our modules by approximately 5% compared to 2010 from 11.3% to 11.9%.

Selling, General and Administrative

	Years Ended			Year Over	
(Dollars in thousands)	2011		2010	Year Change	
Selling, general and administrative	$412,541		$321,704	$90,837	28%
% of net sales	14.9	%	12.5	%	

The increase in selling, general and administrative expense was primarily due to $34.8 million in estimated compensation payments to customers, under certain circumstances, for power lost prior to the remediation of the customer's system under our voluntary remediation program discussed above in "—2008-2009 Manufacturing Excursion," a $15.2 million increase in infrastructure spending partially related to the implementation of a new ERP system, $14.5 million increase in salaries and personnel-related expenses (including a $1.5 million increase in share-based compensation expense), a $10.5 million allowance for doubtful accounts concerning the collectability of past due accounts receivable for a certain customer, an $8.6 million increase in expenses related to the development of systems projects and new markets, and a $7.3 million increase in expenses related to professional fees, facilities, and other operating expenses.

We expensed $45.9 million total-to-date for compensation payments to customers for power lost prior to the remediation of the customer's system under our voluntary remediation program discussed above in "—2008-2009 Manufacturing Excursion." Such amounts include $40.3 million of expense in 2011 and $31.8 million in expenses in the fourth quarter of 2011, reflecting our most recent best estimate.

Production Start-Up

	Years Ended			Year Over	
(Dollars in thousands)	2011	2010		Year Change	
Production start-up	$33,620	$19,442		$14,178	73 %
% of net sales	1.2 %	0.8 %			

During 2011, we incurred $33.6 million of production start-up expenses primarily due to manufacturing expansion activity in Germany, Malaysia, Vietnam, France, and Arizona, including legal, regulatory and personnel costs, compared with $19.4 million of production start-up expenses for manufacturing expansion activity in Malaysia, France, Ohio, and Germany during 2010. Production start-up expenses are comprised of the cost of labor and material and depreciation expense to run and qualify the production lines, related facility expenses, management of our replication process, and legal and regulatory costs.

Goodwill impairment

	Years Ended			Year Over	
(Dollars in thousands)	2011	2010		Year Change	
Goodwill impairment	$393,365	$—		$393,365	100 %
% of net sales	14.2 %	— %			

As of December 31, 2010, the $393.4 million in goodwill related to our components reporting unit primarily represented goodwill originally allocated from the acquisitions of OptiSolar in 2009 and NextLight in 2010. The allocation of substantially all the goodwill from these acquisitions to our components reporting unit represented the expected synergies, economies of scale and vertical integration our components business would realize from using our solar modules in the project pipelines obtained from these acquisitions. The goodwill allocation to our components business was consistent with our historical view that the systems business functioned as an enabler for the components business to drive module throughput. Once goodwill has been assigned to a reporting unit, for accounting purposes, the goodwill is no longer associated with the underlying acquisitions that the goodwill originated from.

We determined the implied fair value of goodwill in the components reporting unit to be zero as of December 31, 2011. As a result, we impaired all of the goodwill in the components reporting unit and recorded $393.4 million of impairment expense.

See Note 5. "Goodwill and Intangible Assets," to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

Restructuring

	Years Ended			Year Over	
(Dollars in thousands)	2011	2010		Year Change	
Restructuring	$60,366	$—		$60,366	100 %
% of net sales	2.2 %	— %			

During 2011, we incurred $60.4 million of restructuring expenses due to charges relating to a series of initiatives to accelerate operating cost reductions and improve overall operating efficiency. See Note 4. "Restructuring and

Acquisitions," to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

Foreign currency gain (loss)

	Years Ended		Year Over	
(Dollars in thousands)	2011	2010	Year Change	
Foreign currency gain (loss)	$995	$(3,468)	$4,463	(129)%

Foreign exchange gain increased during 2011 compared with 2010 primarily due to a decrease in our foreign currency denominated assets and liabilities in 2011.

Interest Income

	Years Ended		Year Over Year Change	
(Dollars in thousands)	2011	2010		
Interest income	$13,391	$14,375	$(984)	(7)%

Interest income decreased during 2011 compared with 2010 primarily as a result of interest received from notes receivable and penalties for late customer payments during 2010, partially offset by interest received on long-term investments during 2011.

Interest Expense, Net

	Years Ended		Year Over Year Change	
(Dollars in thousands)	2011	2010		
Interest expense, net	$(100)	$(6)	$(94)	1,567%

Interest expense, net of amounts capitalized, remained consistent during 2011 compared with 2010, as a result of substantially all interest expense being capitalized during both periods. See Note 8. “Consolidated Balance Sheet Details,” to our consolidated financial statements for the year ended December 31, 2011 included in this Annual Report on Form 10-K.

Other Income (Expense), Net

	Years Ended		Year Over Year Change	
(Dollars in thousands)	2011	2010		
Other income (expense), net	$665	$2,273	$(1,608)	(71)%

Other income, net, decreased during 2011 compared with 2010, primarily as a result of a realized gain associated with the sale of our equity investment in a related party in 2010 and changes in fair value of certain foreign exchange contracts in 2011, partially offset by realized gains on the sale of fixed income investments in 2011.

Income Tax (Benefit) Expense

	Years Ended		Year Over Year Change	
(Dollars in thousands)	2011	2010		
Income tax (benefit) expense	$(14,220)	$97,876	$(112,096)	(115)%
Effective tax rate	(26.5)%	12.8%		

Income tax (benefit) expense decreased by $112.1 million during 2011 compared with 2010. The reduction in income tax expense in 2011 compared to 2010 was primarily attributable to the reduction in pre-tax profits during such periods and a greater percentage of profits earned in lower tax jurisdictions, offset by an increase in tax expense related to the impairment of non-deductible goodwill. See Note 20. “Income Taxes,” to our consolidated financial statements included in this Annual Report on Form 10-K for additional information.

Fiscal Years Ended December 31, 2010 and December 26, 2009

Net Sales

	Years Ended		Year Over Year Change
(Dollars in thousands)	2010	2009	

Net sales	$2,563,515	$2,066,200	$497,315	24	%

The increase in net sales was primarily driven by strong demand from German customers in advance of further FiT reductions, an increase in revenue from our systems business, and an increase in production volume, resulting in a 28% increase in megawatts sold during 2010 compared with 2009. These increases were partially offset by a decrease in our module ASP. The increase in megawatts sold was attributable to the full production ramp of our four-plant Malaysian manufacturing center in 2009, full

production ramp of our Perrysburg, Ohio expansion in 2010, continued improvements to our manufacturing process and line throughput, and growth in our systems business. In addition, we increased the average conversion efficiency of our modules by approximately 3% during 2010 compared with 2009. Our module ASP, excluding the impact of systems segment break-even reporting, decreased by approximately 10% during 2010 compared with 2009. The decline in our module average selling price was attributable to the following: a 5% decrease due to market price declines driven by FiT reductions in Europe, a 5% decrease due to annual contractual agreements, and a 2% decrease due to the weakening of the euro against the U.S. dollar exchange rate, partially offset by a 2% increase due to a shift in customer mix. Revenue recognized by our systems business during 2010 was $378.4 million and resulted primarily from the sale of utility-scale solar power systems in Europe and North America and from percentage-of-completion revenue recognition for utility-scale solar power systems in North America. During 2010 and 2009, 46% and 65%, respectively, of our net sales resulted from solar module sales to customers headquartered in Germany.

Cost of Sales

	Years Ended		Year Over	
(Dollars in thousands)	2010	2009	Year Change	
Cost of sales	$1,378,669	$1,021,618	$357,051	35 %
% of net sales	53.8 %	49.4 %		

The increase in cost of sales was due to higher sales volumes, including an increase in the completion and sale of utility-scale solar power projects by our systems business, the full production ramp of our first four plants at our Malaysian manufacturing center in 2009, and the full production ramp of our Perrysburg, Ohio expansion in 2010. The increased production and sales volumes in our components business and increased volume sold through our systems business had the following effects: a $225.4 million increase in direct material expense, a $79.2 million increase in manufacturing overhead costs, an $18.0 million increase in sales freight, a $18.2 million increase in warranty expense, and a $16.3 million net increase in other costs.

The $79.2 million increase in manufacturing overhead costs for 2010 was due to a $32.9 million increase in salaries and personnel-related expenses (including a $10.8 million increase in share-based compensation expense), a $17.0 million increase in depreciation and equipment expenses, a $2.0 million increase in facility related expenses, and a $27.3 million increase in incremental systems costs. Each of these manufacturing overhead cost increases primarily resulted from increased production capacity resulting from the full ramp of our Malaysian manufacturing center, expansion of our Perrysburg, Ohio plant, and ramp of our systems business.

The net increase in other costs for 2010 includes $23.7 million related to an increase in estimated expenses for certain module replacement efforts beyond normal warranty related to the manufacturing excursion described above under "—2008-2009 Manufacturing Excursion." Accordingly, we accrued additional expenses of $30.8 million in 2010 and $37.9 million in total-to-date to cover the replacement of the anticipated affected module population in the field. Such amounts include $8.5 million in expenses accrued during the fourth fiscal quarter of 2010, reflecting updated best estimates of the total replacement costs, based on our field data and execution to date of the module replacement program.

Our average manufacturing cost per watt declined by $0.10 per watt, or 11%, from $0.87 in 2009 to $0.77 in 2010 and included $0.02 of non-cash stock based compensation.

Gross Profit

	Years Ended		Year Over	
(Dollars in thousands)	2010	2009	Year Change	
Gross profit	$1,184,846	$1,044,582	$140,264	13 %
% of net sales	46.2 %	50.6 %		

Gross profit as a percentage of net sales decreased by 4.4 percentage points in 2010 compared with 2009. This decrease was attributable to the following: a 4.0 percentage point reduction due to a decline in our module ASP, a 3.9 percentage point reduction due to segment mix between our components and systems businesses, a 1.1 percentage point reduction relating to the manufacturing excursion discussed above under "—2008-2009 Manufacturing Excursion," and a 0.6 percentage point reduction due to the weakening of the euro against the U.S. dollar exchange rate, partially offset by a 5.2 percentage point margin improvement attributable to continued manufacturing scale and reductions in our manufacturing cost per watt. We expect that gross profit will be impacted in future periods by the volatility of the exchange rate between the U.S. dollar and the euro and product mix between our components and systems businesses.

Research and Development

(Dollars in thousands)	Years Ended 2010		2009		Year Over Year Change		
Research and development	$94,797		$78,161		$16,636	21	%
% of net sales	3.7	%	3.8	%			

The increase in research and development expense was due to a $10.6 million increase in personnel-related expenses (including a $2.2 million increase in share-based compensation expense) resulting from increased headcount devoted to working on various projects to increase the efficiency of our modules at converting sunlight into electricity, and a $9.6 million increase in depreciation, testing, and qualification material costs, partially offset by a $3.6 million decrease in other expenses. During 2010, we continued the development of solar modules with increased efficiencies at converting sunlight into electricity and increased the conversion efficiency of our modules by approximately 3% compared with 2009.

Selling, General and Administrative

(Dollars in thousands)	Years Ended 2010		2009		Year Over Year Change		
Selling, general and administrative	$321,704		$272,898		$48,806	18	%
% of net sales	12.5	%	13.2	%			

The increase in selling, general and administrative expense was due to a $2.7 million increase in salaries and personnel-related expenses due to growth (after giving effect to a $2.5 million decrease in share-based compensation expense due to one-time charges associated with our executive management team in 2009), a $17.6 million increase in expenses related to our systems business, a $14.8 million increase in facility and depreciation expenses, a $6.3 million increase in professional fees and expenses associated with the implementation of a new ERP system, and a $7.4 million increase in other expenses. Selling, general and administrative expense also included $5.3 million of other operating expenses related to impairment charges of certain project assets.

Production Start-Up

(Dollars in thousands)	Years Ended 2010		2009		Year Over Year Change		
Production start-up	$19,442		$13,908		$5,534	40	%
% of net sales	0.8	%	0.7	%			

During 2010, we incurred $19.4 million of production start-up expenses for our eight-line Malaysian, four-line German, one-line Perrysburg, Ohio, and two-line Blanquefort, France manufacturing expansions, including legal, regulatory, and personnel costs, compared with $13.9 million of production start-up expenses for our Malaysian and Perrysburg, Ohio manufacturing expansions during 2009. Production start-up expenses are composed of the cost of labor and material and depreciation expense to run and qualify the production lines, related facility expenses, management of our replication process, and legal and regulatory costs.

Foreign Currency Gain (Loss)

(Dollars in thousands)	Years Ended 2010		2009		Year Over Year Change		
Foreign currency gain (loss)	$(3,468)		$5,207		$(8,675)	(167)	%

Foreign exchange gain decreased during 2010 compared with 2009 due to an increase in our foreign currency denominated assets and liabilities and volatility of the U.S. dollar relative to other currencies, in particular the euro.

Interest Income

(Dollars in thousands)	Years Ended 2010	2009	Year Over Year Change		
Interest income	$14,375	$9,735	$4,640	48	%

Interest income increased during 2010 compared with 2009 primarily as a result of an increase in the average interest bearing cash and investment balances year over year and interest earned from notes receivable.

Interest Expense, Net

(Dollars in thousands)	Years Ended 2010	2009	Year Over Year Change	
Interest expense, net	$(6)	$(5,258)	$5,252	(100)%

Interest expense, net of amounts capitalized, decreased during 2010 compared with 2009, primarily as a result of higher amounts of interest expense capitalized during 2010. In addition, interest expense, net for 2009 included a $2.4 million expense related to the termination of the interest rate swaps for our German debt facility. We fully repaid this facility on June 30, 2009.

Other Income (Expense), Net

(Dollars in thousands)	Years Ended 2010	2009	Year Over Year Change	
Other income (expense), net	$2,273	$(2,985)	$5,258	(176)%

Other income during 2010 primarily resulted from a realized gain associated with the sale of our equity investment in a related party, partially offset by other expenses. Other expense during 2009 primarily resulted from nonrecurring expenses associated with our credit default swaps.

Income Tax (Benefit) Expense

(Dollars in thousands)	Years Ended 2010	2009	Year Over Year Change	
Income tax expense	$97,876	$46,176	$51,700	112 %
Effective tax rate	12.8 %	6.7 %		

Income tax expense increased by $51.7 million during 2010 compared with 2009. Of this increase, $13.8 million related to a one-time non-cash tax charge in connection with our decision to repatriate approximately $300 million of earnings from certain of our foreign subsidiaries prior to January 1, 2011, when recently enacted U.S. international tax legislation became effective. In addition, $11.5 million related to a one-time tax benefit recorded in 2009 in connection with the pull-forward of the Malaysian tax holiday from 2008. Substantially all of the remainder of the increase related to a $75.8 million increase in pre-tax income and a greater percentage of profits earned in higher tax jurisdictions. See Note 20. “Income Taxes,” to our consolidated financial statements included in this Annual Report on Form 10-K for additional information.

Business Segment Review

(Dollars in thousands)	Years Ended 2011	2010	Year/Year % Change	Years Ended 2010	2009	Year/Year % Change
Net sales						
Components	$2,067,887	$2,185,165	(5)%	$2,185,165	$1,965,437	11 %
Systems	698,320	378,350	85 %	378,350	100,763	275 %
Total	$2,766,207	$2,563,515	8 %	$2,563,515	$2,066,200	24 %
(Loss) income before income taxes (Segment profit)						
Components	$(53,713)	$762,077	(107)%	$762,077	$686,314	11 %
Systems	—	—		—	—	
Total	$(53,713)	$762,077	(107)%	$762,077	$686,314	11 %

Our Chief Operating Decision Maker (CODM), consisting of certain members of senior executive staff, has viewed the manufacturing and sale of solar modules from the components segment as the core driver of our resource allocation, profitability, and cash throughput. All sales or service offerings from our systems segment are for PV solar power systems that use our solar modules, which are designed and manufactured by our components segment. As a result, we have viewed our systems segment

as an enabler to drive module throughput. Our systems segment enables solar module throughput by developing state of the art construction techniques and process management to reduce the installed cost of our PV systems and, accordingly, this business was not intended to generate profits that are independent of the underlying solar modules sold with such systems segment service offerings. Therefore, for the fiscal years 2011, 2010 and 2009, our CODM viewed the primary objective of our systems segment to be achieving break-even results before income taxes. We include all sales of our solar modules manufactured by our components segment and installed in projects sold by our systems segment in “net sales” of our components business. See Note 24. “Segment and Geographical Information,” to our consolidated financial statements included in this Annual Report on Form 10-K.

Components Segment

	Years Ended		Year/Year	Years Ended		Year/Year
(Dollars in thousands)	2011	2010	% Change	2010	2009	% Change
Net sales	$2,067,887	$2,185,165	(5)%	$2,185,165	$1,965,437	11 %
Cost of sales	$1,275,436	$1,078,536	18 %	$1,078,536	$928,039	16 %
(Loss) income before income taxes (Segment profit)	$(53,713)	$762,077	(107)%	$762,077	$686,314	11 %

Components segment net sales decreased by 5% during 2011 compared with 2010, primarily due to lower ASP due to competitive pressure. Our module ASP, excluding the impact of systems segment break-even reporting, decreased by approximately 10% during 2011 compared with 2010. The decline in our module ASP was attributable to a 15% decrease of our non-systems module ASP due to competitive pressures and geographic mix. The decrease was partially offset by a 5% increase of our systems module ASP driven primarily by the mix of systems projects recognized in revenue. The effect of our segment reporting adjustments, to achieve break-even results before income taxes for our systems segment, decreased the module average selling price by an additional 1%.

Components segment net sales increased by 11% during 2010 compared with 2009, primarily driven by price elasticity that resulted in strong demand for our solar modules as prices declined, increased net sales attributable to modules installed in utility-scale solar power systems for which we have recognized revenue, an increase in production volume as a result of bringing additional manufacturing lines into full production, and continued improvements to our manufacturing process.

Components segment cost of sales increased by 18% during 2011 compared with 2010, and by 16% during 2010 compared with 2009, primarily due to higher production and sales volumes. In addition, cost of sales increased in 2011 compared to 2010 due to increased expense from voluntary remediation efforts related to the manufacturing excursion costs discussed above under "—2008-2009 Manufacturing Excursion."

Components segment profit decreased by 107% during 2011 compared with 2010, primarily due to goodwill impairment, lower average selling price, and higher costs resulting from the manufacturing excursion and related remediation program discussed above under "—2008-2009 Manufacturing Excursion,” partially offset by an increase in the MW volume of solar modules sold. Components segment profit increased by 11% during 2010 compared with 2009, primarily due to an increase in the MW volume of solar modules sold, reductions in our manufacturing cost per watt, and by increased throughput, partially offset by a decline in our module average selling price and certain manufacturing excursion and warranty related expenses.

Systems Segment

	Years Ended		Year/Year	Years Ended		Year/Year

(Dollars in thousands)	2011	2010	% Change	2010	2009	% Change
Net sales	$698,320	$378,350	85 %	$378,350	$100,763	275 %
Cost of sales	$519,020	$300,133	73 %	$300,133	$93,579	221 %
(Loss) income before income taxes (Segment profit)	$—	$—		$—	$—	

Systems segment net sales increased from $378.4 million during 2010 to $698.3 million during 2011, reflecting primarily the completion and sale of, or percentage-of-completion revenue recognition for, various utility-scale solar power systems in North America.

Systems segment net sales increased from $100.8 million during 2009 to $378.4 million during 2010, reflecting primarily the sale of, or percentage-of-completion recognition for, various utility-scale solar power systems in North America and Europe.

Systems segment cost of sales increased from $300.1 million in 2010 to $519.0 million in 2011, and from $93.6 million in 2009 to $300.1 million in 2010, primarily due to the increase in construction activities for various utility-scale solar power projects in North America during these periods.

Systems segment profit was zero for 2011, 2010, and 2009. As noted above, we operate our systems segment with the objective to achieve break-even results before income taxes. See Note 24. “Segment and Geographical Information,” to our consolidated financial statements included in this Annual Report on Form 10-K for more information.

Product Revenue

The following table sets forth the total amounts of solar modules and solar power systems revenue recognized for the years ended December 31, 2011, December 31, 2010, and December 26, 2009. For the purposes of the following table, (a) “solar module revenue” is composed of total revenues from the sale of solar modules to third parties, and (b) “solar power systems revenue” is composed of total revenues from the sale of complete solar power systems and related services including the solar modules installed in the solar power systems.

(Dollars in thousands)	2011	2010	2009
Solar module revenue	$1,523,695	$1,986,746	$1,903,765
Solar power system revenue	1,242,512	576,769	162,435
Net sales	$2,766,207	$2,563,515	$2,066,200

Liquidity and Capital Resources

We believe that our current cash and cash equivalents, marketable securities, cash flows from operating activities, revolving credit facility, and access to the capital markets will be sufficient to meet our working capital and capital expenditure needs for at least the next 12 months. We intend to continue to carefully execute our Long Term Strategic Plan and manage credit and market risk. However, if our financial results or operating plans change from our current assumptions, we may not have sufficient resources to support the execution of our Long Term Strategic Plan.

Cash generated from operations is our primary source of operating liquidity and we believe that internally generated cash flows combined with our existing cash and cash equivalents, marketable securities and availability under our revolving credit facility are sufficient to support day-to-day business operations. Our treasury department monitors the efficiency of our balance sheet to ensure we have adequate liquidity, both domestically and internationally, to support the execution of our Long Term Strategic Plan.

As of December 31, 2011, we had $788.0 million in cash, cash equivalents, and marketable securities, compared with $1,113.8 million as of December 31, 2010. As of December 31, 2011 and December 31, 2010, $638.9 million and $684.0 million, respectively, of our cash, cash equivalents, and marketable securities were held by foreign subsidiaries and are generally based in euros and U.S. dollar-denominated holdings. We utilize a variety of tax planning and financing strategies in an effort to ensure that our worldwide cash is available in the locations in which it is needed.

We intend to maintain appropriate debt levels based upon cash flow expectations, the overall cost of capital, and cash requirements for operations, capital expenditures and discretionary strategic spending. We believe that when necessary, we will have adequate access to capital markets, although our ability to raise capital on terms commercially acceptable to us could be constrained if there is insufficient investor interest due to industry-wide or company-specific

concerns. We have an active shelf registration statement filed with the SEC for the issuance of debt or equity securities if needed.

Our expanding systems business required increased liquidity in 2011 and is expected to continue to have significant liquidity requirements in the future. Solar power project development cycles, which span the time between the identification of a site location to the commercial operation of a PV power plant, vary substantially and can take many years to mature. As a result of these long project cycles, we may need to make significant up-front investments of resources in advance of the receipt of any cash flows from the sale of or payments for such systems projects. These amounts include payment of interconnection and other deposits (some of which are non-refundable), posting of letters of credit, and incurring engineering, permitting, legal, and other expenses. Additionally, we may have to use our working capital or the availability under our revolving credit facility to finance the construction of our systems projects, if such projects cannot be sold before construction begins. Depending upon the size and

number of projects that we are developing and self-financing the construction of, the systems business may require significant liquidity. For example, we may have to substantially complete the construction of a systems project before such project is sold. We have historically financed these up-front investments for project development and when necessary, construction, primarily using working capital.

In the future, we may also engage in one or more debt or equity financings. Such financings could result in increased expenses or dilution to our existing stockholders. If we are unable to obtain debt or equity financing on reasonable terms, we may be unable to execute our Long Term Strategic Plan.

The following significant developments in 2011 have impacted or are expected to impact our liquidity:

- On May 18, 2011, in connection with the plant expansion at our German manufacturing center, FSM GmbH, our indirect wholly owned subsidiary, entered into a credit facility agreement (German Facility Agreement), which consisted of the following balances as of December 31, 2011(in thousands):

Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011
EURIBOR plus 1.35%	2019	EUR	€124,500	€107,923	€16,577

See also Note 15. “Debt,” and Note 7. “Restricted Cash and Investments,” to our consolidated financial statements included in this Annual Report on Form 10-K for further information about this facility.

- On June 30, 2011, in connection with the plant expansion at our Malaysian manufacturing center, FS Malaysia, our indirect wholly owned subsidiary, entered into a credit facility agreement (Malaysian Ringgit Facility Agreement), which consisted of the following at December 31, 2011 (in thousands):

Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011
KLIBOR plus 2.00%	2018	MYR	RM465,000	RM465,000	RM—

See also Note 15. “Debt,” to our consolidated financial statements included in this Annual Report on Form 10-K for further information about this facility.

- On August 3, 2011, in connection with the plant expansion at our Malaysian manufacturing center, FS Malaysia, our indirect wholly owned subsidiary, entered into a credit facility agreement (Malaysian Euro Facility Agreement), which consisted of the following at December 31, 2011 (in thousands):

Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011
EURIBOR plus 1.00%	2018	EUR	€60,000	€52,046	€—

See also Note 15. “Debt,” to our consolidated financial statements included in this Annual Report on Form 10-K for further information about this facility.

- During 2011, we made significant capital expenditures related to the construction of manufacturing plants in Vietnam and Mesa, Arizona including expenditures for machinery and equipment for eight manufacturing lines. In February

2012 we decided to not proceed with our previously announced 4-line plant in Vietnam. See Note 4. “Restructuring and Acquisitions,” to our consolidated financial statements included in this Annual Report on Form 10-K. We have also postponed the commissioning of our previously announced 4-line plant in Mesa, Arizona until global supply and demand dynamics support the additional manufacturing capacity. We expect to continue to make any necessary capital expenditures for these locations during 2012 to continue any necessary construction and to acquire the underlying machinery and equipment. Taking into account our expected restructuring and impairment charges, and potential additional future charges as we seek to align our manufacturing production with market demand, we could in the future incur significant additional restructuring costs (including potentially the repayment of debt facilities and other amounts, the payment of severance

to terminated employees, and other costs) that could substantially reduce our liquidity position to the point where we need to pursue additional sources of financing, assuming such sources are available to us.

- During 2011, the amount of unbilled A/R increased to $533.4 million and represents revenues recognized on the construction of systems projects in advance of billing the customer under the terms of the underlying construction contracts. Such unbilled A/R represents construction we have funded with working capital and such amounts are expected to be billed and collected from customers during 2012.

The unprecedented disruption in the credit markets that began in 2008 and the current instability in the Euro Zone have had a significant adverse impact on a number of financial institutions. The ongoing sovereign debt crisis in Europe and its impact on the balance sheets and lending practices of European banks in particular could negatively impact our access to, and cost of, capital, and therefore could have an adverse effect on our business, results of operations, financial condition and competitive position. It could also similarly affect our customers and therefore limit the sales of our modules and demand for our systems business as well. As of December 31, 2011, our liquidity and investments have not been materially adversely impacted by the current credit environment and we believe that they will not be materially adversely impacted in the near future. We will continue to closely monitor our liquidity and the credit markets. However, we cannot predict with any certainty the impact to us of any further disruption in the credit environment.

Cash Flows

The following table summarizes the key cash flow metrics for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 (in thousands):

	Years Ended		
	2011	2010	2009
Net cash (used in) provided by operating activities	$(33,463)	$705,492	$675,193
Net cash used in investing activities	(676,457)	(742,085)	(701,690)
Net cash provided by (used in) financing activities	571,218	150,451	(22,021)
Effect of exchange rate changes on cash and cash equivalents	(21,368)	(12,668)	(3,201)
Net (decrease) increase in cash and cash equivalents	$(160,070)	$101,190	$(51,719)

Operating Activities

Cash used by operating activities was $33.5 million during 2011, compared with cash provided by operating activities of $705.5 million during 2010 and $675.2 million during 2009. The decrease in operating cash flows during 2011 was primarily due to the difference between net cash received from customers and net cash paid to suppliers being significantly less than in 2010 and 2009. This disparity was primarily the result of an increase in accounts receivable, unbilled, which represents revenue that has been recognized in advance of billing the customer. This is common for construction contracts. Although such construction work did not result in cash received from customers, the underlying cost of construction activities resulted in cash paid to suppliers creating a timing difference for cash flows from operating activities. Accounts receivable, unbilled as of December 31, 2011 is expected to be billed and collected within the next 12 months. Another significant driver of the decrease was the increase from 2010 in inventories and BoS parts, which resulted in an increase in cash paid to suppliers, but as such inventories and BoS parts were not yet sold, there was no corresponding cash received from customers. The remaining decrease in cash provided by operating activities was the result of net differences in excess tax benefits from share-based compensation arrangements, income taxes paid, interest received and interest paid in 2011 compared to 2010 and 2009.

Investing Activities

Cash used in investing activities was $676.5 million during 2011, compared with $742.1 million during 2010 and $701.7 million during 2009. The decrease in cash used in investing activities was primarily the result of less acquisition activity in 2011 compared to 2010, and a larger net inflow from sales, maturities, and purchases of marketable securities in 2011 than in 2010 and 2009. Those increases were primarily offset by more capital expenditures during 2011 compared to 2010 and 2009 due to completion of two new plants in Malaysia, completion of expansions in Frankfurt/Oder Germany and Perrysburg, Ohio, and construction of new plants in Vietnam and Mesa, Arizona.

During 2011, we made significant capital expenditures related to the construction of manufacturing plants in Vietnam and Mesa, Arizona including expenditures for machinery and equipment for eight manufacturing lines. The balancing of our production capabilities with market demand is a core component of our manufacturing capacity expansion strategy and our Long Term Strategic

Plan. As discussed above, we will not construct our previously announced 4-line plant in Vietnam, and have indefinitely postponed the commissioning of our previously announced 4-line plant in Mesa, Arizona and the construction of our previously announced 2-line plant in France until global supply and demand dynamics support the additional manufacturing capacity. Although the timing for production from these plants is uncertain, we expect to continue to make any necessary capital expenditures for these capacity expansions during 2012 to continue construction and to acquire the underlying machinery and equipment.

Financing Activities

Cash provided by financing activities was $571.2 million during 2011 compared with cash provided by financing activities of $150.5 million during 2010 and cash used in financing of $22.0 million during 2009.

Cash provided by financing activities resulted primarily from proceeds of $370.1 million from borrowings on our Malaysian Ringgit Facility Agreement, German Facility Agreement, and Malaysian Euro Facility along with $100.0 million of net proceeds from drawdowns on our Revolving Credit Facility. Additionally, we recorded excess tax benefits from share-based compensation arrangements of $110.8 million and received cash from employee stock option exercises of $8.3 million. We used $33.8 million of cash for the repayment of long-term debt.

Cash provided by financing activities during 2010 resulted primarily from proceeds received from draw downs on our revolving credit facility of $100.0 million, excess tax benefits from share-based compensation arrangements of $69.4 million as described below, and by cash received from employee stock option exercises of $9.4 million, partially offset by the repayment of long-term debt of $27.9 million.

During the year ended December 31, 2010, we realized $69.4 million of excess tax benefits related to share-based compensation arrangements from the utilization of net operating loss carryforwards comprised of excess tax deductions primarily as a result of our decision to repatriate approximately $300 million of earnings from certain of our foreign subsidiaries.

Cash used in financing activities during 2009 resulted primarily from the repayment of long-term debt of $78.2 million, partially offset by draw downs on our prior Malaysian facility agreement, net of issuance costs, of $44.7 million related to the equipment export financing agreement for our Malaysian manufacturing center. Proceeds from the issuance of employee stock options during 2009 were $6.0 million. Excess tax benefits from share-based compensation arrangements during 2009 were $4.9 million.

Contractual Obligations

The following table presents our contractual obligations as of December 31, 2011, which consists of legal commitments requiring us to make fixed or determinable cash payments. We purchase raw materials for inventory, services, and manufacturing equipment from a variety of vendors. We also enter into construction contracts for the construction of new or expansion of existing manufacturing plants. During the normal course of business, in order to manage manufacturing lead times and help assure adequate supply, we enter into agreements with suppliers that either allow us to procure goods and services when we choose or that establish purchase requirements.

		Payments Due by Year			
Contractual Obligations	Total	Less Than 1 Year	1 - 3 Years	3 - 5 Years	More Than 5 Years
	(In thousands)				
Long-term debt obligations	$667,544	$46,368	$160,412	$335,359	$125,405
Interest payments (1)	71,764	19,651	32,226	15,130	4,757
Capital lease obligations	2,839	492	1,016	908	423

Operating lease obligations	95,184	13,113	27,329	24,748	29,994
Purchase obligations (2)	1,516,527	407,154	319,373	283,753	506,247
Recycling obligations	167,378	—	—	—	167,378
Other obligations (3)	$20,817	$5,560	$10,578	$4,189	$490
Total	$2,542,053	$492,338	$550,934	$664,087	$834,694

(1) Includes estimated cash interest to be paid over the remaining terms of the debt. Interest payments are based on fixed and floating rates in effect at December 31, 2011 and include the effect of interest rate swap agreements and cross currency swap agreements.

(2) Purchase obligations are agreements to purchase goods or services that are non-cancellable, enforceable and legally binding on us and that specify all significant terms, including fixed or minimum quantities to be purchased, fixed minimum, or variable price provisions, and the approximate timing of transactions.

(3) Includes expected letter of credit fees, unused capacity fees for our revolving credit facility, and a debt surety (guarantee) fee for our German Facility Agreement.

In addition to the amounts shown in the table above, we have recorded $82.9 million of unrecognized tax benefits as liabilities in accordance with ASC 740, Income Taxes, and we are uncertain as to if or when such amounts may be settled.

Debt and Credit Sources

As of December 31, 2011, we had $667.5 million in outstanding long-term debt, excluding amounts related to capital leases, and $196.7 million in outstanding letters of credit and bank guarantees. Our long-term debt consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

Type	December 31, 2011	December 31, 2010
Revolving Credit Facility	$ 200,000	$ 100,000
German Facility Agreement	140,085	—
Malaysian Ringgit Facility Agreement	146,725	—
Malaysian Euro Facility Agreement	67,556	—
Malaysian Facility Agreement	102,008	130,018
Director of Development of the State of Ohio	6,337	8,112
France Facility Agreement	4,833	—
Capital lease obligations	2,440	1,736
	669,984	239,866
Less unamortized discount	(6,336)	(2,475)
Total long-term debt	663,648	237,391
Less current portion	(44,505)	(26,587)
Noncurrent portion	$ 619,143	$ 210,804

At December 31, 2011, future principal payments on our long-term debt were due as follows (in thousands):

2012	$46,368
2013	80,187
2014	80,225
2015	279,137
2016	56,222
Thereafter	125,405
Total long-term debt future principal payments	$667,544

The available capacity under our long-term debt facilities was primarily related to our Revolving Credit Facility which had $251.3 million in available capacity at December 31, 2011. We believe that when necessary, we will have adequate access to capital markets, but there may be circumstances in the future related to macroeconomic conditions or factors specific to us that could limit, or increase the cost of, capital from such markets. We have an active shelf registration statement filed with the SEC for the issuance of debt or equity securities.

We were in compliance with all debt covenants at December 31, 2011, and expect to remain in compliance with these covenants for at least the next twelve months.

See Note 15. “Debt,” to our consolidated financial statements included in this Annual Report on Form 10-K for further information about our long-term debt facilities.

Capital Expenditures

We expect to spend up to $425 million for capital expenditures during 2012, including expenditures for machinery and equipment which we believe will increase our solar module efficiencies and the necessary expenditures to continue certain construction activities and to acquire the underlying machinery and equipment for our manufacturing plants in Vietnam and Mesa, Arizona. A majority of our capital expenditures for 2012 will be incurred in foreign currencies and are therefore subject to fluctuations in currency exchange rates.

Off-Balance Sheet Arrangements

We had no off-balance sheet arrangements as of December 31, 2011.

Recent Accounting Pronouncements

See Note 3. “Recent Accounting Pronouncements,” to our consolidated financial statements included in this Annual Report on Form 10-K for a summary of recent accounting pronouncements.

Item 7A: Quantitative and Qualitative Disclosures about Market Risk

Foreign Currency Exchange Risk

Our primary foreign currency exposures are cash flow exposure, transaction exposure, and earnings translation exposure.

Cash Flow Exposure: We expect our subsidiaries to have material future cash flows, including revenues and expenses, that will be denominated in currencies other than the component's functional currency. Our primary cash flow exposures are cash received from customers and cash paid to suppliers and associates. Changes in the exchange rates between our components’ functional currencies and the other currencies in which they transact will cause fluctuations in the cash flows we expect to receive or pay when these cash flows are realized or settled. Accordingly, we enter into foreign exchange forward or cross-currency swap contracts to hedge the value of a portion of these forecasted cash flows. These foreign exchange forward and cross-currency swap contracts qualified as cash flow hedges in accordance with ASC 815, Derivatives and Hedging, and we designated them as such. We initially report the effective portion of the derivative’s gain or loss in “Accumulated other comprehensive income (loss),” and subsequently reclassify amounts into earnings when the underlying hedged transaction is settled.

Most of our German plant’s operating expenses are denominated in euros, creating natural hedges against the currency risk in our net sales. During the first half of 2011, we purchased foreign exchange forward contracts to hedge a portion of the exchange risk on forecasted cash flows denominated in euros.

Our operations in Malaysia pay a portion of their operating expenses, such as associate wages and utilities, in Malaysian ringgit, exposing us to foreign currency exchange risk for those expenses.

For additional details on our hedging instruments and activities, refer to Note 9. “Derivative Financial Instruments,” to our consolidated financial statements included in this Annual Report on Form 10-K.

Our international operations accounted for 55%, 87%, and 93% of our net sales during the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively, of which 78%, 84%, and 92% of these international sales, respectively, were denominated in euros. As a result, we have exposure to foreign currency exchange risk with respect to our net sales. Fluctuations in exchange rates, particularly in the U.S. dollar to euro exchange rate and U.S. dollar to Malaysian ringgit, affect our gross and net profit margins and could result in foreign exchange and operating

losses. In the past, most of our exposure to foreign currency exchange risk has related to currency gains and losses between the time we sign and settle our sales contracts denominated in euros. For example, our Supply Contracts obligate us to deliver solar modules at a fixed price in euros per watt and do not adjust for fluctuations in the U.S. dollar to euro exchange rate. For the years ended December 31, 2011, December 31, 2010, and December 26, 2009, a 10% change in the euro exchange rates would have impacted our net euro sales by $123.7 million, $184.6 million, and $177.7 million, respectively, excluding the effect of our hedging activities. Our net sales denominated in euros are expected to continue to decline and therefore our foreign currency exchange risk associated with the euro is expected to also decline.

Transaction Exposure: Many components of our business have assets and liabilities (primarily receivables, investments, accounts payable, debt, and solar module collection and recycling liabilities) that are denominated in currencies other than the component’s functional currency. Changes in the exchange rates between our components' functional currencies and the other currencies in which these assets and liabilities are denominated can create fluctuations in our reported consolidated financial

position, results of operations, and cash flows. We may enter into foreign exchange forward contracts or other derivative instruments to economically hedge assets and liabilities against the short-term effects of currency exchange rate fluctuations. The gains and losses on these derivative instruments will offset all or part of the transaction gains and losses that we recognize in earnings on the related foreign currency assets and liabilities. These contracts typically have maturities of less than three months.

For additional details on our economic hedging instruments and activities, refer to Note 9. “Derivative Financial Instruments,” to our consolidated financial statements included in this Annual Report on Form 10-K.

If the U.S. dollar would have weakened by 10% against the euro, Malaysian ringgit, Japanese yen, Canadian dollar, and Australian dollar, the impact on our income before income taxes during the year ended December 31, 2011 would have been $0.5 million (favorable). If the U.S. dollar would have weakened by 10% against the euro, Malaysian ringgit, Japanese yen, and Canadian dollar the impact on our income before income taxes during the years ended December 31, 2010 and December 26, 2009 would have been $6.6 million (unfavorable) and $0.5 million (favorable), respectively.

Earnings Translation Exposure: Fluctuations in foreign currency exchange rates create volatility in our reported results of operations because we are required to translate the financial statements of our subsidiaries that do not have a U.S. dollar functional currency. We may decide to purchase forward exchange contracts or other instruments to offset this impact from currency fluctuations. These contracts would be marked-to-market on a monthly basis and any unrealized gain or loss would be recorded in earnings. We do not hedge translation exposure at this time, but may do so in the future.

In the past, currency exchange rate fluctuations have had an impact on our business and results of operations. For example, currency exchange rate fluctuations negatively impacted our cash flows by $21.4 million, $12.7 million, and $3.2 million in the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively. Although we cannot predict the impact of future currency exchange rate fluctuations on our business or results of operations, we believe that we will continue to have risk associated with currency exchange rate fluctuations in the future. We will continue to evaluate actions we can take to use derivatives to help mitigate this risk.

Interest Rate Risk

Our primary interest rate risks are our outstanding variable rate debt, our solar power system sales prices from the effect of interest rates on our customer’s financing of such solar power systems, and our investments in debt securities.

Variable Rate Debt Exposure: We are exposed to interest rate risk because our Revolving Credit Facility, German Facility Agreement, Malaysian Ringgit Facility Agreement, Malaysian Euro Facility Agreement, and the floating rate portion of our Malaysian Facility Agreement have variable interest rates, exposing us to variability in interest expense and cash flows. We use interest rate swap contracts and cross-currency swap contracts to mitigate our exposure to interest rate fluctuations associated with a portion of our variable rate debt instruments. We have interest rate swap contracts in place to mitigate the interest rate risk for a portion our German Facility Agreement and the floating rate portion of our Malaysian Facility Agreement. We also have a cross-currency swap contract in place to mitigate the interest rate risk of our Malaysian Ringgit Facility Agreement.

For additional details on our hedging instruments and activities, refer to Note 9. “Derivative Financial Instruments,” to our consolidated financial statements included in this Annual Report on Form 10-K.

An increase in the Euro Interbank Offered Rate (EURIBOR) would impact our cost of borrowing under the unhedged portion of our German Facility Agreement and our entire Malaysian Euro Facility Agreement, and an increase in the

London Interbank Offered Rate (LIBOR) would impact our cost of borrowing under our Revolving Credit Facility. If EURIBOR increased or decreased by 100 basis points, our interest cost for the year ended December 31, 2011 would have increased or decreased $0.6 million, respectively. If LIBOR increased or decreased by 100 basis points, our interest cost for the year ended December 31, 2011 would have increased or decreased $1.0 million, respectively.

Effect on Customer's Financing of Solar Power Systems: We are exposed to interest rate risk because many of our systems business customers depend on debt and equity financing to purchase a solar power system from us. Although the useful life of a solar power system is considered to be approximately 25 years, end-users of our solar power systems must pay the entire cost of the solar power system by the time such system is completed. As a result, many of our customers rely on debt financing to fund their up-front capital expenditures. An increase in interest rates could make it difficult for our end-users to secure the financing necessary to purchase a system. This could lower demand or the price we can charge for our solar power systems and reduce our net sales. In addition, we believe that a significant percentage of our end-users install solar power systems as an investment, funding the initial capital expenditure through a combination of equity and debt. An increase in interest rates could lower an investor’s return on investment in a system or make alternative investments more attractive relative to solar power systems, which, in each

case, could cause these end-users to seek alternative investments that promise higher returns.

Investments in Debt Securities Exposure: We invest in debt securities, which exposes us to interest rate risk. The primary objective of our investment activities is to preserve principal and provide liquidity on demand, while at the same time maximizing the income we receive from our investments without significantly increasing risk. Some of the securities in which we invest may be subject to market risk. This means that a change in prevailing interest rates may cause the market value of the investment to fluctuate. For example, if we hold a security that was issued with an interest rate fixed at the then-prevailing rate and the prevailing interest rate later rises, the market value of our investment may decline.

As of December 31, 2011, our marketable securities earned a pre-tax yield of 0.48%, with a weighted average maturity of 11 months. If interest rates were to instantaneously increase (decrease) by 100 basis points, the market value of our total investment portfolio could decrease (increase) by $1.9 million. The direct risk to us associated with fluctuating interest rates is limited to our investment portfolio and we do not believe that a 10% change in interest rates would have a significant impact on our financial position, results of operations, or cash flows. As of December 31, 2011, all of our marketable securities were in commercial paper, corporate debt securities, federal and foreign agency debt, foreign government obligations, supranational debt, and U.S. government obligations.

As of December 31, 2011, our restricted investments earned a pre-tax yield of 5.85%, with a weighted average maturity of approximately 20 years. If interest rates were to instantaneously increase (decrease) by 100 basis points, the market value of our total restricted investment portfolio could decrease (increase) by $34.7 million. The direct risk to us associated with fluctuating interest rates is limited to our restricted investment portfolio. Given that our restricted investment portfolio is intended to pre-fund our estimated solar module collection and recycling costs, and given the expected holding period of these investments, we believe it is unlikely that a 10% change in interest rates would have a significant impact on our financial position, results of operations, or cash flows. As of December 31, 2011, all of our restricted investments were in foreign and U.S. government obligations.

Commodity and Component Risk

We are exposed to price risks for the raw materials, components, and energy costs used in the manufacture and transportation of our solar modules and BoS parts used in solar power systems. Also, some of our raw materials and components are sourced from a limited number of suppliers or a single supplier. We endeavor to qualify multiple suppliers using a robust qualification process. In some cases, we also enter into long-term supply contracts for raw materials and components. As a result, we remain exposed to price changes in the raw materials and components used in our solar modules. In addition, a failure by a key supplier could disrupt our supply chain which could result in higher prices and/or a disruption in our manufacturing process. We may be unable to pass along changes in the cost of the raw materials and components for our products and systems to our customers, and may be in default of our delivery obligations if we experience a manufacturing disruption.

Credit Risk

We have certain financial and derivative instruments that subject us to credit risk. These consist primarily of cash, cash equivalents, marketable securities, restricted investments, trade accounts receivable, interest rate swap contracts, cross-currency swap contracts, and foreign exchange forward contracts. We are exposed to credit losses in the event of nonperformance by the counterparties to our financial and derivative instruments. We place cash, cash equivalents, marketable securities, restricted investments, interest rate swap contracts, cross-currency contracts, and foreign exchange forward contracts with various high-quality financial institutions and limit the amount of credit risk from any one counterparty. We continuously evaluate the credit standing of our counterparty financial institutions.

In addition, we have certain investments in debt securities related to countries in the Eurozone. These investments are for debt securities of countries with a lower likelihood of experiencing significant economic, fiscal, and/or political strains such that default or severe decreases in fair value would occur. However, such risk cannot be eliminated and is reflected in the current fair value of the investments as of December 31, 2011.

Item 8: Financial Statements and Supplementary Data

Consolidated Financial Statements

Our consolidated financial statements as required by this item are included in Item 15: “Exhibits and Financial Statement Schedules – Consolidated Financial Statements,” of this Annual Report on Form 10-K. See Item 15(a) for a list of our consolidated financial statements.

Selected Quarterly Financial Data (Unaudited)

The following selected quarterly financial data should be read in conjunction with our consolidated financial statements, the related notes thereto and Item 7: "Management's Discussion and Analysis of Financial Condition and Results of Operations." This information has been derived from our unaudited consolidated financial statements that, in our opinion, reflect all recurring adjustments necessary to fairly present this information when read in conjunction with our consolidated financial statements and the related notes thereto appearing in the section entitled "Consolidated Financial Statements." The results of operations for any quarter are not necessarily indicative of the results to be expected for any future period.

	Quarters Ended							
	Dec 31, 2011	Sep 30, 2011	Jun 30, 2011	Mar 31, 2011	Dec 31, 2010	Sep 25, 2010	Jun 26, 2010	Mar 27, 2010
	(In thousands, except per share amounts)							
Net sales	$660,352	$1,005,788	$532,774	$567,293	$609,801	$797,899	$587,854	$567,961
Cost of sales	522,228	626,624	337,976	307,628	313,077	476,007	303,660	285,925
Gross profit	138,124	379,164	194,798	259,665	296,724	321,892	284,194	282,036
Operating expenses:								
Research and development	37,906	38,164	33,102	31,351	27,601	21,472	22,836	22,888
Selling, general and administrative	125,926	112,743	86,872	87,000	91,282	84,961	78,597	66,864
Production start-up	5,881	5,514	10,294	11,931	12,190	3,821	2,288	1,143
Goodwill impairment	393,365	—	—	—	—	—	—	—
Restructuring	60,366	—	—	—	—	—	—	—
Total operating expenses	623,444	156,421	130,268	130,282	131,073	110,254	103,721	90,895
Operating (loss) income	(485,320)	222,743	64,530	129,383	165,651	211,638	180,473	191,141
Foreign currency gain (loss)	243	(1,857)	1,659	950	854	(1,001)	(2,625)	(696)
Interest and other income (expense), net	3,635	1,879	5,768	2,674	6,860	2,278	2,590	4,914
(Loss) income before income taxes	(481,442)	222,765	71,957	133,007	173,365	212,915	180,438	195,359
Income tax (benefit) expense	(68,329)	26,251	10,819	17,039	17,421	36,046	21,395	23,014
Net (loss) income	$(413,113)	$196,514	$61,138	$115,968	$155,944	$176,869	$159,043	$172,345
Net (loss) income per share:								
Basic	$(4.78)	$2.28	$0.71	$1.36	$1.83	$2.08	$1.87	$2.04
Diluted	$(4.78)	$2.25	$0.70	$1.33	$1.80	$2.04	$1.84	$2.00
Weighted-average number of shares used in per share calculations:								
Basic	86,428	86,338	86,164	85,324	85,181	85,072	84,852	84,505
Diluted	86,428	87,151	87,126	87,053	86,840	86,610	86,401	86,092

Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A: Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

We maintain "disclosure controls and procedures," as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are

met. Additionally, in designing disclosure controls and procedures, our management was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure control and procedure also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on their evaluation as of the end of the period covered by this Annual Report on Form 10-K, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

(b) Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate "internal control over financial reporting," as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2011 based on the criteria established in Internal Control — Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America.

Based on the results of our evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2011.

The effectiveness of our internal control over financial reporting as of December 31, 2011 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in its report which appears herein.

(c) Changes in Internal Control over Financial Reporting

We completed Phase II of our enterprise resource planning (ERP) system implementation during 2011. For a discussion of risks relating to the implementation of a new ERP system, please see the risk factor entitled "Implementing a new enterprise resource planning system could interfere with our business or operations and could adversely impact our financial position, results of operations, and cash flows" in Item 1A: "Risk Factors" in this Annual Report on Form 10-K. The implementation of our ERP system represents a change in our internal control over financial reporting.

There have been no material changes in our internal control over financial reporting that occurred during the fourth quarter ended December 31, 2011 covered by this Annual Report on Form 10-K that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

(d) Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and Chief Financial Officer, do not expect that our disclosure controls or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of

fraud, if any, within our Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B: Other Information

None.

PART III

Item 10: Directors, Executive Officers, and Corporate Governance

Information concerning our board of directors and audit committee will appear in our 2012 Proxy Statement, under the section entitled “Directors.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

For information with respect to our executive officers, see Item 1: “Business – Executive Officers of the Registrant,” of this Annual Report on Form 10-K.

Information concerning Section 16(a) beneficial ownership reporting compliance will appear in our 2012 Proxy Statement under the section entitled “Section 16(a) Beneficial Ownership Reporting Compliance.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

We have adopted a Code of Business Conduct and Ethics that applies to all directors, officers, and associates of First Solar. Information concerning this code will appear in our 2012 Proxy Statement under the section entitled “Corporate Governance.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Item 11: Executive Compensation

Information concerning executive compensation and related information will appear in our 2012 Proxy Statement under the section entitled “Executive Compensation.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information concerning the security ownership of certain beneficial owners and management and related stockholder matters, including certain information regarding our equity compensation plans, will appear in our 2012 Proxy Statement under the section entitled “Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Item 13: Certain Relationships and Related Transactions, and Director Independence

Information concerning certain relationships and related party transactions will appear in our 2012 Proxy Statement under the section entitled “Certain Relationships and Related Party Transactions.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference. Information concerning director independence will appear in our 2012 Proxy Statement under the section entitled “Corporate Governance.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

Item 14: Principal Accountant Fees and Services

Information concerning principal accountant fees and services and the audit committee’s pre-approval policies and procedures will appear in our 2012 Proxy Statement under the section entitled “Principal Accountant Fees and Services.” The information in that portion of the Proxy Statement is incorporated in this Annual Report on Form 10-K by reference.

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PART IV

Item 15: Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm
Financial Statements
Consolidated Balance Sheets
Consolidated Statements of Operations
Consolidated Statements of Stockholders' Equity and Comprehensive Income
Consolidated Statements of Cash Flows
Notes to Consolidated Financial Statements
(2) Financial Statement Schedule:
Schedule II — Valuation and Qualifying Accounts

SCHEDULE II: VALUATION AND QUALIFYING ACCOUNTS
For the Years Ended December 31, 2011, December 31, 2010, and December 26, 2009

Description	Balance at Beginning of Year	Additions	Deductions	Balance at End of Year
	(In thousands)			
Allowance for doubtful accounts receivable				
Year ended December 26, 2009	$—	$6,990	$(6,000)	$990
Year ended December 31, 2010	$990	$—	$(990)	$—
Year ended December 31, 2011	$—	$10,032	$—	$10,032
Provision for inventory reserve				
Year ended December 26, 2009	$976	$—	$(976)	$—
Year ended December 31, 2010	$—	$—	$—	$—
Year ended December 31, 2011	$—	$13,796	$—	$13,796
Valuation allowance against our deferred tax assets				
Year ended December 26, 2009	$1,097	$2,093	$—	$3,190
Year ended December 31, 2010	$3,190	$1,601	$—	$4,791
Year ended December 31, 2011	$4,791	$3,473	$(287)	$7,977

(3) Exhibits: See Item 15(b) below.

(b) Exhibits: The exhibits listed on the accompanying Index to Exhibits on this Annual Report on Form 10-K are filed, or incorporated into this Annual Report on Form 10-K by reference.

(c) Financial Statement Schedule: See Item 15(b) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized on February 29, 2012.

FIRST SOLAR, INC.
By: /s/ MARK R. WIDMAR
Mark R. Widmar
Principal Accounting Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ MICHAEL J. AHEARN Michael J. Ahearn	Chairman of the Board of Directors and Interim Chief Executive Officer	February 29, 2012
/s/ MARK R. WIDMAR Mark R. Widmar	Chief Financial Officer and Chief Accounting Officer (Principal Accounting Officer)	February 29, 2012
Additional Directors:		
/s/ JAMES F. NOLAN James F. Nolan	Director	February 29, 2012
/s/ WILLIAM J. POST William J. Post	Director	February 29, 2012
/s/ J. THOMAS PRESBY J. Thomas Presby	Director	February 29, 2012
/s/ PAUL H. STEBBINS Paul H. Stebbins	Director	February 29, 2012
/s/ MICHAEL SWEENEY Michael Sweeney	Director	February 29, 2012
/s/ CRAIG KENNEDY Craig Kennedy	Director	February 29, 2012
/s/ JOSE VILLARREAL Jose Villarreal	Director	February 29, 2012

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of First Solar, Inc.

In our opinion, the consolidated financial statements listed in the index appearing under Item 15(a)(1) present fairly, in all material respects, the financial position of First Solar, Inc. and its subsidiaries at December 31, 2011 and December 31, 2010, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2011 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2011, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A(b). Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
Phoenix, Arizona
February 29, 2012

FIRST SOLAR, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(In thousands, except share data)

	December 31, 2011	December 31, 2010
ASSETS		
Current assets:		
Cash and cash equivalents	$ 605,619	$ 765,689
Marketable securities	66,146	167,889
Accounts receivable trade, net	310,568	305,537
Accounts receivable, unbilled	533,399	1,482
Inventories	475,867	195,863
Balance of systems parts	53,784	4,579
Deferred tax assets, net	41,144	388
Prepaid expenses and other current assets	526,734	143,033
Total current assets	2,613,261	1,584,460
Property, plant and equipment, net	1,815,958	1,430,789
Project assets	374,881	320,140
Deferred tax assets, net	340,274	259,236
Marketable securities	116,192	180,271
Restricted cash and investments	200,550	86,003
Goodwill	65,444	433,288
Inventories	60,751	42,728
Other assets	190,303	43,488
Total assets	$ 5,777,614	$ 4,380,403
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 176,448	$ 82,312
Income taxes payable	9,541	16,831
Accrued expenses	406,659	244,271
Current portion of long-term debt	44,505	26,587
Other current liabilities	336,571	99,676
Total current liabilities	973,724	469,677
Accrued solar module collection and recycling liability	167,378	132,951
Long-term debt	619,143	210,804
Other liabilities	373,506	112,026
Total liabilities	2,133,751	925,458
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.001 par value per share; 500,000,000 shares authorized; 86,467,873 and 85,843,511 shares issued and outstanding at December 31, 2011 and December 31, 2010, respectively	86	86
Additional paid-in capital	2,022,743	1,815,420
Contingent consideration	—	1,118
Accumulated earnings	1,626,071	1,665,564
Accumulated other comprehensive loss	(5,037)	(27,243)
Total stockholders' equity	3,643,863	3,454,945

Total liabilities and stockholders' equity	$ 5,777,614	$ 4,380,403

See accompanying notes to these consolidated financial statements.

FIRST SOLAR, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Years Ended		
	December 31, 2011	December 31, 2010	December 26, 2009
Net sales	$2,766,207	$ 2,563,515	$ 2,066,200
Cost of sales	1,794,456	1,378,669	1,021,618
Gross profit	971,751	1,184,846	1,044,582
Operating expenses:			
Research and development	140,523	94,797	78,161
Selling, general and administrative	412,541	321,704	272,898
Production start-up	33,620	19,442	13,908
Goodwill impairment	393,365	—	—
Restructuring	60,366	—	—
Total operating expenses	1,040,415	435,943	364,967
Operating (loss) income	(68,664)	748,903	679,615
Foreign currency gain (loss)	995	(3,468)	5,207
Interest income	13,391	14,375	9,735
Interest expense, net	(100)	(6)	(5,258)
Other income (expense), net	665	2,273	(2,985)
(Loss) income before income taxes	(53,713)	762,077	686,314
Income tax (benefit) expense	(14,220)	97,876	46,176
Net (loss) income	$(39,493)	$ 664,201	$ 640,138
Net (loss) income per share:			
Basic	$(0.46)	$ 7.82	$ 7.67
Diluted	$(0.46)	$ 7.68	$ 7.53
Weighted-average number of shares used in per share calculations:			
Basic	86,067	84,891	83,500
Diluted	86,067	86,491	85,044

See accompanying notes to these consolidated financial statements.

FIRST SOLAR, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE INCOME
(In thousands)

	Common Stock		Additional Paid-In Capital	Contingent Consideration	Accumulated Earnings	Accumulated Other Comprehensive Income (Loss)	Total Equity
	Shares	Amount					
Balance, December 27, 2008	81,597	$ 82	$ 1,176,156	$ —	$ 361,225	$ (24,421)	$ 1,513,042
Components of comprehensive income:							
Net income	—	—	—	—	640,138	—	640,138
Foreign currency translation adjustments	—	—	—	—	—	13,303	13,303
Change in unrealized loss on derivative instruments, net of tax	—	—	—	—	—	(167)	(167)
Change in unrealized gain on marketable securities, net of tax	—	—	—	—	—	1,689	1,689
Total comprehensive income							654,963
Exercise of stock options, including excess tax benefits	537	1	7,272	—	—	—	7,273
Issuance of restricted and unrestricted stock	123	—	(11,387)	—	—	—	(11,387)
Share-based compensation	—	—	89,463	—	—	—	89,463
Common stock issued for acquisition	2,951	2	396,587	2,844	—	—	399,433
Balance, December 26, 2009	85,208	85	1,658,091	2,844	1,001,363	(9,596)	2,652,787
Components of comprehensive income:							
Net income	—	—	—	—	664,201	—	664,201
Foreign currency translation adjustments	—	—	—	—	—	(35,825)	(35,825)
Change in unrealized gain on derivative instruments, net of tax	—	—	—	—	—	14,358	14,358
Change in unrealized gain on marketable securities, net of tax	—	—	—	—	—	3,820	3,820
Total comprehensive income							646,554
Exercise of stock options, including excess tax benefits	455	1	70,945	—	—	—	70,946
Issuance of restricted and unrestricted stock	168	—	(12,108)	—	—	—	(12,108)
Share-based compensation	—	—	96,766	—	—	—	96,766
Common stock issued for acquisition	13	—	1,726	(1,726)	—	—	—
Balance, December 31, 2010	85,844	86	1,815,420	1,118	1,665,564	(27,243)	3,454,945
Components of comprehensive loss:							

Net loss	—	—	—	—	(39,493)	—	(39,493)
Foreign currency translation adjustments	—	—	—	—	—	(18,034)	(18,034)
Change in unrealized gain on derivative instruments, net of tax	—	—	—	—	—	21,580	21,580
Change in unrealized gain on marketable securities, net of tax	—	—	—	—	—	18,660	18,660
Total comprehensive loss							(17,287)
Exercise of stock options, including excess tax benefits	251	—	112,250	—	—	—	112,250
Issuance of restricted and unrestricted stock	365	—	(24,102)	—	—	—	(24,102)
Share-based compensation	—	—	118,057	—	—	—	118,057
Common stock issued for acquisition	8	—	1,118	(1,118)	—	—	—
Balance, December 31, 2011	86,468	$ 86	$ 2,022,743	$ —	$ 1,626,071	$ (5,037)	$ 3,643,863

See accompanying notes to these consolidated financial statements.

FIRST SOLAR, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended		
	December 31, 2011	December 31, 2010	December 26, 2009
Cash flows from operating activities:			
Cash received from customers	$2,290,944	$ 2,458,088	$ 1,957,604
Cash paid to suppliers and associates	(2,159,429)	(1,614,763)	(1,123,746)
Interest received	10,156	20,531	6,147
Interest paid	(14,229)	(7,610)	(10,550)
Income taxes paid, net of refunds	(46,153)	(80,064)	(147,843)
Excess tax benefit from share-based compensation arrangements	(110,836)	(69,367)	(4,892)
Other operating activities	(3,916)	(1,323)	(1,527)
Net cash (used in) provided by operating activities	(33,463)	705,492	675,193
Cash flows from investing activities:			
Purchases of property, plant and equipment	(731,814)	(588,914)	(279,941)
Purchases of marketable securities and investments	(331,240)	(462,070)	(607,356)
Proceeds from maturities of marketable securities and investments	128,653	62,648	149,076
Proceeds from sales of marketable securities and investments	363,960	494,256	115,805
Investment in notes receivable	—	—	(99,637)
Payments received on notes receivable	—	61,658	25,447
Increase in restricted investments	(62,749)	(43,064)	(4,150)
Increase in restricted cash	(23,154)	—	—
Sale of investment in related party	—	28,596	—
Acquisitions, net of cash acquired	(21,105)	(296,496)	318
Other investing activities	992	1,301	(1,252)
Net cash used in investing activities	(676,457)	(742,085)	(701,690)
Cash flows from financing activities:			
Proceeds from stock option exercises	8,326	9,379	5,961
Repayment of borrowings under revolving credit facility	(450,000)	—	—
Proceeds from borrowings under revolving credit facility	550,000	100,000	—
Repayment of long-term debt	(33,796)	(27,879)	(78,224)
Proceeds from borrowings under long-term debt, net of discount and issuance costs	370,108	—	44,739
Excess tax benefit from share-based compensation arrangements	110,836	69,367	4,892
Proceeds from economic development funding and incentives	16,188	—	615
Other financing activities	(444)	(416)	(4)
Net cash provided by (used in) financing activities	571,218	150,451	(22,021)
Effect of exchange rate changes on cash and cash equivalents	(21,368)	(12,668)	(3,201)
Net (decrease) increase in cash and cash equivalents	(160,070)	101,190	(51,719)
Cash and cash equivalents, beginning of the period	765,689	664,499	716,218
Cash and cash equivalents, end of the period	$605,619	$ 765,689	$ 664,499
Supplemental disclosure of noncash investing and financing activities:			
Property, plant and equipment acquisitions funded by liabilities	$74,391	$ 88,977	$ 59,374

See accompanying notes to these consolidated financial statements.

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FIRST SOLAR, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1. First Solar and Its Business

We design, manufacture, and sell thin-film photovoltaic (PV) solar modules, which we currently produce at our plants in Perrysburg, Ohio, Frankfurt/Oder, Germany, and Kulim, Malaysia. We also develop sites for building solar power systems using our solar modules and provide a complete solar power system solution, which includes one or more of the following: project development, engineering, procurement, and construction (EPC) services, operating and maintenance (O&M) services, when applicable, and facilitating project finance, when required. First Solar Holdings, LLC was formed as a Delaware limited liability company in May 2003 to act as the holding company for First Solar, LLC — which was formed in 1999 and renamed First Solar US Manufacturing, LLC in the second quarter of 2006, and other subsidiaries formed during 2003 and later. On February 22, 2006, First Solar Holdings, LLC was incorporated in Delaware as First Solar Holdings, Inc. and, also during the first quarter of 2006, was renamed First Solar, Inc.

Note 2. Summary of Significant Accounting Policies

Basis of Presentation. Certain prior period amounts have been reclassified to conform to the current year presentation. These reclassifications had no impact on our consolidated statements of operations, consolidated balance sheets, or consolidated statements of cash flows.

Principles of Consolidation. These consolidated financial statements include the accounts of First Solar, Inc. and all of its subsidiaries and are prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). We eliminated all inter-company transactions and balances during consolidation.

Fiscal Periods. Historically, our fiscal quarters ended on the Saturday closest to the end of the applicable calendar quarter. In July 2010, our board of directors approved a change in our fiscal year from a 52 or 53 week fiscal year to a calendar year. This change to the calendar year cycle became effective as of the end of the 2010 fiscal year. As a result, our 2010 fiscal year, which began on December 27, 2009, ended on December 31, 2010 instead of December 25, 2010. In addition, effective January 1, 2011, our fiscal quarters coincided with calendar quarters.

Use of Estimates. The preparation of consolidated financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and the accompanying notes. Significant estimates in these consolidated financial statements include revenue recognition, allowances for doubtful accounts receivable, inventory valuation, estimates of future cash flows from and the economic useful lives of long-lived assets, asset impairments, certain accrued liabilities, income taxes and tax valuation allowances, accrued warranty and related expense, accrued collection and recycling expense, share-based compensation costs, and fair value estimates. Despite our intention to establish accurate estimates and reasonable assumptions, actual results could differ materially from these estimates and assumptions.

Fair Value of Financial Instruments. We measure certain financial assets and liabilities at fair value based on the price that would be received for an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. As of December 31, 2011, our financial instruments consist principally of cash and cash equivalents, marketable securities, notes receivable, restricted investments, derivative contracts, accounts payable, accrued expenses, debt, and income taxes payable. See Note 10. “Fair Value Measurement,” to our consolidated financial statements for further information on the fair value of our financial instruments.

Cash and Cash Equivalents. We consider all highly liquid instruments with original maturities of 90 days or less at the time of purchase to be cash equivalents.

Marketable Securities — current and noncurrent. We determine the classification of our marketable securities at the time of purchase and reevaluate such designation at each balance sheet date. We have classified our marketable securities as “available-for-sale.” These marketable securities are recorded at fair value and unrealized gains and losses are recorded to accumulated other comprehensive income (loss) until realized. Realized gains and losses on sales of these securities are reported in earnings, computed using the specific identification cost method. All of our available-for-sale marketable securities are subject to a periodic impairment review. We consider a marketable debt security to be impaired when its fair value is less than its carrying cost, in which case we would further review the marketable security to determine if it is other-than-temporarily impaired. When we evaluate a marketable security for other-than-temporary impairment, we review factors such as the length of time and extent to which its fair value has been below its cost basis, the financial conditions of the issuer and any changes thereto, our intent to sell, and whether it is more

likely than not that we will be required to sell the marketable security before we have recovered its cost basis. If a marketable security were other-than-temporarily impaired, we would write it down through earnings to its impaired value and establish that as a new cost basis for the marketable security.

Derivative Instruments. We recognize derivative instruments on our balance sheet at their fair value. On the date that we enter into a derivative contract, we designate the derivative instrument as a fair value hedge; a cash flow hedge; a foreign currency fair value or cash flow hedge; a hedge of a net investment in a foreign operation; or a derivative instrument that will not be accounted for using any of the specialized "hedge accounting" methods specified in ASC 815, Derivatives and Hedging. As of December 31, 2011 and December 31, 2010, all of our derivative instruments were designated either as cash flow hedges or as derivative instruments not accounted for using hedge accounting methods.

We record changes in the fair value of a derivative instrument that is highly effective and that is designated and qualifies as a cash flow hedge, to the extent that the hedge is effective, in other comprehensive income until our earnings are affected by the variability of cash flows of the hedged transaction (that is, until we record periodic settlements of a variable-rate asset or liability in earnings). We record any hedge ineffectiveness, which represents the amount by which the changes in the fair value of the derivative instrument exceed the variability in the cash flows of the forecasted transaction, in current period earnings. We report changes in the fair values of derivative instruments not accounted for using hedge accounting in current period earnings.

We formally document all relationships between hedging instruments and underlying hedged items, as well as our risk-management objective and strategy for undertaking various hedge transactions, at the inception of the hedge. We support all of our derivatives with documentation specifying the underlying exposure being hedged. We also formally assess (both at the hedge's inception and on an ongoing basis) whether the derivative instruments that we use in hedging transactions have been highly effective in offsetting changes in the fair value or cash flows of hedged items and whether those derivatives are expected to remain highly effective in future periods. When we determine that a derivative instrument is not (or has ceased to be) highly effective as a hedge, we discontinue hedge accounting prospectively. In all situations in which we discontinue hedge accounting and the derivative instrument remains outstanding, we will carry the derivative instrument at its fair value on our balance sheet and recognize subsequent changes in its fair value in our current period earnings.

Investment in Related Party. Between October 2008 and December 2010, we owned equity investments in another company in an amount that was not sufficient to provide us with significant influence over the investee's operations. Since the fair values of these equity investments were not readily determinable, they were not within the scope of the accounting guidance in ASC 320, Investments – Debt and Equity Securities, and we accounted for these equity investments using the cost method of accounting. Under the cost method of accounting, we reported investments at their acquisition cost on our consolidated balance sheets and would only have adjusted these carrying values if we sold the investments, if we acquired additional investments, or if the investments became other-than-temporarily impaired.

Receivables and Allowance for Doubtful Accounts. Trade accounts receivable are recorded at the invoiced amount as the result of transactions with customers. We maintain allowances for doubtful accounts for uncollectible accounts receivable. We estimate anticipated losses from doubtful accounts based on days past due, historical collection history, and other factors. We account for rebates and other customer incentives as a reduction to the selling price of our solar modules and, therefore, as a reduction in revenue at the time of sale and recognize a contra-asset within accounts receivable trade, net.

Inventories — current and noncurrent. We report our inventories at the lower of cost or market. We determine cost on a first-in, first-out basis and include both the costs of acquisition and the costs of manufacturing in our inventory costs.

These costs include direct material, direct labor, and fixed and variable indirect manufacturing costs, including depreciation and amortization. Our capitalization of costs into inventory is based on normal utilization of our facilities. If production capacity is abnormally utilized, the portion of our indirect manufacturing costs related to the abnormal utilization levels is expensed as incurred.

We also regularly review the cost of inventory against its estimated market value and record a lower of cost or market write-down if any inventories have a cost in excess of their estimated market value. For example, we regularly evaluate the quantity and value of our inventory in light of current market conditions and market trends and record write-downs for any quantities in excess of demand and for any product obsolescence. This evaluation considers historical usage, expected demand, anticipated sales price, new product development schedules, the effect new products might have on the sale of existing products, product obsolescence, customer concentrations, product merchantability, use of modules in our systems business and other factors. Market conditions are subject to change and actual consumption of our inventory could differ from forecasted demand.

We classify inventories not used within our normal operating cycle (which is generally 12 months) as noncurrent inventory. This inventory generally consists of a critical raw material used in our core production process that we purchase in quantities that exceed anticipated consumption within our operating cycle.

Balance of Systems Parts. Balance of systems parts represent mounting, electrical and other construction parts purchased for solar power plants under construction, which we hold title of and are not yet installed in a solar power plant. These parts include posts, tilt brackets, tables, harnesses, combiner boxes, inverters, cables and other parts we purchase or assemble for the solar power plants we construct. Balance of systems parts do not include solar modules. We carry these parts at the lower of cost or market, with market being based on either recoverability through installation in a solar power plant under construction or through a sale.

Long-Lived Assets. We account for any impairment of our long-lived tangible assets and definite-lived intangible assets in accordance with ASC 360, Property, Plant and Equipment. As a result, we assess long-lived assets classified as "held and used," including our property, plant and equipment, for impairment whenever events or changes in business circumstances arise that may indicate that the carrying amount of our long-lived assets may not be recoverable. These events and changes can include significant current period operating or cash flow losses associated with the use of a long-lived asset, or group of assets, combined with a history of such losses, significant changes in the manner of use of assets, and significant negative industry or economic trends. We evaluated our long-lived assets for impairment during the years ended December 31, 2011 and December 31, 2010, and did not note any events or changes in circumstances indicating that the carrying values of our material long-lived assets were not recoverable other than for assets evaluated in connection with our restructuring activities discussed in Note 4. "Restructuring and Acquisitions."

Property, Plant and Equipment. We report our property, plant and equipment at cost, less accumulated depreciation. Cost includes the price paid to acquire or construct the assets, including interest capitalized during the construction period, and any expenditure that substantially adds to the value of or substantially extends the useful life of an existing asset. We expense repair and maintenance costs at the time we incur them.

We compute depreciation expense using the straight-line method over the estimated useful lives of the assets, as presented in the table below. We amortize leasehold improvements over the shorter of their estimated useful lives or the remaining term of the lease. We continue to record depreciation expense for assets idled temporarily during the reporting period and adjust the estimated useful life of the assets if idling results in a longer estimated useful life.

	Useful Lives in Years
Buildings and building improvements	25 – 40
Manufacturing machinery and equipment	5 – 12
Furniture, fixtures, computer hardware, and computer software	3 – 7
Leasehold improvements	up to 15

Internal-Use Software Costs. We capitalize the costs related to computer software obtained or developed for internal use. Software obtained for internal use has generally been enterprise-level business and finance software that we customize to meet our specific operational needs. The capitalized costs are amortized on a straight-line basis over the estimated useful life of the software, ranging from 3 to 7 years.

Interest Capitalization. We capitalize interest cost as part of the historical cost of acquiring or constructing certain assets during the period of time required to get the asset ready for its intended use. These assets generally include property, plant and equipment and development costs that we have capitalized as project assets or deferred project costs. Interest capitalized for fixed assets is amortized over the useful life of the related asset, as the qualifying asset is moved to the depreciation and amortization pool. We charge interest capitalized for project assets or deferred project costs to operations as the respective assets are sold or written off. We capitalize interest to the extent that expenditures to acquire, construct, or develop an asset have occurred and interest cost has been incurred.

Project Assets. Project assets consist primarily of costs relating to solar power projects in various stages of development that we capitalize prior to the sale of the solar power project to a third party for further project development or the signing of a project construction contract. These costs include costs for land and costs for developing and constructing a solar power plant. Development costs can include legal, consulting, permitting, interconnect and other similar costs. Once we enter into a definitive sales agreement, we reclassify project assets to deferred project costs on our balance sheet until we have met the criteria to recognize the sale of the project assets as revenue. We expense these project assets to cost of sales as each respective project asset is sold to a customer, since the project is constructed for a customer (matching the underlying revenue recognition method). We classify project assets generally as noncurrent due to the time required to complete all activities to sell a specific project, which is typically longer than 12 months and uncertainty as to whether we will have a definitive agreement.

We review project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We consider a project commercially viable if it is anticipated to be sellable for a profit once it is either fully developed or fully constructed. We consider a partially developed or partially constructed project commercially viable if the anticipated selling price is higher than the carrying value of the related project assets. We examine a number of factors to determine if the project will be profitable, the most notable of which is whether there are any changes in environmental, ecological, permitting, or regulatory conditions that impact the project. Such changes could cause the cost of the project to increase or the selling price of the project to decrease. If a project is considered not commercially viable, we impair the respective project asset and adjust it to fair value, with the resulting impairment recorded within operations.

Accounts Receivable, Unbilled. Accounts receivable, unbilled represents revenue that has been recognized in advance of billing the customer. This is common for construction contracts. For example, we recognize revenue from contracts for the construction and sale of solar power systems which includes the sale of project assets over the contractual period using applicable accounting methods. One applicable accounting method is the percentage-of-completion method, under which sales and gross profit are recognized as work is performed based on the relationship between actual costs incurred compared to the total estimated costs for completing the entire contract. Under this accounting method, revenue could be recognized under applicable revenue recognition criteria in advance of billing the customer, resulting in an amount recorded to “Accounts receivable, unbilled.” Once we meet the billing criteria under a construction contract, we bill our customer accordingly and reclassify the Accounts receivable, unbilled to Accounts receivable trade, net. Billing requirements vary by contract, but are generally structured around completion of certain construction milestones.

Deferred Project Costs. Deferred project costs represent (i) costs that we capitalize for arrangements that we account for as real estate transactions after we have entered into a definitive sales arrangement, but before we have met all of the criteria to recognize the sale as revenue, (ii) recoverable pre-contract costs that we capitalize for arrangements accounted for as construction contracts prior to entering into a definitive EPC agreement, or (iii) costs that we capitalize for arrangements accounted for as construction contracts after we have signed a definitive EPC agreement, but before all revenue recognition criteria have been met. Deferred projects costs are classified within “Prepaid expenses and other current assets” on our consolidated balance sheets. Deferred project costs which are not expected to be recognized within the next 12 months are classified as noncurrent deferred project costs, and are classified within “Other assets” on our consolidated balance sheets.

The following table illustrates the balance sheet classification of project assets and deferred project costs:

Milestone	Balance sheet classification -Arrangements accounted for under ASC 360 (sale of real estate)	Balance sheet classification - Arrangements accounted for under ASC 605 (long-term construction contracts)
Execution of a definitive sales agreement, but revenue recognition criteria are not met	Deferred project costs	Deferred project costs
Pre execution of a definitive sales agreement	Project asset	Deferred project costs (recoverable pre-contract costs)

Billings in Excess of Costs and Estimated Earnings. The liability “Billings in excess of costs and estimated earnings,” which is part of the balance sheet caption “Other current liabilities,” represents billings in excess of revenue recognized on contracts accounted for under the percentage-of-completion method. Typically, billings are made based on the completion of certain milestones as provided for in the sales agreements and generally the timing of revenue recognition is different from the contractual billing schedules. Billings in excess of costs and estimated earnings was $32.2 million and $19.9 million as of December 31, 2011 and December 31, 2010, respectively.

Payments and Billings for Deferred Project Costs. The liability “Payments and billings for deferred project costs,” which is part of the balance sheet caption “Other current liabilities” and “Other liabilities” represents customer payments received or customer billings made under the terms of certain systems project sales contracts for which all revenue recognition criteria under ASC 360 have not yet been met. Such systems project costs are included as a component of deferred project costs.

Deferred Revenue. The liability “Deferred revenue,” which is part of the balance sheet caption “Other current liabilities,” consists of billings or payments received in advance of meeting revenue recognition criteria (with the exception of milestone payments and billings for deferred project costs) for our solar modules or solar power systems as described above. We recognize deferred revenue as net sales only when the revenue recognition criteria are met.

Business Combinations. We account for business acquisitions using the acquisition method of accounting and record definite-lived intangible assets separate from goodwill. Intangible assets are recorded at their fair value based on estimates as of the date of acquisition. Goodwill is recorded as the residual amount of the purchase price less the fair value assigned to the individual

assets acquired and liabilities assumed as of the date of acquisition. We charge acquisition related costs that are not part of the consideration to general and administrative expense as they are incurred. These costs typically include transaction and integration costs, such as legal, accounting, and other professional fees.

Goodwill. Goodwill represents the excess of the purchase price of acquired businesses over the estimated fair value assigned to the individual assets acquired and liabilities assumed. We do not amortize goodwill, but instead are required to test goodwill for impairment at least annually in the fourth quarter and, if necessary, we would record any impairment in accordance with ASC 350, Intangibles - Goodwill and Other. We will perform an impairment test between scheduled annual tests if facts and circumstances indicate that it is more-likely-than-not that the fair value of a reporting unit that has goodwill is less than its carrying value.

In accordance with ASC 350, as amended by ASU 2011-08, the provisions of which we elected to adopt on October 1, 2011, we may first make a qualitative assessment of whether it is more-likely-than-not that a reporting unit's fair value is less than its carrying value to determine whether it is necessary to perform the two-step goodwill impairment test. The qualitative impairment test includes considering various factors including macroeconomic conditions, industry and market conditions, cost factors, a sustained share price or market capitalization decrease, and any reporting unit specific events. If it is determined through the qualitative assessment that a reporting unit's fair value is more-likely-than-not greater than its carrying value, the two-step impairment test is not required. If the qualitative assessment indicates it is more-likely-than-not that a reporting unit's fair value is not greater than its carrying value, we must perform the two-step impairment test. We may also elect to proceed directly to the two-step impairment test without considering such qualitative factors.

The first step in a two-step impairment test is the comparison of the fair value of a reporting unit with its carrying amount, including goodwill. Our two reporting units are the components and systems reporting units, which are the same as our reportable segments as described in Note 24. "Segment and Geographical Information," to our consolidated financial statements. In accordance with the authoritative guidance over fair value measurements, we define the fair value of a reporting unit as the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. We primarily use the income approach methodology of valuation, which includes the discounted cash flow method, and the market approach methodology of valuation, which considers values of comparable businesses to estimate the fair values of our reporting units. We do not believe that a cost approach is relevant to measuring the fair values of our reporting units.

Significant management judgment is required when estimating the fair value of our reporting units including the forecasting of future operating results, the discount rates and expected future growth rates that we use in the discounted cash flow method of valuation, and in the selection of comparable businesses that we use in the market approach. If the estimated fair value of the reporting unit exceeds the carrying value assigned to that unit, goodwill is not impaired and no further analysis is required.

If the carrying value assigned to a reporting unit exceeds its estimated fair value in the first step, then we are required to perform the second step of the impairment test. In this step, we assign the fair value of the reporting unit calculated in step one to all of the assets and liabilities of that reporting unit, as if a market participant just acquired the reporting unit in a business combination. The excess of the fair value of the reporting unit determined in the first step of the impairment test over the total amount assigned to the assets and liabilities in the second step of the impairment test represents the implied fair value of goodwill. If the carrying value of a reporting unit's goodwill exceeds the implied fair value of goodwill, we would record an impairment loss equal to the difference. If there is no such excess then all goodwill for a reporting unit is considered impaired.

See Note 5. "Goodwill and Intangible Assets," to our consolidated financial statements for additional information on our goodwill impairment tests.

Product Warranties. We have historically provided a limited warranty against defects in materials and workmanship under normal use and service conditions for 5 years following delivery to the owners of our solar modules. For solar module sales made subsequent to September 30, 2011, we have increased the limited warranty we provide against defects in materials and workmanship under normal use and service conditions from 5 years to 10 years.

We also warrant to the owners of our solar modules that solar modules installed in accordance with agreed-upon specifications will produce at least 90% of their power output rating during the first 10 years following their installation and at least 80% of their power output rating during the following 15 years. In resolving claims under both the defects and power output warranties, we have the option of either repairing or replacing the covered solar module or, under the power output warranty, providing additional solar modules to remedy the power shortfall. We also have the option to make a payment for the then current market module price to resolve claims. Our warranties are automatically transferred from the original purchasers of our solar modules to subsequent purchasers upon resale. When we recognize revenue for module sales, we accrue a liability for the estimated future costs of meeting our limited warranty obligations for those modules. We make and revise this estimate based on the number of our solar modules under warranty at customer locations, our historical experience with warranty claims, our monitoring of field installation sites,

our in-house testing of our solar modules, and our estimated per-module replacement cost.

EPC Warranty. We typically provide a limited warranty against defects in workmanship, engineering design, and installation services under normal use and service conditions for a period of one to two years following the energizing of a section of a solar power plant or upon substantial completion of the entire solar power plant. In resolving claims under both the workmanship and design warranties, we have the option of either remedying the defect to the warranted level through repair, refurbishment, or replacement.

Accrued Solar Module Collection and Recycling Liability. We recognize an expense for the estimated fair value of our future obligations for collecting and recycling the solar modules that we have sold at the time they reach the end of their useful lives. See also Note 14. “Solar Module Collection and Recycling Liability,” for further information.

Income Taxes. We account for income taxes in accordance with ASC 740, Income Taxes, which prescribes the use of the asset and liability method whereby we calculate the deferred tax asset or liability account balances at the balance sheet date using tax laws and rates in effect at that time. We establish valuation allowances, when necessary, to reduce deferred tax assets to the extent it is more-likely-than-not that such deferred tax assets will not be realized. We do not provide deferred taxes related to the U.S. GAAP basis in excess of the U.S. tax basis in the investment in our foreign subsidiaries to the extent such amounts relate to indefinitely reinvested earnings and profits of such foreign subsidiaries.

In accordance with ASC 740, income tax expense includes (i) deferred tax expense, which generally represents the net change in the deferred tax asset or liability balance during the year plus any change in valuation allowances, and (ii) current tax expense, which represents the amount of tax currently payable to or receivable from a taxing authority. We only recognize tax benefits related to uncertain tax positions to the extent they satisfy the recognition and measurement criteria under ASC 740. Only those uncertain tax positions that are more likely than not of being sustained upon examination satisfy the recognition criteria. For those positions that satisfy the recognition criteria, the amount of tax benefit that we recognize is the largest amount of tax benefit that is more than fifty percent likely of being sustained on ultimate settlement of such uncertain tax position.

Foreign Currency Translation. The functional currencies of certain of our international subsidiaries are their local currency. Accordingly, we apply the period end exchange rate to translate their assets and liabilities and the weighted average exchange rate for the period to translate their revenues, expenses, gains, and losses into U.S. dollars. We include the translation adjustments as a separate component of accumulated other comprehensive income within stockholders’ equity. The functional currency of our subsidiaries in Canada, Malaysia, Mexico, Singapore, and Vietnam is the U.S. dollar; therefore, we do not translate their financial statements.

Comprehensive Income. Our comprehensive income consists of our net income, changes in unrealized gains or losses on derivative instruments that we hold and that qualify as and that we have designated as cash flow hedges, and the effects on our consolidated financial statements of translating the financial statements of our subsidiaries that operate in foreign currencies. In addition, other comprehensive income includes unrealized gains or losses on available-for-sale securities, the impact of which has been excluded from net income. We present our comprehensive income in combined consolidated statements of stockholders’ equity and comprehensive income. ASU 2011-05, effective for us for the first quarter of 2012, eliminates the option to present comprehensive income in a combined consolidated statement of stockholders' equity. See Note 3. “Recent Accounting Pronouncements,” to our consolidated financial statements for details on ASU 2011-05. Our accumulated other comprehensive income (loss) is presented as a component of equity in our consolidated balance sheets and consists of the cumulative amount of net financial statement translation adjustments, unrealized gains or losses on cash flow hedges, and unrealized gains or losses on available-for-sale marketable securities that we have incurred since the inception of our business.

Per Share Data. Basic net income per share is based on the weighted effect of all common shares outstanding and is calculated by dividing net income by the weighted average number of common shares outstanding during the period. Diluted net income per share is based on the weighted effect of all common shares and dilutive potential common shares outstanding and is calculated by dividing net income by the weighted average number of common shares and dilutive potential common shares outstanding during the period.

Revenue Recognition. We derive revenue from the sale of solar modules and from the sale of complete PV solar power systems for utility-scale or large commercial systems. In accordance with ASC 605, Revenue Recognition, we present taxes assessed by governmental authorities that are both imposed on and concurrent with specific revenue-producing transactions between us and our customers (such as sales, use, and value-added taxes) on a net basis and exclude them from revenues.

Revenue Recognition - Components Business. Our components segment sells solar modules directly to solar power system integrators and operators. We recognize revenue when persuasive evidence of an arrangement exists, delivery of the product has

occurred and title and risk of loss have passed to the customer, the sales price is fixed or determinable, and the collectability of the resulting receivable is reasonably assured. Under this policy, we record a trade receivable for the selling price of our product and reduce inventory for the cost of goods sold when delivery occurs in accordance with the terms of the sales contracts. We do not offer extended payment terms or rights of return for our products. We account for price rebates granted to certain customers under our Supply Contracts as a reduction to the selling price of our solar modules; and therefore, as a reduction to revenue. The amount of rebate earned by a customer is based on (i) the volume of solar modules shipped to a customer (measured in watts), (ii) the volume of solar modules registered for eligible projects (measured in watts), provided that those solar modules were invoiced by the buyer to an end customer, and (iii) the rebate rate.

Revenue Recognition - Systems Business. Our systems business provides a complete solar power system solution, which includes project development, engineering, procurement, and construction (EPC) services, operating and maintenance (O&M) services, when applicable, and facilitate project finance, when required.

We recognize revenue for arrangements entered into by the systems business generally using two revenue recognition models, following the guidance in ASC 605, Accounting for Long-term Construction Contracts or, for arrangements which include land or land rights, ASC 360, Accounting for Sales of Real Estate.

For construction contracts that do not include land or land rights and thus are accounted for under ASC 605, we use the percentage-of-completion method using actual costs incurred over total estimated costs to complete a project (including module costs) as our basic accounting policy, unless we cannot make reasonably dependable estimates of the costs to complete the contract, in which case we would use the completed contract method. We periodically revise our contract cost and profit estimates and we immediately recognize any losses that we identify on such contracts. Incurred costs include all direct materials, costs for solar modules, labor, subcontractor costs, and those indirect costs related to contract performance, such as indirect labor, supplies, and tools. We recognize direct material costs and costs for solar modules as incurred costs when the direct materials and solar modules have been installed. When construction contracts or other agreements specify that title to direct materials and solar modules transfers to the customer before installation has been performed, we defer revenue and associated costs and recognize revenue once those materials are installed and have met all other revenue recognition requirements. We consider direct materials to be installed when they are permanently attached or fitted to the solar power systems as required by engineering designs.

For arrangements recognized under ASC 360, typically when we have gained control of land or land rights, we record the sale as revenue using one of the following revenue recognition methods, based upon the substance and the terms and conditions of such arrangements:

We apply the percentage-of-completion method to certain arrangements covered under ASC 360, when the sale has been consummated, when we have transferred the usual risks and rewards of ownership to the buyer, the initial or continuing investment criteria have been met, we have the ability to estimate our costs and progress toward completion, and other revenue recognition criteria have been met. Depending on the value of the initial and continuing payment commitment by the buyer, we may align our revenue recognition and release of project assets to cost of sales with the receipt of payment from the buyer for sales arrangements accounted for under ASC 360.

We record revenue for certain other arrangements covered under ASC 360 after construction of a project is complete, we have transferred the usual risks and rewards of ownership to the buyer, and we have received payment from the buyer.

Research and Development Expense. We incur research and development costs during the process of researching and developing new products and enhancing our existing products, technologies, and manufacturing processes. Our

research and development costs consist primarily of compensation and related costs for personnel, materials, supplies, equipment depreciation, and consultant and laboratory testing costs. We expense these costs as incurred until the resulting product has been completed, is tested, and is ready for commercial manufacturing.

Production Start-Up. Production start-up expense consists primarily of salaries and personnel-related costs and the cost of operating a production line before it has been qualified for full production, including the cost of raw materials for solar modules run through the production line during the qualification phase. It also includes all expenses related to the selection of a new site and the related legal and regulatory costs, to the extent we cannot capitalize the expenditure.

Share-Based Compensation. We account for share-based compensation arrangements in accordance with ASC 718, Compensation – Stock Compensation. Our significant accounting policies related to share-based compensation arrangements are described in Note 18. “Share-Based Compensation,” to our consolidated financial statements.

Shipping and Handling Costs. We classify shipping and handling costs for solar modules shipped to our customers as a

component of cost of sales. We record customer payments of shipping and handling costs as a component of net sales.

Advertising Costs. Advertising costs are expensed as incurred. Advertising costs during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 were $2.0 million, $1.1 million, and $1.1 million, respectively.

Self-Insurance. We are self-insured for certain healthcare benefits provided to our U.S. employees. The liability for the self-insured benefits is limited by the purchase of stop-loss insurance. The stop-loss coverage provides payment for claims exceeding $0.2 million per covered person for any given year. Accruals for losses are made based on our claim experience and estimates based on historical data. Actual losses may differ from accrued amounts. Should actual losses exceed the amounts expected and, as a result, the recorded liabilities are determined to be insufficient, an additional expense will be recorded.

Note 3. Recent Accounting Pronouncements

In December 2010, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2010-28, When to Perform Step 2 of the Goodwill Impairment Test for Reporting Units with Zero or Negative Carrying Amounts. This ASU amends guidance for Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. ASU 2010-28 is effective for fiscal years and interim periods beginning after December 15, 2010, with early adoption not permitted. The adoption of ASU 2010-28 did not have a material impact on our financial position, results of operations, or cash flows.

In December 2010, the FASB issued ASU 2010-29, Disclosure of Supplementary Pro Forma Information for Business Combinations. This ASU specifies that if a public company presents comparative financial statements, the entity should only disclose revenue and earnings of the combined entity as though the business combination(s) that occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period. ASU 2010-29 is effective prospectively for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2010, with early adoption permitted. The adoption of ASU 2010-29 did not impact our financial position, results of operations, or cash flows, as its requirements only pertain to financial statement footnote disclosure.

In April 2011, the FASB issued ASU 2011-04, Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRS. This ASU amends current fair value measurement and disclosure guidance to include increased transparency around valuation input and investment categorization. ASU 2011-04 is effective for fiscal years and interim periods beginning after December 15, 2011, with early adoption not permitted. We do not believe that the adoption of ASU 2011-04 in the first quarter of 2012 will have an impact on our financial position, results of operations, or cash flows.

In June 2011, the FASB issued ASU 2011-05, Comprehensive Income (Topic 220): Presentation of Comprehensive Income. ASU 2011-05 allows an entity to present components of net income and other comprehensive income in one continuous statement, referred to as the statement of comprehensive income, or in two separate, but consecutive statements. ASU 2011-05 eliminates the option to present the components of other comprehensive income as part of the statement of changes in stockholders' equity. In December 2011, the FASB issued ASU 2011-12 "Comprehensive Income (Topic 220): Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05." ASU 2011-12 deferred the effective date of the specific requirement to present items that are reclassified out of accumulated other comprehensive income to net income alongside their respective components of net income and other comprehensive income. While the new guidance changes the presentation of comprehensive income, there are no changes to the components that are recognized in net income or other comprehensive income under current accounting guidance.

ASU 2011-05 is effective for fiscal years and interim periods beginning after December 15, 2011 and must be applied retrospectively. We do not believe that the adoption of ASU 2011-05 will have an impact on our financial position, results of operations, or cash flows.

In September 2011, the FASB issued ASU 2011-08, Intangibles - Goodwill and Other (Topic 350): Testing Goodwill for Impairment. ASU 2011-08 permits an entity to make a qualitative assessment of whether it is more-likely-than-not that a reporting unit's fair value is less than its carrying value to determine whether it is necessary to perform the two-step goodwill impairment test. If it is determined through the qualitative assessment that a reporting unit’s fair value is more-likely-than-not greater than its carrying value, the two-step impairment tests are not required. The qualitative assessment is optional, allowing entities to go directly to the two-step impairment test. ASU 2011-08 is effective for annual and interim goodwill impairment tests performed in fiscal years beginning after December 15, 2011, with early adoption permitted. We elected to adopt the guidance effective October 1, 2011. The adoption of ASU 2011-08 did not have an impact on our financial position, results of operations, or cash flows.

In December 2011, the FASB issued ASU 2011-11, Balance Sheet (Topic 210), Disclosures about Offsetting Assets and Liabilities, which requires companies to disclose information about financial instruments that have been offset and related arrangements to enable users of their financial statements to understand the effect of those arrangements on their financial position. Companies will be required to provide both net (offset amounts) and gross information in the notes to the financial statements for relevant assets and liabilities that are offset. ASU 2011-11 is effective for fiscal years, and interim periods within those years, beginning on or after January 1, 2013. We are evaluating the effect the adoption of ASU 2011-11 in the first quarter of 2013 will have on our financial position, results of operations, or cash flows.

Note 4. Restructuring and Acquisitions

December 2011 Restructuring

In December 2011, executive management approved a set of restructuring initiatives intended to accelerate operating cost reductions and improve overall operating efficiency. In connection with these restructuring initiatives, we incurred total charges to operating expense of $60.4 million in the fourth quarter of 2011. These charges consisted primarily of (i) $53.6 million of asset impairment and related charges due to a significant reduction in certain research and development activities that had been focused on an alternative PV product, and (ii) $6.8 million in severance benefits to terminated employees as described below, most of which is expected to be paid out by the end of 2012. We expect to incur an additional $1.6 million in 2012 related to such restructuring initiatives.

We are refocusing our research and development center in Santa Clara, California on the development of advanced CdTe PV technologies, compared to a broader research and development effort up until now. We eliminated 101 positions company-wide as part of the restructuring initiatives.

The following table summarizes the restructuring activities in fiscal 2011 and the remaining balance at December 31, 2011:

Fiscal 2011	Charges to Income	Other/CTA	Cash Payments	Non-cash amounts	Ending Balance at December 31, 2011
Asset Impairments	$50,298	$—	$—	$(50,298)	$—
Severance and Termination Related Costs	6,807	—	—	—	6,807
Asset Impairment Related Costs	3,261	—	—	(915)	2,346
Total	$60,366	$—	$—	$(51,213)	$9,153

Expenses recognized for the restructuring activities are presented in “Restructuring” on the consolidated statements of operations. Substantially all expenses related to the restructuring were related to our components segment.

February 2012 Manufacturing Restructuring

In February 2012, executive management completed an evaluation of and approved a set of manufacturing capacity and other initiatives primarily intended to adjust our previously planned manufacturing capacity expansions and global manufacturing footprint. The primary goal of these initiatives is to better align production capacity and geographic location of such capacity with expected geographic market requirements and demand. In connection with these initiatives, we expect to incur total charges to operating expense of up to $135 million during the first half of 2012 and up to $140 million in total by the time such initiatives are complete, which is expected to be by the end of 2012. These expected charges consist primarily of (i) between $60 million to $100 million of asset impairment and related charges due to our decision in February 2012 not to proceed with our 4-line manufacturing plant under construction in Vietnam (carrying value of $134.4 million as of December 31, 2011), (ii) between $20 million and $30

million of asset impairment and related charges due to our decision in February 2012 to cease the use of certain manufacturing machinery and equipment intended for use in the production of certain components of our solar modules (carrying value of $28.5 million as of December 31, 2011), and (iii) between $5 million to $10 million of asset impairment and related charges primarily due to our decision in February 2012 to cease use of certain other long-lived assets (carrying value of $7.2 million as of December 31, 2011).

Based upon expected future market demand and our focus on providing utility-scale PV generation solutions primarily to sustainable geographic markets, we have decided not to proceed with our previously announced 4-line plant in Vietnam. We expect to actively market the plant for sale after all necessary construction has been completed, which is currently expected to occur in the first half of 2012. Once certain criteria are met including the completion of all necessary construction activities and active

marketing of the Vietnam plant, we expect to meet the “held for sale” criteria, at which time we expect to record an impairment charge based primarily upon the then-current fair value of the Vietnam plant.

We evaluated the asset group that includes our manufacturing plant under construction in Vietnam, which is considered “held and used”, for potential impairment as of December 31, 2011 in accordance with ASC 360. In performing the recoverability test, we concluded that the long-lived asset group was recoverable after comparing the undiscounted future cash flows, including the eventual disposition of the asset group at market value, to the asset group's carrying value.

We also evaluated the asset group that includes certain manufacturing machinery and equipment intended for use in the production of certain components of our solar modules, which is considered “held and used”, for potential impairment as of December 31, 2011 in accordance with ASC 360. In performing the recoverability test, we concluded that the long-lived asset group was recoverable after comparing the undiscounted future cash flows, including the eventual disposition of the asset group at market value, to the asset group's carrying value. In connection with the decision in February 2012 to cease use of such machinery and equipment, the assets are considered abandoned for accounting purposes. As a result, we expect to record an impairment charge in the first quarter of 2012.

Fiscal 2011 Acquisition

Ray Tracker

On January 4, 2011, we acquired 100% of the ownership interest of Ray Tracker, Inc., a tracking technology and PV BoS business in an all-cash transaction, which was not material to our consolidated balance sheets and results of operations. We have included the financial results of Ray Tracker in our consolidated financial statements from the date of acquisition. During the year ended December 31, 2011, Ray Tracker did not contribute a material amount to our net sales and net income.

Fiscal 2010 Acquisition

NextLight Renewable Power

On July 12, 2010, we completed the acquisition of NextLight Renewable Power, LLC (NextLight), a leading developer of utility-scale solar projects in the southwestern United States. NextLight was formed by a private equity firm focused on investing in North America’s energy infrastructure. This transaction expanded our pipeline of solar power projects in the southwestern United States and supports our expansion in the U.S. utility-scale power market. We have integrated NextLight into our systems business, which provides a complete PV solar power solution, including project development, EPC services, O&M services, when applicable, and project finance, when required.

Purchase Price Consideration

The total consideration for this acquisition was $296.7 million in an all-cash transaction.

Purchase Price Allocation

We accounted for this acquisition using the acquisition method in accordance with ASC 805, Business Combinations. Accordingly, we allocated the purchase price of the acquired assets and liabilities based on their estimated fair values at the acquisition date (July 12, 2010) as summarized in the following table (in thousands):

Tangible assets acquired	$2,513
Project assets	147,370

Deferred tax assets	84
Goodwill	146,773
Total purchase consideration	$296,740

The fair value of net tangible assets acquired on July 12, 2010 consisted of the following (in thousands):

Cash	$244
Prepaid expenses and other current assets	346
Property, plant and equipment	996
Land	3,380
Total tangible assets acquired	4,966
Accounts payable and other liabilities	(2,453)
Total liabilities assumed	(2,453)
Net tangible assets acquired	$2,513

Acquisition Related Costs

Acquisition related costs recognized in the year ended December 31, 2010 included transaction costs, which we have classified in selling, general and administrative expense in our consolidated statements of operations. During the year ended December 31, 2010, transaction costs such as legal, accounting, valuation, and other professional services were $1.9 million.

Pro Forma Information (Unaudited)

NextLight had been engaged in the development of solar power projects but had not reached the point of sale for any of the projects as of the acquisition date. The pre-tax loss of NextLight for the period from January 1 to July 12, 2010 and for the 12 months ended December 31, 2009 was $9.1 million and $13.4 million, respectively. Therefore, had the acquisition of NextLight occurred on December 27, 2009 (the first day of our fiscal year 2010), our reported net sales would not have changed and our reported net income would not have materially changed from the amounts previously reported.

Fiscal 2009 Acquisition

OptiSolar

On April 3, 2009, we completed the acquisition of the solar power project development business of OptiSolar Inc. (OptiSolar), which included a multi-gigawatt project pipeline. We have integrated the acquired project pipeline of OptiSolar into our systems business, which provides a complete PV solar power system solution, including project development, EPC services, O&M services, when applicable, and project finance, when required.

Part of the consideration that we paid to acquire OptiSolar's power project development business was 2,972,420 shares of First Solar common stock, par value $0.001 per share (the Merger Shares), of which 732,789 shares were issued and deposited with an escrow agent to support certain indemnification obligations of the seller, OptiSolar Holdings, LLC (OptiSolar Holdings). On April 16, 2010, 146,558 shares of the common stock deposited with an escrow agent were released. Also, 355,096 shares were holdback shares as further described below under "Contingent Consideration" (the "Holdback Shares"). As of December 31, 2011, all of the Merger Shares have been issued. The period during which claims for indemnification from the escrow fund may be initiated began on April 3, 2009 and ended on April 3, 2011.

Purchase Price Consideration

The total consideration for this acquisition, based on the closing price of our common stock on April 3, 2009 of $134.38 per share, was $399.4 million.

Purchase Price Allocation

We accounted for this acquisition using the acquisition method in accordance with ASC 805, Business Combinations. Accordingly, we allocated the purchase price of the acquired assets and liabilities based on their estimated fair values at the acquisition date (April 3, 2009) as summarized in the following table (in thousands):

Tangible assets acquired	$10,175
Project assets	103,888
Deferred tax assets, net	35,195
Goodwill	250,176
Total purchase consideration	$399,434

The fair value of net tangible assets acquired on April 3, 2009 consisted of the following (in thousands):

Cash	$318
Prepaid expenses and other current assets	5,003
Property, plant and equipment	165
Project assets — land	6,100
Total tangible assets acquired	11,586
Accounts payable and other liabilities	(1,411)
Total liabilities assumed	(1,411)
Net tangible assets acquired	$10,175

Contingent Consideration

Pursuant to the Merger Agreement, of the 2,972,420 Merger Shares, as of April 3, 2009, 355,096 shares were Holdback Shares that were issuable to OptiSolar Holdings upon satisfaction of conditions relating to certain then-existing liabilities of OptiSolar. During the year ended December 31, 2011, 8,316 Holdback Shares were issued to OptiSolar Holdings. As of December 31, 2011, all of the Holdback Shares had been issued to OptiSolar Holdings.

Acquisition Related Costs

Acquisition related costs recognized in the year ended December 26, 2009, included transaction costs and integration costs, which we have classified in selling, general and administrative expense in our consolidated statements of operations. During the year ended December 26, 2009, transaction costs such as legal, accounting, and other professional services were $1.6 million. Integration costs during the year ended December 26, 2009 were $0.6 million.

Pro Forma Information (Unaudited)

The acquired OptiSolar business had been engaged in the development and construction of solar power projects. The costs related to these activities were largely capitalized as of the acquisition date. Therefore, if the OptiSolar acquisition had been completed on December 27, 2009 (the first day of our fiscal year 2010), our total net sales, net income and basic and diluted earnings per common share would have not materially changed from the amounts previously reported.

Acquired Project Assets and Tangible Assets

Through the acquisitions of OptiSolar and NextLight we acquired project assets, which represent solar power projects in various stages of development. Management engaged a third party valuation firm to assist with the determination of the fair value of the acquired project development businesses. In our determination of the fair value of the project assets acquired, we considered, among other factors, three generally accepted valuation approaches: the income approach, market approach, and cost approach. We selected the approaches that are most indicative of the fair value of the assets acquired. We used the income approach to calculate the fair value of the acquired project assets based on estimates and assumptions of future performance of these project assets provided by OptiSolar's and NextLight's management and our management. We used the market approach to determine the fair value of the land and related options acquired with those assets. See Note 8. "Consolidated Balance Sheet Details," to our consolidated financial

statements for period-end balances of project assets.

Management has estimated the fair value of tangible assets acquired and concluded that the carrying value approximates the fair value as of the respective acquisition dates.

Note 5. Goodwill and Intangible Assets

Goodwill

The changes in the carrying amount of goodwill for the years ended December 31, 2011 and December 31, 2010 were as follows (in thousands):

	Components	Systems	Consolidated
Ending balance, December 26, 2009	$251,275	$35,240	$286,515
Goodwill from acquisition	142,090	4,683	146,773
Ending balance, December 31, 2010	393,365	39,923	433,288
Goodwill from acquisition	—	25,521	25,521
Goodwill impairment	(393,365)	—	(393,365)
Ending balance, December 31, 2011	$—	$65,444	$65,444

Goodwill represents the excess of the purchase price of acquired businesses over the estimated fair value assigned to the individual assets acquired and liabilities assumed. We do not amortize goodwill, but instead are required to test goodwill for impairment at least annually in the fourth quarter and, if necessary, we would record any impairment in accordance with ASC 350, Intangibles - Goodwill and Other. We will perform an impairment test between scheduled annual tests if facts and circumstances indicate that it is more-likely-than-not that the fair value of a reporting unit that has goodwill is less than its carrying value. See Note 2. “Summary of Significant Accounting Policies,” for details on our policy on goodwill impairment testing.

As of December 31, 2010, the $393.4 million in goodwill related to our components reporting unit primarily represented goodwill allocated from the acquisitions of OptiSolar in 2009 and NextLight in 2010. The allocation of substantially all the goodwill from these acquisitions to our components reporting unit represented the expected synergies, economies of scale and vertical integration our components business would realize from using our solar modules in the project pipelines obtained from these acquisitions. The goodwill allocation to our components business was consistent with our historical view that the systems business has functioned as an “enabler” for the components business to drive module throughput. Once goodwill has been assigned to a reporting unit, for accounting purposes, the goodwill is no longer directly associated with the underlying acquisitions that the goodwill originated from, but rather the reporting unit to which it has been allocated.

We commenced our annual goodwill impairment test in the fourth quarter of 2011 (as of October 1, 2011). However, considering qualitative factors including the continuing reduction in our market capitalization during December 2011 and our new business strategy and 2012 outlook announced in December 2011, we concluded that a two-step goodwill impairment test was required for both of our reporting units.

In estimating the fair value of our reporting units in the first step of the impairment test, significant management judgment was required. In using the income approach methodology of valuation, our estimates to determine the fair value of our reporting units included management judgment related to forecasts of future operating results, discount rates, and expected future growth rates that are used in the discounted cash flow method of valuation. In using the market approach methodology of valuation, we must make judgments related to the selection of comparable businesses. The sum of the fair values of our reporting units is also compared to our external market capitalization in order for us to assess the appropriateness of such estimates. The underlying assumptions used in the first step of the impairment test considered our market capitalization as of December 31, 2011 and the current industry environment and its expected impact on the fair value of our reporting units. We determined that the fair value of our systems reporting unit exceeded the carrying value by a significant amount indicating no impairment was necessary for the systems reporting unit. We determined the fair value of the components reporting unit was less than the carrying value, which required us to perform the second step of the impairment test for the components reporting unit.

We performed the second step of the impairment test to determine the implied fair value of goodwill for the components reporting unit, which requires us to allocate the fair value of the components reporting unit determined in

step one to all of the assets and liabilities including any unrecognized intangible assets of the components reporting unit. We determined the implied fair value of goodwill in the components reporting unit to be zero. As a result, we impaired all of the goodwill in the components reporting unit and recorded $393.4 million of impairment expense, which also represents our accumulated goodwill impairment losses.

We recorded no goodwill impairment charges for the years ended December 31, 2010, and December 26, 2009.

Intangible Assets

In connection with the acquisition of Ray Tracker, Inc., we recorded certain intangible assets. We amortize the acquisition date fair value of these assets on a straight-line basis. As of December 31, 2011, these assets are included in “Prepaid expenses

and other current assets" on our consolidated balance sheets.

Included in "Other assets" on our consolidated balance sheets are internally-generated intangible assets, substantially all of which are patents on technologies related to our products and production processes. We record an asset for patents, after the patent has been issued, based on the legal, filing, and other costs incurred to secure them, and we amortize these costs on a straight-line basis over the estimated useful lives.

Amortization expense for our intangible assets was $2.0 million, $0.1 million, and $0.1 million for the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively. These intangible assets consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Acquisition related intangible assets	$ 4,000	$ —
Patents	$ 2,135	$ 1,624
Intangible assets, gross	$ 6,135	$ 1,624
Accumulated amortization	(3,280)	(1,250)
Intangible assets, net	$ 2,855	$ 374

Estimated future amortization expense for our intangible assets is as follows at December 31, 2011 (in thousands):

2012	$2,093
2013	93
2014	93
2015	91
2016	88
Thereafter	397
Total estimated future amortization expense	$2,855

Note 6. Cash, Cash Equivalents, and Marketable Securities

Cash, cash equivalents, and marketable securities consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Cash and cash equivalents:		
Cash	$ 579,241	$ 742,200
Cash equivalents:		
Commercial paper	—	1,200
Money market mutual funds	26,378	22,289
Total cash and cash equivalents	605,619	765,689
Marketable securities:		
Commercial paper	9,193	13,343
Corporate debt securities	55,011	98,602
Federal agency debt	50,081	45,875
Foreign agency debt	10,928	133,165
Foreign government obligations	9,120	9,143
Supranational debt	45,991	48,032
U.S. government obligations	2,014	—
Total marketable securities	182,338	348,160
Total cash, cash equivalents, and marketable securities	$ 787,957	$ 1,113,849

We have classified our marketable securities as “available-for-sale.” Accordingly, we record them at fair value and account for net unrealized gains and losses as a part of accumulated other comprehensive income. We report realized gains and losses on

the sale of our marketable securities in earnings, computed using the specific identification method. During the year ended December 31, 2011, we realized $0.9 million in gains and an immaterial amount in losses on our marketable securities. During the year ended December 31, 2010, we realized $0.9 million in gains and $0.6 million in losses on our marketable securities. During the year ended December 26, 2009, we realized $0.2 million in gains and an immaterial amount in losses on our marketable securities. See Note 10. “Fair Value Measurement,” to our consolidated financial statements for information about the fair value measurement of our marketable securities.

All of our available-for-sale marketable securities are subject to a periodic impairment review. We consider a marketable security to be impaired when its fair value is less than its carrying cost, in which case we would further review the marketable security to determine whether it is other-than-temporarily impaired. When we evaluate a marketable security for other-than-temporary impairment, we review factors such as the length of time and extent to which its fair value has been below its cost basis, the financial condition of the issuer and any changes thereto, our intent to sell, and whether it is more likely than not that we will be required to sell the marketable security before we have recovered its cost basis. If a marketable security were other-than-temporarily impaired, we would write it down through earnings to its impaired value and establish that as a new cost basis. We did not identify any of our marketable securities as other-than-temporarily impaired at December 31, 2011 and December 31, 2010.

The following tables summarize the unrealized gains and losses related to our available-for-sale marketable securities, by major security type, as of December 31, 2011 and December 31, 2010 (in thousands):

	As of December 31, 2011			
Security Type	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper	$9,192	$1	$—	$9,193
Corporate debt securities	55,150	13	152	55,011
Federal agency debt	50,035	54	8	50,081
Foreign agency debt	11,473	—	545	10,928
Foreign government obligations	9,128	1	9	9,120
Supranational debt	46,380	—	389	45,991
U.S. government obligations	1,999	15	—	2,014
Total	$183,357	$84	$1,103	$182,338

	As of December 31, 2010			
Security Type	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper	$13,340	$3	$—	$13,343
Corporate debt securities	98,148	592	138	98,602
Federal agency debt	45,858	21	4	45,875
Foreign agency debt	132,860	425	120	133,165
Foreign government obligations	9,137	8	2	9,143
Supranational debt	47,917	115	—	48,032
Total	$347,260	$1,164	$264	$348,160

Contractual maturities of our available-for-sale marketable securities as of December 31, 2011 and December 31, 2010 were as follows (in thousands):

	As of December 31, 2011			
Maturity	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
One year or less	$66,146	$30	$30	$66,146
One year to two years	97,538	54	854	96,738
Two years to three years	19,673	—	219	19,454
Total	$183,357	$84	$1,103	$182,338

	As of December 31, 2010			
Maturity	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
One year or less	$167,499	$398	$8	$167,889
One year to two years	177,268	759	256	177,771
Two years to three years	2,493	7	—	2,500
Total	$347,260	$1,164	$264	$348,160

The net unrealized loss of $1.0 million and the net unrealized gain of $0.9 million as of December 31, 2011 and December 31, 2010, respectively, on our available-for-sale marketable securities were primarily the result of changes in interest rates. We typically invest in highly-rated securities with low probabilities of default. Our investment policy requires investments to be highly rated and limits the security types, issuer concentration, and duration to maturity of our marketable securities.

The following table shows gross unrealized losses and estimated fair values for those marketable securities that were in an unrealized loss position as of December 31, 2011 and December 31, 2010, aggregated by major security type and the length of time that individual securities have been in a continuous loss position (in thousands):

	As of December 31, 2011					
	In Loss Position for Less Than 12 Months		In Loss Position for 12 Months or Greater		Total	
Security Type	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
Corporate debt securities	$47,763	$152	$—	$—	$47,763	$152
Federal agency debt	6,744	8	—	—	6,744	8
Foreign agency debt	8,176	545	—	—	8,176	545
Foreign government obligations	6,361	9	—	—	6,361	9
Supranational debt	45,991	389	—	—	45,991	389
Total	$115,035	$1,103	$—	$—	$115,035	$1,103

	As of December 31, 2010					
	In Loss Position for Less Than 12 Months		In Loss Position for 12 Months or Greater		Total	
Security Type	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
Corporate debt securities	$33,018	$138	$—	$—	$33,018	$138
Federal agency debt	11,721	4	—	—	11,721	4
Foreign agency debt	46,134	120	—	—	46,134	120

Foreign government obligations	4,515	2	—	—	4,515	2
Total	$95,388	$264	$—	$—	$95,388	$264

Note 7. Restricted Cash and Investments

Restricted cash and investments consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Restricted cash	$ 21,735	$ 19
Restricted investments	178,815	85,984
Total restricted cash and investments	$ 200,550	$ 86,003

On May 18, 2011, in connection with the plant expansion at our German manufacturing center, First Solar Manufacturing GmbH (FSM GmbH), our indirect wholly owned subsidiary, entered into a credit facility agreement (German Facility Agreement), as disclosed in Note 15. “Debt,” to these consolidated financial statements. Pursuant to the German Facility Agreement, FSM GmbH is required to maintain a euro-denominated debt service reserve account in the amount of €16.6 million ($21.6 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) pledged in favor of the lenders. The account is available solely to pay any outstanding interest and principal payments owed under the German Facility Agreement and was a component of our “Restricted cash” balance at December 31, 2011.

At December 31, 2011 and December 31, 2010, our restricted investments consisted of long-term marketable securities that we hold through a custodial account to fund future costs of our solar module collection and recycling program.

We annually fund the estimated collection and recycling cost for the prior year’s module sales within 90 days of the end of the fiscal year, assuming for this purpose a minimum service life of 25 years for our solar modules. To ensure that our collection and recycling program is available at all times and the pre-funded amounts are accessible regardless of our financial status in the future (even in the case of our own insolvency), we have established a trust structure under which funds are put into custodial accounts with a large bank as the investment advisor in the name of a trust, for which First Solar, Inc. (FSI), First Solar Malaysia Sdn. Bhd. (FS Malaysia), and FSM GmbH are grantors. Only the trustee can distribute funds from the custodial accounts and these funds cannot be accessed for any purpose other than for administering module collection and recycling, either by us or a third party executing the collection and recycling services. To provide further assurance that sufficient funds will be available, our module collection and recycling program, including the financing arrangement, is audited periodically by an independent third party auditor. Cash invested in this custodial account must meet the criteria of the highest quality investments, such as highly rated government or agency bonds.

The following table summarizes unrealized gains and losses related to our restricted investments by major security type as of December 31, 2011 and December 31, 2010 (in thousands):

	As of December 31, 2011			
Security Type	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Foreign government obligations	$132,734	$23,102	$—	$155,836
U.S. government obligations	15,825	7,154	—	22,979
Total	$148,559	$30,256	$—	$178,815

	As of December 31, 2010			
Security Type	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Foreign government obligations	$73,729	$6,529	$72	$80,186
U.S. government obligations	5,659	139	—	5,798
Total	$79,388	$6,668	$72	$85,984

As of December 31, 2011, the contractual maturities of these restricted investments were between 16 years and 24 years. As of December 31, 2010, the contractual maturities of these restricted investments were between 17 years and 25 years.

Note 8. Consolidated Balance Sheet Details

Accounts receivable trade, net

Accounts receivable trade, net consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Accounts receivable trade, gross	$ 320,600	$ 305,537
Allowance for doubtful accounts (1)	(10,032)	—
Accounts receivable trade, net	$ 310,568	$ 305,537

(1) During the three months ended September 30, 2011, we provided an allowance due to recent developments concerning the collectability of a past due account receivable from a specific customer.

During the third quarter of 2009, we amended our Supply Contracts with certain of our customers to implement a rebate program which provided a price rebate to these customers for solar modules purchased from us. The initial intent of this program was to enable our customers to successfully compete in the German market and to adjust, for eligible customers, the net sales price (which was included in framework agreements entered into several years ago) in light of market conditions.

The rebate program was offered for a defined period, during which customers were able to apply for and claim such rebates. The most recent rebate offering, for solar modules sold on or after December 1, 2010, included certain European geographic areas in addition to Germany.

The rebate program was established to enable the sell-through of our products at competitive prices. The amount of rebate earned during a fiscal quarter was based on (i) the volume of solar modules shipped to a customer (measured in watts), (ii) the volume of solar modules (measured in watts) registered for eligible projects in eligible geographic areas, provided that those solar modules were invoiced by the buyer to an end-user, and (iii) the rebate rate. The rebate program applied a specified rebate rate to solar modules sold for solar power projects in eligible geographic areas. Customers needed to meet certain requirements in order to be eligible for and benefit from this program. During the years ended December 31, 2011 and December 31, 2010, we experienced approximately 94% and 81% participation in this program by eligible customers, respectively.

We account for the rebates offered under this program and other consideration offered to customers as a reduction to the selling price of our solar modules and, therefore, as a reduction in revenue at the time of sale and recognize a contra-asset within accounts receivable trade, net. No rebates granted under this program can be claimed for cash; instead, rebates may only be applied to reduce outstanding accounts receivable balances after customer eligibility for such rebate claims has been verified.

During the year ended December 31, 2011, we extended rebates to customers in the amount of €62.5 million ($88.1 million at an average exchange rate of $1.41/€1.00 during fiscal 2011). At December 31, 2011, we had €1.1 million ($1.4 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) of rebate claims accrued, which reduced our accounts receivable accordingly. In addition, at December 31, 2011 we had €10.9 million ($14.2 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) of rebate claims accrued, which are included in other current liabilities. During the year ended December 31, 2010, we extended rebates to customers in the amount of €92.1 million ($123.4 million at an average exchange rate of $1.34/€1.00 during fiscal 2010). At December 31, 2010, we had €19.6 million ($25.5 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) of rebate claims accrued, which reduced our accounts receivable accordingly.

The rebate program ended as of September 30, 2011 and subsequent sales of solar modules under our Supply Contracts will be based upon a sales price without such rebate program. Through the first quarter of 2012, we will continue to process historical rebate claims against outstanding accounts receivable balances after customer eligibility for such rebate claims has been verified.

Accounts receivable, unbilled

Accounts receivable, unbilled represents revenue that has been recognized in advance of billing the customer. This is common for construction contracts. For example, we recognize revenue from contracts for the construction and sale of solar power systems which include the sale of project assets over the contractual period using applicable accounting methods. One applicable accounting method is the percentage-of-completion method of accounting, under which sales and gross profit are recognized as work is performed based on the relationship between actual costs incurred compared to the total estimated costs for completing the entire contract. Under this accounting method, revenue could be recognized under applicable revenue recognition criteria in advance of billing the customer, resulting in an amount recorded to Accounts receivable, unbilled. Once we meet the billing criteria under a construction contract, we bill our customer accordingly and reclassify the Accounts receivable, unbilled to Accounts receivable trade, net. Billing requirements vary by contract, but are generally structured around completion of certain construction milestones.

Accounts receivable, unbilled was $533.4 million and $1.5 million at December 31, 2011 and December 31, 2010, respectively. We expect to bill and collect these amounts within the next 12 months.

Inventories

Inventories consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Raw materials	$ 230,675	$ 162,190
Work in process	28,817	21,528
Finished goods	277,126	54,873
Total inventories	$ 536,618	$ 238,591
Inventories — current	$ 475,867	$ 195,863
Inventories — noncurrent (1)	$ 60,751	$ 42,728

(1) We purchase a critical raw material that is used in our core production process in quantities that exceed anticipated consumption within our operating cycle (which is 12 months). We classify the raw materials that we do not expect to be consumed within our operating cycle as noncurrent.

Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Prepaid expenses	$ 151,630	$ 46,016
Deferred project costs (1)	197,702	14,446
Derivative instruments	63,673	20,986
Other assets - current	113,729	61,585
Prepaid expenses and other current assets	$ 526,734	$ 143,033

(1) Deferred project costs represent (i) costs that we capitalize for arrangements that we account for as real estate transactions after we have entered into a definitive sales arrangement, but before we have met all of the criteria to recognize the sale as revenue, (ii) recoverable pre-contract costs that we capitalize for arrangements accounted for as long-term construction contracts prior to entering into a definitive sales agreement, or (iii) costs that we capitalize for arrangements accounted for as long-term construction contracts after we have signed a definitive sales agreement, but before all revenue recognition criteria have been met.

Property, plant and equipment, net

Property, plant and equipment, net consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Buildings and improvements	$ 393,676	$ 286,637
Machinery and equipment	1,453,293	997,510
Office equipment and furniture	110,936	70,569
Leasehold improvements	48,374	25,354
Depreciable property, plant and equipment, gross	2,006,279	1,380,070
Accumulated depreciation	(617,787)	(363,305)
Depreciable property, plant and equipment, net	1,388,492	1,016,765

Land	8,065	10,355
Construction in progress	419,401	403,669
Property, plant and equipment, net	$ 1,815,958	$ 1,430,789

During 2010, we were granted a $16.3 million tax credit under the Advanced Energy Tax Credit program enacted by the American Reinvestment and Recovery Act of 2009 for the expansion of our Perrysburg, Ohio manufacturing facility, and we

reduced the acquisition cost for the expansion of this facility accordingly.

Further, we are eligible to receive certain investment incentives related to building the expansion of our manufacturing plant in Frankfurt/Oder, Germany, including costs for the construction of buildings and the purchase of machinery and equipment. We account for these grants as a reduction to the carrying value of the property, plant and equipment they fund when there is reasonable assurance that we comply with the conditions attached to the grants and the grants will be received. See Note 11. “Economic Development Funding,” to our consolidated financial statements for further information about these grants.

Depreciation of property, plant and equipment was $230.2 million, $150.5 million, and $124.6 million for the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively.

Capitalized interest

We capitalized interest costs incurred into our property, plant and equipment or our project assets/deferred project costs as follows during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 (in thousands):

	2011	2010	2009
Interest cost incurred	$(15,349)	$(10,069)	$(11,902)
Interest cost capitalized – property, plant and equipment	7,483	6,177	3,310
Interest cost capitalized – project assets and deferred project costs	7,766	3,886	3,334
Interest expense, net	$(100)	$(6)	$(5,258)

Project assets

Project assets consist primarily of costs relating to solar power projects in various stages of development that we capitalize prior to the sale of the solar power project to a third party for further project development or the signing of a project construction contract. These costs include costs for land and costs for developing and constructing a PV solar power plant. Development costs can include legal, consulting, permitting, interconnect and other similar costs. Once we enter into a definitive sales agreement, we reclassify project assets to deferred project costs on our balance sheet until we have met the criteria to recognize the sale of the project assets as revenue. We expense these project assets to cost of sales as each respective project asset is sold to a customer, since the project is constructed for a customer (matching the underlying revenue recognition method). We classify project assets generally as noncurrent due to the time required to complete all activities to sell a specific project, which is typically longer than 12 months.

Project assets consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Project assets acquired through OptiSolar and NextLight	$ 5,731	$ 217,417
Project assets — land	13,704	13,781
Project assets — other	355,446	88,942
Project assets	$ 374,881	$ 320,140

In connection with the acquisition of the solar power project development businesses of OptiSolar and NextLight, we measured at fair value certain acquired project assets based on the varying development stages of each project asset on the acquisition date. Subsequent to the acquisitions of OptiSolar and NextLight, we incurred additional costs to further develop these projects.

We review project assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. We consider a project commercially viable if it is anticipated to be sellable for a profit once it is either fully developed or fully constructed. We consider a partially developed or partially constructed project commercially viable if the anticipated selling price is higher than the carrying value of the related project assets. We examine a number of factors to determine if the project will be profitable, the most notable of which is whether there are any changes in environmental, ecological, permitting, or regulatory conditions that impact the project. Such changes could cause the cost of the project to increase or the selling price of the project to decrease. If a project is considered not commercially viable, we impair the respective project asset and adjust it to fair value, with the resulting impairment recorded within operations.

Accrued expenses

Accrued expenses consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Accrued compensation and benefits	$ 57,480	$ 69,353
Accrued property, plant and equipment	41,015	53,741
Accrued inventory	46,028	25,686
Product warranty liability	78,637	11,226
Accrued expenses in excess of normal product warranty liability and related expenses (1)	89,893	28,921
Other accrued expenses	93,606	55,344
Accrued expenses	$ 406,659	$ 244,271

(1) $89.9 million of accrued expenses in excess of normal product warranty liability and related expenses as of December 31, 2011, consisted of the following commitments to certain customers, each related to the 2008-2009 manufacturing excursion and our related remediation program: (i) $51.3 million in estimated expenses for remediation efforts related to module removal, replacement and logistical services committed to and undertaken by us beyond the normal product warranty; and (ii) $38.6 million in estimated additional compensation payments to customers, under certain circumstances, for power lost prior to remediation of the customer's system under our remediation program. The increase in the accrued liability of $55.7 million during the fourth quarter of 2011 primarily was due to a change in estimates resulting from additional information received during the quarter from completed remediation efforts at certain sites and from the evaluation of information available after completion of the analysis on certain outstanding claims. Such additional information provided a further understanding of, and additional data regarding, the scope of our remediation efforts in connection with the manufacturing excursion, which led to an increase in estimates related to: (i) an increase in the number of modules expected to be removed; (ii) an increase in the number of modules expected to be replaced; and (iii) an increase in the expected cost of our post-sale expenses.

Our best estimate for such remediation program costs is based on evaluation and consideration of currently available information, including the estimated number of affected modules in the field, historical experience related to our remediation efforts, customer-provided data related to potentially affected systems, the estimated costs of performing the removal, replacement and logistical services and the post-sale expenses covered under our remediation program. In addition to those customers with solar modules affected by the manufacturing excursion that we have already identified, we are working with other customers who have made claims and may have affected modules. We are in the process of gathering information to complete our analysis of these remaining claims. Based upon our experience to date with our remediation approach, together with the data currently available, we estimate that, if we ultimately determine that remediation of these claims under our current remediation program is probable, we could incur additional costs of up to approximately $44 million in the then-current reporting period. This includes approximately $24 million beyond our limited warranty obligations in connection with these claims, including the costs of actual remediation and the costs of additional compensation payments to customers under certain circumstances, and approximately $20 million related to additional product warranty liability.

Other current liabilities

Other current liabilities consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Deferred revenue (1)	$ 41,925	$ 14,718
Derivative instruments	37,342	22,996
Deferred tax liabilities	6,612	34,601
Payments and billings for deferred project costs (2)	192,440	—

Other liabilities - current	58,252	27,361
Other current liabilities	$ 336,571	$ 99,676

(1) Deferred revenue will be recognized in net sales once all revenue recognition criteria are met.

(2) Payments and billings for deferred project costs represent customer payments received or customer billings made under the terms of certain systems project sales contracts for which all revenue recognition criteria under ASC 360 have not

yet been met. Such systems project costs are included as a component of deferred project costs.

Other liabilities

Other liabilities consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011	December 31, 2010
Product warranty liability	$ 79,105	$ 16,668
Other taxes payable	73,054	59,148
Payments and billings for deferred project costs (1)	167,374	—
Other liabilities - noncurrent	53,973	36,210
Other liabilities	$ 373,506	$ 112,026

(1) Payments and billings for deferred project costs represent customer payments received or customer billings made under the terms of certain systems project sales contracts for which all revenue recognition criteria under ASC 360 have not yet been met. Such systems project costs are included as a component of deferred project costs.

Note 9. Derivative Financial Instruments

As a global company, we are exposed in the normal course of business to interest rate and foreign currency risks that could affect our net assets, financial position, results of operations, and cash flows. We use derivative instruments to hedge against certain risks such as these, and we only hold derivative instruments for hedging purposes, not for speculative or trading purposes. Our use of derivative instruments is subject to internal controls based on centrally defined, performed, and controlled policies and procedures.

Depending on the terms of the specific derivative instruments and market conditions, some of our derivative instruments may be assets and others liabilities at any particular balance sheet date. As required by ASC 815, Derivatives and Hedging, we report all of our derivative instruments that are within the scope of that accounting standard at fair value. We account for changes in the fair value of derivatives instruments within accumulated other comprehensive income (loss) if the derivative instruments qualify for hedge accounting under ASC 815 and for those derivative instruments that do not qualify for hedge accounting (so-called “economic hedges”) we record the changes in fair value directly to current earnings. These accounting approaches, the various risks that we are exposed to in our business, and our use of derivative instruments to manage these risks are described below. See Note 10. “Fair Value Measurement,” to our consolidated financial statements for information about the techniques we use to measure the fair value of our derivative instruments.

The following tables present the fair values of derivative instruments included in our consolidated balance sheets as of December 31, 2011 and December 31, 2010 (in thousands):

	December 31, 2011			
	Prepaid Expenses and Other Current Assets	Other Assets	Other Current Liabilities	Other Liabilities
Derivatives designated as hedging instruments under ASC 815:				
Foreign exchange forward contracts	$28,415	$—	$—	$—
Cross-currency swap contracts	—	—	—	4,943
Interest rate swap contracts	—	—	444	2,127

Total derivatives designated as hedging instruments	$28,415	$—	$444	$7,070
Derivatives not designated as hedging instruments under ASC 815:				
Foreign exchange forward contracts	$35,258	$—	$36,898	$—
Total derivatives not designated as hedging instruments	$35,258	$—	$36,898	$—
Total derivative instruments	$63,673	$—	$37,342	$7,070

	December 31, 2010			
	Prepaid Expenses and Other Current Assets	Other Assets	Other Current Liabilities	Other Liabilities
Derivatives designated as hedging instruments under ASC 815:				
Foreign exchange forward contracts	$10,115	$880	$12,384	$58
Interest rate swap contracts	—	—	239	980
Total derivatives designated as hedging instruments	$10,115	$880	$12,623	$1,038
Derivatives not designated as hedging instruments under ASC 815:				
Foreign exchange forward contracts	$10,871	$—	$10,373	$—
Total derivatives not designated as hedging instruments	$10,871	$—	$10,373	$—
Total derivative instruments	$20,986	$880	$22,996	$1,038

The following table presents the effective amounts related to derivative instruments designated as cash flow hedges under ASC 815 affecting accumulated other comprehensive income (loss) and our consolidated statements of operations for the years ended December 31, 2011 and December 31, 2010 (in thousands):

	Foreign Exchange Forward Contracts	Interest Rate Swap Contracts	Cross Currency Swap Contract	Total
Balance at December 26, 2009	$(15,942)	$(1,083)	$—	$(17,025)
Amounts recognized in other comprehensive income (loss)	28,807	(1,507)	—	27,300
Amounts reclassified to earnings impacting:				
Net sales loss (gain)	(14,313)	—	—	(14,313)
Interest expense (income)	—	1,371	—	1,371
Balance at December 31, 2010	$(1,448)	$(1,219)	$—	$(2,667)
Amounts recognized in other comprehensive income (loss)	(12,086)	(2,112)	(5,042)	(19,240)
Amounts reclassified to net sales as a result of cash flow hedge discontinuance	(3,954)	—	—	(3,954)
Amounts reclassified to earnings impacting:				
Net sales loss (gain)	51,239	—	—	51,239
Foreign currency loss (gain)	—	—	(957)	(957)
Interest expense (income)	—	760	100	860
Balance at December 31, 2011	$33,751	$(2,571)	$(5,899)	$25,281

We recorded immaterial amounts of unrealized losses related to ineffective portions of our foreign exchange forward contracts designated as cash flow hedges during the years ended December 31, 2011 and December 31, 2010. In addition, we recognized unrealized losses of $2.7 million related to amounts excluded from effectiveness testing for our foreign exchange forward contracts designated as cash flow hedges within other income (expense) during the year ended December 31, 2011.

The following table presents the amounts related to derivative instruments not designated as cash flow hedges under ASC 815 affecting our consolidated statements of operations for the years ended December 31, 2011 and December 31, 2010 (in thousands):

Derivatives not designated as hedging instruments under ASC 815:	Amount of Gain (Loss) Recognized in Income on Derivatives Year Ended December 31, 2011	Year Ended December 31, 2010	Location of Gain (Loss) Recognized in Income on Derivatives
Foreign exchange forward contracts	$(1,796)	$(579)	Foreign currency gain (loss)
Foreign exchange forward contracts	$(1,884)	$(3,946)	Cost of sales
Foreign exchange forward contracts	$—	$11,743	Net sales

Interest Rate Risk

We use cross-currency swap contracts and interest rate swap contracts to mitigate our exposure to interest rate fluctuations associated with certain of our debt instruments; we do not use such swap contracts for speculative or trading purposes.

On November 16, 2011, we entered into an interest rate swap contract to hedge a portion of the floating rate loans under our German Facility Agreement, which became effective on November 18, 2011 with an initial notional value of €50.0 million and pursuant to which we are entitled to receive a three-month floating interest rate, the Euro Interbank Offered Rate (EURIBOR), and are required to pay a fixed rate of 1.985%. The notional amount of the interest rate swap contract is scheduled to decline in correspondence with scheduled principal payments on the underlying hedged debt. As of December 31, 2011, the notional value of this interest rate swap contract was €50.0 million. This derivative instrument qualifies for accounting as a cash flow hedge in accordance with ASC 815 and we designated it as such. We determined that our interest rate swap contract was highly effective as a cash flow hedge at December 31, 2011. For the year ended December 31, 2011, there was no ineffectiveness from this cash flow hedge.

On September 30, 2011, we entered into a cross-currency swap contract to hedge the floating rate foreign currency denominated loan under our Malaysian Ringgit Facility Agreement. This swap has an initial notional value of MYR 465.0 million and entitles us to receive a three-month floating Kuala Lumpur Interbank Offered Rate (KLIBOR) interest rate, and requires us to pay a U.S. dollar fixed rate of 3.495%. Additionally, this swap hedges the foreign currency risk of the Malaysian Ringgit denominated principal and interest payments as we make swap payments in U.S. dollars and receive swap payments in Malaysian Ringgits. The notional amount of the swap is scheduled to decline in correspondence to our scheduled principal payments on the underlying hedged debt. As of December 31, 2011, the notional value of this cross-currency swap contract was MYR 465.0 million. This swap is a derivative instrument that qualifies for accounting as a cash flow hedge in accordance with ASC 815 and we designated it as such. We determined that this swap was highly effective as a cash flow hedge at December 31, 2011. For the year ended December 31, 2011, there was no ineffectiveness from this cash flow hedge.

On May 29, 2009, we entered into an interest rate swap contract to hedge a portion of the floating rate loans under our Malaysian Facility Agreement, which became effective on September 30, 2009 with an initial notional value of €57.3 million and pursuant to which we are entitled to receive a six-month floating EURIBOR interest rate, and are required to pay a fixed rate of 2.80%. The notional amount of the interest rate swap contract is scheduled to decline in correspondence to our scheduled principal payments on the underlying hedged debt. As of December 31, 2011, the notional value of this interest rate swap contract was €38.5 million. This derivative instrument qualifies for accounting as a cash flow hedge in accordance with ASC 815 and we designated it as such. We determined that our interest rate swap contract was highly effective as a cash flow hedge at December 31, 2011 and December 31, 2010. For the year ended December 31, 2011, there was no ineffectiveness from this cash flow hedge.

In the following 12 months, we expect to reclassify to earnings $0.4 million of net unrealized losses related to the interest rate swap contracts and cross-currency swap contract that are included in accumulated other comprehensive income (loss) at December 31, 2011 as we realize the earnings effect of the underlying loans. The amount we ultimately record to earnings will depend on the actual interest and foreign exchange rates when we realize the earnings effect of the underlying loans.

Foreign Currency Exchange Risk

Cash Flow Exposure

We expect many of the components of our business to have material future cash flows, including revenues and expenses that will be denominated in currencies other than the component's functional currency. Our primary cash flow exposures are revenues and expenses. Changes in the exchange rates between our components' functional currencies and the other currencies in which they transact will cause fluctuations in the cash flows we expect to receive or pay when these cash flows are realized or settled. Accordingly, we enter into foreign exchange forward contracts to hedge a portion of these forecasted cash flows. As of December 31, 2011 and December 31, 2010, these foreign exchange contracts hedged our forecasted cash flows for up to 12 months and 18 months, respectively. These foreign exchange contracts qualify for accounting as cash flow hedges in accordance with ASC 815, and we designated them as such. We initially report the effective portion of the derivative instrument's gain or loss in accumulated other comprehensive income (loss) and subsequently reclassify amounts into earnings when the hedged transaction occurs and impacts earnings. We determined that these derivative financial instruments were highly effective as cash flow hedges at December 31, 2011 and December 31, 2010. In addition, during the year ended December 31, 2011, we did not discontinue any cash flow hedges because a hedging relationship was no longer highly effective.

During the year ended December 31, 2011, we purchased foreign exchange forward contracts to hedge the exchange risk on

forecasted cash flows denominated in Euro, Canadian dollar, and Australian dollar. As of December 31, 2011 and December 31, 2010, the notional values associated with our foreign exchange contracts that qualified for cash flow hedge accounting were as follows (notional amounts and U.S. dollar equivalents in millions):

Currency	Notional Amount	USD Equivalent	Weighted Average Forward Exchange Rate December 31, 2011	Balance sheet close rate on December 31, 2011
Euro	€81.0	$105.3	$1.37/€1.00	$1.30/€1.00
Canadian dollar	CAD 340.0	$333.2	$1.05/CAD1.00	$0.98/CAD1.00
Australian dollar	AUD 8.0	$8.2	$1.03/AUD1.00	$1.02/AUD1.00

Currency	Notional Amount	USD Equivalent	Weighted Average Forward Exchange Rate December 31, 2010	Balance sheet close rate on December 31, 2011
Euro	€742.0	$964.6	$1.33/€1.00	$1.30/€1.00

As of December 31, 2011, the unrealized gain on these contracts was $31.2 million. As of December 31, 2010, the unrealized loss on these contracts was $1.4 million.

In the following 12 months, we expect to reclassify to earnings $31.2 million of net unrealized gains related to these forward contracts that are included in accumulated other comprehensive income (loss) at December 31, 2011 as we realize the earnings effect of the related forecasted transactions. The amount we ultimately record to earnings will depend on the actual exchange rate when we realize the related forecasted transactions.

During the year ended December 31, 2011, we determined that certain forecasted transactions were probable of not occurring and we discontinued hedge accounting for those foreign exchange forward contracts in accordance with ASC 815. Discontinuance of these hedges resulted in a net gain of $4.0 million for the year ended December 31, 2011. In the following 12 months, we expect to reclassify to earnings $2.6 million of net unrealized gains related to foreign exchange forward contracts from accumulated other comprehensive income (loss) at December 31, 2011. Although these contracts are no longer designated as cash flow hedges, the related unrealized gains still receive hedge accounting treatment.

Transaction Exposure and Economic Hedging

Many components of our business have assets and liabilities (primarily receivables, investments, accounts payable, debt, and solar module collection and recycling liabilities) that are denominated in currencies other than the components' functional currencies. Changes in the exchange rates between our components' functional currencies and the other currencies in which these assets and liabilities are denominated can create fluctuations in our reported consolidated financial position, results of operations, and cash flows. We may enter into foreign exchange forward contracts or other financial instruments to economically hedge assets and liabilities against the effects of currency exchange rate fluctuations. The gains and losses on the foreign exchange forward contracts will economically offset all or part of the transaction gains and losses that we recognize in earnings on the related foreign currency assets and liabilities.

During the year ended December 31, 2011, we purchased foreign exchange forward contracts to hedge balance sheet and other exposures related to transactions with third parties. Such contracts are considered economic hedges and do not qualify for hedge accounting under ASC 815. We recognize gains or losses from the fluctuation in foreign exchange rates and the fair value of these derivative contracts in "Net sales," "Cost of sales," and "Foreign currency gain (loss)" on our consolidated statements of operations, depending on where the gain or loss from the economically hedged item is classified on our consolidated statements of operations. As of December 31, 2011, the total unrealized

loss on our economic hedge foreign exchange forward contracts was $8.2 million. These contracts have maturities of less than six months.

As of December 31, 2011, the notional values of our foreign exchange forward contracts that do not qualify for hedge accounting under ASC 815 were as follows (notional amounts and U.S. dollar equivalents in millions):

Transaction	Currency	Notional Amount	USD Equivalent	Balance sheet close rate on December 31, 2011
Purchase	Euro	€676.2	$879.1	$1.30/€1.00
Sell	Euro	€484.9	$630.4	$1.30/€1.00
Purchase	Australian dollar	AUD 2.9	$3.0	$1.02/AUD1.00
Sell	Australian dollar	AUD 8.2	$8.4	$1.02/AUD1.00
Purchase	Malaysian ringgit	MYR 159.7	$51.1	$0.32/MYR1.00
Sell	Malaysian ringgit	MYR 23.9	$7.6	$0.32/MYR1.00
Purchase	Japanese yen	JPY 248.0	$2.5	$0.01/JPY1.00
Purchase	Canadian dollar	CAD 16.5	$16.2	$0.98/CAD1.00
Sell	Canadian dollar	CAD 14.7	$14.4	$0.98/CAD1.00

The table above includes certain foreign exchange forward contracts originally designated as cash flow hedges but that were subsequently dedesignated.

Note 10. Fair Value Measurement

ASC 820, Fair Value Measurements and Disclosures, defines fair value, establishes a framework for measuring fair value in accordance with generally accepted accounting principles, and provides financial statement disclosure requirements for fair value measurements. ASC 820 defines fair value as the price that would be received from the sale of an asset or paid to transfer a liability (an exit price) on the measurement date in an orderly transaction between market participants in the principal or most advantageous market for the asset or liability. ASC 820 specifies a hierarchy of valuation techniques, which is based on whether the inputs into the valuation technique are observable or unobservable. The hierarchy is as follows:

- Level 1 — Valuation techniques in which all significant inputs are unadjusted quoted prices from active markets for assets or liabilities that are identical to the assets or liabilities being measured.

- Level 2 — Valuation techniques in which significant inputs include quoted prices from active markets for assets or liabilities that are similar to the assets or liabilities being measured and/or quoted prices for assets or liabilities that are identical or similar to the assets or liabilities being measured from markets that are not active. Also, model-derived valuations in which all significant inputs and significant value drivers are observable in active markets are Level 2 valuation techniques.

- Level 3 — Valuation techniques in which one or more significant inputs or significant value drivers are unobservable. Unobservable inputs are valuation technique inputs that reflect our own assumptions about the assumptions that market participants would use to price an asset or liability.

When available, we use quoted market prices to determine the fair value of an asset or liability. If quoted market prices are not available, we measure fair value using valuation techniques that use, when possible, current market-based or independently-sourced market parameters, such as interest rates and currency rates. The following is a description of the valuation techniques that we use to measure the fair value of assets and liabilities that we measure and report at fair value on a recurring or one-time basis:

- Cash equivalents. At December 31, 2011, our cash equivalents consisted of money market mutual funds. At December 31, 2010, our cash equivalents consisted of commercial paper and money market mutual funds. We value our commercial paper cash equivalents using quoted prices for securities with similar characteristics and other observable inputs (such as interest rates that are observable at commonly quoted intervals), and accordingly, we

classify the valuation techniques that use these inputs as Level 2. We value our money market cash equivalents using observable inputs that reflect quoted prices for securities with identical characteristics, and accordingly, we classify the valuation techniques that use these inputs as Level 1.

Marketable securities and restricted investments. At December 31, 2011, our marketable securities consisted of commercial paper, corporate debt securities, federal and foreign agency debt, foreign government obligations, supranational debt, and U.S. government obligations and our restricted investments consisted of foreign and U.S. government obligations. At December 31, 2010, our marketable securities consisted of commercial paper, corporate debt securities, federal and foreign agency debt, foreign government obligations, and supranational debt, and our restricted investments consisted of foreign and U.S. government obligations. We value our marketable securities and restricted

investments using quoted prices for securities with similar characteristics and other observable inputs (such as interest rates that are observable at commonly quoted intervals), and accordingly, we classify the valuation techniques that use these inputs as Level 2. We also consider the effect of our counterparties' credit standings in these fair value measurements.

- Derivative assets and liabilities. At December 31, 2011, our derivative assets and liabilities consisted of foreign exchange forward contracts involving major currencies, interest rate swap contracts involving benchmark interest rates, and a cross- currency swap including both. At December 31, 2010, our derivative assets and liabilities consisted of foreign exchange forward contracts involving major currencies, and interest rate swap contracts involving benchmark interest rates. Since our derivative assets and liabilities are not traded on an exchange, we value them using industry standard valuation models. Where applicable, these models project future cash flows and discount the future amounts to a present value using market-based observable inputs including interest rate curves, credit risk, foreign exchange rates, and forward and spot prices for currencies. These inputs are observable in active markets over the terms of the instruments we hold, and accordingly, we classify these valuation techniques as Level 2. We consider the effect of our own credit standing and that of our counterparties in our valuations of our derivative assets and liabilities.

- Solar module collection and recycling liability. We account for our obligation to collect and recycle the solar modules that we sell in a similar manner to the accounting for asset retirement obligations that is prescribed by ASC 410, Asset Retirement and Environmental Obligations. When we sell solar modules, we initially record our liability for collecting and recycling those particular solar modules at the fair value of this liability, and then in subsequent periods, we accrete this fair value to the estimated future cost of collecting and recycling the solar modules. Therefore, this is a one-time nonrecurring fair value measurement of the collection and recycling liability associated with each particular solar module sold.

Since there is not an established market for collecting and recycling our solar modules, we value our liability using a valuation model (an income approach). This fair value measurement requires us to use significant unobservable inputs, which are primarily estimates of collection and recycling process costs and estimates of future changes in costs due to inflation and future currency exchange rates. Accordingly, we classify these valuation techniques as Level 3. We estimate collection and recycling process costs based on analyses of the collection and recycling technologies that we are currently developing; we estimate future inflation costs based on analysis of historical trends; and we estimate future currency exchange rates based on current rate information. We consider the effect of our own credit standing in our measurement of the fair value of this liability.

At December 31, 2011 and December 31, 2010, information about inputs into the fair value measurements of our assets and liabilities that we make on a recurring basis was as follows (in thousands):

	As of December 31, 2011			
		Fair Value Measurements at Reporting Date Using		
	Total Fair Value and Carrying Value on Our Balance Sheet	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents:				
Money market mutual funds	$26,378	$26,378	$—	$—
Marketable securities:				
Commercial paper	9,193	—	9,193	—
Corporate debt securities	55,011	—	55,011	—
Federal agency debt	50,081	—	50,081	—
Foreign agency debt	10,928	—	10,928	—
Foreign government obligations	9,120	—	9,120	—
Supranational debt	45,991	—	45,991	—
U.S. government obligations	2,014	—	2,014	—
Restricted investments (excluding restricted cash)	178,815	—	178,815	—
Derivative assets	63,673	—	63,673	—
Total assets	$451,204	$26,378	$424,826	$—
Liabilities:				
Derivative liabilities	$44,412	$—	$44,412	$—

	As of December 31, 2010			
		Fair Value Measurements at Reporting Date Using		
	Total Fair Value and Carrying Value on Our Balance Sheet	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents:				
Commercial paper	$1,200	$—	$1,200	$—
Money market mutual funds	22,289	22,289	—	—
Marketable securities:				
Commercial paper	13,343	—	13,343	—
Corporate debt securities	98,602	—	98,602	—
Federal agency debt	45,875	—	45,875	—
Foreign agency debt	133,165	—	133,165	—
Foreign government obligations	9,143	—	9,143	—
Supranational debt	48,032	—	48,032	—
Restricted investments (excluding restricted cash)	85,984	—	85,984	—

Derivative assets	21,866	—	21,866	—
Total assets	$479,499	$22,289	$457,210	$—
Liabilities:				
Derivative liabilities	$24,034	$—	$24,034	$—

Fair Value of Financial Instruments

The carrying values and fair values of our financial instruments at December 31, 2011 and December 31, 2010 were as follows (in thousands):

	December 31, 2011		December 31, 2010	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Assets:				
Marketable securities - current and noncurrent	$182,338	$182,338	$348,160	$348,160
Foreign exchange forward contract assets	$63,673	$63,673	$21,866	$21,866
Restricted investments (excluding restricted cash)	$178,815	$178,815	$85,984	$85,984
Notes receivable - noncurrent	$9,086	$9,288	$9,314	$8,836
Liabilities:				
Long-term debt, including current maturities	$663,648	$670,662	$237,391	$240,176
Interest rate swap contract liabilities	$2,571	$2,571	$1,219	$1,219
Cross currency swap contract liabilities	$4,943	$4,943	$—	$—
Foreign exchange forward contract liabilities	$36,898	$36,898	$22,815	$22,815

The carrying values on our balance sheet of our cash and cash equivalents, accounts receivable, unbilled accounts receivable, restricted cash, accounts payable, income taxes payable, and accrued expenses approximate their fair values due to their short maturities; therefore, we exclude them from the foregoing table.

We estimated the fair value of our long-term debt in accordance with ASC 820 using a discounted cash flows approach (an income approach). We incorporated the credit risk of our counterparty for all asset fair value measurements and our credit risk for all liability fair value measurements.

Credit Risk

We have certain financial and derivative instruments that subject us to credit risk. These consist primarily of cash, cash equivalents, marketable securities, restricted investments, trade accounts receivable, interest rate swap and cross-currency swap contracts, and foreign exchange forward contracts. We are exposed to credit losses in the event of nonperformance by the counterparties to our financial and derivative instruments. We place cash, cash equivalents, marketable securities, restricted investments, trade accounts receivable, interest rate swap and cross-currency swap contracts, and foreign exchange forward contracts with various high-quality financial institutions and limit the amount of credit risk from any one counterparty. We continually evaluate the credit standing of our counterparty financial institutions.

Note 11. Economic Development Funding

On February 11, 2011 we were approved to receive taxable investment incentives (Investitionszuschüsse) of approximately €6.3 million ($8.2 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) from the State of Brandenburg, Germany. These funds will reimburse us for certain costs incurred related to the expansion of our manufacturing plant in Frankfurt/Oder, Germany, including costs for the construction of buildings and the purchase of machinery and equipment. Receipt of these incentives is conditional upon the State of Brandenburg having sufficient funds allocated to this program to pay the reimbursements we claim. Based on several factors, including the fiscal budget and credit rating of the State of Brandenburg among others, we believe that there is reasonable assurance that we will receive these grants. In addition, we are required to operate our facility for a minimum of five years and employ a specified number of associates during this period. We expect to meet these conditions based on our operating plans and current commitments. Our incentive approval expires on December 31, 2012. As of December 31, 2011, we had received cash payments of €5.3 million ($7.2 million at the average rate of $1.35/€1.00) under this program, and we had accrued €0.5 million ($0.7 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) that we are eligible to receive under this program based on qualifying expenditures that we had incurred through that date.

We are also eligible to recover up to approximately €17.2 million ($22.4 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) of expenditures related to the construction of our plant in Frankfurt/Oder, Germany under the German Investment Grant Act of 2010 (Investitionszulagen). This Act permits us to claim tax-exempt reimbursements for certain costs that we will incur related to the expansion of our manufacturing plant in Frankfurt/Oder, Germany, including costs for the construction of buildings and the purchase of machinery and equipment. Tangible assets subsidized under this program must remain in the region for at least five years. We expect to meet these conditions based on our operating plans and current commitments. As of December 31, 2011, we had received cash payments of €6.0 million ($7.8 million at the average rate of $1.30/€1.00) under this program, and we had accrued €9.6 million ($12.5 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) that we are eligible to receive under this program based on qualifying expenditures that we had incurred through that date.

We account for these grants as a deduction to the carrying value of the fixed assets they fund when there is reasonable assurance that we comply with the conditions attached to the grants and the grants will be received.

Note 12. Related Party Transactions

In October 2008, we made an investment, at a total cost of $25.0 million, in the preferred stock of a company based in the United States that supplies and installs solar power systems for commercial and residential customers. In the fourth fiscal quarter of 2008, we also entered into a long-term solar module supply agreement with this related party. This investment represented an ownership of approximately 11% of the voting interest in this company as of September 25, 2010 (the end of our third fiscal quarter) and was our only equity interest in that entity. Since our ownership interest in this company was less than 20%, we did not have significant influence over it, and the fair value was not readily determinable, we accounted for this investment using the cost method. On December 8, 2010, we sold our investment for $28.6 million in cash and terminated our long-term solar module supply agreement with this related party.

During the years ended December 31, 2010 and December 26, 2009, we recognized $9.6 million and $18.5 million, respectively, in net sales to this related party. At December 31, 2011 and December 31, 2010, we did not have any accounts receivable from this related party.

Note 13. Notes Receivable

On April 8, 2009, we entered into a credit facility agreement with a solar project entity of one of our customers for an available amount of €17.5 million ($22.8 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00) to provide financing for a PV power generation facility. The credit facility replaced a bridge loan that we had made to this entity. The credit facility bears interest at 8% per annum and the principal is due on December 31, 2026. As of December 31, 2011 and December 31, 2010, the balance on this credit facility was €7.0 million ($9.1 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00). The outstanding amount of this credit facility is included within “Other assets” on our consolidated balance sheets.

Note 14. Solar Module Collection and Recycling Liability

We established a voluntary module collection and recycling program to collect and recycle modules sold once these modules have reached the end of their useful lives. We include a description of our module collection and recycling program in our standard sales contracts. Under this arrangement, we agree to provide for the collection and recycling of our solar modules and the system owners agree to notify us, disassemble their solar power systems, package the solar modules for shipment, and revert ownership rights over the modules back to us at the end of the modules’ service lives.

At the time of sale, we have recorded accrued collection and recycling liabilities for the estimated fair value of our obligations for the collection and recycling of our solar modules that we have sold and we have made associated charges to cost of sales. We based our estimate of the fair value of our collection and recycling obligations on the present value of the expected future cost of collecting and recycling the modules, which includes the cost of the packaging materials for transporting the solar modules, the cost of freight from the module installation sites to a recycling center, the material, labor, and capital costs of the recycling process, and about the timing of when our solar modules will be returned for recycling. We based this estimate on our experience collecting and recycling our solar modules and on our expectations about future developments in recycling technologies and processes and about economic conditions at the time the modules will be collected and recycled. In the periods between the time of our sales and our settlement of the collection and recycling obligations, we accrete the carrying amount of the associated liability by applying the discount rate used for its initial measurement. We classify accretion expense as an other

operating expense within selling, general and administrative on our consolidated statement of operations. We periodically review our estimates of the expected future recycling costs and may adjust our accrual accordingly. During the fourth quarter of 2011 we completed an annual cost study and updated our estimates for the expected future recycling costs. As a result, we adjusted our module collection and recycling liability accordingly.

Our module collection and recycling liabilities totaled $167.4 million at December 31, 2011 and $133.0 million at December 31, 2010. We charged $38.3 million, $45.0 million, and $52.4 million to cost of sales for the fair value of our collection and recycling obligation for modules sold during the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively. The accretion expense on our collection and recycling obligations was $4.5 million, $1.6 million, and $2.4 million during the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively.

See also Note 7. “Restricted Cash and Investments,” to our consolidated financial statements for more information about our arrangements for funding of this liability.

Note 15. Debt

Our long-term debt consisted of the following at December 31, 2011 and December 31, 2010 (in thousands):

Type	December 31, 2011	December 31, 2010
Revolving Credit Facility	$ 200,000	$ 100,000
German Facility Agreement	140,085	—
Malaysian Ringgit Facility Agreement	146,725	—
Malaysian Euro Facility Agreement	67,556	—
Malaysian Facility Agreement	102,008	130,018
Director of Development of the State of Ohio	6,337	8,112
France Facility Agreement	4,833	—
Capital lease obligations	2,440	1,736
	669,984	239,866
Less unamortized discount	(6,336)	(2,475)
Total long-term debt	663,648	237,391
Less current portion	(44,505)	(26,587)
Noncurrent portion	$ 619,143	$ 210,804

We did not have any short-term debt at December 31, 2011 and December 31, 2010.

Revolving Credit Facility

On September 4, 2009, we entered into a credit agreement (Revolving Credit Facility) with several financial institutions as lenders. JPMorgan Securities LLC and Banc of America Securities LLC served as joint-lead arrangers and bookrunners, with JPMorgan Chase Bank, N.A. also acting as administrative agent. The Revolving Credit Facility provided FSI and FSM GmbH, a borrowing subsidiary under the credit facility, with a senior secured three-year revolving credit facility in an aggregate available amount of $300.0 million, a portion of which was available for letters of credit.

On October 15, 2010, we entered into an amended and restated Revolving Credit Facility which provides FSI and FSM GmbH with a senior secured five-year revolving credit facility in an aggregate available amount of $600.0 million, all of which is available for letters of credit. Subject to certain conditions, we have the right to request an increase in the aggregate commitments under the credit facility up to $750.0 million. Proceeds from the credit facility may be used for working capital and other general corporate purposes.

The Revolving Credit Facility consisted of the following at December 31, 2011 (in thousands):

Maturity	Denomination	Amended Capacity	Borrowings Outstanding December 31, 2011	Letters of Credit Outstanding December 31, 2011	Availability December 31, 2011
2015	USD	$600,000	$200,000	$148,745	$251,255

Borrowings under the Revolving Credit Facility bear interest at (i) the London Interbank Offering Rate (LIBOR) (adjusted for Eurocurrency reserve requirements) plus a margin of 2.25% or (ii) a base rate as defined in the credit agreement plus a margin of 1.25%, depending on the type of borrowing requested by us. These margins are subject to adjustments depending on our consolidated leverage ratio. As of December 31, 2011, based on the outstanding borrowings, the all-in effective LIBOR borrowing rate was 2.75%.

The Revolving Credit Facility contains the following financial covenants: a leverage ratio covenant, a minimum EBITDA covenant, and a minimum liquidity covenant. We are also subject to customary non-financial covenants. We were in compliance with these covenants through December 31, 2011.

In addition to paying interest on outstanding principal under the Revolving Credit Facility, we are required to pay a commitment fee, currently at the rate of 0.375% per annum, based on the average daily unused commitments under the facility. The commitment fee may also be adjusted due to changes in our consolidated leverage ratio. We also pay a letter of credit fee equal to the applicable

margin for Eurocurrency revolving loans on the face amount of each letter of credit and a fronting fee.

In connection with our Revolving Credit Facility, we entered into a guarantee and collateral agreement and various foreign security agreements. Loans made to FSM GmbH were (i) guaranteed by FSI pursuant to the guarantee and collateral agreement, (ii) guaranteed by certain of FSI's direct and indirect subsidiaries organized under the laws of Germany, pursuant to a German guarantee agreement, (iii) secured by share pledge agreements, (iv) secured by a security interest in inter-company receivables held by First Solar Holdings GmbH, First Solar GmbH, and FSM GmbH, pursuant to assignment agreements, and (v) subject to a security trust agreement, which sets forth additional terms regarding the foregoing German security documents and arrangements.

On May 6, 2011, we entered into the first amendment to the amended and restated Revolving Credit Facility which provided for, among other things, the termination of FSM GmbH as a borrowing subsidiary under the credit agreement and the release of the guarantees of, and the liens securing, its obligations thereunder. The amendment also effected certain changes to the restrictions set forth in the credit agreement with respect to the incurrence of indebtedness to finance the construction or acquisition of new manufacturing facilities and assets relating thereto. In addition, the amendment effected certain technical and clarifying amendments.

On June 30, 2011, we entered into the second amendment and waiver to the amended and restated Revolving Credit Facility. The amendment became effective as of June 30, 2011 upon receipt of approval thereof from the required lenders on July 11, 2011. The amendment provided for, among other things, the ability of restricted subsidiaries to incur indebtedness and guarantee obligations pursuant to letters of credit, bank guarantees, or similar instruments issued in the ordinary course of business; provided that the aggregate stated or face amount of all such letters of credit, bank guarantees, and similar instruments shall not exceed $50.0 million for all restricted subsidiaries outstanding at any time.

German Facility Agreement

On May 18, 2011, in connection with the plant expansion at our German manufacturing center, FSM GmbH, our indirect wholly owned subsidiary, entered into a credit facility agreement (German Facility Agreement) with Commerzbank Aktiengesellschaft as arranger and Commerzbank Aktiengesellschaft, Luxembourg Branch as facility agent and security agent.

The German Facility Agreement consisted of the following at December 31, 2011 (in thousands):

Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011	
EURIBOR plus 1.35% (1)	2019	EUR	€124,500	€107,923	€16,577	(2)

(1) We entered into an interest rate swap contract related to this loan. See Note 9. "Derivative Financial Instruments," to our consolidated financial statements.

(2) In January 2012, we canceled the remaining availability of the German Facility Agreement.

The proceeds of the German Facility Agreement were used by FSM GmbH to finance the acquisition of certain land parcels located in Frankfurt/Oder, Germany and for the construction of the plant expansion at our German manufacturing center. During the period from the date of the credit agreement until the date 17 months thereafter, unutilized commitments are subject to a commitment fee equal to 35% of the margin. Pursuant to the agreement, we will begin making semi-annual repayments of the principal balance during 2012. Amounts repaid under this credit

facility cannot be re-borrowed.

In connection with the German Facility Agreement, FSI concurrently entered into a guarantee agreement in favor of the lenders. Under this agreement, FSM GmbH’s obligations related to the credit facility are guaranteed, on an unsecured basis, by FSI. All of FSM GmbH's obligations are (i) secured by a first-ranking abstract land charge over the parcels of land on which the new production facility was constructed, security interests in all movable goods belonging to the expanded manufacturing center and a pledge of a debt service reserve account, and (ii) partially guaranteed by the German Federal Government and the Federal State of Brandenburg.

At December 31, 2011, land, buildings, equipment, and a debt service reserve account with net book values of $194.4 million were pledged as collateral for this loan. The debt service reserve account is included within “Restricted cash and investments” on our consolidated balance sheets. See Note 7. “Restricted Cash and Investments,” to our consolidated financial statements for further information about this account.

The German Facility Agreement contains the following financial covenants: a leverage ratio covenant, a minimum EBITDA covenant, and a minimum liquidity covenant. It also contains negative covenants that, among other things, restrict, subject to certain exceptions, the ability of FSM GmbH to incur indebtedness; create liens; effect asset sales; make dividends, other distributions, and share buybacks; engage in reorganizations; make acquisitions and create joint ventures; and make loans. We were in compliance with these covenants through December 31, 2011.

Malaysian Ringgit Facility Agreement

On June 30, 2011, in connection with the plant expansion at our Malaysian manufacturing center, FS Malaysia, our indirect wholly owned subsidiary, entered into a credit facility agreement (Malaysian Ringgit Facility Agreement), among FSI as guarantor, CIMB Investment Bank Berhad, Maybank Investment Bank Berhad, and RHB Investment Bank Berhad as arrangers with CIMB Investment Bank Berhad also acting as facility agent and security agent, and the original lenders party thereto.

The Malaysian Ringgit Facility Agreement consisted of the following at December 31, 2011 (in thousands):

Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011
KLIBOR plus 2.00% (1)	2018	MYR	RM465,000	RM465,000	RM—

(1) We entered into a cross-currency swap contract related to this loan. See Note 9. “Derivative Financial Instruments,” to our consolidated financial statements.

The proceeds of the Malaysian Ringgit Facility Agreement were used by FS Malaysia to finance, in part, the design, construction, and commission of our fifth and sixth manufacturing plants (Plants 5 and 6) in Kulim, Malaysia and the acquisition of certain plant, equipment and machinery installed in each plant.

FS Malaysia may voluntarily prepay outstanding loans under the Malaysian Ringgit Facility Agreement at any time without premium or penalty, subject to compensation for customary “break costs” and certain other requirements. FS Malaysia is required to prepay loans with certain insurance proceeds, and the loans are subject to mandatory prepayment upon the occurrence of a change of control, material asset disposal, or termination of the construction of Plants 5 and 6.

The loans made to FS Malaysia are secured by, among other things FS Malaysia’s leases over the leased lots on which Plants 5 and 6 are located and all plant, equipment and machinery purchased by FS Malaysia with the proceeds of the facility or otherwise installed in or utilized in Plants 5 and 6, to the extent not financed, or subject to a negative pledge under a separate financing facility relating to Plants 5 and 6. In addition, FS Malaysia’s obligations under the agreement are guaranteed, on an unsecured basis, by FSI.

At December 31, 2011, buildings, equipment, and land leases with net book values of $253.5 million were pledged as collateral for this loan.

The Malaysian Ringgit Facility Agreement contains negative covenants that, among other things, restrict, subject to certain exceptions, the ability of FS Malaysia to incur indebtedness, create liens, effect asset sales, engage in reorganizations, issue guarantees, and make loans. In addition, the agreement includes financial covenants relating to net total leverage ratio, interest coverage ratio, total debt to equity ratio, debt service coverage ratio, and tangible net worth. It also contains certain representations and warranties, affirmative covenants, and events of default provisions.

We were in compliance with all covenants through December 31, 2011.

On November 8, 2011, we entered into an amendment to the Malaysian Ringgit Facility Agreement which became effective as of September 30, 2011. The amendment replaces and clarifies certain terms and definitions related to the financial covenants included in the agreement.

Malaysian Euro Facility Agreement

On August 3, 2011, in connection with the plant expansion at our Malaysian manufacturing center, FS Malaysia, our indirect wholly owned subsidiary, entered into a credit facility agreement (Malaysian Euro Facility Agreement) with Commerzbank Aktiengesellschaft and Natixis Zweigniederlassung Deutschland as arrangers and original lenders, and Commerzbank

Aktiengesellschaft, Luxembourg Branch as facility agent and security agent.

The Malaysian Euro Facility Agreement consisted of the following at December 31, 2011 (in thousands):

Interest Rate	Maturity	Denomination	Original Capacity		Borrowings Outstanding December 31, 2011	Availability December 31, 2011
EURIBOR plus 1.00%	2018	EUR	€60,000	(1)	€52,046	€—

(1) Three euro-denominated term loan facilities are available to FS Malaysia in the following maximum aggregate amounts: €27.1 million, €32.0 million, and €0.9 million.

In connection with the Malaysian Euro Facility Agreement, FSI concurrently entered into a first demand guarantee agreement dated August 3, 2011 in favor of the lenders. Under this agreement, FS Malaysia's obligations related to the credit facility are guaranteed, on an unsecured basis, by FSI. At the same time, FS Malaysia and FSI also entered into a subordination agreement, pursuant to which any payment claims of FSI against FS Malaysia are subordinated to the claims of the lenders. The proceeds of the facilities will be used by FS Malaysia to finance, in part, the supply and construction of equipment installed in our fifth and sixth manufacturing plants (Plants 5 and 6) in Kulim, Malaysia and the payment of fees to be paid to Euler Hermes in connection with the Euler Hermes Guarantee.

On September 16, 2011, we entered into the first amendment to the Malaysian Euro Facility Agreement. The purpose of the amendment was primarily to clarify funding amounts and conditions including an updated description of the available facilities under the agreement.

FS Malaysia paid the facility agent in the form of a one-time upfront payment for the account of Commerzbank Aktiengesellschaft, as arranger, an arrangement fee of 0.35% and for the account of the lenders a participation fee of 0.65%, in each case of the aggregate amount of the facilities as of the date of the credit agreement.

During the period from the date of the credit agreement until November 25, 2011, unutilized commitments were subject to a commitment fee equal to 0.35% per annum. Pursuant to the agreement, we began making semi-annual repayments of the principal balance during 2011. Amounts repaid under this credit facility cannot be re-borrowed and shall be repaid in 14 semi-annual equal consecutive installments. At any time after the first repayment date, FS Malaysia may voluntarily prepay loans outstanding under the facilities on the last day of the interest period applicable thereto (subject to certain requirements, including with respect to minimum prepayment amounts). If the Euler Hermes Guarantee ceases to be in full force and effect or is repudiated, the facility agent at the direction of the lenders will cancel the available commitments under the facilities and declare the outstanding loans due and payable.

The Malaysian Euro Facility Agreement contains negative covenants that, among other things, restrict, subject to certain exceptions, the ability of FS Malaysia to grant liens over the equipment financed by the facilities, effect asset sales, provide guarantees, change its business, engage in mergers, consolidations and restructurings, and enter into contracts with First Solar, Inc. and its subsidiaries. In addition, the agreement includes the following financial covenants: maximum total debt to equity ratio, maximum total leverage ratio, minimum interest coverage ratio and minimum debt service coverage ratio. It also contains certain representations and warranties, affirmative covenants, and events of default provisions. We were in compliance with all covenants through December 31, 2011.

Malaysian Facility Agreement

On May 6, 2008, in connection with the plant expansion at our Malaysian manufacturing center, FS Malaysia, our indirect wholly owned subsidiary, entered into an export financing facility agreement (Malaysian Facility Agreement)

with a consortium of banks.

The Malaysian Facility Agreement consisted of the following facilities at December 31, 2011 (in thousands):

Borrowing	Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011
Fixed-rate facility	4.54%	2016	EUR	€67,000	€39,294	€—
Floating-rate facility	EURIBOR plus 0.55% (1)	2016	EUR	€67,000	€39,294	€—
				€134,000	€78,588	€—

(1) We entered into an interest rate swap contract related to this loan. See Note 9. “Derivative Financial Instruments,” to our consolidated financial statements.

The proceeds of the Malaysian Facility Agreement were used by FS Malaysia for the purpose of (i) partially financing the purchase of certain equipment used at our Malaysian manufacturing center, and (ii) financing fees paid to Euler-Hermes Kreditversicherungs-AG, the German Export Credit Agency of Hamburg, Federal Republic of Germany, which guarantees 95% of FS Malaysia's obligations related to these credit facilities. In addition to paying interest on outstanding principal under the facilities, FS Malaysia is obligated to pay annual agency fees and security agency fees. Pursuant to the agreement, we began semi-annual repayments of the principal balances of these credit facilities during 2008. Amounts repaid under these credit facilities cannot be re-borrowed.

In connection with the Malaysian Facility Agreement, FSI concurrently entered into a first demand guarantee agreement dated May 6, 2008 in favor of the lenders. Thereby FS Malaysia’s obligations related to the agreement are guaranteed, on an unsecured basis, by First Solar, Inc. In connection with the Malaysian Facility Agreement, all of FS Malaysia’s obligations are secured by a first party, first legal charge over the equipment financed by the credit facilities, and the other documents, contracts, and agreements related to that equipment. Also in connection with the agreement, any payment claims of First Solar, Inc. against FS Malaysia are subordinated to the claims of the lenders.

At December 31, 2011, equipment with a net book value of $122.3 million was pledged as collateral for these loans.

The Malaysian Facility Agreement contains various financial covenants with which we must comply, including a debt to equity ratio, a total leverage ratio, an interest coverage ratio, and a debt service coverage ratio. The agreement also contains various customary non-financial covenants with which FS Malaysia must comply, including submitting various financial reports and business forecasts to the lenders, maintaining adequate insurance, complying with applicable laws and regulations, and restrictions on FS Malaysia’s ability to sell or encumber assets, or make loan guarantees to third parties. We were in compliance with all covenants through December 31, 2011.

Director of Development of the State of Ohio

During the year ended December 31, 2005, we received a loan from the Director of Development of the State of Ohio which consisted of the following at December 31, 2011 (in thousands):

Interest Rate	Maturity	Denomination	Original Capacity	Borrowings Outstanding December 31, 2011	Availability December 31, 2011
2.25%	2015	USD	$15,000	$6,337	$—

At December 31, 2011, land and buildings with net book values of $18.9 million were pledged as collateral for this loan.

France Facility Agreement

On March 30, 2010, in connection with the construction of our planned manufacturing facility in Blanquefort, France, First Solar France Manufacturing SAS, our indirect wholly owned subsidiary, entered into a facility agreement (France Facility Agreement) with EDF Energies Nouvelles SA (EDF-EN) for the purpose of partially financing the construction of the manufacturing facility. The total available loan amount under this non-revolving credit facility is a maximum principal amount of €50.0 million ($65.0 million at the balance sheet close rate on December 31, 2011 of $1.30/€1.00). Pursuant to the terms and conditions set forth in the facility agreement, advances will be made available commencing on the start of construction of the French plant and ending June 15, 2012. Advances must be repaid in quarterly installments through the tenth anniversary of the first commercial shipments from the French plant, subject to accelerated mandatory prepayment in the event of a default under the facility or the termination

of the related venture agreement or off-take agreement with EDF-EN and affiliated entities. Amounts repaid under this credit facility cannot be re-borrowed. The borrowings bear interest at a rate of 4%. Any advances drawn under this facility are unsecured. As of December 31, 2011, borrowings under this facility were €3.7 million. As of December 31, 2010, there were no borrowings under this facility.

Future Principal Payments

At December 31, 2011, future principal payments on our long-term debt, excluding payments related to capital leases, which are disclosed in Note 16. “Commitments and Contingencies,” to these consolidated financial statements, were due as follows (in thousands):

2012	$46,368
2013	80,187
2014	80,225
2015	279,137
2016	56,222
Thereafter	125,405
Total long-term debt future principal payments	$667,544

Certain of our debt-financing agreements bear interest at EURIBOR, KLIBOR, or LIBOR. A disruption of the credit environment, as previously experienced, could negatively impact interbank lending and, therefore, negatively impact these floating rates. An increase in EURIBOR would impact our cost of borrowing under the unhedged portion of our German Facility Agreement and our entire Malaysian Euro Facility Agreement, but would not impact our cost of borrowing of the floating-rate term loan under our Malaysian Facility Agreement or the hedged portion of our German Facility Agreement as we entered into interest rate swap contracts to mitigate such risk. An increase in KLIBOR would not increase our cost of borrowing under our Malaysian Ringgit Facility Agreement as we entered into a cross currency swap contract to mitigate such risk. An increase in LIBOR would increase our cost of borrowing under our Revolving Credit Facility.

Note 16. Commitments and Contingencies

Financial Guarantees

In the normal course of business, we occasionally enter into agreements with third parties under which we guarantee the performance of our subsidiaries related to certain service contracts, which may include services such as development, engineering, procurement of permits and equipment, construction management, and monitoring and maintenance related to solar power plants. These agreements meet the definition of a guarantee according to ASC 460, Guarantees. As of December 31, 2011 and December 31, 2010, none of these guarantees were material to our financial position.

Loan Guarantees

At December 31, 2011 and December 31, 2010, our only loan guarantees were guarantees of our own debt, as disclosed in Note 15. “Debt,” to these consolidated financial statements.

Commercial Commitments

During the normal course of business, we enter into commercial commitments in the form of letters of credit and bank guarantees to provide financial and performance assurance to third parties. Our revolving credit facility provides us the capacity to issue up to $600.0 million in letters of credit at a fee equal to the applicable margin for Eurocurrency

revolving loans and a fronting fee. As of December 31, 2011, we had $148.7 million in letters of credit issued under the revolving credit facility with a remaining availability of $251.3 million, all of which can be used for the issuance of letters of credit. The majority of these letters of credit were supporting our systems business. In addition, as of December 31, 2011, we had $48.0 million in bank guarantees issued outside of our revolving credit facility, some of which were posted by certain of our foreign subsidiaries.

Lease Commitments

We lease our corporate headquarters in Tempe, Arizona and administrative, business and marketing development, customer support, and government affairs offices throughout the United States and Europe under non-cancelable operating leases. These leases require us to pay property taxes, common area maintenance, and certain other costs in addition to base rent. We also lease

certain machinery and equipment under operating and capital leases. Future minimum payments under all of our non-cancelable leases are as follows as of December 31, 2011 (in thousands):

	Capital Leases	Operating Leases	Total
2012	$492	$13,113	$13,605
2013	554	14,320	14,874
2014	462	13,009	13,471
2015	454	12,970	13,424
2016	454	11,778	12,232
Thereafter	423	29,994	30,417
Total minimum lease payments	2,839	$95,184	$98,023
Less amounts representing interest	(399)		
Present value of minimum lease payments	2,440		
Less current portion of obligations under capital leases	(379)		
Noncurrent portion of obligations under capital leases	$2,061		

Our rent expense was $16.1 million, $16.3 million, and $9.6 million in each of the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively.

Purchase Commitments

We purchase raw materials for inventory, services, and manufacturing equipment from a variety of vendors. During the normal course of business, in order to manage manufacturing lead times and help assure an adequate supply, we enter into agreements with suppliers that either allow us to procure goods and services when we choose or that establish purchase requirements. In certain instances, these latter agreements allow us the option to cancel, reschedule, or adjust our requirements based on our business needs prior to firm orders being placed. Consequently, only a portion of our purchase commitments are firm, non-cancelable and unconditional. At December 31, 2011, our obligations under firm, non-cancelable, and unconditional agreements were $1,516.5 million, of which, $81.7 million was for commitments related to capital purchases. $407.2 million of our purchase obligations are due in fiscal 2012.

Product Warranties

We offer a limited warranty on our products and record an estimate for the claims expected under such warranty at the time of sale of our solar modules based primarily on the number of solar modules under warranty, our historical experience with warranty claims, our monitoring of field installation sites, our in-house testing of and the expected future performance of our solar modules, and our estimated per-module replacement cost. See also Note 2. “Summary of Significant Accounting Policies” for further discussion on our limited warranty obligation.

Normal product warranty activities during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in thousands):

	December 31, 2011	December 31, 2010	December 26, 2009
Product warranty liability, beginning of period	$ 27,894	$ 22,583	$ 11,905
Accruals for new warranties issued (warranty expense)	22,411	18,309	16,654
Settlements	(24,425)	(24,616)	(2,431)
Change in estimate of product warranty liability (1)	131,862	11,618	(3,545)
Product warranty liability, end of period	$ 157,742	$ 27,894	$ 22,583
Current portion of warranty liability	$ 78,637	$ 11,226	$ 8,216
Noncurrent portion of warranty liability	$ 79,105	$ 16,668	$ 14,367

(1) Changes in estimate of product warranty liability during 2011 includes increases to our best estimate during the fourth quarter of $114.5 million primarily related to: (i) $70.1 million due to a net increase in the expected number of replacement modules required for certain remediation efforts related to the manufacturing excursion that occurred between June 2008 and June 2009. Such estimated increase was primarily due to additional information received during the quarter from completed remediation efforts at certain sites and from the evaluation of information available after completion of the

analysis on certain outstanding claims. Such additional information provided a further understanding of, and additional data regarding, the number of replacement modules expected to be required in connection with our remediation efforts; and (ii) $37.8 million for an increase in the expected number of warranty claims primarily due to increases related to future claims expected due to modules installed in certain climates.

Legal Matters

We are a party to legal matters and claims that are normal in the course of our operations. While we believe that the ultimate outcome of these matters will not have a material adverse effect on our financial position, results of operations, or cash flows, the outcome of these matters is not determinable with certainty and negative outcomes may adversely affect us.

Sales Agreements

We are party to supply contracts for the sale of our solar modules with certain European solar power system project developers, system integrators, and operators. Under these contracts, we agree to provide each customer with solar modules totaling certain amounts of power generation capability during specified time periods. Our customers are entitled to certain remedies in the event of missed deliveries of the total kilowatt volume. These delivery commitments are established through a rolling forecast (such forecast being four weeks or four quarters, depending on the customer) that defines the specific quantities to be purchased and schedules the individual shipments to be made to our customers. In the case of a late delivery, our customers are entitled to a maximum charge of up to 6% of the delinquent revenue.

Systems Repurchases

Under the sales agreements for a limited number of our solar power systems, we may be required to repurchase such systems if certain conditions, such as funding of the project within a certain timeframe, are not met. Although we consider the possibility that we would be required to repurchase any of our solar power systems to be unlikely, we believe our current working capital and other available sources of liquidity would be sufficient in order to make any required repurchase. If we were required to repurchase a project, we would have the ability to market and sell such project. Our liquidity may be impacted as the time between a repurchase of a project and the subsequent sale of such repurchased project may take several months.

Note 17. Stockholders’ Equity

Preferred Stock

We have authorized 30,000,000 shares of undesignated preferred stock, $0.001 par value, none of which was issued and outstanding at December 31, 2011. Our board of directors is authorized to determine the rights, preferences, and restrictions on any series of preferred stock that we may issue.

Common Stock

We have authorized 500,000,000 shares of common stock, $0.001 par value, of which 86,467,873 shares were issued and outstanding at December 31, 2011. Each share of common stock has the right to one vote. We have not declared or paid any dividends through December 31, 2011.

Note 18. Share-Based Compensation

We measure share-based compensation cost at the grant date based on the fair value of the award and recognize this cost as an expense over the grant recipients' requisite service periods, in accordance with ASC 718, Compensation - Stock Compensation. The share-based compensation expense that we recognized in our consolidated statements of operations for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in thousands):

	2011	2010	2009
Share-based compensation expense included in:			
Cost of sales	$34,986	$27,895	$17,145
Research and development	14,984	10,467	8,230
Selling, general and administrative	60,852	59,388	61,904
Production start-up	3,266	1,872	1,466
Restructuring	340	—	—
Total share-based compensation expense	$114,428	$99,622	$88,745

The increase in share-based compensation expense was primarily the result of new awards.

The following table presents our share-based compensation expense by type of award for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 (in thousands):

	2011	2010	2009
Stock options	$887	$2,530	$14,552
Restricted stock units	114,959	96,307	71,130
Unrestricted stock	866	658	3,700
Stock purchase plan	119	—	—
Net amount (absorbed into)/released from inventory	(2,403)	127	(637)
Total share-based compensation expense	$114,428	$99,622	$88,745

Share-based compensation cost capitalized in our inventory was $3.3 million, $0.9 million, and $1.0 million at December 31, 2011, December 31, 2010, and December 26, 2009, respectively. As of December 31, 2011, we had $0.1 million of unrecognized share-based compensation cost related to unvested stock option awards, which we expect to recognize as an expense over a weighted-average period of approximately 0.1 years, and $147.9 million of unrecognized share-based compensation cost related to unvested restricted stock units, which we expect to recognize as an expense over a weighted-average period of approximately 1.5 years.

The share-based compensation expense that we recognize in our results of operations is based on the number of awards expected to ultimately vest; therefore, the actual award amounts have been reduced for estimated forfeitures. ASC 718 requires us to estimate the number of awards that we expect to vest at the time the awards are granted and revise those estimates, if necessary, in subsequent periods. We estimate the number of awards that we expect to vest based on our historical experience with forfeitures of our awards, giving consideration to whether future forfeiture behavior might be expected to differ from past behavior. We recognize compensation cost for awards with graded vesting schedules on a straight-line basis over the requisite service periods for each separately vesting portion of the awards as if each award was in substance multiple awards.

During the years ended December 31, 2011, December 31, 2010, and December 26, 2009, we recognized an income tax benefit in our statement of operations of $35.3 million, $29.7 million, and $27.9 million, respectively, for share-based compensation costs incurred during those years.

We authorize our transfer agent to issue new shares, net of shares withheld for taxes as appropriate, for the exercise of stock options, vesting of restricted stock units, or grants of unrestricted stock.

Share-Based Compensation Plans

During 2003, we adopted our 2003 Unit Option Plan (the 2003 Plan). Under the 2003 Plan, we granted non-qualified options to purchase common shares of First Solar, Inc. to associates of First Solar, Inc. (including any of its subsidiaries) and non-employee individuals and entities that provide services to First Solar, Inc. or any of its

subsidiaries. The 2003 Plan is administered by a committee appointed by our board of directors. Our board of directors terminated the 2003 Plan in the first quarter of 2012, and accordingly, we may not grant additional awards under the 2003 Plan. At December 31, 2011, 1,914,879 shares were available for grant under the 2003 Plan. We did not grant any awards under the 2003 Plan since the adoption of the 2006 Plan described below.

During 2006, we adopted our 2006 Omnibus Incentive Compensation Plan (the 2006 Plan). Under the 2006 Plan, directors, associates, and consultants of First Solar, Inc. (including any of its subsidiaries) were eligible to participate. The 2006 Plan was

administered by the compensation committee of our board of directors (or any other committee designated by our board of directors), which was authorized to, among other things, determine who would receive grants and determine the exercise price and vesting schedule of the awards made under the 2006 Plan. The 2006 Plan provided for the grant of incentive stock options, non-qualified stock options, stock appreciation rights, restricted stock units, performance units, cash incentive awards, and other equity-based and equity-related awards.

During 2010, the 2006 Plan was replaced by our 2010 Omnibus Incentive Compensation Plan (the 2010 Plan). Upon approval by our shareholders, the 2006 Plan share reserve of 2,108,175 shares was transferred to the 2010 Plan and any forfeitures under the 2006 Plan become available for grant under the 2010 Plan.

The 2010 Plan differs from the 2006 Plan primarily in that the 2010 Plan (i) incorporates additional performance criteria applicable to performance compensation awards and enables us to grant “performance based compensation” within the meaning of Section 162(m) of the Internal Revenue Code, (ii) reflects changes in the law (such as Section 409A of the Internal Revenue Code), and (iii) responds to other compensation and governance trends. Under the 2010 Plan, directors, officers, employees, and consultants of First Solar, Inc. (including any of its subsidiaries) are eligible to participate. The 2010 Plan is administered by the compensation committee of our board of directors (or any other committee designated by our board of directors), which is authorized to, among other things, determine who will receive grants and determine the exercise price and vesting schedule of the awards made under the plan. Our board of directors may amend, modify, or terminate the 2010 Plan without the approval of our stockholders, except stockholder approval is required for amendments that would increase the maximum number of shares of our common stock available for awards under the plan, increase the maximum number of shares of our common stock that may be delivered by incentive stock options, or modify the requirements for participation in the 2010 Plan.

The 2010 Plan provides for the grant of incentive stock options, non-qualified stock options, stock appreciation rights, restricted shares, restricted stock units, performance units, cash incentive awards, and other stock-based awards, dividends and dividend equivalents, and performance compensation awards. The maximum number of new shares of our common stock that may be delivered by awards granted under the 2010 Plan is 6,000,000, plus any shares that remain or otherwise become available under the terms of the 2006 Plan, of which, the maximum number that may be delivered by incentive stock options is 6,000,000. Also, the shares underlying forfeited, expired, terminated, or cancelled awards, or shares surrendered as payment for taxes required to be withheld become available for new award grants. We may not grant awards under the 2010 Plan after 2020, which is the tenth anniversary of the 2010 Plan’s approval by our stockholders. At December 31, 2011, 7,542,971 shares were available for grant under the 2010 Plan.

Stock Options

Following is a summary of our stock options as of December 31, 2011 and changes during the year then ended:

	Number of Shares Under Option	Weighted Average Exercise Price	Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Options outstanding at December 31, 2010	416,845	$55.42		
Options granted	—	$—		
Options exercised	(250,785)	$33.16		
Options forfeited or expired	—	$—		
Options outstanding at December 31, 2011	166,060	$89.04	2.4	$1,773,164
Options vested and exercisable at December 31, 2011	153,726	$80.30	2.4	$1,773,164

Stock options granted under the 2003 Plan and 2006 Plan have various vesting provisions. Some cliff-vest, some vest ratably following the grant date, some vest at different rates during different portions of their vesting periods, and some vested on the date of grant. The total fair value of stock options vesting during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 were $3.7 million, $6.9 million, and $13.4 million, respectively. During the years ended December 31, 2011, December 31, 2010, and December 26, 2009, we received net cash proceeds of $8.3 million, $9.4 million, and $6.0 million, respectively, from the exercise of employee options on our stock. The total intrinsic value of employee stock options exercised was $24.3 million, $51.3 million, and $71.0 million during the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively.

The following table presents exercise price and remaining life information about options outstanding at December 31, 2011:

	Options Outstanding			Options Exercisable	
Exercise Price Range	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Number of Shares	Weighted Average Exercise Price
$2.06 - $4.33	35,550	$2.57	2.1	35,550	$2.57
$20.00	46,387	$20.00	1.8	46,387	$20.00
$27.78 - $120.28	15,039	$73.11	2.3	15,039	$73.11
$160.00	34,084	$160.00	2.8	34,084	$160.00
$181.77	25,000	$181.77	3.1	15,000	$181.77
$266.90	10,000	$266.90	3.6	7,666	$266.90
	166,060	$89.04	2.4	153,726	$80.30

We estimated the fair value of each stock option awarded on its grant date using the Black-Scholes-Merton closed-form option valuation formula, using the assumptions documented in the following table for the year ended December 26, 2009:

	2009
Price of our stock on grant date	$160.00
Stock option exercise price	$160.00
Expected life of option	5.0 years
Expected volatility of our stock	71%
Risk-free interest rate	2.2%
Expected dividend yield of our stock	0.0%

During the years ended December 31, 2011 and December 31, 2010, we did not grant any stock options. The weighted-average estimated grant-date fair value of the stock options that we granted during the year ended December 26, 2009 was $95.35.

Our stock options expire seven to ten years from their grant date. We estimated the expected life, which represents our best estimate of the period of time from the grant date that we expect the stock options to remain outstanding, of all of our stock options for all periods presented using the simplified method specified in ASC 718. Under this method, we estimate the expected life of our stock options as the mid-point between their time to vest and their contractual terms. We applied the simplified method because we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate expected life due to the limited period of time our equity shares have been publicly traded and the significant variations in vesting and contractual terms of the options that we granted.

At the time of our most recent stock option grant in 2009, our stock had only been publicly traded for three years and because that time period had seen significant unusual stock market activity, we do not believe that we had a meaningful observable share-price volatility; therefore, we based our estimate of the expected volatility of our future stock price on that of similar publicly-traded companies, and we expect to continue to estimate our expected stock price volatility in this manner until such time as we might have adequate historical data to refer to from our own traded share prices. We used U.S. Treasury rates in effect at the time of the grants for the risk-free rates.

None of our stock options were granted outside of the Plans.

Restricted Stock Units

We began issuing restricted stock units in the second quarter of 2007 and all have been granted under the 2006 Plan and 2010 Plan. We issue shares to the holders of restricted units on the date the restricted stock units vest. The majority of shares issued are net of the statutory withholding requirements, which we pay on behalf of our associates. As a result, the actual number of shares issued will be less than the number of restricted stock units granted. Prior to vesting, restricted stock units do not have dividend equivalent rights and do not have voting rights, and the shares underlying the restricted stock units are not considered issued and outstanding.

Following is a summary of our restricted stock units as of December 31, 2011 and changes during the year then ended:

	Number of Shares	Weighted Average Grant-Date Fair Value
Restricted stock units outstanding at December 31, 2010	1,768,720	$137.27
Restricted stock units granted	1,051,083	$140.43
Restricted stock units vesting	(554,662)	$142.12
Restricted stock units forfeited	(300,637)	$133.14
Restricted stock units outstanding at December 31, 2011	1,964,504	$138.22

We estimate the fair value of our restricted stock unit awards as our stock price on the grant date.

Stock Awards

During the years ended December 31, 2011, December 31, 2010, and December 26, 2009, we awarded 12,266, 5,149, and 3,126, respectively, fully vested, unrestricted shares of our common stock to the independent members of our board of directors. We recognized $0.9 million, $0.7 million, and $0.5 million share-based compensation expense for these awards during the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively.

During the year ended December 26, 2009, we awarded 20,313 fully vested, unrestricted shares of our common stock to our then current Chief Executive Officer as part of his employment agreement. We withheld 8,327 shares to satisfy certain tax withholding obligations, and as a result, issued 11,986 net shares. We recognized $3.3 million of share-based compensation expense for this award.

Stock Purchase Plan

Our shareholders approved a stock purchase plan for employees in June 2010. During the year ended December 31, 2011, we began our stock purchase plan. The plan allows employees to purchase our common stock through payroll withholdings over a six-month offering period at 85% of the closing share price on the last day of the offering period. The first offering period began on November 15, 2011, which is the offering date for that period. We estimate the fair value of the stock purchase plan based primarily on our stock price on the offering date.

Note 19. Benefit Plans

We offer a 401(k) retirement savings plan into which all of our U.S. associates (our term for employees) can voluntarily contribute a portion of their annual salaries and wages, subject to legally prescribed dollar limits. Our contributions to our associates' plan accounts are made at the discretion of our board of directors and are based on a percentage of the participating associates' contributions. Effective January 1, 2009, associate contributions were matched dollar-for-dollar up to the first 4%. Our contributions to the plans were $6.9 million, $5.8 million, and $4.5 million for the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively. None of these benefit plans offered participants an option to invest in our common stock.

We also offer certain retirement savings plans to certain non-U.S. associates. These plans are managed in accordance with applicable local statutes and practices and are defined contribution plans. Our contributions to these plans were $1.4 million, $1.0 million, and $0.8 million during the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively.

Note 20. Income Taxes

The components of our income tax (benefit) expense were as follows (in thousands):

	December 31, 2011	December 31, 2010	December 26, 2009
Current expense:			
Federal	$ 112,895	$ 92,728	$ 20,872
State	5,345	696	123
Foreign	23,045	62,492	60,210
Total current expense	141,285	155,916	81,205
Deferred (benefit) expense:			
Federal	(140,435)	(56,018)	(34,296)
State	(7,846)	(5,231)	(5,732)
Foreign	(7,224)	3,209	4,999
Total deferred benefit	(155,505)	(58,040)	(35,029)
Total income tax (benefit) expense	$ (14,220)	$ 97,876	$ 46,176

The current tax expense listed above does not reflect income tax benefits of $103.9 million, $61.6 million, and $1.3 million for the years ended December 31, 2011, December 31, 2010, and December 26, 2009, respectively, related to excess tax deductions on share-based compensation because we recorded these benefits directly to additional paid-in capital, pursuant to ASC 740, Income Taxes, and ASC 718, Compensation - Stock Compensation.

The U.S. and non-U.S. components of our (loss) income before income taxes were as follows (in thousands):

	December 31, 2011	December 31, 2010	December 26, 2009
U.S. (loss) income	$ (366,903)	$ 43,737	$ (25,588)
Non-U.S. income	313,190	718,340	711,902
(Loss) income before income taxes	$ (53,713)	$ 762,077	$ 686,314

On August 10, 2010, Congress enacted the Education Jobs & Medicaid Assistance Act (H.R. 1586). H.R. 1586 includes significant international tax revenue raisers which were generally effective January 1, 2011. These tax provisions generally attempt to limit a taxpayer’s ability to fully claim tax credits for previously paid foreign taxes in determining one's U.S. income tax liability. In advance of the effective date of this legislation we decided to repatriate approximately $300 million of earnings from certain of our foreign subsidiaries to the United States. As a result of this repatriation, we have included in our year end 2010 results a non-cash income tax charge of $13.8 million. We have included additional income tax charge of $5.4 million in our year end 2011 results in connection with this repatriation, attributable to foreign exchange rate fluctuations and the 2011 impact to the foreign tax credit arising during the repatriation period.

Our Malaysian subsidiary has been granted a long-term tax holiday that expires in 2027, which was originally scheduled to commence on January 1, 2009. The tax holiday, which generally provides for a 100% exemption from Malaysian income tax, is conditional upon our continued compliance in meeting certain employment and investment thresholds. During 2009, we received formal approval granting our request to pull forward this previously approved tax holiday by one year to cover our 2008 operating profits; the result of which was an $11.5 million reduction in the amount of income taxes previously accrued during the year ended December 27, 2008. As a result, we recognized an income tax benefit of $11.5 million during 2009. During 2010, in connection with the expansion of our Malaysian manufacturing operations, we were granted an extension of the previously approved tax holiday by three years, contingent upon meeting additional investment requirements.

Our effective tax rates were (26.5)% and 12.8% for the years ended December 31, 2011 and December 31, 2010, respectively. Income tax (benefit) expense decreased by $112.1 million during 2011 compared with 2010. The reduction in income tax expense in 2011 compared to 2010 is primarily attributable to the reduction in pre-tax profits

during such periods and a greater percentage of profits earned in lower tax jurisdictions, offset by an increase in tax expense related to the impairment of non-deductible goodwill.

Our income tax results differed from the amount computed by applying the U.S. statutory federal income tax rate of 35% to our (loss) income before income taxes for the following reasons (in thousands):

	December 31, 2011		December 31, 2010		December 26, 2009	
	Tax	Percent	Tax	Percent	Tax	Percent
Statutory income tax (benefit) expense	$(18,799)	(35.0)%	$266,727	35.0 %	$240,210	35.0 %
Economic development funding benefit	(5,762)	(10.7)%	—	— %	—	— %
Non-deductible expenses	5,352	10.0 %	7,261	1.0 %	6,443	0.9 %
State tax, net of federal benefit	(356)	(0.7)%	(2,917)	(0.4)%	(5,200)	(0.8)%
Effect of tax holiday	(63,895)	(119.0)%	(139,141)	(18.3)%	(132,823)	(19.2)%
Pull forward of Malaysian tax holiday	—	— %	—	— %	(11,519)	(1.7)%
Foreign tax rate differential	(24,425)	(45.5)%	(46,865)	(6.1)%	(45,657)	(6.7)%
Tax credits	(2,408)	(4.5)%	(1,989)	(0.3)%	(5,567)	(0.8)%
Repatriation	5,440	10.1 %	13,804	1.8 %	—	— %
Non-deductible goodwill	87,995	163.8 %	—	— %	—	— %
Other	(548)	(0.9)%	(605)	(0.1)%	(1,804)	(0.3)%
Impact of changes in valuation allowance	3,186	5.9 %	1,601	0.2 %	2,093	0.3 %
Reported income tax (benefit) expense	$(14,220)	(26.5)%	$97,876	12.8 %	$46,176	6.7 %

For the year ended December 31, 2011, the tax benefit from the foreign tax rate differential primarily relates to our income generated in Germany and Malaysia calculated at statutory tax rates of 28.5% and 25.0%, respectively, compared to the U.S. statutory tax rate of 35.0%. For the year ended December 31, 2010, the tax benefit from the foreign tax rate differential primarily relates to our income generated in Germany and Malaysia calculated at statutory tax rates of 28.6% and 25.0%, respectively, compared to the U.S. statutory tax rate of 35.0%. For the year ended December 26, 2009, the tax benefit from the foreign tax rate differential primarily relates to our income generated in Germany and Malaysia calculated at statutory tax rates of 28.5% and 25.0%, respectively, compared to the U.S. statutory tax rate of 35.0%.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities calculated for financial reporting purposes and the amounts calculated for preparing our income tax returns in accordance with tax regulations and of the net tax effects of operating loss and tax credit carryforwards. The items that gave rise to our deferred taxes were as follows (in thousands):

	December 31, 2011	December 31, 2010
Deferred tax assets:		
Goodwill	$ 73,013	$ 28,495
Economic development funding	8,030	3,806
Compensation	46,539	34,500
Accrued expenses	26,877	16,618
Tax credits	160,807	95,067
Net operating losses	39,395	48,362
Inventory	4,966	7,146
Deferred expenses	18,225	21,793
Property, plant and equipment	6,302	—
Other	8,958	1,196
Deferred tax assets, gross	393,112	256,983
Valuation allowance	(7,977)	(4,791)
Deferred tax assets, net of valuation allowance	385,135	252,192
Deferred tax liabilities:		
Capitalized interest	(2,378)	(2,577)
Property, plant and equipment	—	(16,920)
Acquisition accounting / basis difference	(18,731)	(18,853)
Investment in foreign subsidiaries	(1,080)	(6,600)
Other	(7,799)	—
Deferred tax liabilities	(29,988)	(44,950)
Net deferred tax assets and liabilities	$ 355,147	$ 207,242

Changes in our valuation allowance against our deferred tax assets were as follows during the years ended December 31, 2011 and December 31, 2010 (in thousands):

	2011	2010
Valuation allowance, beginning of year	$4,791	$3,190
Additions	3,473	1,601
Reversals	(287)	—
Valuation allowance, end of year	$7,977	$4,791

We maintained a valuation allowance of $8.0 million and $4.8 million as of December 31, 2011 and December 31, 2010, respectively, against certain of our deferred tax assets, as it is more likely than not that such amounts will not be fully realized. During the years ended December 31, 2011 and December 31, 2010, we increased our valuation allowance related primarily to certain foreign net operating loss carryforwards.

We have not provided for $544.4 million of deferred income taxes on $1,772.7 million of undistributed earnings from non-U.S. subsidiaries because such amounts are indefinitely invested outside the United States as of December 31, 2011. These taxes would be required to be recognized when and if we determine that these amounts are not indefinitely reinvested outside the U.S.

At December 31, 2011, we had federal and aggregate state net operating loss carryforwards of $362.7 million and $142.7 million, respectively. At December 31, 2010, we had federal and aggregate state net operating loss carryforwards of $684.8 million and $140.3 million, respectively. If not used, the federal net operating loss will expire beginning in 2027 and the state net operating loss will begin to expire in 2013. The utilization of a portion of our net operating loss carryforwards is subject to an annual limitation under Section 382 of the Internal Revenue Code due to a change of ownership. However, we do not believe such annual limitation will impact our realization of the net

operating loss carryforwards. Our deferred tax assets at December 31, 2011 do not include $68.8 million of excess tax deductions from employee stock option exercises and vested restricted stock units that comprise our net operating loss carryovers. Our equity will be increased by up to $68.8 million if and when we ultimately realize these excess tax benefits.

At December 31, 2011 we had federal and state research and development credit carryovers of $18.8 million and U.S. foreign

tax credit carryovers of $125.3 million available to reduce future federal and state income tax liabilities. If not used, the research and development credits and foreign tax credits will begin to expire in 2027 through 2031 and 2017 through 2021, respectively.

We account for uncertain tax positions pursuant to the recognition and measurement criteria under ASC 740.

A reconciliation of the beginning and ending amount of liabilities associated with uncertain tax positions is as follows (in thousands):

	December 31, 2011	December 31, 2010	December 26, 2009
Unrecognized tax benefits, beginning of year	$ 67,905	$ 37,222	$ 7,534
Increases related to prior year tax positions	14	—	6,560
Decreases related to prior year tax positions	—	(353)	—
Decreases related to settlements	—	—	—
Increase due to business combination	—	—	2,170
Increases related to current tax positions	14,992	31,036	20,958
Unrecognized tax benefits, end of year	$ 82,911	$ 67,905	$ 37,222

The entire amount of unrecognized tax benefits, if recognized, would reduce our annual effective tax rate. The amounts of unrecognized tax benefits listed above are based on the recognition and measurement criteria of FIN 48, now codified in ASC 740. However, due to the uncertain and complex application of tax regulations, it is possible that the ultimate resolution of uncertain tax positions may result in liabilities that could be materially different from these estimates. In such an event, we will record additional tax expense or tax benefit in the period in which such resolution occurs. Our policy is to recognize any interest and penalties that we might incur related to our tax positions as of component of income tax expense. We did not accrue any potential penalties and interest related to these unrecognized tax benefits during 2011, 2010, or 2009. We do not expect that our unrecognized tax benefits will significantly change within the next twelve months for tax positions taken or to be taken for periods through December 31, 2011.

The following table summarizes the tax years that are either currently under audit or remain open and subject to examination by the tax authorities in the most significant jurisdictions in which we operate:

	Tax Years
Germany	2007 - 2011
Malaysia	2007 - 2011
United States	2008 - 2011

In certain of the jurisdictions noted above, we operate through more than one legal entity, each of which has different open years subject to examination. The table above presents the open years subject to examination for the most material of the legal entities in each jurisdiction. Additionally, it is important to note that tax years are technically not closed until the statute of limitations in each jurisdiction expires. In the jurisdictions noted above, the statute of limitations can extend beyond the open years subject to examination.

Note 21. Net Income per Share

Basic net (loss) income per share is computed by dividing net (loss) income by the weighted-average number of common shares outstanding for the period. Diluted net (loss) income per share is computed giving effect to all potential dilutive common stock, including employee stock options, restricted stock units, stock purchase plan, and contingently issuable shares.

The calculation of basic and diluted net (loss) income per share for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in thousands, except per share amounts):

	2011	2010	2009
Basic net (loss) income per share			
Numerator:			
Net (loss) income	$(39,493)	$664,201	$640,138
Denominator:			
Weighted-average common stock outstanding	86,067	84,891	83,500
Diluted net (loss) income per share			
Denominator:			
Weighted-average common stock outstanding	86,067	84,891	83,500
Effect of stock options, restricted stock units outstanding, stock purchase plan, and contingent issuable shares	—	1,600	1,544
Weighted-average shares used in computing diluted net (loss) income per share	86,067	86,491	85,044

	2011	2010	2009
Per share information - basic:			
Net (loss) income per share	$(0.46)	$7.82	$7.67
Per share information - diluted:			
Net (loss) income per share	$(0.46)	$7.68	$7.53

The following number of outstanding employee stock options and restricted stock units were excluded from the computation of diluted net (loss) income per share for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 as they would have had an antidilutive effect (in thousands):

	2011	2010	2009
Restricted stock units and options to purchase common stock	630	118	216

Note 22. Comprehensive Income

Comprehensive (loss) income, which includes foreign currency translation adjustments, unrealized gains and losses on derivative instruments designated and qualifying as cash flow hedges, and unrealized gains and losses on available-for-sale securities, the impact of which has been excluded from net (loss) income and reflected as components of stockholders' equity, was as follows for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 (in thousands):

	2011	2010	2009
Net (loss) income	$(39,493)	$664,201	$640,138
Foreign currency translation adjustments	(18,034)	(35,825)	13,303
Change in unrealized gain on marketable securities, net of tax of $(3,561), $(658), and $(377) for 2011, 2010, and 2009, respectively	18,660	3,820	1,689
Change in unrealized gain (loss) on derivative instruments, net of tax of $(6,368), ($0), and $(65) for 2011, 2010, and 2009, respectively	21,580	14,358	(167)
Comprehensive (loss) income	$(17,287)	$646,554	$654,963

Components of accumulated other comprehensive loss at December 31, 2011 and December 31, 2010 were as follows (in thousands):

	2011	2010
Foreign currency translation adjustments	$(48,381)	$(30,347)
Unrealized gain on marketable securities, net of tax of $(4,740) and $(1,179) for 2011 and 2010, respectively	24,431	5,771

Unrealized gain (loss) on derivative instruments, net of tax of $(6,368) and ($0) for 2011 and 2010, respectively	18,913	(2,667)
Accumulated other comprehensive loss	$(5,037)	$(27,243)

Note 23. Statement of Cash Flows

The following table presents a reconciliation of net (loss) income to net cash (used in) provided by operating activities for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 (in thousands):

	2011	2010	2009
Net (loss) income	$(39,493)	$664,201	$640,138
Adjustments to reconcile net (loss) income to cash (used in) provided by operating activities:			
Depreciation and amortization	235,231	156,093	129,628
Impairment of assets and liabilities	57,414	5,692	1,118
Impairment of project assets	7,933	5,277	—
Impairment of goodwill	393,365	—	—
Share-based compensation	114,428	99,622	88,745
Remeasurement of monetary assets and liabilities	(4,701)	625	(2,696)
Deferred income taxes	(155,505)	(58,040)	(35,029)
Excess tax benefits from share-based compensation arrangements	(110,836)	(69,367)	(4,892)
Provision for doubtful accounts receivable	10,761	(990)	990
Gain on sales of marketable securities, investments, and restricted investments, net	(4,581)	(336)	(110)
Gain on sale of related party equity investment	—	(3,596)	—
Other operating activities	(719)	(1,504)	1,551
Changes in operating assets and liabilities:			
Accounts receivable, trade and unbilled	(529,809)	(91,773)	(153,256)
Prepaid expenses and other current assets	(140,961)	(62,094)	4,852
Other assets	(21,908)	(7,675)	(5,320)
Inventories and balance of systems parts	(348,151)	(69,680)	(52,058)
Project assets and deferred project costs	(368,619)	(25,770)	(48,506)
Accounts payable	94,674	17,854	31,121
Income taxes payable	95,132	74,830	(63,460)
Accrued expenses and other liabilities	647,162	30,112	85,516
Accrued solar module collection and recycling liability	35,720	42,011	56,861
Total adjustments	6,030	41,291	35,055
Net cash (used in) provided by operating activities	$(33,463)	$705,492	$675,193

Note 24. Segment and Geographical Information

ASC 280, Segment Reporting, establishes standards for companies to report in their financial statements information about operating segments, products, services, geographic areas, and major customers. The method of determining what information to report is generally based on the way that management organizes and views the operating segments within the company for making operating decisions to allocate resources and in assessing financial performance.

We operate our business in two segments. Our components segment involves the design, manufacture, and sale of solar modules which convert sunlight into electricity. Third-party customers of our components segment include project developers, system integrators, and operators of renewable energy projects.

Our second segment is our fully integrated systems business (systems), through which we provide a complete PV solar power system, which includes project development, EPC services, O&M services, when applicable, and project

finance, when required. We may provide our full EPC or any combination of individual services within our EPC capabilities. All of our systems segment service offerings are for PV solar power systems which use our solar modules, and such services are sold directly to investor owned utilities, independent power developers and producers, commercial and industrial companies, and other system owners.

Our Chief Operating Decision Maker (CODM), consisting of certain members of our senior executive staff, has viewed the manufacturing and sale of solar modules from the components segment as the core driver of our resource allocation, profitability, and cash throughput. All sales or service offerings from our systems segment include the sales of solar modules, which are designed and manufactured by our components segment. As a result, we have viewed our systems segment as an enabler to drive module throughput. Our systems segment enables solar module throughput by developing state of the art construction techniques and process management to reduce the installed cost of our PV systems and, accordingly, this business is not intended to generate profits that are independent of the underlying solar modules used in such PV systems. Therefore, for the fiscal years 2011, 2010 and 2009, our CODM viewed the primary objective of our systems segment is to achieve break-even results before income taxes.

After we have determined the amount of revenue earned for each system sale following the applicable guidance for the underlying arrangement, we allocate module revenue from the systems segment to the components segment based on how our CODM strategically views these segments. We determine the amount of module revenue to be allocated from the systems segment to the components segment based on the principle that the systems segment is an enabler operating at break-even results to drive module throughput for the components business. All of our solar modules are manufactured by our components segment. The amount of module revenue allocated from the systems segment to the components segment is equal to the cost of the solar module plus the earned margin (or estimated margin in the case of percentage-of-completion accounting) for our systems projects for the period the module revenue allocation relates to.

In our operating segment financial disclosures, we include the allocated sales value for all solar modules manufactured by our components segment and installed in projects sold or built by our systems segment in “net sales” of our components segment. We also allocate the corresponding cost of sales value for the solar modules used in our systems segment arrangements to the components segments. The cost of solar modules is comprised of the manufactured inventory cost incurred by our components segment.

Our systems segment has certain of its own dedicated administrative key functions, such as accounting, legal, finance, project finance, human resources, procurement, and marketing. Costs for these functions are recorded and included within selling, general and administrative costs for our systems segment. Our corporate key functions consist primarily of company-wide corporate tax, corporate treasury, corporate accounting/finance, corporate legal, investor relations, corporate communications, and executive management functions. These corporate functions benefit both the components and systems segments. We allocate corporate costs to the components or systems segment as part of selling, general and administrative costs, based upon the estimated benefits to each segment from these corporate functions.

In the event segment gross profit for our systems segment (after allocating module revenue and the related cost of sales to the components segment) is less than operating expenses in a given quarter, then the components segment will compensate, through the allocation of operating costs from the systems segment to the components segment, for the temporary shortfall.

Compensation by the components segment to the systems segment during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in millions):

	2011	2010	2009
Compensation by the Components Segment to the Systems Segment	$45.9	$37.2	$20.6

A typical shortfall requiring compensation can result from (i) the timing and amount of revenue recognition in comparison to the amount of fixed operating costs incurred in a given period or (ii) a larger amount of other-than-temporary project asset impairments in any given period. The systems segment repays cumulative Compensation, which are considered temporary shortfalls, in future periods where the systems segment gross profit

exceeds operating expenses.

Repayment of prior period compensation by the systems segment to the components segment during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in millions):

	2011	2010	2009
Repayment of Prior Period Compensation by the Systems Segment to the Components Segment	$74.2	$26.4	$3.1

Any surplus systems segment income before income taxes for any given period after such repayment would then result in an additional allocation of net sales from the systems segment to the components segment to achieve break-even results based on how our CODM views these segments.

Additional net sales allocated from the systems segment to the components segment during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in millions):

	2011	2010	2009
Additional Revenue Allocated from the Systems Segment to the Components Segment	$129.2	$14.2	$—

Financial information about our segments during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 was as follows (in thousands):

	Fiscal Year Ended December 31, 2011		
	Components	Systems	Total
Net sales	$2,067,887	$698,320	$2,766,207
Gross profit	$792,451	$179,300	$971,751
Loss before income taxes	$(53,713)	$—	$(53,713)
Goodwill	$—	$65,444	$65,444
Total assets	$4,031,204	$1,746,410	$5,777,614
	Fiscal Year Ended December 31, 2010		
	Components	Systems	Total
Net sales	$2,185,165	$378,350	$2,563,515
Gross profit	$1,106,629	$78,217	$1,184,846
Income before income taxes	$762,077	$—	$762,077
Goodwill	$393,365	$39,923	$433,288
Total assets	$3,730,755	$649,648	$4,380,403
	Fiscal Year Ended December 26, 2009		
	Components	Systems	Total
Net sales	$1,965,437	$100,763	$2,066,200
Gross profit	$1,037,398	$7,184	$1,044,582
Income before income taxes	$686,314	$—	$686,314
Goodwill	$251,275	$35,240	$286,515
Total assets	$3,027,703	$321,809	$3,349,512

Product Revenue

The following table sets forth the total amounts of solar modules and solar power systems revenue recognized for the years ended December 31, 2011, December 31, 2010, and December 26, 2009. For the purposes of the following table, (i) “Solar module revenue” is composed of total revenues from the sale of solar modules to third parties, which did not includes any systems segment service offering, and (ii) “Solar power system revenue” is composed of total revenues from the sale of our solar power systems and related services including the solar modules installed in such solar power systems.

(Dollars in thousands)	2011	2010	2009
Solar module revenue	$1,523,695	$1,986,746	$1,903,765
Solar power system revenue	1,242,512	576,769	162,435
Net sales	$2,766,207	$2,563,515	$2,066,200

The following table presents net sales for the years ended December 31, 2011, December 31, 2010, and December 26, 2009 by geographic region, which is based on the customer country of invoicing (in thousands):

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	2011	2010	2009
United States	$1,238,132	$333,844	$136,944
Germany	639,426	1,177,981	1,334,061
France	413,380	363,658	249,313
Canada	105,932	312,672	132,023
All other foreign countries	369,337	375,360	213,859
Net sales	$2,766,207	$2,563,515	$2,066,200

The following table presents long-lived assets, excluding financial instruments, deferred tax assets, investment in related party, goodwill, and intangible assets at December 31, 2011, December 31, 2010, and December 26, 2009 by geographic region, based on the physical location of the assets (in thousands):

	2011	2010	2009
United States	$1,069,358	$627,733	$383,343
Malaysia	838,711	871,527	568,534
Germany	260,712	170,787	91,692
All other foreign countries	342,448	80,882	76,628
Long-lived assets	$2,511,229	$1,750,929	$1,120,197

Note 25. Concentrations of Credit and Other Risks

Customer Concentration. The following customers each comprised 10% or more of our total net sales during the years ended December 31, 2011, December 31, 2010, and December 26, 2009 and/or 10% or more of our total accounts receivable during the years ended December 31, 2011 and December 31, 2010 (dollars in thousands):

	2011				2010				2009	
	Net Sales	% of Total NS	A/R Outstanding	% of Total A/R	Net Sales	% of Total NS	A/R Outstanding	% of Total A/R	Net Sales	% of Total NS
Customer #1	$993,709	36 %	$ 43,030	14 %	*	*	*	*	*	*
Customer #2	$408,508	15 %	$ 41,974	14 %	$317,485	12 %	$ 36,471	12 %	$261,314	13 %
Customer #3	*	*	$ 110,184	35 %	*	*	*	*	*	*
Customer #4	*	*	*	*	$393,758	15 %	$ 51,267	17 %	$356,068	17 %
Customer #5	*	*	*	*	$293,426	11 %	*	*	*	*
Customer #6	*	*	*	*	*	*	$ 37,306	12 %	*	*
Customer #7	*	*	*	*	*	*	$ 34,762	11 %	*	*
Customer #8	*	*	*	*	*	*	*	*	$264,744	13 %

* Net sales and/or accounts receivable to these customers were less than 10% of our total net sales and/or accounts receivable during this period.

Credit Risk. Financial instruments that potentially subject us to concentrations of credit risk are primarily cash, cash equivalents, marketable securities, trade accounts receivable, unbilled accounts receivable, interest rate swap

agreements, and derivative instruments. We place cash, cash equivalents, and marketable securities with high-credit quality institutions and limit the amount of credit risk from any one counterparty. For the years ended December 31, 2011, December 31, 2010, and December 26, 2009, our net sales were primarily concentrated among three or fewer customers. We monitor the financial condition of our customers and perform credit evaluations whenever deemed necessary. Depending upon the sales arrangement, we may require some form of payment security from our customers including bank guarantees or commercial letters of credit.

Geographic Risk. Our solar modules are presently predominantly sold to customers for use in solar power systems concentrated in a single geographic region, the European Union. Also, our solar power systems sales are presently predominantly in the United States. These concentrations of our sales in limited geographic regions exposes us to local economic risks and local public policy and regulatory risk in those regions.

Production. Our products include components that are available from a limited number of suppliers or sources. Shortages of essential components could occur due to interruptions of supply or increases in demand and could impair our ability to meet demand for our products. Our modules are presently produced in facilities in Perrysburg, Ohio, Frankfurt/Oder, Germany, and

Kulim, Malaysia. Damage to or disruption of facilities could interrupt our business and impair our ability to generate sales.

International Operations. During the year ended December 31, 2011, we derived 55% of our net sales from sales outside our country of domicile, the United States. Therefore, our financial performance could be affected by events such as changes in foreign currency exchange rates, trade protection measures, long accounts receivable collection patterns, and changes in regional or worldwide economic or political conditions.

Note 26. Subsequent Events

See Note 4. “Restructuring and Acquisitions,” to our consolidated financial statements for information on expected 2012 restructuring charges.

INDEX TO EXHIBITS

Set forth below is a list of exhibits that are being filed or incorporated by reference into this Annual Report on Form 10-K:

Exhibit Number		Exhibit Description	Incorporated by Reference				Filed Herewith
			Form	File No.	Date of First Filing	Exhibit Number	
3.1		Amended and Restated Certificate of Incorporation of First Solar, Inc.	S-1/A	333-135574	9/18/06	3.1	
3.2		Amended and Restated Bylaws of First Solar, Inc.	8-K	001-33156	10/31/11	3.1	
4.1		Loan Agreement dated December 1, 2003, among First Solar US Manufacturing, LLC, First Solar Property, LLC and the Director of Development of the State of Ohio	S-1/A	333-135574	9/18/06	4.2	
4.2		Loan Agreement dated July 1, 2005, among First Solar US Manufacturing, LLC, First Solar Property, LLC and Director of Development of the State of Ohio	S-1/A	333-135574	9/18/06	4.3	
4.3		Waiver Letter dated June 5, 2006, from the Director of Development of the State of Ohio	S-1/A	333-135574	10/10/06	4.16	
4.4	†	Facility Agreement dated May 6, 2008 between First Solar Malaysia Sdn. Bhd., as borrower, and IKB Deutsche Industriebank AG, as arranger, NATIXIS Zweigniederlassung Deutschland, as facility agent and original lender, AKA Ausfuhrkredit-Gesellschaft mbH, as original lender, and NATIXIS Labuan Branch as security agent	8-K	001-33156	5/12/08	10.1	
4.5		First Demand Guaranty dated May 6, 2008 by First Solar Inc, as guarantor, in favor of IKB Deutsche Industriebank AG, NATIXIS Zweigniederlassung Deutschland, AKA Ausfuhrkredit-Gesellschaft mbH and NATIXIS Labuan Branch	8-K	001-33156	5/12/08	10.2	
4.6		Credit Agreement, dated as of September 4, 2009, among First Solar, Inc., First Solar Manufacturing GmbH, the lenders party thereto, JPMorgan Chase Bank, N.A., as Administrative Agent, Bank of America and The Royal Bank of Scotland plc, as Documentation Agents, and Credit Suisse, Cayman Islands Branch, as Syndication Agent	8-K	001-33156	9/10/09	10.1	
4.7		Charge of Company Shares, dated as of September 4, 2009, between First Solar, Inc., as Chargor, and JPMorgan Chase Bank, N.A., as Security Agent, relating to 66% of the shares of First Solar FE Holdings Pte. Ltd. (Singapore)	8-K	001-33156	9/10/09	10.2	
4.8			8-K	001-33156	9/10/09	10.3	

	German Share Pledge Agreements, dated as of September 4, 2009, between First Solar, Inc., First Solar Holdings GmbH, First Solar Manufacturing GmbH, First Solar GmbH, and JPMorgan Chase Bank, N.A., as Administrative Agent				
4.9	Guarantee and Collateral Agreement, dated as of September 4, 2009, by First Solar, Inc. in favor of JPMorgan Chase Bank, N.A., as Administrative Agent	8-K	001-33156	9/10/09	10.4
4.10	Guarantee, dated as of September 8, 2009, between First Solar Holdings GmbH, First Solar GmbH, First Solar Manufacturing GmbH, as German Guarantors, and JPMorgan Chase Bank, N.A., as Administrative Agent	8-K	001-33156	9/10/09	10.5
4.11	Assignment Agreement, dated as of September 4, 2009, between First Solar Holdings GmbH and JPMorgan Chase Bank, N.A., as Administrative Agent	8-K	001-33156	9/10/09	10.6
4.12	Assignment Agreement, dated as of September 4, 2009, between First Solar GmbH and JPMorgan Chase Bank, N.A., as Administrative Agent	8-K	001-33156	9/10/09	10.7
4.13	Assignment Agreement, dated as of September 8, 2009, between First Solar Manufacturing GmbH and JPMorgan Chase Bank, N.A., as Administrative Agent	8-K	001-33156	9/10/09	10.8
4.14	Security Trust Agreement, dated as of September 4, 2009, between First Solar, Inc., First Solar Holdings GmbH, First Solar GmbH, First Solar Manufacturing GmbH, as Security Grantors, JPMorgan Chase Bank, N.A., as Administrative Agent, and the other Secured Parties party thereto	8-K	001-33156	9/10/09	10.9

4.15	Amended and Restated Credit Agreement, dated as of October 15, 2010, among First Solar, Inc., the borrowing subsidiaries party thereto, the lenders party thereto, Bank of America N.A. and The Royal Bank of Scotland PLC, as documentation agents, Credit Suisse, Cayman Islands Branch, as syndication agent and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-33156	10/20/10	10.1
4.16	Facility Agreement dated as of August 3, 2011 among First Solar Malaysia Sdn. Bhd., Commerzbank Aktiengesellschaft, as arranger and original lender, Commerzbank Aktiengesellschaft, Luxembourg Branch, as facility agent and security agent, and Natixis Zweigniederlassung Deutschland, as arranger and original lender	10-Q	001-33156	8/5/11	10.1
4.17	First Demand Guaranty, dated as of August 3, 2011, among First Solar, Inc., First Solar Malaysia Sdn. Bhd. and Commerzbank Aktiengesellschaft, Luxembourg Branch, as facility agent and security agent	10-Q	001-33156	8/5/11	10.2
4.18	First Amendment, dated as of May 6, 2011, to the Amended and Restated Credit Agreement, dated as of October 15, 2010, among First Solar, Inc., the borrowing subsidiaries party thereto, the lenders party thereto, Bank of America, N.A. and The Royal Bank of Scotland plc, as documentation agents, Credit Suisse, Cayman Islands Branch, as syndication agent, and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-33156	5/12/11	10.1
4.19	Credit Facility Agreement, dated as of May 18, 2011, among First Solar Manufacturing GmbH, Commerzbank Aktiengesellschaft, Luxembourg Branch, as security agent, and the additional finance parties party thereto	8-K	001-33156	5/24/11	10.1
4.20	Guarantee Agreement, dates as of May 18, 2011, among First Solar, Inc., First Solar Manufacturing GmbH and Commerzbank Aktiengesellschaft, Luxembourg Branch	8-K	001-33156	5/24/11	10.2
4.21	Facility Agreement, dated June 30, 2011, among First Solar Malaysia Sdn. Bhd., as borrower, First Solar, Inc., as guarantor, CIMB Investment Bank Berhad, Maybank Investment Bank Berhad and RHB Investment Bank Berhad, as arrangers, CIMB Investment Bank Berhad as facility agent and security agent, and the original lenders party thereto	8-K	001-33156	7/7/11	10.1

4.22		Second Amendment and Waiver, dated as of June 30, 2011, to the Amended and Restated Credit Agreement, dated as of October 15, 2010, among First Solar, Inc., the lenders party thereto, Bank of America, N.A. and The Royal Bank of Scotland plc, as documentation agents, Credit Suisse, Cayman Islands Branch, as syndication agent, and JPMorgan Chase Bank, N.A., as administrative agent	8-K	001-33156	7/14/11	10.1	
4.23		Amendment Letter, dated as of November 8, 2011, to the Facility Agreement, dated June 30, 2011, among First Solar Malaysia Sdn. Bhd., as borrower, First Solar, Inc., as guarantor, CIMB Investment Bank Berhad, Maybank Investment Bank Berhad and RHB Investment Bank Berhad, as arrangers, CIMB Investment Bank Berhad as facility agent and security agent, and the original lenders party thereto	—	—	—	—	X
10.1	†	Framework Agreement on the Sale and Purchase of Solar Modules dated April 10, 2006, between First Solar GmbH and Blitzstrom GmbH	S-1/A	333-135574	11/8/06	10.1	
10.2	†	Amendment to the Framework Agreement dated April 10, 2006 on the Sale and Purchase of Solar Modules between First Solar GmbH and Blitzstrom GmbH	10-K	001-33156	3/16/07	10.02	
10.3	†	Framework Agreement on the Sale and Purchase of Solar Modules dated April 11, 2006, between First Solar GmbH and Conergy AG	S-1/A	333-135574	11/8/06	10.2	
10.4	†	Amendment to the Framework Agreement dated April 11, 2006 on the Sale and Purchase of Solar Modules between First Solar GmbH and Conergy AG	10-K	001-33156	3/16/07	10.04	
10.5	†	Framework Agreement on the Sale and Purchase of Solar Modules dated April 5, 2006, between First Solar GmbH and Gehrlicher Umweltschonende Energiesysteme GmbH	S-1/A	333-135574	11/8/06	10.3	

10.6	†	Amendment to the Framework Agreement dated April 5, 2006 on the Sale and Purchase of Solar Modules between First Solar GmbH and Gehrlicher Umweltschonende Energiesysteme GmbH	10-K	001-33156	3/16/07	10.06
10.7	†	Framework Agreement on the Sale and Purchase of Solar Modules dated April 9, 2006, among First Solar GmbH, Juwi Holding AG, JuWi Handels Verwaltungs GmbH & Co. KG and juwi solar GmbH	S-1/A	333-135574	11/8/06	10.4
10.8	†	Amendment to the Framework Agreement dated April 9, 2006 on the Sale and Purchase of Solar Modules among First Solar GmbH, Juwi Holding AG, JuWi Handels Verwaltungs GmbH & Co. KG and juwi solar GmbH	10-K	001-33156	3/16/07	10.08
10.9	†	Framework Agreement on the Sale and Purchase of Solar Modules dated March 30, 2006, between First Solar GmbH and Phönix Sonnenstrom AG	S-1/A	333-135574	11/8/06	10.5
10.10	†	Amendment to the Framework Agreement dated March 30, 2006 on the Sale and Purchase of Solar Modules between First Solar GmbH and Phönix Sonnenstrom AG	10-K	001-33156	3/16/07	10.10
10.11	†	Framework Agreement on the Sale and Purchase of Solar Modules dated April 7, 2006, between First Solar GmbH and Colexon Energy AG	S-1/A	333-135574	11/8/06	10.6
10.12	†	Amendment to the Framework Agreement dated April 7, 2006 on the Sale and Purchase of Solar Modules between First Solar GmbH and Colexon Energy AG	10-K	001-33156	3/16/07	10.12
10.13		Guarantee Agreement between Michael J. Ahearn and IKB Deutsche Industriebank AG	S-1/A	333-135574	9/18/06	10.7
10.14		Grant Decision dated July 26, 2006, between First Solar Manufacturing GmbH and InvestitionsBank des Landes Brandenburg	S-1/A	333-135574	10/10/06	10.9
10.15		2003 Unit Option Plan	S-1/A	333-135574	9/18/06	4.14
10.16		Form of 2003 Unit Option Plan Agreement	S-1/A	333-135574	9/18/06	4.15
10.17		Amended and Restated 2006 Omnibus Incentive Compensation Plan	10-Q	001-33156	5/1/09	10.2
10.18		Form of Change in Control Severance Agreement	S-1/A	333-135574	10/25/06	10.15
10.19		Guaranty dated February 5, 2003	S-1/A	333-135574	10/25/06	10.16
10.20		Form of Director and Officer Indemnification Agreement	S-1/A	333-135574	10/25/06	10.17
10.21		Amended and Restated Employment Agreement and Amended and Restated Change in Control Agreement dated November 3, 2008, between First Solar, Inc. and Michael J. Ahearn	10-Q	001-33156	10/31/08	10.01
10.22		Amended and Restated Employment Agreement and Amended and Restated Change in Control Agreement dated November 3, 2008, between	10-Q	001-33156	10/31/08	10.02

	First Solar, Inc. and John Carrington				
10.23	Amended and Restated Employment Agreement and Amended and Restated Change in Control Agreement dated November 11, 2008, between First Solar, Inc. and Bruce Sohn	10-K	001-33156	2/25/09	10.33
10.24	Amended and Restated Employment Agreement and Amended and Restated Change in Control Agreement dated December 29, 2008, between First Solar, Inc. and John T. Gaffney	10-K	001-33156	2/25/09	10.34
10.25	Amended and Restated Employment Agreement and Amended and Restated Change in Control Agreement dated December 30, 2008 between First Solar, Inc. and Jens Meyerhoff	10-K	001-33156	2/25/09	10.35
10.26	Employment Agreement and Change in Control Severance Agreement, each dated February 20, 2009, between First Solar, Inc. and Mary Elizabeth Gustafsson	10-K	001-33156	2/25/09	10.36
10.27	Employment Agreement and Change in Control Severance Agreement, each dated as of September 9, 2009, between First Solar, Inc. and Robert J. Gillette	8-K	001-33156	9/10/09	10.1
10.28	Amended and Restated Employment Agreement and Amended and Restated Change in Control Severance Agreement, each dated as of December 1, 2008, between First Solar, Inc. and David Eaglesham	10-K	001-33156	2/22/10	10.28

10.29	Amended and Restated Employment Agreement dated as of December 1, 2008, between First, Solar Inc. and James Zhu	10-K	001-33156	2/22/10	10.29
10.30	Amended and Restated Employment Agreement and Amended and Restated Change in Control Severance Agreement, each dated as of December 15, 2008, between First Solar Inc. and Carol Campbell	10-K	001-33156	2/22/10	10.30
10.31	Employment Agreement and Change in Control Severance Agreement, each dated December 14, 2009, between First Solar, Inc. and T.L. Kallenbach	10-K	001-33156	2/22/10	10.31
10.32	Amendment to Employment Agreement, effective as of July 28, 2009, between First Solar, Inc. and Bruce Sohn	10-K	001-33156	2/22/10	10.32
10.33	Amendment to Employment Agreement, effective as of July 28, 2009, between First Solar, Inc. and Jens Meyerhoff	10-K	001-33156	2/22/10	10.33
10.34	Amendment to Employment Agreement, effective as of July 28, 2009, between First Solar, Inc. and John Carrington	10-K	001-33156	2/22/10	10.34
10.35	Amendment to Employment Agreement, effective as of July 28, 2009, between First Solar, Inc. and Mary Elizabeth Gustafsson	10-K	001-33156	2/22/10	10.35
10.36	Amendment to Employment Agreement, effective as of July 28, 2009, between First Solar, Inc. and Carol Campbell	10-K	001-33156	2/22/10	10.36
10.37	Amendment to Employment Agreement, effective as of November 2, 2009, between First Solar, Inc. and David Eaglesham	10-K	001-33156	2/22/10	10.37
10.38	Amendment to Employment Agreement, effective as of November 2, 2009, between First Solar, Inc. and Carol Campbell	10-K	001-33156	2/22/10	10.38
10.39	Amendment to Employment Agreement, effective as of November 2, 2009, between First Solar, Inc. and James Zhu	10-K	001-33156	2/22/10	10.39
10.40	Amendment to Employment Agreement, effective as of November 16, 2009, between First Solar, Inc. and Mary Elizabeth Gustafsson	10-K	001-33156	2/22/10	10.40
10.41	Amendment to Employment Agreement, effective as of October 1, 2009, between First Solar, Inc. and Michael J. Ahearn	10-K	001-33156	2/22/10	10.41
10.42	Agreement and Plan of Merger dated as of March 2, 2009 by and among First Solar Inc., First Solar Acquisition Corp., OptiSolar Inc. and OptiSolar Holdings LLC	10-Q	001-33156	5/1/09	10.1
10.43	First Solar, Inc. 2010 Omnibus Incentive Compensation Plan	DEF 14A	001-33156	4/20/10	App. A
10.44	First Solar, Inc. Associate Stock Purchase Plan		001-33156	4/20/10	App. B

10.45	Agreement and Plan of Merger, dated as of April 27, 2010, by and among First Solar, Inc., Jefferson Merger Sub, LLC, NextLight Renewable Power LLC, Energy Capital Partners I, LP, Energy Partners I-A, LP Energy Capital Partners I-B IP, LP, and Energy Capital Partners I (WD IP), LP	DEF 14A			
10.46	Amendment to Employment and Non-Solicitation Agreement, effective as of July 1, 2010, between First Solar, Inc. and Jens Meyerhoff	10-K	001-33156	2/28/11	10.46
10.47	Amendment to Employment Agreement, effective as of December 7, 2010, between First Solar, Inc. and James Zhu	10-K	001-33156	2/28/11	10.47
10.48	Employment Agreement, dated October 1, 2010, and Change in Control Severance Agreement, dated October 1, 2009, between First Solar, Inc. and Maja Wessels	10-Q	001-33156	5/5/11	10.1
10.49	Employment Agreement, dated February 22, 2011, between First Solar, Inc. and T.L. Kallenbach	10-Q	001-33156	5/5/11	10.2
10.50	Employment Agreement, dated March 15, 2011, and Change in Control Severance Agreement, dated April 4, 2011 between First Solar, Inc. and Mark Widmar	10-Q	001-33156	5/5/11	10.3
10.51	Amendment to Non-Competition and Non-Solicitation Agreement, dated April 28, 2011, between First Solar, Inc. and Bruce Sohn	10-Q	001-33156	5/5/11	10.4

10.52		Amended and Restated Employment Agreement, effective September 1, 2011, and Change in Control Severance Agreement, dated as of April 7, 2008, between First Solar, Inc. and James G. Brown, Jr., and amended and restated effective December 1, 2008	8-K	001-33156	8/17/11	10.1	
10.53		Amendment to Non-Competition and Non-Solicitation Agreement and Mitigation Clause Waiver, effective September 30, 2011, between First Solar, Inc. and Jens Meyerhoff	8-K	001-33156	8/17/11	10.2	
10.54		Amendment to Non-Competition and Non-Solicitation Agreement, dated November 15, 2011, between First Solar, Inc. and Robert Gillette	8-K	001-33156	11/21/11	10.1	
10.55		Employment Agreement, by and between First Solar, Inc. and Michael J. Ahearn	8-K	001-33156	12/29/11	10.1	
14.1		Code of Ethics	10-K	001-33156	3/16/07	14	
21.1		List of Subsidiaries of First Solar, Inc	—	—	—	—	X
23.1		Consent of Independent Registered Public Accounting Firm	—	—	—	—	X
31.01		Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a), as amended	—	—	—	—	X
31.02		Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a), as amended	—	—	—	—	X
32.01	*	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act of 2002	—	—	—	—	X
101.INS		XBRL Instance Document	—	—	—	—	X
101.SCH		XBRL Taxonomy Extension Schema Document	—	—	—	—	X
101.DEF		XBRL Definition Linkbase Document	—	—	—	—	X
101.CAL		XBRL Taxonomy Extension Calculation Linkbase Document	—	—	—	—	X
101.LAB		XBRL Taxonomy Label Linkbase Document	—	—	—	—	X
101.PRE		XBLR Taxonomy Extension Presentation Document	—	—	—	—	X

† Confidential treatment has been requested and granted for portions of this exhibit.

* This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any filings.