



2013 Annual Report to Stockholders

Overview

SunEdison, Inc. ("SunEdison" or the "Company") is a major developer and seller of photovoltaic energy solutions and a global leader in the development, manufacture and sale of silicon wafers to the semiconductor industry. We are one of the world's leading developers of solar energy projects and, we believe, one of the most geographically diverse. Our technology leadership in silicon and downstream solar are enabling the Company to expand our customer base and lower costs throughout the silicon supply chain.

SunEdison is organized by end market and we are engaged in two reportable segments: Solar energy and Semiconductor Materials. Our Solar Energy business provides solar energy services that integrate the design, installation, financing, monitoring, operations and maintenance portions of the downstream solar market for our customers. Our Solar Energy business also manufactures polysilicon, silicon wafers and solar modules to support our downstream solar business, as well as for sale to external customers as market conditions dictate. Our Semiconductor Materials business includes the development, production and marketing of semiconductor silicon wafers ranging from 100 millimeter (4 inch) to 300 millimeter (12 inch) as the base material for the production of semiconductor devices.

Financial segment information for our two reportable segments for 2013 is contained in our 2013 Annual Report, which information is incorporated herein by reference. See Note 20, Notes to Consolidated Financial Statements.

SunEdison, formerly known as MEMC Electronic Materials, Inc., was formed in 1984 as a Delaware corporation and completed its initial public stock offering in 1995. Our corporate structure includes, in addition to our wholly owned subsidiaries, an 80%-owned consolidated joint venture in South Korea (MEMC Korea Company or MKC). We also have ten consolidated joint ventures related to the construction and operation of solar energy systems.

Our principal executive offices are located at 501 Pearl Drive (City of O'Fallon), St. Peters, Missouri 63376, and our telephone number is (636) 474-5000. Our website address is www.sunedison.com.

Recent Events

Proposed Initial Public Offering of Semiconductor Materials Business

On August 22, 2013, we announced that our board of directors had unanimously approved a plan to divest a minority ownership of SunEdison Semiconductor, Ltd. ("SSL"), a newly formed, wholly owned subsidiary of SunEdison, Inc. created to own our Semiconductor Materials business, through an initial public offering (the "proposed IPO"). On September 9, 2013, SSL filed a registration statement on Form S-1 with the SEC to register shares of common stock to be sold by SSL. Since that filing, we have filed two amendments to the Form S-1 in response to comments from the SEC staff as part of its review process and to reflect developments in our preparation for the proposed IPO. Including among those developments is our decision to organize an ultimate Singapore public limited company to become the successor registrant under the Form S-1 and the ultimate parent company of SSL. The private Singapore entity, formed on December 20, 2013, is SunEdison Semiconductor Pte. Ltd.; the public Singapore entity is expected to be formed upon the effectiveness of the Form S-1 under the name of SunEdison Semiconductor Limited ("Limited").

Under the terms of the proposed IPO, we will continue to supply polysilicon, and will license certain technologies, to SSL following completion of the proposed IPO. We will also provide specified support services to SSL, for a fee, related to corporate functions such as risk management, communications, corporate administration, finance, accounting, audit, legal, information technology, human resources, compliance, employee benefits and stock compensation administration, while SSL will also provide us with certain information technology support services. The terms of these arrangements between SSL and us have not yet been finalized. We expect to use proceeds we receive from SSL in connection with the contribution to SSL of the subsidiaries and assets described below to fund growth initiatives related to the Solar Energy business, to repay existing indebtedness and for general corporate purposes.

Completion of the proposed IPO of the ordinary shares of Limited and related transactions are subject to numerous conditions, including market conditions, approval by our board of directors of the final terms of the proposed IPO and receipt of all regulatory approvals, including the effectiveness of the registration statement filed with the SEC. As a result, we cannot assure you that the proposed IPO will occur on favorable terms, or at all. We have not yet determined, among other items, the number of ordinary shares of Limited that will be sold in the proposed IPO, the valuation of such shares, the terms of new agreements between and among Limited, SSL and us, the terms of any potential new bank or other financings that may be entered into by Limited, SSL or us or how we will use the cash payments we expect to receive from Limited in connection with the proposed IPO and related transactions. As a result, even if the proposed IPO does occur, we can make no assurances about the financial impact it and the related transactions may have on us.

We currently operate our Semiconductor Materials business through a number of wholly owned subsidiaries and our 80% joint venture in South Korea known as MEMC Korea Company and, for accounting purposes, consolidate their results of operations with the results of operation of the Company. Prior to completion of the proposed IPO, we will contribute all of the capital stock of such subsidiaries and all of the assets used in our Semiconductor Materials business to SSL.

Although we have not yet determined the amount of interest of Limited that will be sold to the public in connection with the proposed IPO, we expect that we will continue to consolidate Limited's results of operations with our Solar Energy business for accounting purposes upon the completion of the proposed IPO and will likely continue to do so as long as we have a controlling financial interest in the outstanding ordinary shares of Limited. The minority interest in Limited that we do not own following the completion of the proposed IPO will be reflected in our consolidated balance sheet as a "non-controlling interest" and such minority interest's proportionate share of Limited's operating income or losses will be reflected in our consolidated statements of operations as "net income (loss) attributable to non-controlling interest." At this time, we have not made any determination regarding whether we will dispose of our remaining interests in Limited or, if we do dispose of those remaining interests, the manner or timing of any disposition following completion of the proposed IPO.

Completion of Public Offering of SunEdison Common Stock

On September 18, 2013, we completed the issuance and sale in a registered public offering (the "Offering") of 34,500,000 shares of the Company's common stock, par value \$0.01 per share, at a public offering price of \$7.25 per share, less discounts and commissions of \$0.29 per share. We received net proceeds from the offering of approximately \$239.6 million, after deducting underwriting discounts and commissions and related offering costs. We intend to use the net proceeds for general corporate purposes, which includes funding working capital and growth initiatives.

Completion of Notes Exchange and Refinancing of Credit Facilities

Issuance of 2018 Notes and 2021 Notes

On December 20, 2013, SunEdison issued (1) \$600 million in aggregate principal amount of 2.00% Convertible Senior Notes due October 1, 2018 (the "2018 Notes") under an indenture, dated as of December 20, 2013 (the "2018 Indenture"), between the Company and Wilmington Trust, National Association, as trustee (the "Trustee") and (2) \$600 million in aggregate principal amount of 2.75% Convertible Senior Notes due January 1, 2021 (the "2021 Notes" and, together with the 2018 Notes, the "Notes") under an indenture, dated as of December 20, 2013 (the "2021 Indenture" and, together with the 2018 Indenture, the "Indentures"), between the Company and Trustee. The Company offered and sold the Notes in reliance on the exemption from registration provided by Section 4(2) of the Securities Act. The initial purchasers for the offering (the "Initial Purchasers") offered and sold the Notes to "qualified institutional buyers" pursuant to the exemption from registration provided by Rule 144A under the Securities Act.

The 2018 Notes bear interest at a rate of 2.00% per year, payable semiannually in arrears in cash on April 1st and October 1st of each year, beginning on April 1, 2014, and the 2021 Notes bear interest at a rate of 2.75% per year, payable semiannually in arrears in cash on January 1st and July 1st of each year, beginning on July 1, 2014. The Notes are senior unsecured obligations and will rank equally with all of our existing and future senior unsecured debt and senior to all of our existing and future subordinated debt.

Holders may convert their Notes at their option on any day prior to the close of business on the business day immediately preceding July 1, 2018 (in the case of the 2018 Notes) or October 1, 2020 (in the case of the 2021 Notes) only under the following circumstances: (1) during the five business day period after any 10 consecutive trading day period (the "Measurement Period") in which the trading price per Note for each day of that Measurement Period was less than 98% of the product of the closing sale price of our common stock and the conversion rate on each such day; (2) during any calendar quarter after the calendar quarter ending March 31, 2014, if the closing sale price of our common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter exceeds 120% of the applicable conversion price in effect on each such trading day; or (3) upon the occurrence of specified corporate events. The Notes will be convertible, regardless of the foregoing circumstances, at any time from, and including, July 1, 2018 (in the case of the 2018 Notes) or October 1, 2020 (in the case of the 2021 Notes) until the close of business on the second scheduled trading day immediately preceding the applicable maturity date.

Upon conversion we will pay cash and, if applicable, deliver shares of our common stock, based on a "Daily Conversion Value" calculated on a proportionate basis for each "VWAP Trading Day" (each as defined in the Indentures) of the relevant 25 VWAP Trading Day observation period. However, we must settle conversions solely in cash until we have obtained the requisite approvals from our stockholders to (i) amend our restated certificate of incorporation to sufficiently increase the number of authorized but unissued shares of our common stock to permit the conversion and settlement of all Notes into shares of our common stock, and (ii) authorize the issuance of the maximum numbers of shares described above in accordance with the

continued listing standards of The New York Stock Exchange. The initial conversion rate for the Notes will be 68.3796 shares of common stock per \$1,000 in principal amount of Notes, equivalent to a conversion price of approximately \$14.62 per share of common stock. The conversion rate will be subject to adjustment in certain circumstances.

Subject to certain exceptions, holders may require the Company to repurchase, for cash, all or part of their Notes upon a “Fundamental Change” (as defined in the Indentures) at a price equal to 100% of the principal amount of the Notes being repurchased plus any accrued and unpaid interest up to, but excluding, the “Fundamental Change Purchase Date” (as defined in the Indentures). In addition, upon a “Make-Whole Fundamental Change” (as defined in the Indentures) prior to the maturity date of the Notes, we will, in some cases, increase the conversion rate for a holder that elects to convert its Notes in connection with such Make-Whole Fundamental Change. The Company may not redeem the Notes prior to maturity.

The Indentures contain certain events of default after which the Notes may be due and payable immediately. Such events of default include, without limitation, the following: failure to pay interest on any Note when due and such failure continues for 30 days; failure to pay any principal of any Note when due and payable at maturity, upon required repurchase, upon acceleration or otherwise; failure to comply with our obligation to convert the Notes into cash, our common stock or a combination of cash and our common stock, as applicable, upon exercise of a holder’s conversion right and such failure continues for 5 business days; failure by us to provide timely notice of a fundamental change, make-whole fundamental change or certain distributions; failure in performance or breach of any covenant or agreement by us under the Indentures (other than those described above in this paragraph) and such failure or breach continues for 60 days after written notice has been given to us; failure to pay any indebtedness borrowed by us or one of our Significant Subsidiaries (as defined in the Indentures) in an outstanding principal amount in excess of \$50 million; failure by us or one of our significant subsidiaries to pay, bond or otherwise discharge any judgments or orders in excess of \$50 million within 30 days of the entry of such judgment; and certain events in bankruptcy, insolvency or reorganization of the Company.

Entry Into New Credit Facility

Also on December 20, 2013, we entered into a credit agreement by and among the Company, the lenders identified therein and Deutsche Bank AG New York Branch (“Deutsche”), as administrative agent, lender, and letter of credit issuer (the “Credit Facility”). The Credit Facility provides for a senior secured letter of credit facility in an aggregate principal amount up to \$320,000,000 and has a term ending December 15, 2014. The Credit Facility will be used to backstop outstanding letters of credit issued by Bank of America, N.A. under our former revolving credit facility, which was terminated simultaneously with our entry into the Credit Facility (subject to our obligation to continue paying fees in respect of outstanding letters of credit).

Our obligations under the Credit Facility are guaranteed by certain of our domestic subsidiaries. Our obligations and the guaranty obligations of our subsidiaries are secured by first priority liens on and security interests in substantially all present and future assets of the Company and the subsidiary guarantors, including a pledge of the capital stock of certain of our domestic and foreign subsidiaries.

Interest under the Credit Facility accrues on the committed amount of \$320,000,000 regardless of actual utilization, and varies from 7.75% to 15%. If we have not terminated the Credit Facility on or prior to February 28, 2014, interest on undrawn letters of credit increases to 15% per annum and we cease to have the right to terminate the Credit Facility. Interest is due and payable in arrears at the end of each fiscal quarter and on the maturity date of the Credit Facility. Drawn amounts on letters of credit are due within three business days, and interest accrues on drawn amounts at a base rate plus the applicable interest rate spread noted above. In addition, the Company paid a fee of \$7.2 million upon entry into the Credit Facility.

The Credit Facility contains representations, covenants and events of default typical for credit arrangements of comparable size, including maintaining a consolidated leverage ratio of 3.5 to 1.0, which excludes the 2018 and 2021 Notes, and a minimum liquidity amount of \$400 million. The Credit Facility also contains a customary material adverse effects clause and a cross default clause. The cross default clause is applicable to defaults on other indebtedness in excess of \$35 million, excluding our non-recourse indebtedness. In addition, the Credit Agreement includes a covenant to satisfy certain post-closing obligations relating to the creation and perfection of liens in favor of our creditors under the Credit Facility. Failure to comply with the specified deadlines in this covenant will result in the Credit Facility interest rate increasing to 15%.

The Credit Facility also contains mandatory prepayment provisions applicable to specified asset sale transactions as well as our receipt of proceeds from certain insurance or condemnation events and the incurrence of additional indebtedness.

Redemption of Senior Notes and Repayment of Existing Credit Facilities

Finally, on December 20, 2012, the Company (i) issued a notice of redemption for all \$550.0 million outstanding aggregate principal amount of its 7.75% Senior Notes due 2019 (the “Senior Notes”) and discharged its obligations under the Indenture, dated March 10, 2011, by and among the Company, the subsidiary guarantors named therein and U.S. Bank National Association, as trustee related to the 7.75% Senior Notes due 2019 (the “Senior Notes Indenture”), (ii) repaid all amounts borrowed under and terminated its Second Lien Credit Agreement, dated September 28, 2012, by and among the Company, Goldman Sachs Bank USA, Deutsche Bank Securities Inc. and the lenders party thereto (the “Second Lien Facility”) and terminated the Guaranty Agreement, dated September 28, 2012, by and between each of the guarantor subsidiaries in favor of Goldman Sachs Bank USA as Administrative Agent for the benefit of itself and the secured parties named therein (the “Guaranty Agreement”), and (iii) terminated its Amended and Restated Credit Agreement dated as of March 23, 2011, as amended to the date hereof, by and between the Company, Bank of America, N.A., as administrative agent, lender, swing line lender and letter of credit issuer, and the various lenders signatory thereto (the “First Lien Facility”).

The foregoing agreements were terminated in connection with the offering of the Notes and entering into of the Credit Facility described above. Certain of the Initial Purchasers or their affiliates held a meaningful portion of the Senior Notes and the Second Lien Facility and such Initial Purchasers or their affiliates received a portion of the proceeds of from the offering of the Notes in connection with the repayment of such Senior Notes and/or Second Lien Facility.

Credit Ratings Withdrawn

On December 23, 2013 and February 11, 2014, the two credit agencies that provided a rating on the Company withdrew their ratings because the Company's rated debt was fully repaid on December 20, 2013 and no longer outstanding.

Refinance of Credit Agreement

On February 28, 2014, we entered into a credit agreement with the lenders identified therein, Wells Fargo Bank, National Association, as administrative agent, Goldman Sachs Bank USA and Deutsche Bank Securities Inc., as joint lead arrangers and joint syndication agents, and Goldman Sachs Bank USA, Deutsche Bank Securities Inc., Wells Fargo Securities, LLC and Macquarie Capital (USA) Inc., as joint bookrunners (the “Credit Facility”). The Credit Facility provides for a senior secured letter of credit facility in an aggregate principal amount up to \$265 million and has a term ending February 28, 2017. The Credit Facility will be used to backstop outstanding letters of credit issued by Bank of America, N.A. under our former revolving credit facility until they expire, as well as for general corporate purposes. Subject to certain conditions, the Borrower may request that the aggregate commitments be increased to an amount not to exceed \$400 million.

Our obligations under the Credit Facility are guaranteed by certain of our domestic subsidiaries. Our obligations and the guaranty obligations of our subsidiaries are secured by first priority liens on and security interests in substantially all present and future assets of the Company and the subsidiary guarantors, including a pledge of the capital stock of certain of our domestic and foreign subsidiaries.

Interest under the Credit Facility accrues on the Dollar equivalent of the daily amount available to be drawn under outstanding letters of credit or bankers' acceptances, at a rate of 3.75%. Interest is due and payable in arrears at the end of each fiscal quarter and on the maturity date of the Credit Facility. Drawn amounts on letters of credit are due within seven business days, and interest accrues on drawn amounts at a base rate plus 2.75%.

The Credit Facility contains representations, covenants and events of default typical for credit arrangements of comparable size, including maintaining a consolidated leverage ratio of 3.0 to 1.0 which excludes the 2018 and 2021 Notes (measurement commencing with the last day of the fiscal quarter ending December 31, 2014) and a minimum liquidity amount (measurement commencing with the last day of the fiscal quarter ending June 30, 2014) of the lesser of (i) \$400 million and (ii) the sum of (x) \$300 million plus (y) the amount, if any, by which the aggregate commitments exceed \$300 million at such time. The Credit Facility also contains a customary material adverse effects clause and a cross default clause. The cross default clause is applicable to defaults on other indebtedness in excess of \$50 million, excluding our non-recourse indebtedness.

The Credit Facility also contains mandatory prepayment and/or cash collateralization provisions applicable to specified asset sale transactions as well as our receipt of proceeds from certain insurance or condemnation events and the incurrence of additional indebtedness.

Solar Energy Segment

Overview. Our Solar Energy segment includes the operations of our old Solar Materials segment as well as our Solar Energy business. We combined these segments effective January 1, 2012 as part of a global restructuring announced on December 8, 2011 (the "2011 Global Plan").

On December 8, 2011, we announced a global restructuring to reduce our company's global workforce, modify our production capacity and accelerate operating cost reductions in 2012 and beyond. We committed to these actions in response to the then current and expected market conditions, including the significant price declines in the upstream solar market resulting from worldwide overcapacity as well as reduced demand in the solar market. In addition to shuttering our Merano, Italy polysilicon facility, we temporarily reduced production capacity at our Portland, Oregon solar monocrystalline facility and limited the capacity ramp of our Kuching, Malaysia solar wafer facility during 2012. To focus on providing our downstream solar customers with quality, low cost systems and to achieve improved operating efficiencies, we consolidated the Solar Materials and Solar Energy segments into a single Solar Energy segment. All financial information for the Solar Energy segment for 2013 and applicable periods prior to 2013 (which have been recast to include the Solar Materials and Solar Energy segments for all periods prior to January 1, 2012) is set forth in Note 20, Notes to Consolidated Financial Statements contained in our 2013 Annual Report, which information is incorporated herein by reference.

Our Solar Energy segment provides solar energy services that integrate the design, installation, financing, monitoring, operations and maintenance portions of the downstream solar market to provide a comprehensive solar energy service to our customers. We are a leading global solar energy services provider. As of December 31, 2013, we have interconnected over 816 solar power systems representing 1.3 gigawatts ("GW") of solar energy generating capacity. As of December 31, 2013, we had 540.1 megawatts ("MW") of projects under construction and 3.4 GW in pipeline. A solar energy system project is classified as "pipeline" when we have a signed or awarded power purchase agreement (PPA) or other energy off-take agreement or have achieved each of the following three items: site control, an identified interconnection point with an estimate of the interconnection costs, and an executed energy off-take agreement or the determination that there is a reasonable likelihood that an energy off-take agreement will be signed. "Under construction" refers to projects within pipeline, in various stages of completion, which are not yet operational. There can be no assurance that pipeline will be converted into completed projects or generate revenues or that we can obtain the necessary financing to construct these projects.

In support of our downstream solar business, our Solar Energy segment manufactures polysilicon, silicon wafers and solar modules. While there continued to be external solar wafer sales during 2013 and 2012, these sales were significantly diminished from prior year sales levels and, going forward, solar wafer sales to external parties are expected to be a smaller component of our business in comparison to historical levels given our strategic shift to primarily supplying wafers for internal consumption by our Solar Energy business. Additionally, our Solar Energy segment will sell solar modules to third parties in the event the opportunity aligns with our internal needs. Consistent with our existing solar strategy, we will continue to utilize our joint ventures and partner with third-party vendors to procure or have manufactured solar modules for use in our business.

Our business is focused on the installation of solar energy systems that are connected to the electricity grid. A wide variety of international and U.S. federal, state and local government and utility commission rules, regulations and policies affect our ability to conduct our business. See "Regulation" below.

We provide our downstream customers with a simplified and economical way to purchase renewable energy by delivering solar power under long-term power purchase arrangements with customers or feed-in tariff arrangements with government entities and utilities. Our business is heavily dependent upon government subsidies, including U.S. federal incentive tax credits, state-sponsored energy credits and foreign feed-in tariffs. In certain jurisdictions, the sale of a solar energy system would not be profitable without these incentives. Our customers pay us only for the electricity output generated by the solar energy systems we install on their rooftops, or other property, thereby avoiding the significant capital outlays otherwise usually associated with power plant projects, including typical solar power plants. Once installed, our solar energy systems provide energy savings to customers and enable them to hedge a portion of their energy costs against volatile electricity prices by generating electricity during daylight hours when electricity prices are typically highest.

Our objective is to develop solar power generation assets that serve as a cost-effective clean energy alternative to central-generated power in select markets throughout North America, South America, Europe, the Middle East, South Korea, Thailand, Malaysia, India, China, South Africa and, in the future, other countries in Asia. Outside of the United States, including in Europe, Asia and Canada, projects are developed and operated pursuant to a government feed-in tariff structure which provides stable pricing under long term contracts, typically 20 years. We generally sell our European, Asian and Canadian projects to investors after they are constructed. In certain countries, for example, in India and South Africa, there is a multi-year holding requirement for a portion of our equity position in such projects. In the United States, we frequently utilize a sale-leaseback financing structure or sell the systems directly to a strategic buyer which results in the recognition of electricity generation and revenue. We are now developing and constructing solar power generation assets and retaining the assets on the balance sheet. These assets produce electricity that is sold to the energy consumer or utility generator and results in the recognition of

electricity generation and revenue. For many projects, we operate solar energy systems after construction pursuant to predefined operations and maintenance agreements. Our long-term objective is to lower the levelized cost of solar energy to the point that solar electricity is cost competitive with fossil fuel generated electricity, enabling us to reach grid parity with traditional energy alternatives without government incentives or subsidies. We also intend to leverage our customer relationships and on-site customer presence to obtain additional power purchase agreements for new locations and long-term contracts for operations and maintenance services for non-SunEdison solar energy systems.

Our portfolio of solar power generation assets that we have sold and then leased back generates revenue in the U.S. from the sale of electricity pursuant to long-term, typically 20-year, solar power services agreements and the receipt and sale of renewable energy incentives, including renewable energy credits ("RECs"), which we sell to third parties. In the State of California, we may also receive performance based incentives ("PBIs") from public utilities, under certain state-wide solar incentive programs.

Through electricity generation by solar electric systems that we operate and through the solar power services agreements in certain states in the U.S., including Massachusetts, Maryland, New Jersey, California, Ohio and Colorado, we are credited with approximately one REC for each 1,000 kilowatt-hour (or megawatt-hour) of electricity we produce. RECs represent the right to claim the environmental, social and other non-power qualities of the renewable electricity generation. At the appropriate time in the construction of a solar power plant, we submit an application to the relevant state energy regulatory bodies. The solar power plant is inspected and if approved, we are qualified to receive RECs based on actual production in the future. A REC, and its associated attributes and benefits, can be sold with or separately from the underlying physical electricity associated with a renewable-based generation source. Buyers of these certificates are typically the utilities that can use the credits to offset state or public utility commission mandated environmental obligations that specify that a portion of their electricity must be generated by solar energy or commodity trading desks that acquire RECs to resell to utilities. Whenever possible, we enter into multi-year binding contractual arrangements with utility companies or other investors who purchase RECs at fixed rates. Sales directly to utilities are generally recorded at the time the required level of energy is generated, which in turn gives us the right to the REC. We typically have the legal and contractual right to transfer ownership of RECs to third parties under the terms of the agreements between us and the utility. Investors also purchase these certificates, typically under similar contracts. These investors then resell the certificates to end-user utilities or other companies.

In the event of under production of energy versus the contracted volume or inability to secure state validation, we may be required to purchase RECs on the spot market and transfer them to the contracted counterparty. Based on our operating experience, we believe that it is unlikely that we would be required to purchase a material amount of RECs to satisfy potential future contractual shortfalls.

We also receive renewable energy incentives from public utilities in the State of California in the form of PBIs under the California Solar Initiative ("CSI") program for the production of renewable energy. A fixed rate per kilowatt hour of actual solar energy production is paid in cash by the utilities over a 60 month period, and the incentive is not based or calculated on the cost to construct the solar power plant. The PBIs are not earned by us unless production actually occurs. There is no penalty under the PBI program if there is no electricity production. Production from our operated systems is verified by an independent third party before billing to the utilities. Unlike RECs discussed above, PBIs are merely a cash incentive and are not tradable.

Suppliers and Raw Materials. For our Solar Energy business, we procure modules through our OEM (Original Equipment Manufacturer) manufacturing relationships and we also have a limited number of suppliers for modules, trackers and inverters. We generally enter into purchase agreements with one year terms with these suppliers. We believe this allows us to optimize system performance, reduce system costs and benefit from the long-term innovation and cost reduction trends of the solar industry. Our solar module suppliers generally provide a 25-year limited warranty for power and a multi-year limited warranty for workmanship. We provide a similar warranty for our solar modules that we supply to our own solar energy projects or to third party purchasers of such modules. Inverter suppliers generally provide a product workmanship warranty of five years with available extended warranties if purchased. In the event that a module or inverter fails in the future, we will repair or replace the failed module or inverter and then recoup the costs from the supplier. We have also entered into OEM module production arrangements to strengthen our supply chain and provide lower cost modules.

For our solar wafer production, the main raw material is polysilicon. We use two types of polysilicon: granular polysilicon and chunk polysilicon. We produce all of our requirements for granular polysilicon at our facility in Pasadena, Texas. Although we have produced chunk polysilicon in our Merano, Italy polysilicon facility, on February 10, 2014, the Company announced that the facility will be indefinitely closed. The Merano polysilicon facility was shuttered in December of 2011 as part of the 2011 Global Plan (discussed above). For the past two years, we explored various options to improve the cost effectiveness of the Merano polysilicon facility. Ultimately, the identified cost reductions were not enough to sustain the economic viability of the plant in the current market environment. The indefinite closure will affect approximately 200 employees at the Merano polysilicon plant. In connection with the closure, the associated electronic grade TCS (trichlorosilane) operation, which employs

approximately 35 people, will be closed over the next 12 months. As a result of the decision to indefinitely close the polysilicon manufacturing facility and TCS operation, we recorded \$37.0 million of non-cash impairment charges to write down these assets to their current estimated salvage value for the year ended December 31, 2013.

We are now buying chunk polysilicon pursuant to short- to medium-term agreements with other polysilicon manufacturers. Chunk polysilicon can be substituted for granular polysilicon, although our manufacturing throughput and yields could be adversely affected.

In February 2011, we announced the formation of a joint venture with Samsung Fine Chemicals Co. Ltd. to produce high purity granular polysilicon to meet some of our internal polysilicon needs. We believe our ability to meet most of our polysilicon requirements through our in-house capabilities provides us with a potential advantage to compete more effectively. We obtain our requirements for several raw materials, equipment, parts and supplies for solar wafer manufacturing from some sole suppliers.

Our solar wafers are used as the starting material for crystalline solar cells. Customers using crystalline wafers for solar applications utilize wafers that are square or pseudo square so that they fit optimally into solar modules (panels) and convert energy from the sun into usable electrical energy. Our first solar wafer manufacturing facility was constructed in Kuching, Malaysia and brought online in 2010. Also in 2010, we acquired Solaicx, which gave us a monocrystalline ingot manufacturing facility in Portland, Oregon. We will continue to manufacture solar wafers in Kuching, solar wafers and ingots through our joint venture in China with Zhenjiang Huantai Science & Technology Co. Ltd. and solar ingots in Portland. We will also continue to use subcontractors for a limited amount of our solar wafer and solar ingot production.

Sales, Marketing and Customers. We market our solar energy generation, monitoring and maintenance services primarily through a direct sales force, and also through local or regional solar channel partners both domestically and internationally. A key element of our sales and marketing strategy is establishing and maintaining close relationships with our customers. We accomplish this through multi-functional teams of marketing, sales, technical, project finance and legal personnel.

Domestic Marketing and U.S. Customers. Our U.S. solar energy customers fall into three categories: (i) commercial customers, which principally include large, national retail chains and real estate property management firms; (ii) federal, state and municipal governments; and (iii) utilities.

For our commercial customers, our business model centers on entering into long-term power purchase agreements where our customers purchase electricity at a pre-determined price for an extended period of time, which may be up to 20 years. Under these arrangements, we generally agree to sell, and the customer agrees to buy, all of the electricity produced by a solar energy system which is installed to the rooftops of the location where the customer is located, canopies built over parking lots on their land or on their other property. We structure these contracts so that the customer pays us a price per kilowatt hour that is competitive with the price charged by the customer's local electric utility. Our commercial customers are primarily large companies that operate on a national or regional basis. These customers have certain attributes that make them good candidates for our services, such as multiple locations with large rooftops, parking canopies or unused land, strong credit quality, large electricity consumption requirements and appropriate load usage.

Our approach to government customers is similar to that with commercial customers. Government customers also purchase power under long-term power purchase agreements; however, our government customers generally tend to be interested in single large solar energy systems rather than systems at multiple locations. Our solar energy services provide several benefits tailored to government customers, including helping them to achieve renewable energy mandates and allowing them to benefit from solar tax incentives for which they would not otherwise qualify.

We typically enter into two kinds of agreements with utility customers—long-term power purchase agreements and agreements to sell RECs. Our power purchase agreements, similar to our agreements with commercial and government customers, provide for the sale of electricity to the utility at a contracted price, typically over a 20-year term. The benefits to our utility customers of entering into a power purchase agreement with us include: (i) our solar energy systems allow utilities to satisfy increasing interest by their customers and regulators in purchasing electricity generated by solar and other renewable energy sources; (ii) our distributed generation system can help utilities balance grid electricity demands and meet their ongoing generation, transmission and distribution requirements in order to supply electricity to their end-customers, while avoiding expensive and potentially difficult new generation, transmission and distribution investment and construction; and (iii) because the pricing of the electricity generated by our solar energy systems takes into account all available federal and state tax incentives, which certain not-for-profit utilities are not entitled to benefit from directly, our solar energy systems offer utilities a mechanism through which to indirectly benefit from these tax incentives. We sell RECs that are generated by our solar energy systems to utilities to assist them in complying with renewable energy regulatory requirements that require them to produce a specified percentage of their electricity from renewable energy sources.

International Marketing and Foreign Customers. Until recently, our international business operations have focused only in certain areas in Europe and Canada. Our growth in 2010 primarily reflected an increase in ground mount projects in Italy. Our growth in 2011 and 2012 was primarily from an increase in utility projects in North America. Our 2013 growth was similarly focused in North America while also diversifying into South Africa and South America. For 2014, we expect our growth to be focused on North America as well as Latin America, South Africa and Europe. We believe this regional and market diversification will reduce country concentration risk and improve overall project returns.

In our international operations, we either develop projects ourselves or enter into strategic alliances or partnership arrangements with local project developers with extensive knowledge of the local licensing, permitting, land siting and other legal aspects of developing a solar energy system in each given country or region. Under these arrangements, our local partners generally obtain the necessary permits, authorizations, licenses and land rights for the development of the solar energy system, and we manage the design and engineering, construction, procurement, installation and financing of the solar energy system. We also may execute an operations and maintenance agreement to service the system for an extended period of time after construction.

Project Finance and Project Working Capital. Our business model is to realize cash upon the completion and sale of a solar energy system or upon the sale of energy, in the case of sale leaseback financing or projects retained on our balance sheet. Typically, a construction financing facility is implemented prior to commencement of construction of the solar energy system, and for non-sale leaseback financed projects, long-term debt is arranged prior to commercial operation of the system and drawn on at or about the time of commercial operation or the sale of the system.

We utilize a variety of project and debt financing structures to arrange long-term financing for our systems, including non-recourse construction finance. In the United States, our long-term financing consists of selling the solar energy systems to third parties and in some cases leasing the solar energy system back for an extended period of time. These leases are typically accounted for as capital leases or financing arrangements on our balance sheet. See Note 2, Notes to Consolidated Financial Statements in our 2013 Annual Report. Outside the U.S., we typically obtain term debt financing with a maturity date tied to the date the applicable feed-in tariff expires, and upon the sale of these systems, the new project owner acquires the term debt financing. Alternatively, in lieu of financing solar energy systems, we may choose to sell a portion of our systems portfolio to third parties. Outside the U.S., we generally sell projects outright to third parties, except in India and in South Africa where there is a partial equity holding requirement. Our currently known or anticipated market and liquidity risks are described more fully in Item 1A, "Risk Factors", below, and "Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources" in our 2013 Annual Report, which is incorporated herein by this reference.

Operations and Maintenance of Solar Energy Systems. Our service personnel are responsible for the operation and maintenance of our portfolio of solar energy systems. We may also provide operations and maintenance services to solar energy systems that are neither owned nor installed by us. In 2014, we are planning to expand our operations and maintenance business significantly through organic and inorganic growth. The services provided by our service team include the following:

- **Solar Monitoring.** Our renewable operations center provides monitoring of solar energy systems and measures output in 15-minute increments. This enables us to dispatch repair crews as needed based on system performance and conditions. Our customers are also able to access the data for their system remotely through our online customer portal. With the SunEdison Energy & Environmental Data System ("SEEDS"), our equipment and proprietary software platform used for remote monitoring and control of solar power plants, we are able to measure production, create customized reports, streamline billing and ensure efficient operation and maintenance.
- **Optimal Solar Production.** Our service contracts cover preventative maintenance to ensure the optimal level of performance and electrical generation for the solar energy system.

Competition. The solar power market in general competes with conventional fossil fuels supplied by utilities and other sources of renewable energy such as wind, hydro, biomass, concentrated solar power and emerging distributed generation technologies such as micro-turbines and fuel cells. Furthermore, the market for solar electric power technologies is competitive and continually evolving. We believe our major competitors in the solar energy services provider market include SunPower Corporation, First Solar, Inc., Enerparc, Sharp Corporation (Recurrent Energy), Phoenix Solar, BELECTRIC, JUWI Solar GmbH and Solar City. We may also face competition from solar cell and module suppliers, who may develop solar energy system projects internally that compete with our product and service offerings, or who may enter into strategic relationships with or acquire other existing solar power system providers. We also compete to obtain limited government funding, subsidies or credits. In the large-scale on-grid solar power systems market, we face direct competition from a number of companies, including those that manufacture, distribute or install solar power systems, as well as construction companies that have

expanded into the renewable sector and independent power producers. In addition, we will occasionally compete with distributed generation equipment suppliers.

We generally compete on the basis of the price of electricity we can offer to our customers; our experience in installing high quality solar energy systems that are generally free from system interruption and that preserve the integrity of our customers' properties; our continuing long-term solar services (operations and maintenance services) and the scope of our system monitoring and control services; quality and reliability; and our ability to serve customers in multiple jurisdictions.

Seasonality. Our quarterly revenue and operating results for solar energy system installations are difficult to predict and have in the past and may in the future fluctuate from quarter to quarter due to changes in subsidies, as well as weather, economic trends and other factors. For example, in Canada and in European countries with feed-in tariffs, the construction of solar power systems may be concentrated during the second half of the calendar year, largely due to periodic reductions of the applicable minimum feed-in tariff and the fact that the coldest winter months are January through March, which impacts the extent (or amount) of construction that occurs. In the United States, customers or investors will sometimes make purchasing decisions towards the end of the year in order to take advantage of tax credits or for other budgetary reasons.

Semiconductor Materials Segment

Wafers for Semiconductor Applications. Almost all semiconductor devices are manufactured using silicon wafers. Wafers are becoming increasingly differentiated by specific physical and electrical characteristics, such as flatness and defect free, uniform crystal structures. Semiconductor device manufacturers continue to evolve to devices with shrinking geometries and more stringent technical specifications. Wafers required to produce these next generation devices are being developed in larger sizes, with the 300 millimeter wafer now being the primary wafer diameter used today.

We offer wafers with a wide variety of features satisfying numerous product specifications to meet our customers' exacting requirements. Our wafers vary in size, surface features, composition, purity levels, crystal properties and electrical properties. We provide our customers with a reliable supply of high quality wafers with consistent characteristics.

Our monocrystalline wafers for use in semiconductor applications range in size from 100 millimeter to 300 millimeter and are round in shape for semiconductor customers because of the nature of their processing equipment. Our wafers are used as the starting material for the manufacture of various types of semiconductor devices, including microprocessor, memory, logic and power devices. In turn, these semiconductor devices are used in computers, cellular phones and other mobile electronic devices, automobiles and other consumer and industrial products. Our monocrystalline wafers for semiconductor applications include four general categories of wafers: prime, epitaxial, test/monitor and silicon-on-insulator (SOI) wafers.

Prime Wafers

Our prime wafer is a polished, highly refined, pure wafer with an ultraflat and ultraclean surface. The vast majority of our prime wafers are manufactured with a sophisticated chemical-mechanical polishing process that removes defects and leaves an extremely smooth surface. As semiconductor devices become more complex, wafer flatness and cleanliness requirements, along with crystal perfection, become increasingly important because these properties have a significant impact on our customers' processes and yields.

Our OPTIA™ wafer is a 100% defect-free crystalline structure based on our patented technologies and processes, including Magic Denuded Zone®, or MDZ®. Our patented MDZ® product feature can increase our customers' yield by drawing impurities away from the surface of the wafer in a manner that is efficient and reliable, with results that are reproducible. We believe the OPTIA™ wafer is the most technologically advanced polished wafer available today. Our annealed wafer is a prime wafer with near surface crystalline defects dissolved during a high-temperature thermal treatment.

Epitaxial Wafers

Our epitaxial, or epi, wafers consist of a thin silicon layer grown on the polished surface of the wafer. Typically, the epitaxial layer has different electrical properties from the underlying wafer. This provides our customers with better isolation between circuit elements than a polished wafer, and the ability to tailor the wafer to the specific demands of the device. Without sufficient isolation of the various circuit elements, the elements could communicate electrically with each other, which could render the device useless. Epitaxial wafers provide improved isolation, thereby allowing for increased reliability of the finished semiconductor device and greater efficiencies during the semiconductor manufacturing process, which ultimately allows for more complex semiconductor devices.

Our AEGIS™ product is designed for certain specialized applications requiring high resistivity epitaxial wafers and our MDZ® product feature. The AEGIS™ wafer includes a thin epitaxial layer grown on a standard starting wafer. The AEGIS™

wafer's thin epitaxial layer eliminates harmful defects on the surface of the wafer, thereby allowing device manufacturers to increase yields and improve process reliability.

Test/Monitor Wafers

We supply test/monitor wafers to our customers for their use in testing semiconductor fabrication lines and processes. Although test/monitor wafers are substantially the same as prime wafers with respect to cleanliness, and in some cases flatness, other specifications are generally less rigorous. This allows us to produce some of the test/monitor wafers from the portion of the silicon ingot that does not meet customer specifications for wafers.

Silicon-on-Insulator Wafers

An SOI wafer is a different starting material for the chip making process. SOI wafers have three layers: a thin surface layer of silicon (from a few hundred Angstrom to several microns thick) where the transistors are formed, an underlying layer of insulating material and a support or "handle" bulk silicon wafer. The insulating layer, usually made of silicon dioxide, is referred to as the "buried oxide" or "BOX" layer and is usually a few thousand Angstroms thick. Transistors built within the top silicon layer typically switch signals faster, run at lower voltages and are much less vulnerable to signal noise from background cosmic ray particles. Each transistor is isolated from its neighbor by a complete layer of silicon dioxide.

Sales and Marketing. We market our semiconductor wafer products primarily through a direct sales force. We have customer service and support centers through a global network in various countries, including in China, France, Germany, Italy, Japan, Malaysia, Singapore, South Korea, Taiwan and the United States. A key element of our sales and marketing strategy is establishing and maintaining close relationships with our customers. We accomplish this through multi-functional teams of technical, sales and marketing and manufacturing personnel. These teams work closely with our customers to optimize our products for their current and future production processes, requirements and specifications. We monitor changing customer needs and target our research and development and manufacturing to produce wafers adapted to each customer's processes, requirements and specifications. We make sales of semiconductor wafers principally through agreements of one year or less (such agreements often are of three months or six months duration), which specify price and typically indicate only estimated volumes or market share.

We sell some of our semiconductor wafers to certain customers under consignment arrangements. Generally, these consignment arrangements require us to maintain a certain quantity of wafers in inventory at the customer's facility or at a storage facility designated by the customer. Under these arrangements, we ship the wafers to the storage facility, but do not charge the customer or recognize revenue for those wafers until title passes to the customer. Title passes when the customer pulls the product from the assigned storage facility or storage area or, if the customer does not pull the product within a stated period of time (generally 60-90 days), at the end of that period, or when the customer otherwise agrees to take title to the product. Until that time, the wafers are considered part of our inventory and are reflected on our books and records as inventory. As such, these consignment arrangements are essentially inventory transfer arrangements. At December 31, 2013, we had approximately \$22.9 million of inventory held on consignment, compared with approximately \$27.7 million held on consignment at December 31, 2012.

Manufacturing. To meet our semiconductor wafer customers' needs worldwide, we have established a global manufacturing network currently consisting of eight manufacturing facilities. In an effort to reduce manufacturing costs and to shift manufacturing to locations closer to our customers, in 2009, we committed to terminate certain manufacturing in St. Peters, Missouri and Sherman, Texas. In 2011, we ceased all production at our Sherman, Texas facility. We intend to sell this facility, although there can be no assurance that we will be successful in selling the facility. In 2012, we ceased all production at our St. Peters, Missouri facility, except for 150mm crystal growing and advanced SOI manufacturing. We announced on February 10, 2014 the further consolidation of our crystal operations that will include the transitioning of the small diameter crystal activities now conducted at St. Peters to facilities in Korea, Taiwan and Italy. SOI production will continue at the St. Peters facility. Our corporate headquarters and research and development are expected to continue at the St. Peters facility. We have transferred crystal operations to our new semiconductor wafer manufacturing facility in Ipoh, Malaysia. We completed construction and commenced commercial shipments from this facility in the third quarter of 2010. We have also invested significantly and are continuing to invest to expand our 300 millimeter production capacity in our manufacturing facilities.

Our monocrystalline wafer manufacturing process begins with high purity polysilicon. The polysilicon is melted in a quartz crucible along with minute amounts of electrically active elements such as arsenic, boron, phosphorous or antimony. We then lower a silicon seed crystal into the melt and slowly extract it from the melt. The resultant body of silicon is called an ingot. The temperature of the melt, speed of extraction and rotation of the crucible govern the size of the ingot, while the concentration of the electrically active element in the melt governs the electrical properties of the wafers to be made from the ingot. This is a complex, proprietary process requiring many control features on the crystal-growing equipment.

After the crystal ingot is grown, we grind the ingots to the specified size and slice them into thin wafers. Next, we prepare the wafers for surface polishing with a multi-step process using precision wafer planarization machines, edge contour machines and chemical etchers. Final polishing and cleaning processes give the wafers the clean and ultraflat mirror polished surfaces required for the fabrication of semiconductor devices. We further process some of our products into epitaxial wafers by utilizing a chemical vapor deposition process to deposit a single crystal silicon layer on the polished surface.

Our semiconductor wafer manufacturing facilities vary as to their capabilities and functions. In certain of our manufacturing facilities, we have fully integrated manufacturing capabilities that encompass the full range of wafer manufacturing process steps, including ingot growth, wafer slicing, wafer polishing and epitaxial deposition. We conduct certain of our processes in state-of-the-art clean room environments.

Raw Materials. We obtain our requirements for several raw materials, equipment, parts and supplies from some sole suppliers, in addition to other sources. The main raw material in our semiconductor wafer manufacturing process is polysilicon. See the description of our polysilicon production above under “Solar Energy Segment-Suppliers and Raw Materials.”

Customers. Our semiconductor wafer customers include virtually all of the world’s major semiconductor device manufacturers, including the major memory, microprocessor and ASIC manufacturers, as well as the world’s largest foundries.

Competition. The market for semiconductor wafers is competitive. We compete globally and face competition from established manufacturers. Our major worldwide competitors are Shin-Etsu Handotai, SUMCO, Siltronic and LG Siltron. Our wafers compete on the basis of product quality, consistency, price, technical innovation, customer service and product availability. We believe we are competitive on these factors.

Regulation

Our Solar Energy business is exempt from most regulation applicable to electric utilities under applicable national, state or other local regulatory regimes where we conduct business. In the United States, we own or control solar energy facilities that are certified as "Qualifying Small Power Production Facilities" ("QFs") under the Public Utility Regulatory Policy Act of 1978 or "Exempt Wholesale Generators" ("EWGs") under the Public Utility Holding Company Act of 2005. As a result, our solar energy projects are exempt from most regulations established by the Federal Energy Regulatory Commission ("FERC"). These exemptions apply to the regulation of rates of interstate sales of wholesale electricity, and otherwise to federal and state laws regarding the financial and organizational regulation of electric utilities. For some of our large utility-scale projects, the utility that is purchasing the energy must seek state regulatory approval of its power purchase agreements entered into with us. As our utility-scale business grows to entail interstate sales of wholesale electricity from solar energy facilities greater than 20 MW, those facilities may no longer be eligible for exemption from the ratemaking provisions of the Federal Power Act, and, as a result, will need to seek and obtain "market-based rate authorization" from FERC in order to undertake wholesale sales of power. A facility with “market-based rate authorization” from FERC is regulated as a "public utility", provided that, as certified QFs, each solar energy facility will continue to be exempt from most other federal and state regulation as long as they do not exceed 30 MW. Our solar energy facilities are subject to compliance with the mandatory reliability standards developed by the North American Electric Reliability Corporation and approved by FERC under the Federal Power Act. In Europe, Asia and Canada, SunEdison and its subsidiaries are also generally subject to the regulations of the relevant energy regulatory agencies applicable to all producers of electricity under the relevant feed-in tariff regulations (including the feed-in tariff rates).

Additionally, interconnection agreements are required for virtually all of our projects. Depending on the size of the system and state law requirements, interconnection agreements are between the local utility and either by us or our customers in the United States. In almost all cases, interconnection agreements are standard form agreements that have been pre-approved by FERC, the local public utility commission ("PUC") or other regulatory body with jurisdiction over interconnection agreements.

Research and Development

Solar Energy. The solar wafer market is characterized by intense cost pressures, excessive supply, competition from thin film technologies and geopolitical trade dynamics. These intense cost pressures and worldwide overcapacity led us to commit to the series of restructuring actions set out in our 2011 Global Plan. We believe that the timely development of higher productivity and lower cost processes, enhancements to the existing products, and development of new wafer products, through our crystal growth and wafer manufacturing process, are essential to maintain our competitive position and to provide lower cost modules to our projects. Our goal in solar materials research and development is to continually evaluate the cost and quality at the installed power system level to develop products capable of enhancing overall value for the end consumer while meeting the performance requirements necessary to grow the solar market. We accomplish this by closely linking our research and

development projects and goals to the current and future technology requirements across the solar value chain. Some of these projects involve formal and informal joint development efforts with our customers.

In the upstream solar materials value chain, we devote research and development resources in the areas of polysilicon production, crystallization, crystal wafering and solar cells and modules. We have a dedicated group of engineers and scientists, working in our St. Peters, Missouri, Pasadena, Texas and Merano, Italy facilities, to develop higher productivity, lower cost and ultrapure polysilicon fabrication processes. In conjunction with these efforts, we are developing efficient crystal growth processes to produce high quality monocrystalline silicon with lower defect density and higher minority carrier lifetime, using a team of engineers and scientists located primarily in our St. Peters, Missouri, Portland, Oregon and Kuching, Malaysia facilities. With our acquisition of Solaicx, we have a proprietary continuous crystal growth manufacturing technology which yields high-efficiency monocrystalline silicon wafers. The research and development efforts in crystal wafering are directed towards reducing silicon wafer thickness and kerf loss, improving the wafer quality, reducing the overall cost while improving the energy output of the solar modules derived from the silicon wafer, and achieving technological differentiation and innovation. We are developing wafering technologies that enable scaling to smaller wafer thickness while increasing the productivity of the wafering process. We are also continuing to develop our own solar wafer (156 millimeter) manufacturing facility in Kuching, Malaysia. These efforts focus on simultaneously reducing cost and improving energy output at the module and system level. We achieve this synergy by conducting necessary complementary research and development in solar cells and modules. Our module and solar cell research and development teams are primarily located in Belmont, California. In addition, we have research and development resources in India (design) and Singapore (quality).

Moreover, we work with key customers worldwide through our Product Development/Management and research and development engineers, leveraging our research and development laboratories. This enables us to establish a close, technical working relationships with our customers to obtain a better knowledge of our customers' solar materials requirements.

The Product Development and Product Management Groups for our downstream Solar Energy business unit are also focused on reducing the levelized cost of electricity in our photovoltaic installations. As a solar energy services provider, new technology evaluation is a critical part of this effort. The Product Development and Management Groups evaluate emerging industry solutions in the areas of module, structure, inverter and balance of system components. Technology evaluation is pursued through analysis, testing, demonstration and development.

SunEdison LLC became a founding member of the Solar Technology Acceleration Center in Aurora, Colorado in 2008 in order to further this effort. The other founding partners include Xcel Energy and Abengoa Solar. Sponsoring partners include the National Renewable Energy Lab and the Electric Power Research Institute. In addition to external technology evaluation, the Product Development Group leads efforts to reduce the levelized cost of electricity through internal product development of system components, with particular emphasis on module mounting components like microinverters and DC optimizers. The energy research and development team also focuses on providing platform solutions such as Solar Water Pumps for irrigation, Hybrid Solutions for fuel abatement, and operating and maintenance solutions that includes integrating data collection, analytics and optimization to keep photovoltaic plants performing at expected levels, all on the foundation of proprietary hardware and software.

The Solar Energy Product Development Group also leads a cross functional continuous improvement process within the Company to analyze and improve performance of our operational solar energy systems. This effort focuses on propagating best practices, increasing energy production and minimizing the frequency and impact of system outages. Through these combined efforts, we strive to reduce the cost of electricity delivered.

Semiconductor Materials. The semiconductor wafer market is characterized by continuous technological development and product innovation. We believe that continued and timely development of new products and enhancements to existing products is necessary to maintain our competitive position. Our goal in research and development is to maintain a close working relationship with our customers to continually develop new products and refine existing products to meet the needs of the marketplace. Our research and development model combines engineering innovation with specific commercialization strategies. Our model closely aligns our technology efforts with our customers' requirements for new applications. We accomplish this through a better understanding of our customers' technology requirements and through targeted research and development projects aimed at developing products to meet those technology requirements and applications. Some of these projects involve formal and informal joint development efforts with our customers.

In addition, in order to strengthen our customer relationships, we assign research and development engineers to key customers worldwide. We do this through our Applications Engineering Group. The primary purpose of the Applications Engineering Group is to establish a close, technical working relationship with our customers to obtain a better knowledge of our customers' materials requirements.

We devote a portion of our research and development resources to enhance our position in the crystal technology area. We have dedicated engineers and scientists, located in our St. Peters, Missouri, Merano, Italy, Hsinchu City, Taiwan and Chonan, South Korea facilities, to further our understanding of defect control and cost reduction. In conjunction with these efforts, we are developing wafering technologies to meet advanced flatness and particle requirements of our customers, and we continue to focus on the development of our advanced epitaxial wafer technology with a dedicated staff of scientists located primarily in our St. Peters, Missouri, Novara, Italy, Hsinchu City, Taiwan and Utsunomiya, Japan facilities, who focus on the development of new epitaxial wafer products and cost reduction processes. We also have dedicated engineers, scientist and technicians located in St. Peters, Missouri facility to support SOI wafer requirements of our customers.

In addition to our focus on advancements in wafer material properties, we also continue to invest in research and development associated with larger wafer sizes. We produced our first 300 millimeter wafer in 1991 and continue to enhance our 300 millimeter technology program using our staff of research and development scientists, engineers and technicians. In addition, we continue to focus on process design advancements to drive cost reductions and productivity improvements. We produced our first 450 millimeter wafer in 2008, but to date have only produced minimal quantities of wafers at this size.

Executive Officers of the Registrant

The following is information concerning our executive officers as of March 31, 2014.

<u>Name</u>	<u>Age</u>	<u>All Positions and Offices Held with Registrant</u>
Ahmad R. Chatila	47	President, Chief Executive Officer and Director
Carlos Domenech	45	Executive Vice President; President—SunEdison Capital
Shaker Sadasivam	54	Executive Vice President; President Semiconductor Materials
Brian Wuebbels	41	Executive Vice President and Chief Financial Officer
Matthew E. Herzberg	46	Senior Vice President and Chief Human Resources Officer
Stephen O'Rourke	49	Senior Vice President; and Chief Strategy Officer
David A. Ranhoff	58	Senior Vice President; Solar Materials
Martin H. Truong	37	Vice President, General Counsel and Secretary

Directors of the Registrant

The following persons are serving on our board of directors as of March 31, 2014.

<u>Name</u>	<u>Occupation</u>
Antonio R. Alvarez	Chief Operating Officer Aptina Imaging (imaging technology company)
Peter Blackmore	Retired former President, Chief Executive Officer and Director of ShoreTel, Inc. (internet protocol communications company)
Ahmad Chatila	President and Chief Executive Officer SunEdison, Inc.
Emmanuel T. Hernandez (Chairman)	Retired former Chief Financial Officer of SunPower Corporation
Georganne C. Proctor	Former Chief Financial Officer of TIAA-CREF
Steven V. Tesoriere	Managing Principal, Portfolio Manager Altai Capital Management, L.P. (investment fund)
Marshall Turner	Retired former Chairman and Chief Executive Officer of Dupont Photomasks, Inc.
James B. Williams	Partner TPG Capital (private equity firm)
Randy H. Zwirn	Chief Executive Officer, Energy Service Division of Siemens AG, Energy Sector and President and Chief Executive Officer of Siemens Energy, Inc.

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Five Year Selected Financial Highlights

The following data has been derived from our annual consolidated financial statements, including the consolidated balance sheets and the related consolidated statements of operations, cash flows, and stockholders' equity and the notes thereto. The information below should be read in conjunction with our consolidated financial statements and notes thereto including Note 2 related to significant accounting policies.

	2013 ⁽¹⁾	2012	2011 ⁽¹⁾	2010	2009
(in millions, except per share and employment data)					
Statement of Operations Data:					
Net sales ⁽²⁾	\$ 2,007.6	\$ 2,529.9	\$ 2,715.5	\$ 2,239.2	\$ 1,163.6
Gross profit ⁽²⁾	145.3	335.6	294.9	337.1	128.1
Marketing and administration ⁽³⁾	361.6	302.2	348.8	255.1	161.9
Research and development	71.1	71.8	87.5	55.6	40.4
Goodwill impairment charges	—	—	440.5	—	—
Restructuring (reversals) charges	(10.8)	(83.5)	350.7	5.3	28.4
Gain on receipt of property, plant and equipment	—	(31.7)	—	—	—
Long-lived asset impairment charges	37.0	19.6	367.9	—	24.6
Operating (loss) income	(313.6)	57.2	(1,300.5)	21.1	(127.2)
Non-operating expense (income) ⁽⁴⁾	278.2	138.7	83.6	33.6	(27.0)
Net (loss) income attributable to SunEdison stockholders ^{(5),(6),(7)}	(586.7)	(150.6)	(1,536.0)	34.4	(68.3)
Basic (loss) income per share	(2.46)	(0.66)	(6.68)	0.15	(0.31)
Diluted (loss) income per share	(2.46)	(0.66)	(6.68)	0.15	(0.31)
Balance Sheet Data:					
Cash and cash equivalents	573.5	553.8	585.8	707.3	632.7
Cash committed for construction projects	258.0	27.8	—	—	—
Restricted cash and short-term and long-term investments ⁽⁸⁾	144.1	127.3	179.2	103.7	317.2
Working capital	495.7	324.8	449.0	453.2	740.5
Total assets	6,680.5	4,745.3	4,881.6	4,611.9	3,566.5
Long-term debt and capital lease obligations (including current portion)	878.6	762.1	571.4	26.9	30.6
Solar energy system debt, financings and capital lease obligations	2,697.6	1,606.2	1,355.4	655.8	386.0
Total SunEdison stockholders' equity	232.2	575.3	737.9	2,251.7	2,168.6
Other Data:					
Capital expenditures	133.1	139.0	452.5	352.0	225.4
Construction of solar energy systems	465.3	346.9	598.1	280.1	28.0
Employees	6,300	5,600	6,400	6,500	5,100

⁽¹⁾ Includes the operating results of various acquisitions since their acquisition date.

⁽²⁾ Includes \$25.0 million and \$22.9 million, respectively, of revenue for the termination of the Tainergy and Gintech agreements recognized in 2013. Similarly, \$37.1 million of revenue was recognized in 2012 for the Conergy termination and \$175.7 million of revenue was recognized in 2011 for the Suntech contract resolution. See Note 17.

⁽³⁾ During the year ended December 31, 2013, we recorded a \$5.6 million charge to income to adjust the fair value of contingent consideration and during the years ended December 31, 2012 and December 31, 2011 we recorded a

favorable adjustment of \$12.8 million and \$26.3 million, respectively, to adjust the fair value of contingent consideration. The adjustments were recorded as an increase and reduction to marketing and administration expense, respectively.

- (4) Includes a loss on early extinguishment of debt in 2013 of \$75.1 million. Additionally, (losses) gains of \$(4.8) million, \$(14.0) million, and \$5.4 million were recorded to non-operating expense (income) in 2011, 2010 and 2009, respectively, due to the mark-to-market adjustment related to a warrant received from Suntech. Included in 2013 is a \$3.2 million impairment charge, compared to \$3.6 million and \$11.6 million of charges in 2012 and 2011, respectively, of investments accounted for under the cost method. See Note 5.
- (5) Includes \$67.3 million of impairment charges in 2011 from our investment in two joint ventures. See Note 5.
- (6) Includes net income tax expense of \$94.8 million and \$368.5 million recorded in 2012 and 2011, respectively, for the net valuation change in deferred tax assets. See Note 14.
- (7) Included in 2013 is a net expense of \$9.6 million due to the closure of the Internal Revenue Service (“IRS”) examination for the 2007 through 2010 years. Included in 2010 is a net income tax benefit of \$15.5 million resulting from conclusion of the IRS examination for the 2007 and 2006 years. Included in 2009 is additional income tax expense of \$18.1 million related to various cost allocation and taxable income adjustments attributable to our foreign operations.
- (8) Amount includes investments measured at fair value on a recurring basis and time deposits, and excludes investments accounted for under the equity method and cost investments.

Management's Discussion and Analysis of Financial Condition and Results of Operations

EXECUTIVE OVERVIEW

SunEdison, Inc. is a major developer and seller of photovoltaic energy solutions and a global leader in the development, manufacture and sale of silicon wafers to the semiconductor industry. Our company is one of the world's leading developers of solar energy projects and, we believe, one of the most geographically diverse. Our technology leadership in silicon and downstream solar are enabling the company to expand its customer base and lower costs throughout the silicon supply chain. At the company's annual stockholders' meeting on May 30, 2013, stockholders approved the name change from MEMC Electronic Materials, Inc. to SunEdison, Inc. We believe that operating the company under one name will help us create a more powerful brand that is widely recognized across industries and around the world. We believe the new name will allow us to take full advantage of the strong worldwide brand that the SunEdison name has enjoyed.

On August 22, 2013, we announced our plan to pursue an initial public offering (the "Semiconductor Offering") of our semiconductor business through a newly formed company to be known as SunEdison Semiconductor, Ltd., and in connection therewith, filed a registration statement with respect to such proposed Semiconductor Offering with the SEC on September 9, 2013. We plan to sell a minority ownership interest in the semiconductor business to the public. The completion of the proposed Semiconductor Offering is subject to market conditions, a final decision by our Board of Directors regarding the amount of equity interest to be sold and receipt of all regulatory approvals, including the effectiveness of the registration statement that has been submitted to the SEC. We believe this structure will allow each independent company to pursue its own strategies, focus on its key markets and customers, optimize its capital structure and enhance its access to capital in the future.

On September 18, 2013, we completed the issuance and sale in a registered public offering (the "Offering") of 34,500,000 shares of the Company's common stock, par value \$0.01 per share, at a public offering price of \$7.25 per share, less discounts and commissions of \$0.29 per share. We received net proceeds from the offering of approximately \$239.6 million, after deducting underwriting discounts and commissions and related offering costs.

On December 12, 2013, we announced our plan to monetize certain of our solar generation assets by aggregating them under a dividend growth-oriented subsidiary ("SunEdison YieldCo") and divesting an interest in SunEdison YieldCo through an initial public offering (the "proposed SunEdison YieldCo IPO"). SunEdison YieldCo would primarily own assets located in North America, as well as projects in Canada, the United Kingdom and Chile. We expect that we would retain majority ownership of SunEdison YieldCo, and would provide specified support services to SunEdison YieldCo, for a fee. We submitted on a confidential basis a registration statement on February 14, 2014 with the SEC with respect to the proposed SunEdison YieldCo IPO. Completion of the proposed SunEdison YieldCo IPO and related transactions are subject to numerous conditions, including market conditions, approval by our Board of Directors of the terms of the proposed SunEdison YieldCo IPO and receipt of all regulatory approvals, including the effectiveness of the registration statement that has been submitted to the SEC.

On December 20, 2013, we completed the offering of \$600.0 million aggregate principal amount of 2.00% convertible senior notes due 2018 (the "2018 Notes") and \$600.0 million aggregate principal amount of 2.75% convertible senior notes due 2021 (the "2021 Notes" and, together with the 2018 notes, the "Notes") in a private placement. In connection with the Notes offering, on December 20, 2013, we completed the redemption of the \$550.0 million outstanding aggregate principal amount of the 7.75% senior notes due 2019 and the \$200.0 million second lien term loan with an interest rate of 10.75%. This refinancing lowered our cost of borrowing.

During 2013, we continued the execution of our strategic plan designed to continue to improve our performance and address the challenges within our industries. Our business strategy is designed to address the most significant opportunities and challenges facing the company, including:

- Managing cash flow and mitigating liquidity risks, evaluating the level of committed financing prior to commencement of solar project construction and managing the timing of expenditures for the construction of solar energy systems as compared to receipts from final sale or financing;
- Optimizing solar project pipeline development and generating retained value globally and across all platforms; and
- Focusing on semiconductor operating cash flows and further streamlining those operations.

Solar Energy Segment

During 2013, revenues were recognized for direct sales of solar energy systems on 57 projects totaling 153.3 megawatts ("MW") compared to 44 projects totaling 291.7 MW in 2012. The 291.7 MW in 2012 include 52.1 MW of projects sold in Europe that were classified as held for sale at the end of 2011. Solar energy systems sold in 2013 decreased in comparison to

2012 as a result of the Company's plan to monetize certain of our solar generation assets by aggregating them under SunEdison YieldCo as previously discussed.

We currently have 504.1 MW of solar projects under construction, compared to 73.0 MW as of December 31, 2012. While the predominate portion of our projects currently under construction are in North America, our geographic mix has changed over the last year with a larger portion of MW under construction in South Africa, the U.K., South America and Asia. We continue to evaluate project development opportunities globally. We have project pipeline of approximately 3.4 gigawatts ("GW") as of December 31, 2013, representing a 0.8 GW increase from the 2.6 GW in our project pipeline as of December 31, 2012.

A solar energy system project is classified as "pipeline" when we have a signed or awarded power purchase agreement (PPA) or other energy off-take agreement, or has achieved each of the following three items: site control, an identified interconnection point with an estimate of the interconnection costs, and an executed energy off-take agreement or the determination that there is a reasonable likelihood that an energy off-take agreement will be signed. "Under construction" refers to projects within pipeline, in various stages of completion, which are not yet operational. There can be no assurance that pipeline will be converted into completed projects or generate revenues or that we can obtain the necessary financing to construct these projects.

Semiconductor Materials Segment

Net sales in our Semiconductor Materials segment decreased slightly in 2013, compared to 2012, primarily due to declines in average selling prices, offset in large part by higher volume. Semiconductor market conditions remained challenging throughout 2013 as industry overcapacity and price competition negatively impacted our net sales. Since the third quarter of 2012, we have been realizing the benefits of improved productivity through the ramp-up of our Ipoh, Malaysia facility and the cost reductions associated with the restructuring actions taken under the restructuring efforts associated with our 2011 Global Plan ("2011 Global Plan"), which have helped offset the effects of declining average selling prices. Despite challenging market conditions, we generated positive operating cash flows during 2013.

RESULTS OF OPERATIONS

Net sales by segment in the years ended December 31, 2013, 2012 and 2011 were as follows:

Net Sales	2013	2012	2011
Dollars in millions			
Solar Energy	\$ 1,101.4	\$ 1,612.4	\$ 1,692.4
Semiconductor Materials	906.2	917.5	1,023.1
Total Net Sales	<u>\$ 2,007.6</u>	<u>\$ 2,529.9</u>	<u>\$ 2,715.5</u>

Solar Energy

For the year ended December 31, 2013, net sales from the Solar Energy segment were lower when compared to the same period in 2012, primarily due a decline and change in mix of solar energy system sales as well as retaining more projects on the balance sheet in preparation for the proposed SunEdison YieldCo IPO. In 2014, we intend to monetize certain of our solar generation assets by aggregating them into the proposed SunEdison YieldCo IPO.

Solar energy system sales totaled 153.3 MW for the year ended December 31, 2013, compared to 291.7 MW during the same period in 2012. The 291.7 MW in 2012 included 52.1 MW of projects sold in Europe that were classified as held for sale at the end of 2011. For the year ended December 31, 2012, approximately 95% of the solar energy project revenue was related to sales of fully developed solar energy systems, whereas for the year ended December 31, 2013, approximately 25% of the solar energy project new sales are related to engineering, procurement and construction ("EPC") solar energy system revenue. EPC solar energy system sales per watt are generally lower than fully developed solar system project sales per watt because we are not directly involved in every phase of the system's design, financing and development. This change in mix resulted in a decrease in average selling price of approximately \$0.43 per watt for the year ended December 31, 2013, compared to the same period in 2012. The change in mix is a direct result of our decision to slow solar project development spending during the first half of 2012 to optimize liquidity. During the current year, we have increased our development spend to take advantages of market opportunities. As a result, our solar energy systems under construction increased 431.1 MW to 504.1 MW at December 31, 2013 from 73.0 MW at December 31, 2012. Furthermore, the decrease in solar energy system sales was due to our decision to retain more projects on the balance sheet in preparation for the proposed SunEdison YieldCo IPO.

Net sales for the year ended December 31, 2013 include \$25.0 million of revenue recognized on the Tainergy contract amendment during the first quarter, \$22.9 million of revenue recognized related to a contract termination with Gintech during the third quarter, as well as \$32.3 million of revenue recognized from profit deferrals for power guarantees that expired during 2013. Net sales for the year ended December 31, 2012 included \$37.1 million related to revenue recognized as part of the termination of the long-term solar wafer supply contract with Conergy, as well as \$54.4 million of revenue recognized related to profit deferrals for a power guarantee that expired for a 70 MW project in Italy that was sold in the fourth quarter of 2010.

Net sales for the year ended December 31, 2013 also included revenues of \$127.3 million from energy production for all solar energy projects as compared to \$125.8 million for the year ended December 31, 2012.

As of December 31, 2013 and 2012, \$221.0 million and \$239.5 million, respectively, of deposits plus revenue related to solar energy system direct sales was deferred as required under real estate revenue recognition requirements because of certain related guarantees and indemnifications. Solar Energy segment net sales do not include \$284.4 million in executed financing sale-leasebacks for the year ended December 31, 2013 as both the assets and related non-recourse debt remain on our balance sheet. Sales contract values of financing sale-leasebacks was \$294.5 million for the year ended December 31, 2012. See "Summary of Significant Accounting Policies - Revenue Recognition" in Note 2.

The decrease in Solar Energy sales from 2011 to 2012 reflects declines in solar wafer sales of \$497.5 million and the absence of \$175.7 million associated with the favorable Suntech contract resolution in 2011, which did not recur in 2012. The decline in solar wafer sales was expected as we implemented our plans to primarily support our internal needs for our downstream solar energy business. These declines were offset by the increase in sales of solar energy systems and to a lesser extent, external module sales, as well as \$37.1 million of revenue related to a favorable contract termination with Conergy. Sales of solar energy systems totaled 291.7 MW during 2012 compared to 168.6 MW during 2011. Also offsetting the decrease in net sales was an increase in energy production revenue from \$74.9 million in 2011 to \$125.8 million in 2012. Additionally, in the fourth quarter 2012, there was \$54.4 million of revenue recognized related to profit deferrals on a power guarantee that expired for a 70 MW project in Italy that was sold in the fourth quarter of 2010. No similar amounts were recognized in 2011.

As of December 31, 2012 and 2011, \$239.5 million and \$179.4 million, respectively, of deposits plus revenue related to solar energy system direct sales was deferred as required under real estate revenue recognition requirements because of certain related guarantees and indemnifications. Solar Energy segment net sales do not include financing sale-leasebacks with executed contract sales values of \$294.5 million and \$511.9 million during 2012 and 2011, respectively, because these transactions resulted in the retention of assets on our balance sheet along with the related non-recourse debt. The decline of financing sale-leasebacks of \$217.4 million during 2012 is attributable to the change in mix between financing sale-leasebacks and direct sales.

Semiconductor Materials

Net sales decreased for the year ended December 31, 2013, compared to the year ended December 31, 2012, primarily due to semiconductor wafer price decreases totaling \$69.9 million driven by softness in the semiconductor industry and a less favorable product mix, offset in large part by volume increases of \$58.6 million. Unit volume increased across all wafer diameters as a result of increased sales to certain existing customers and improved market demand. Average selling price decreases occurred primarily with 300mm semiconductor wafers due to a competitive market environment, overcapacity, and the weakening of the Japanese Yen, which lowered the relative prices charged by Japanese semiconductor wafer manufacturers in markets outside Japan. The average selling prices of our wafers for the year ended December 31, 2013 were approximately 7.1% lower than the average selling prices for the same period in 2012.

The decrease in Semiconductor Materials net sales in 2012 compared to 2011 was due to wafer price decreases totaling \$101.6 million caused by the continued downturn in the semiconductor industry. Price decreases occurred across all wafer diameters. Overall volumes were flat as compared to 2011 as 300mm volume increases were offset by lower demand on 200mm and smaller diameters, while product mix had a minimal impact. The 2012 overall average wafer selling prices were approximately 10.0% lower than the average selling prices for 2011.

Net Sales by Geographic Area

We operate in the major solar-producing and semiconductor regions of the world. Approximately 76% of our 2013 net sales were to customers located outside the United States. Net sales by geographic region for each of the last three years were as follows:

For the year ended December 31,

	2013	2012	2011
Dollars in millions			
United States	\$ 475.1	\$ 735.3	\$ 447.5
Taiwan	472.5	408.4	530.0
Canada	279.1	248.6	104.9
Korea	220.3	198.8	237.1
China	77.7	82.8	598.8
Italy	71.3	234.2	375.6
Spain	9.6	175.8	42.3
Other foreign countries	402.0	446.0	379.3
Total	<u>\$ 2,007.6</u>	<u>\$ 2,529.9</u>	<u>\$ 2,715.5</u>

Net sales are attributed to countries based on the location of the customer.

Cost of goods sold in the years ended December 31, 2013, 2012 and 2011 were as follows:

	2013	2012	2011
Gross Profit			
Dollars in millions			
Cost of Goods Sold	\$ 1,862.3	\$ 2,194.3	\$ 2,420.6
Gross Profit	145.3	335.6	294.9
Gross Margin	7.2%	13.3%	10.9%

In comparison to the year ended December 31, 2012, the Solar Energy segment gross margin for the same period in 2013 was negatively impacted by lower sales of fully developed solar energy systems as well as a \$10.2 million impairment of intangible assets and \$18.5 million of lower of cost or market charges. Offsetting the declines in the Solar Energy segment's gross margins in 2013 were the \$25.0 million of revenue recognized on the Tainergy contract amendment, \$22.9 million of revenue recognized related to a contract termination with Gintech, as well as \$32.3 million of revenue recognized from profit deferrals for power guarantees that expired during 2013.

The Semiconductor Materials segment gross margin decreased for the year ended December 31, 2013 compared to 2012, primarily due to lower average selling prices for our wafers, partially offset by reduced unit costs on higher product volume, improved operational efficiencies and continued focus on manufacturing cost reductions.

The Solar Energy segment's margins in 2012 was positively impacted by the \$37.1 million of revenue on the Conergy termination as well as \$54.4 million of revenue recognized related to profit deferrals for a power guarantee that expired for a 70 MW project in Italy that was sold in the fourth quarter of 2010. Additionally, gross profit was positively impacted by an increase in sales of solar energy systems and module sales during the year.

For the year ending December 31, 2012, the Semiconductor Materials segment's gross profit was negatively impacted by declines in pricing, partially offset by lower overhead costs resulting from our restructuring actions taken under the 2011 Global Plan.

The Solar Energy segment's margins in 2011 were significantly impacted by the sharp decline in solar wafer prices during the second half of the year, which was only partially offset by lower costs for solar wafers, increased solar wafer and energy sales volume, and \$175.7 million in revenue recognized upon the resolution of the Suntech contract. Additionally, inventory write-downs of \$107.0 million were recorded during 2011 due primarily to the sharp decline in solar wafer prices and the underutilization of our Kuching solar wafering plant as we ramped production and implemented new technologies. Gross profit was also unfavorably impacted by \$37.4 million in charges recorded to cost of goods sold related to the estimated probable shortfall of our purchase obligations associated with certain take-or-pay agreements, and due to a larger number of projects under which revenue was deferred generally to the extent of our gross profit because of guarantees and indemnifications. For the year ending December 31, 2011, the Semiconductor Materials segment's gross profit dollars were negatively impacted by lower net sales volumes, unfavorable foreign currency effects, inventory charges related to supplies, ramp costs at our Ipoh,

Malaysia facility, and the March 2011 earthquake in Japan, offset partially by improved pricing on wafers and lower costs for polysilicon.

Marketing and administration in the years ended December 31, 2013, 2012 and 2011 were as follows:

Marketing and Administration	2013	2012	2011
Dollars in millions			
Marketing and Administration	\$ 361.6	\$ 302.2	\$ 348.8
As a Percentage of Net Sales	18.0%	11.9%	12.8%

The increase in marketing and administration expenses for the year ended December 31, 2013 relative to the same period in 2012 was attributable to increases in staffing, higher expenses related to growth initiatives, and non-capitalizable costs incurred in connection with the Offering, preparation for the Semiconductor Offering and the proposed SunEdison YieldCo IPO. Furthermore, during the year ended December 31, 2013, we recorded an unfavorable adjustment of \$5.6 million to adjust the fair value of contingent consideration.

The decrease in marketing and administration expenses from 2011 to 2012 is primarily the result of lower spending across all segments as part of the restructuring actions taken under the 2011 Global Plan. During the year ended December 31, 2012, we recorded a \$12.8 million charge to income to adjust the fair value of contingent consideration, while during the year ended December 31, 2011, we recorded a favorable adjustment of \$26.3 million to adjust the fair value of contingent consideration. Additionally, there were \$8.6 million of net unfavorable legal verdicts and settlements recorded in 2011 and \$11.3 million of incremental costs incurred as a consequence of the Japan earthquake that were expensed as incurred in 2011. No similar expenses were incurred in 2012.

Research and development in the years ended December 31, 2013, 2012 and 2011 were as follows:

Research and Development	2013	2012	2011
Dollars in millions			
Research and Development	\$ 71.1	\$ 71.8	\$ 87.5
As a Percentage of Net Sales	3.5%	2.8%	3.2%

Research and development ("R&D") expenses consist mainly of product and process development efforts to increase our capabilities in each of our business segments. Overall spending on R&D for 2013 has remained relatively consistent from 2012 amounts. The decrease in R&D expenses in 2012 compared to 2011 resulted primarily from the restructuring actions taken under the 2011 Global Plan. R&D expenses were higher in 2011 primarily due to technology developments to lower the cost of energy delivery at the solar energy systems level, primarily in the development of our solar materials business.

Other operating expenses in the years ended December 31, 2013, 2012 and 2011 were as follows:

Goodwill Impairment Charges	2013	2012	2011
Dollars in millions			
Goodwill Impairment Charges	\$ —	\$ —	\$ 440.5
As a Percentage of Net Sales	—%	—%	16.2%

The solar industry experienced a significant downturn in the second half of 2011, including sharp reductions in prices for solar modules, solar cells, solar wafers, polysilicon, and to a lesser extent, solar systems, which lead to a dramatic decline in profitability compared to prior years. Additionally, because of these economic factors, our market capitalization deteriorated significantly. Our goodwill impairment tests performed during 2011 determined that the estimated fair value of our reporting units was below the estimated fair value of their net assets. As a result, goodwill impairment charges of \$440.5 million were recorded to the Solar Energy segment during the year ended December 31, 2011.

Restructuring (Reversals) Charges	2013	2012	2011
Dollars in millions			
Restructuring (Reversals) Charges	\$ (10.8)	\$ (83.5)	\$ 350.7
As a Percentage of Net Sales	(0.5)%	(3.3)%	12.9%

The \$10.8 million credit recognized for the year ended December 31, 2013 is primarily the result of the reversal of liabilities related to costs associated with the Merano, Italy polysilicon and other semiconductor facilities due to the settlement of certain contractual obligations and also changes in estimates related to the 2011 Global Plan.

As part of our efforts under the 2011 Global Plan, in 2012 we executed settlement agreements with Evonik to settle disputes arising from our early termination of two take-or-pay supply agreements. As a result of this settlement, a favorable adjustment to our 2011 Global Plan accrual was made in 2012 resulting in \$69.2 million of income within restructuring charges. In addition to this settlement, we had other revisions to our estimated restructuring expenses based on actual results differing from our previous estimates.

During the fourth quarter of 2011, in response to the current and expected difficult market conditions in the semiconductor and solar markets as well as to improve the company's overall cost competitiveness and increase cash flow generation across all segments, we committed to a series of actions to be taken to reduce the company's global workforce, right size its production capacity and accelerate operating cost reductions in 2012 and beyond. Restructuring charges recorded in 2011 consist of \$62.1 million of severance and other one-time benefits for terminated employees under the 2011 Global Plan, \$226.4 million of contract settlement, cancellation or termination payments and penalties, as well as \$51.0 million of other one-time charges as a result of our committed actions. In addition, \$11.2 million of additional restructuring charges were recorded during 2011 related to the prior restructuring activities.

Gain on Receipt of Property, Plant and Equipment	2013	2012	2011
Dollars in millions			
Gain on Receipt of Property, Plant and Equipment	\$ —	\$ (31.7)	\$ —
As a Percentage of Net Sales	—%	(1.3)%	—%

We obtained title to the Merano, Italy chlorosilanes plant as part of the settlement with Evonik, which resulted in the recognition of \$31.7 million of income on the consolidated statement of operations in the fourth quarter of 2012. No similar amounts were recorded during 2013 and 2011. The chlorosilanes plant was determined to be impaired in 2013 as discussed below.

Long-lived Asset Impairment Charges	2013	2012	2011
Dollars in millions			
Long-lived Asset Impairment Charges	\$ 37.0	\$ 19.6	\$ 367.9
As a Percentage of Net Sales	1.8%	0.8%	13.5%

In the fourth quarter of 2013, management concluded the start-up analysis of the Merano, Italy polysilicon facility and determined that, based on recent developments and current market conditions, restarting the facility was not aligned with our business strategy. Accordingly, we have decided to indefinitely close that facility and the related chlorosilanes facility obtained from Evonik. As a result, in the fourth quarter of 2013, we recorded approximately \$37.0 million of non-cash impairment charges to write down these assets to their current estimated salvage value.

We recorded long-lived asset impairment charges of \$19.6 million for the year ended December 31, 2012, primarily related to solar wafer assets.

During 2011, due to the significance of the market downturn, we performed an asset impairment analysis of the polysilicon production assets at our Merano, Italy polysilicon facility, and the wafering assets at our Portland, Oregon, Kuching, Malaysia and St. Peters, Missouri facilities. We reduced the net carrying value of the Merano, Italy polysilicon facility assets to their estimated salvage value. For our wafering assets, we estimated the fair value of the asset group using discounted expected cash flows and recorded an impairment charge for the amount that our net carrying value exceeded the fair value of the asset group. We developed our expected cash flows based on assumptions that are consistent with our current forecast operating matrices. Cash flows cover a time period that coincides with the estimated remaining useful life of the primary assets, and a probability factor was assigned to the cash flow scenarios to derive the expected present value based on a risk-free discount rate.

Operating income (loss) in the years ended December 31, 2013, 2012 and 2011 were as follows:

Operating Income (Loss)	2013	2012	2011
Dollars in millions			
Solar Energy	\$ (189.0)	\$ 162.2	\$ (1,144.0)
Semiconductor Materials	(10.5)	(5.0)	(31.1)
Corporate and Other	(114.1)	(100.0)	(125.4)
Total Operating Income (Loss)	<u>\$ (313.6)</u>	<u>\$ 57.2</u>	<u>\$ (1,300.5)</u>

Solar Energy Segment

The increase in the Solar Energy segment operating loss for the year ended December 31, 2013 was primarily attributable to lower solar energy system revenues due to the decision to retain more projects on the balance sheet and lower average selling price per watt. Furthermore, the Solar Energy segment was negatively impacted by approximately \$37.0 million of non-cash impairment charges to write-down the Merano, Italy polysilicon and chlorosilanes facilities to their current estimated salvage value as well as a \$10.2 million impairment of intangible assets and \$18.5 million of lower of cost or market charges. These amounts were partially offset in 2013 by \$25.0 million of revenue recognized on the Tainergy contract amendment, \$22.9 million of revenue recognized related to a contract termination with Gintech, as well as \$32.3 million of revenue recognized from profit deferrals for power guarantees that expired during 2013. For the year ended December 31, 2012, \$54.4 million of revenue was recognized related to profit deferrals for a power guarantee that expired for a 70 MW project in Italy that was sold in the fourth quarter of 2010. Also included for the year ended December 31, 2012 is \$37.1 million of revenue related to a termination agreement with Conergy, \$69.2 million of income within restructuring and impairment related to the settlement of Evonik, \$31.7 million of income for obtaining title to a chlorosilanes plant as part of the settlement with Evonik, offset by an impairment of tangible assets of \$19.6 million on solar wafering assets.

The increase in our Solar Energy operating income in 2012 over 2011 is largely attributable to \$305.3 million of restructuring charges, \$360.5 million of long-lived asset impairments and \$440.5 million of goodwill impairments recorded during 2011, which did not occur in 2012. Also contributing to the operating loss for 2011 were inventory write-downs of \$113.6 million, compared to \$3.4 million in 2012 and declines in solar wafer sales in 2011. The 2011 charges were partially offset by \$175.7 million of revenue recognized on the Suntech contract resolution in 2011, offset by the revenue recognized on the Conergy contract termination of \$37.1 million recorded in 2012 and the increase in solar energy system sales. Additionally, in 2012 we executed settlement agreements with Evonik to settle disputes arising from our early termination of two take-or-pay supply agreements. As a result of this settlement, a favorable adjustment to our 2011 Global Plan accrual was made resulting in \$69.2 million of income classified within restructuring charges. On December 30, 2012, also as part of the settlement with Evonik, we obtained title to a chlorosilanes plant which resulted in \$31.7 million of income in the fourth quarter of 2012.

The Solar Energy segment's operating results are highly dependent upon the timing of system sales and revenue recognition requirements related to the terms of sales agreements and type of project finance method utilized, as well as completed and uncompleted projects. Revenue and income recognition in any given period may differ due to the timing of installation, related expenditures, system warranty and indemnity provisions and the type of financing obtained.

For the years ended December 31, 2013, 2012 and 2011, we did not recognize approximately \$1.9 million, \$40.4 million and \$78.5 million, respectively, of expected gross margins on in process or completed projects with executed sales agreements which we expect to be recognized at a later date. We also received cash proceeds of \$284.4 million, \$294.5 million and \$511.9 million in 2013, 2012 and 2011, respectively, for our executed financing sale-leasebacks, which are collateralized by system assets with a historical cost basis of \$233.2 million, \$221.0 million and \$338.0 million in 2013, 2012 and 2011, respectively. At the end of the lease, we expect to recognize a net gain for the amount that the extinguishment of the financing leaseback debt exceeds the write-off of the remaining net book value of the system asset.

Semiconductor Materials Segment

The increase in our Semiconductor Materials operating loss of \$5.0 million from 2012 to \$10.5 million in 2013 is primarily due to lower average selling prices due to continued softness in the semiconductor industry, partially offset by higher volumes, and higher productivity due to continued cost reductions.

The improvement in our Semiconductor Materials operating income from a loss of \$31.1 million in 2011 to a loss of \$5.0 million in 2012 was primarily due to improved productivity resulting from the restructuring activities taken under the 2011 Global Plan and the non-recurrence of \$44.5 million of restructuring charges recorded during 2011 and expenses related to the

March 2011 earthquake in Japan. These benefits offset the reduction in gross margin attributable to the significant average wafer selling price decreases experienced in 2012.

Corporate and Other

Corporate and other expenses are mainly comprised of substantially all of our stock-based compensation expense, general corporate marketing and administration costs, research and development administration costs, legal and tax professional services and related costs, salary and other personnel costs, and other items not reflected in the segments. As a percentage of consolidated net sales, corporate and other expenses were 5.7%, 4.0% and 4.6% for 2013, 2012 and 2011, respectively.

Corporate and other expenses increased during 2013 relative to 2012 due to increases in staffing and non-capitalizable costs incurred in connection with the Offering and preparation for the Semiconductor Offering and the proposed SunEdison YieldCo IPO.

Corporate and other expenses decreased during 2012 compared to 2011 due to lower overhead costs resulting from our 2011 Global Plan restructuring actions and lower stock-based compensation expense.

Non-operating expense (income) in the years ended December 31, 2013, 2012 and 2011 were as follows:

Non-operating Expense (Income)	2013	2012	2011
Dollars in millions			
Interest Expense	\$ 189.2	\$ 135.3	\$ 77.2
Interest Income	(6.5)	(3.6)	(4.5)
Loss on Early Extinguishment of Debt	75.1	—	—
Other, Net	20.4	7.0	10.9
Total Non-operating Expense	<u>\$ 278.2</u>	<u>\$ 138.7</u>	<u>\$ 83.6</u>

In 2013, we recorded \$189.2 million of interest expense, net of capitalized interest of \$22.3 million. Of the \$189.2 million interest expense, \$102.1 million relates to our debt and capital leases for solar energy systems. The interest expense on our \$550.0 million Senior Notes ("2019 Notes") and our \$200.0 million Second Lien Term Loan ("Second Lien Term Loan"), which was redeemed on December 30, 2013 amounted to \$41.3 million and \$20.8 million, respectively. Interest expense for 2013 also includes \$28.0 million pertaining to commitment fees, amortization of deferred financing fees, amortization of the debt discount, interest expense and other non recurring fees related to our new Notes issued on December 20, 2013. The increase in interest expense over the prior year is primarily the result of increases in our non-recourse solar energy system financing and non-recurring fees related to our new Notes.

In 2012, we recorded \$135.3 million of interest expense, net of capitalized interest of \$19.9 million. Of the \$135.3 million interest expense, \$78.1 million relates to our debt and capital leases for solar energy systems. The interest expense related to solar energy systems includes \$7.4 million of deferred financing fees that were charged to interest expense when previously issued solar energy system debt was transferred to the buyer upon sale of the system. Additionally, \$3.9 million of deferred financing fees were charged to interest expense as a result of amendments made to our non-recourse project construction financing revolver. There were no similar charges in interest expense for 2011. The remaining interest expense relates to interest on our 2019 Notes and our Second Lien Term Loan, which was issued in September of 2012, of \$42.6 million and \$5.4 million, respectively. The increase in interest expense over the prior year is primarily the result of increases in our non-recourse solar energy system financing.

In 2011, we recorded \$77.2 million of interest expense, net of capitalized interest of \$18.1 million. \$34.4 million of that interest expense related to our 2019 Notes, as discussed in "Liquidity and Capital Resources" below. The remaining interest expense related primarily to debt and capital leases for solar energy systems. In 2011, we recorded interest expense of \$32.2 million to the Solar Energy segment, net of capitalized interest of \$11.9 million. The increase in interest expense over the prior year was also the result of an overall higher interest rate related to the 2019 Notes, which bear interest at 7.75%, and was higher than the rates on our revolving credit facilities and solar system debt.

As discussed previously, on December 30, 2013, we completed the redemption of the \$550.0 million outstanding aggregate principal amount of the 7.75% senior notes due 2019 and the \$200.0 million second lien term loan with an interest rate of 10.75%. As a result of these redemptions, the Company recognized a loss on extinguishment of debt in the consolidated

statement of operations of \$75.1 million, which was comprised of pre-payment premiums and other non-capitalizable costs totaling \$52.4 million and the write off of unamortized deferred loan cost and unamortized debt discount totaling \$22.7 million.

Income tax expense (benefit) in the years ended December 31, 2013, 2012 and 2011 were as follows:

Income Taxes	2013	2012	2011
Dollars in millions			
Income Tax Expense	\$ 27.8	\$ 64.9	\$ 73.1
Income Tax Rate as a % of Loss Before Income Taxes	(4.7)%	(79.6)%	(5.3)%

For the year ended December 31, 2013, we recorded an income tax expense of \$27.8 million and an effective tax rate of (4.7)% compared to an income tax expense of \$64.9 million and an effective tax rate of (79.6)% for the year ended December 31, 2012. The 2013 net expense is primarily attributable to the tax expense recognized at various rates in certain foreign jurisdictions which generate taxable income, charges recognized to establish valuation allowance on certain deferred tax assets due to the likely inability to realize a benefit for certain future tax deductions and a net expense of \$9.6 million due to the closure of the Internal Revenue Service (“IRS”) examination as discussed below.

The 2012 income tax expense is primarily the result of a release of valuation allowances in certain foreign jurisdictions offset against the tax effect of the worldwide operational earnings mix at various rates, an increase to the accrued liability for uncertain tax positions and impacts due to the IRS exam. The 2011 income tax expense is primarily the result of charges taken to value certain deferred tax assets.

Certain of our subsidiaries have been granted a concessionary tax rate of between 0% and 5% on all qualifying income for a period of up to five to ten years based on investments in certain machinery and equipment and other development and expansion activities, resulting in tax benefits for 2013, 2012 and 2011 of approximately \$2.2 million, \$4.6 million and \$15.7 million, respectively. Under the awards, the income tax rate for qualifying income will be an incentive tax rate lower than the corporate tax rate. We were in compliance with the qualifying conditions of these tax incentives. As of December 31, 2013, the last of these incentives will expire between 2017 and 2022.

During the quarter ended September 30, 2013, we concluded the IRS examination for the 2007 through 2010 years and, as a result, we recorded favorable and unfavorable adjustments to our accrual for uncertain tax positions. The net effect to our tax provision for the closure of the exam was a \$9.6 million tax expense.

We are currently under examination by the IRS for the 2011 tax year. We are also under examination by certain foreign tax jurisdictions. We believe it is reasonably possible that some portions of these examinations could be completed within the next twelve months and have currently recorded amounts in the financial statements that are reflective of the current status of these examinations.

We believe our tax positions are in compliance with applicable tax laws and regulations. We routinely review our estimate for our uncertain tax positions and during the year ended December 31, 2013, we decreased the accrued liability by \$34.2 million related to the resolutions of the 2007-2010 IRS exam. There is risk, however, that the amounts ultimately settled upon resolution of an audit could be materially different from the amounts previously included in our tax liabilities and, therefore, could have a material impact on our tax provision, net income, tax liabilities and cash flows.

Equity in earnings (loss) of joint ventures, net of tax in the years ended December 31, 2013, 2012 and 2011 were as follows:

Equity in Earnings (Loss) of Joint Ventures, Net of Tax	2013	2012	2011
Dollars in millions			
Equity in Earnings (Loss) of Joint Ventures, Net of Tax	\$ 5.7	\$ (2.3)	(62.8)

Equity in (loss) earnings of joint ventures, net of tax, for the years ending December 31, 2013 and 2012 relates primarily to the income and (loss) recorded during the years by both our SMP and Zhenjiang Huantai joint ventures.

Equity in (loss) earnings of joint ventures, net of tax, for the year ending December 31, 2011 includes \$67.3 million of other than temporary impairment charges for our investments in two joint ventures, Zhenjiang Huantai Science and Technology Co.

Ltd. (formerly Jiangsu Huantai Group Co. Ltd) and JA MEMC (Yangzhou) Solar Technology Company Ltd. The impairments were a result of then existing market conditions and our actions related to the 2011 Global Plan to reduce wafering capacity. The impairment charges recorded during 2011 were partially offset by earnings from our Zhenjiang Huantai joint venture.

FINANCIAL CONDITION

Cash and cash equivalents, plus cash committed for construction projects, increased \$249.9 million to \$831.5 million at December 31, 2013 from \$581.6 million at December 31, 2012. See additional discussion in "Liquidity and Capital Resources" below.

Our short-term restricted cash totaled \$70.1 million at December 31, 2013 compared to \$63.4 million at December 31, 2012. The increase was primarily due to the release of restrictions during 2013 on the use of proceeds from a construction loan, offset by the result of the initial deposits received into restricted cash for termouts of our sale-leaseback projects and deposits for normal energy revenues.

Net accounts receivable of \$220.4 million at December 31, 2012 increased \$131.1 million to \$351.5 million at December 31, 2013. The increase was primarily attributable to solar sales mix and the timing of collections from customers, offset by lower solar sales during the fourth quarter of 2013 as compared to the fourth quarter 2012 sales.

Solar energy systems held for development and sale, including consolidated variable interest entities ("VIEs"), increased \$326.3 million to \$460.1 million at December 31, 2013 from \$133.8 million at December 31, 2012. The increase primarily relates to an increase in development activity in the U.S., Malaysia and South Africa. During the current year, we have increased our development spend to take advantages of market opportunities as our liquidity has improved, where in contrast we made the decision to slow solar project development spending during the first half of 2012 to optimize liquidity.

Prepaid and other current assets increased \$211.0 million from \$212.4 million at December 31, 2012 to \$423.4 million at December 31, 2013, primarily due to increases in foreign value-added tax receivables and other prepaids due to timing of payments.

Our net property, plant and equipment, including our consolidated VIEs, increased \$449.9 million to \$3,122.9 million at December 31, 2013 from \$2,673.0 million at December 31, 2012. The increase was primarily attributable capital expenditures for solar energy projects in South Africa, Malaysia and Chile and our decision to retain more solar energy projects on our balance sheet.

Long-term debt, short-term debt and capital leases, including the current portion and our consolidated VIEs, increased to \$3,576.2 million at December 31, 2013 from \$2,368.3 million at December 31, 2012. This increase is due to the issuance of the Notes in December 2013, offset by the redemption of the 2019 Notes and the repayment of all amounts borrowed under the Second Lien Term Loan. The remaining increase was related to solar energy system financing for system construction and financing leaseback transactions.

Concurrent with the issuance of the Notes, we entered into privately negotiated convertible note hedge transactions and warrant transactions, with certain of the initial purchasers of the Notes or their affiliates. These amounts are shown on the consolidated balance sheet at December 31, 2013 as a note hedge derivative asset of \$514.8 million, a conversion option derivative liability of \$506.5 million and a warrant derivative liability of \$270.5 million.

Accounts payable of \$867.7 million at December 31, 2013 increased \$390.7 million from \$477.0 million at December 31, 2012. The increase relates to the timing of payments to vendors, primarily for the costs of certain solar energy systems under construction.

Total short-term and long-term deferred revenue decreased \$17.0 million from \$259.1 million at December 31, 2012 to \$242.1 million at December 31, 2013. Changes in solar energy system deferred revenue are dependent on the timing of when the guarantees expire and when additional projects are sold.

Non-solar energy system deferred revenue decreased \$26.6 million from \$29.2 million at December 31, 2012 to \$2.6 million at December 31, 2013. The decrease primarily relates to the recognition of the unamortized non-refundable deposit with Gintech as part of the settlement reached in the third quarter of 2013.

Short-term and long-term customer deposits decreased \$121.7 million from \$261.7 million as of December 31, 2012 to \$140.0 million as of December 31, 2013. The decrease primarily stems from our Singapore operations and was due to milestone

billings and the \$25.0 million deposit release pertaining to the first quarter contract amendment with Tainergy, offset by increases in Samsung deposits.

LIQUIDITY AND CAPITAL RESOURCES

We incurred a net loss attributable to SunEdison stockholders of \$586.7 million for the fiscal year ended December 31, 2013 and used \$706.8 million of cash for operations. Our total indebtedness, including project finance capital, increased from \$2,368.3 million as of December 31, 2012 to \$3,572.2 million as of December 31, 2013. Challenging solar industry conditions and our decision to retain more projects on the balance sheet in preparation for the proposed SunEdison YieldCo IPO have negatively impacted our results from operations and cash flows, and may continue to do so in the future. In addition, we continue to incur significant indebtedness to fund our operations. If we delay the construction of solar energy systems or are unable to sell solar energy systems, our operating results and cash flows will be adversely impacted.

Our consolidated financial statements have been prepared assuming the realization of assets and the satisfaction of liabilities in the normal course, as well as continued compliance with the financial and other covenants contained in our existing credit facilities and other financing arrangements.

Liquidity

Cash and cash equivalents, plus cash committed for construction projects, at December 31, 2013 totaled \$831.5 million, compared to \$581.6 million at December 31, 2012. Approximately \$327.6 million of these cash and cash equivalents was held by our foreign subsidiaries, a portion of which may be subject to repatriation tax effects. We believe that any repatriation tax effects would have minimal impacts on future cash flows. The tax effects could be minimized by our actions, including, but not limited to, our ability to bring cash and cash equivalents to the U.S. through settlement of certain intercompany loans.

The primary items impacting our liquidity in the future are cash from operations and working capital, capital expenditures, borrowings and payments under our credit facilities and other financing arrangements and the availability of project finance and/or project equity at acceptable terms. We believe our liquidity will be sufficient to support our operations for the foreseeable future, although no assurances can be made if significant adverse events beyond our control occur, or if we are unable to access project capital needed to execute our business plan.

We are focused on effective cash management. In addition to our need to have sufficient cash reserves, cash flow from our operations, and borrowing capacity under our credit facilities, we will need to raise additional funds in the future in order to meet the operating and capital needs of our solar energy systems development business. These funds are expected to be in the form of project finance or outright sale of solar energy systems to investors. However, there can be no assurances that such project financing or equity will be available to us at all, or available to us on terms and conditions we find acceptable. We may not be able to sell solar projects or secure adequate debt financing or equity funding on favorable terms, or at all, at the time when we need such funding. If these or other sources of funding are not available, this will have a significant negative impact on our ability to execute our business plan and to our overall operations, operational results and cash flows.

We expect to obtain additional funding through the proposed initial public offering of our semiconductor business that we announced on August 22, 2013 in which we will sell a minority ownership interest in the semiconductor business to the public. In addition, we expect to obtain additional funding through the proposed initial public offering of SunEdison YieldCo that we announced on December 12, 2013. A final decision regarding the amount of interest to be sold to the public at the time of the offerings will be determined by our Board of Directors at a date to be determined. The completion of the proposed initial public offerings, however, is subject to market conditions and approval from the SEC and, as a result, there can be no assurances that such proposed initial public offerings will be completed, or completed on terms and conditions we find acceptable.

In the event that we are unable to raise additional funds, our liquidity will be adversely impacted, we may not be able to maintain compliance with our existing debt covenants and our business will suffer. If we are able to secure additional financing, these funds could be costly to secure and maintain and could significantly impact our earnings and our liquidity.

We have discretion in how we use our cash to fund capital expenditures, to develop solar energy systems, and for other costs of our business. We evaluate capital projects and the development of solar energy systems based on their expected strategic impacts and our expected return on investment. We may use this discretion to decrease our capital expenditures and development of solar energy systems, which may impact our operating results and cash flows for future years. For example, we

may defer construction of solar energy systems and look for opportunities to partner with outside investors to finance the development of projects.

Net cash provided (used) by activity during the years ended December 31, 2013, 2012 and 2011 follows:

	2013	2012	2011
Dollars in millions			
Net Cash Provided by (Used in):			
Operating Activities	\$ (706.8)	\$ (263.5)	\$ (15.3)
Investing Activities	(860.9)	(531.3)	(1,262.9)
Financing Activities	1,594.9	764.8	1,150.7

In 2013, \$706.8 million of cash was used for operating activities, compared to \$263.5 million that was used in operating activities in 2012. The decrease in operating cash flows was primarily a result of our strategic decision to retain more projects on the balance sheet in preparation for the proposed SunEdison YieldCo IPO and increases in our solar energy systems held for development, accounts receivable and other current assets offset by a decrease in accounts payable and accrued liabilities.

In 2012, \$263.5 million of cash was used for operating activities, compared to \$15.3 million that was used from operating activities in 2011. The decrease in operating cash flows was primarily a result of the decrease in our accounts payable and accrued liabilities for payments made to vendors for certain solar energy systems and payments in 2012 for restructuring activities.

Our principal sources and uses of cash during 2013 were as follows:

Sources:

- Received \$39.9 million from noncontrolling interests for investments in solar energy systems;
- Received \$1,200.0 million from the new convertible debt offering completed on December 20, 2013.
- Received \$1,305.9 million, primarily from the sale-leaseback of solar energy systems; and
- Received \$239.6 million from our Secondary Offering completed on September 18, 2013.

Uses:

- Used \$706.8 million for operations;
- Invested \$133.1 million in capital expenditures, primarily in our Semiconductor Materials segment;
- Invested \$465.3 million in construction of solar energy systems that will remain on our balance sheet; and
- Repaid \$752.3 million of long-term debt and paid \$52.4 of redemption and make-whole premiums and fees, primarily reflecting the redemption of the \$550 million outstanding aggregate principal amount of the 7.75% senior notes due 2019 and the \$200 million second lien term loan

At December 31, 2013, we had approximately \$21.4 million of committed capital expenditures in our Semiconductor Materials segment and Corporate and other. Capital expenditures in 2013 primarily related to increasing our semiconductor capacity and expanding capability for our next generation products.

At December 31, 2013, we had approximately \$285.5 million of committed capital expenditures for our Solar Energy segment primarily related to projects intended for sale-leaseback.

We will require access to additional capital to fund projected growth of our solar energy system operations. During the construction phase of solar energy systems, we provide short-term working capital support to a project company or may obtain third party non-recourse construction financing to fund engineering, procurement and installation costs. Once complete, we either directly sell the project to a third party or obtain more permanent capital on behalf of the project company through sale-leaseback, or to a lesser extent, debt or other financing structures that will typically be secured by the energy producing assets and projected cash flows from energy sales.

Our solar energy systems for which we have capital lease and finance obligations are included in separate legal entities. The capital lease and finance obligations have recourse to those entities but in most cases, no recourse to us.

The total capital necessary will be driven primarily by the amount of megawatts of energy producing assets installed and interconnected. Our development and construction of solar energy systems are funded primarily through operating cash flows, non-recourse project finance, and our corporate revolving credit facility. We expect 2013 year end cash on hand, 2014 operating cash flows, project finance debt, the corporate revolving credit facility and non-recourse project finance construction revolver to provide sufficient capital to support the construction phase of our currently planned projects for 2014 and otherwise meet our capital needs for 2014. However, we will continue to need to raise additional funds in the form of long-term project financing, either in the form of project debt or equity, or both. We expect ongoing efforts to secure more capital, including sources of non-recourse project capital, to generate sufficient resources to support growth. The rate of growth of the Solar Energy segment is limited by capital access. At December 31, 2013, our liabilities associated with project finance capital totaled \$2,697.6 million. We anticipate incremental 2014 capital needs associated with project finance markets to range from \$1,100 million to \$2,100 million for sale-leaseback projects and projects to be held on our balance sheet depending on the amount of megawatts ultimately installed and interconnected in 2014. However, there can be no assurances that such financing will be available to us or at terms that we find acceptable.

In 2013, cash provided by financing activities was \$1,594.9 million, compared to \$764.8 million cash provided by financing activities in 2012. The change was mainly due to higher net proceeds in 2013 from the issuance of the Notes, and proceeds from the Secondary Offering. Additionally, the change relates to the increase in net solar energy system financings to \$1,158.2 million in 2013 compared to \$658.0 million in 2012.

Revolving Credit Facility

On December 20, 2013, we terminated our \$400.0 million corporate revolving credit facility with Bank of America, N.A. We recognized a loss on extinguishment of debt of \$2.1 million as a result of the write-off of unamortized deferred loan costs.

Bridge Credit Facility

On December 20, 2013, we entered into a credit agreement by and among the Company, the lenders identified therein and Deutsche Bank AG New York Branch, as administrative agent, lender, and letter of credit issuer (the "Bridge Credit Facility"). The Bridge Credit Facility provided for a senior secured letter of credit facility in an aggregate principal amount up to \$320.0 million and had a term ending December 15, 2014. The purpose of the Bridge Credit Facility was to backstop outstanding letters of credit issued by Bank of America, N.A. under our former revolving credit facility, which was terminated simultaneously with our entry into the Bridge Credit Facility (subject to our obligation to continue paying fees in respect of outstanding letters of credit).

Our obligations under the Bridge Credit Facility were guaranteed by certain of our domestic subsidiaries. Our obligations and the guaranty obligations of our subsidiaries were secured by first priority liens on and security interests in substantially all present and future assets of the Company and the subsidiary guarantors, including a pledge of the capital stock of certain of our domestic and foreign subsidiaries.

Interest under the Bridge Credit Facility accrued on the committed amount of \$320.0 million regardless of actual utilization, and varied from 7.75% to 15%, depending on the inputs described above in addition to liquidity. Interest was due and payable in arrears at the end of each fiscal quarter and on the maturity date of the Bridge Credit Facility. Drawn amounts on letters of credit were due within three business days, and interest accrued on drawn amounts at a base rate plus the applicable interest rate spread noted above. We paid fees of \$7.6 million upon entry into the Bridge Credit Facility, which were recognized as deferred financing fees and which will be amortized over the term of the Bridge Credit Facility.

The Bridge Credit Facility contained representations, covenants and events of default typical for credit arrangements of comparable size, including maintaining a consolidated leverage ratio of 3.5 to 1.0 and a minimum liquidity amount of \$400.0 million. The Bridge Credit Facility also contained a customary material adverse effects clause and a cross default clause. The cross default clause was applicable to defaults on other indebtedness in excess of \$35.0 million, excluding our non-recourse indebtedness. In addition, the Bridge Credit Facility included a covenant to satisfy certain post-closing obligations relating to the creation and perfection of liens in favor of our creditors under the Bridge Credit Facility. Failure to comply with the specified deadlines in this covenant would have resulted in the Bridge Credit Facility interest rate increasing to 15%.

The Bridge Credit Facility also contained mandatory prepayment provisions applicable to specified asset sale transactions as well as our receipt of proceeds from certain insurance or condemnation events and the incurrence of additional indebtedness.

Credit Facility

On February 28, 2014, we entered into a credit agreement with the lenders identified therein, Wells Fargo Bank, National Association, as administrative agent, Goldman Sachs Bank USA and Deutsche Bank Securities Inc., as joint lead arrangers and joint syndication agents, and Goldman Sachs Bank USA, Deutsche Bank Securities Inc., Wells Fargo Securities, LLC and Macquarie Capital (USA) Inc., as joint bookrunners (the "Credit Facility"). The Credit Facility provides for a senior secured letter of credit facility in an aggregate principal amount up to \$265.0 million and has a term ending February 28, 2017. The Credit Facility will be used to backstop outstanding letters of credit issued by Bank of America, N.A. under our former revolving credit facility until they expire, as well as for general corporate purposes. Subject to certain conditions, we may request that the aggregate commitments be increased to an amount not to exceed \$400 million.

Our obligations under the Credit Facility are guaranteed by certain of our domestic subsidiaries. Our obligations and the guaranty obligations of our subsidiaries are secured by first priority liens on and security interests in substantially all present and future assets of the Company and the subsidiary guarantors, including a pledge of the capital stock of certain of our domestic and foreign subsidiaries.

Interest under the Credit Facility accrues on the daily amount available to be drawn under outstanding letters of credit or bankers' acceptances, at a rate of 3.75%. Interest is due and payable in arrears at the end of each fiscal quarter and on the maturity date of the Credit Facility. Drawn amounts on letters of credit are due within seven business days, and interest accrues on drawn amounts at a base rate plus 2.75%.

The Credit Facility contains representations, covenants and events of default typical for credit arrangements of comparable size, including maintaining a consolidated leverage ratio of 3.0 to 1.0 which excludes the Notes (measurement commencing with the last day of the fiscal quarter ending December 31, 2014) and a minimum liquidity amount (measurement commencing with the last day of the fiscal quarter ending June 30, 2014) of the lesser of (i) \$400.0 million and (ii) the sum of (x) \$300.0 million plus (y) the amount, if any, by which the aggregate commitments exceed \$300.0 million at such time. The Credit Facility also contains a customary material adverse effects clause and a cross default clause. The cross default clause is applicable to defaults on other indebtedness in excess of \$50.0 million, excluding our non-recourse indebtedness.

The Credit Facility also contains mandatory prepayment and/or cash collateralization provisions applicable to specified asset sale transactions as well as our receipt of proceeds from certain insurance or condemnation events and the incurrence of additional indebtedness.

Second Lien Term Loan Credit Agreement

On December 20, 2013, we repaid all amounts borrowed under and terminated the \$200.0 million Second Lien Credit Agreement, dated September 28, 2012, by and among the Company, Goldman Sachs Bank USA, Deutsche Bank Securities Inc. and the lenders party thereto (the "Second Lien Term Loan") and terminated the Guaranty Agreement, dated September 28, 2012, by and between each of the guarantor subsidiaries in favor of Goldman Sachs Bank USA as Administrative Agent for the benefit of itself and the secured parties named therein (the "Guaranty Agreement"). We used a portion of the proceeds received upon the completion of the convertible senior notes offering discussed above to repay the amounts borrowed and to pay related make-whole premiums and fees. We recognized a loss on early extinguishment of debt of \$23.9 million, which was comprised of make-whole premiums of \$11.7 million and the write-off of unamortized deferred loan costs and debt discount of \$8.9 million and \$3.3 million, respectively.

Senior Notes Due 2019

On December 20, 2013, we issued a notice of redemption for all \$550.0 million outstanding aggregate principal amount of the 7.75% Senior Notes due April 1, 2019 (the "2019 Notes") and discharged our obligations under the related indenture agreement. We used a portion of the proceeds received upon the completion of the convertible senior notes offering discussed above to redeem the 2019 Notes and to pay related redemption premiums and fees. We recognized a loss on early extinguishment of debt of \$49.1 million, which was comprised of redemption premiums of \$39.8 million and the write-off of unamortized deferred loan costs of \$9.3 million.

Convertible Senior Notes

On December 20, 2013, we issued \$600.0 million in aggregate principal amount of 2.00% convertible senior notes due 2018 and \$600.0 million aggregate principal amount of 2.75% convertible senior notes due 2021 in a private placement offering. We received net proceeds, after payment of debt financing fees, of \$1,167.3 million in the offering, before the redemption of the \$550.0 million outstanding aggregate principal amount of the 7.75% senior notes due 2019 and the repayment of the \$200.0

million outstanding aggregate principle amount of the 10.75% second lien term loan and before payment of the net cost of the call spread overlay described below.

Interest on the 2018 Notes is payable on April 1 and October 1 of each year, beginning on April 1, 2014. Interest on the 2021 Notes is payable on January 1 and July 1 of each year, beginning on July 1, 2014. The 2018 Notes and the 2021 Notes mature on October 1, 2018 and January 1, 2021, respectively, unless earlier converted or purchased.

The Notes are convertible at any time until the close of business on the business day immediately preceding July 1, 2018 (in the case of the 2018 Notes) or October 1, 2020 (in the case of the 2021 Notes) only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending March 31, 2014, if the closing sale price of our common stock, for at least 20 trading days (whether or not consecutive) in the period of 30 consecutive trading days ending on the last trading day of the calendar quarter immediately preceding the calendar quarter in which the conversion occurs, is more than 120% of the conversion price of the Notes in effect on each applicable trading day; (2) during the five consecutive business day period following any 10 consecutive trading-day period in which the trading price for the notes for each such trading day is less than 98% of the closing sale price of our common stock on such trading day multiplied by the applicable conversion rate on such trading day; or (3) upon the occurrence of specified corporate events. On and after July 1, 2018 (in the case of the 2018 Notes) or October 1, 2020 (in the case of the 2021 Notes) and until the close of business on the second scheduled trading day immediately prior to the applicable stated maturity date, the Notes are convertible regardless of the foregoing conditions based on an initial conversion price of \$14.62 per share of our common stock.

The conversion price will be subject to adjustment in certain events, such as distributions of dividends or stock splits. The Notes are convertible only into cash, shares of our common stock or a combination thereof at our election. However, we must settle conversions solely in cash until we have obtained the requisite approvals from our stockholders to (i) amend our restated certificate of incorporation to sufficiently increase the number of authorized but unissued shares of our common stock to permit the conversion and settlement of all Notes into shares of our common stock, and (ii) authorize the issuance of the maximum numbers of shares described above in accordance with the continued listing standards of The New York Stock Exchange. Holders may also require us to repurchase all or a portion of the Notes upon a fundamental change, as defined in the indenture agreement, at a cash repurchase price equal to 100% of the principal amount plus accrued and unpaid interest. In the event of certain events of default, such as our failure to make certain payments or perform or observe certain obligations thereunder, the trustee or holders of a specified amount of then-outstanding Notes will have the right to declare all amounts then outstanding due and payable. We may not redeem the Notes prior to the applicable stated maturity date.

The Notes are general unsecured obligations and rank senior in right of payment to any of our future indebtedness that is expressly subordinated in right of payment to the Notes; equal in right of payment to our existing and future unsecured indebtedness that is not so subordinated; effectively subordinated in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and to all existing and future indebtedness (including trade payables) incurred by our subsidiaries.

The embedded conversion options within the Notes are derivative instruments that are required to be separated from the Notes and accounted for separately as derivative instruments (derivative liabilities) with changes in fair value reported in the Consolidated Statements of Operations until such transactions settle or expire. Additionally, we expect to reclassify the conversion options to Stockholders' Equity upon the shareholder approvals discussed above to increase the number of authorized shares of our common stock to permit the conversion and settlement of the Notes into shares of our common stock.

Call Spread Overlay for Convertible Senior Notes

Concurrent with the issuance of the Notes, we entered into privately negotiated convertible note hedge transactions (collectively, the "Note Hedge") and warrant transactions (collectively, the "Warrants" and together with the Note Hedge, the "Call Spread Overlay"), with certain of the initial purchasers of the Notes or their affiliates. Assuming full performance by the counterparties, the Call Spread Overlay is meant to effectively reduce our potential payout over the principal amount on the Notes upon conversion of the Notes.

Under the terms of the Note Hedge, we bought from affiliates of certain of the initial purchasers of the Notes options to acquire, at an exercise price of \$14.62 per share, subject to anti-dilution adjustments, up to 82.1 million shares of our common stock. Each Note Hedge is a separate transaction, entered into by the Company with each option counterparty, and is not part of the terms of the Notes. Each Note Hedge is exercisable upon the conversion of the Notes and expires on the corresponding maturity dates of the Notes.

Under the terms of the Warrants, the Company sold to affiliates of certain of the initial purchasers of the Notes warrants to acquire, on the stated expiration date of each Warrant, up to 82.1 million shares of our common stock at an exercise price of \$18.35 per share, subject to anti-dilution adjustments. Each Warrant transaction is a separate transaction, entered into by the Company with each option counterparty, and is not part of the terms of the Notes.

Short-term Debt

On September 30, 2011, we amended and restated our non-recourse project construction financing revolver, which has a term of three years, from \$50.0 million to \$300.0 million. Interest on borrowings under the agreement will be based on our election at LIBOR plus an applicable margin (currently 3.50%) or at a defined prime rate plus an applicable margin (currently 2.50%). The construction financing revolver also requires us to pay various fees, including a commitment fee (currently 1.10%). The construction financing revolver will be used to support the construction costs of utility and rooftop solar energy systems throughout the U.S. and Canada. The construction loans are non-recourse debt to entities outside of the project company legal entities that subscribe to the debt and is secured by a pledge of the collateral, including the project contracts and equipment. This revolver also includes a customary material adverse effects clause whereby a breach may disallow a future draw but not acceleration of payment. This revolver also maintains a cross default clause whose remedy, among other rights, includes the right to restrict future loans as well as the right to accelerate principal and interest payments. Because this is non-recourse financing, covenants relate specifically to the collateral amounts and transfer of right restrictions.

During 2012, due to various amendments and lenders entering and exiting the facility, the non-recourse construction financing revolver capacity was lowered from \$300.0 million to \$150.0 million. Under the terms of the amendments, depending on the credit ratings issued by the two credit agencies that provide ratings on the Company, we are required to post, at our election, a letter of credit or surety bond equal to 15.0% of the total outstanding balance in order to continue to make additional borrowings under this facility. As of December 31, 2013, based on the credit rating provided by one of the credit agencies, a letter of credit equal to 15.0% of the \$59.7 million outstanding balance was posted as of December 31, 2013. There was \$7.4 million outstanding on this construction revolver as of December 31, 2012. Additionally, \$3.9 million of deferred financing fees were charged to interest expense during the second quarter of 2012, as a result of these amendments. No similar charges were incurred in the comparable periods of 2013 or 2011.

In the event additional construction debt is needed and the remainder of the original capacity is not renewed or replaced, we have the ability to draw upon the available capacity of our Credit Facility (discussed above). In the event we cannot renew, replace or backfill the remainder of the original capacity with other financing or have adequate net working capital, such inability to fund future projects may have an adverse impact on our business growth plans, financial position and results of operations.

Our weighted-average cost of borrowing was 8.0% at December 31, 2013 and 7.9% at December 31, 2012, respectively. Our short-term borrowings are subject to renewal annually with each financial institution through the course of the year.

Contractual Obligations

Contractual obligations as of December 31, 2013 were as follows:

Contractual Obligations	Payments Due By Period				
	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Dollars in millions					
Capital leases	\$ 123.9	\$ 7.2	\$ 13.0	\$ 12.6	\$ 91.1
Long-term debt ¹	3,815.3	384.1	196.6	703.2	2,531.4
Operating leases	79.4	24.9	36.9	10.5	7.1
Purchase obligations ²	1,168.4	794.6	161.5	122.1	90.2
Employee related liabilities ³	55.1	—	—	—	—
Uncertain tax positions ⁴	17.1	17.1	—	—	—
Customer deposits ⁵	140.0	36.7	103.3	—	—
Contingent consideration liability ⁶	35.2	15.2	20.0	—	—
Total contractual obligations	\$ 5,434.4	\$ 1,279.8	\$ 531.3	\$ 848.4	\$ 2,719.8

The contractual commitments shown above, except for our debt obligations, capital leases, employee related liabilities, uncertain tax positions and customer deposits, are not recorded on our consolidated balance sheet.

- ¹ Long-term debt includes primarily minimum lease payments on our non-recourse financing leaseback transactions and repayment of our Notes and other debt obligations. For the purpose of the table above, we assume that all holders of the Notes will hold the Notes through maturity. The table above does not include any cash outlays related to the potential settlement of the warrants and note hedge transactions entered into in connection with the convertible debt offering. See Note 10 to the Consolidated Financial Statements.
- ² Represents obligations for agreements to purchase goods or services that are enforceable and legally binding on the Company, including minimum quantities at fixed prices to be purchased, committed capital expenditures, and outstanding purchases for goods or services as of December 31, 2013. These obligations include purchases related to solar energy systems under development and held for sale. In addition to the above purchase obligations, in connection with the 2011 Global Plan, we will no longer take supplies or materials for a number of purchase agreements. We have notified our vendors of our intent not to procure these materials and we have accrued \$40.2 million related to these contracts. These agreements either do not have stated fixed quantities and prices, have termination provisions, or require the vendor to mitigate losses by selling the materials to other parties. The actual amounts ultimately settled with these vendors could vary significantly, which could have a material adverse impact on our future earnings and cash flows.
- ³ Employee related liabilities include pension, health and welfare benefits and other post-employment benefits. Other than pensions, the employee related liabilities are paid as incurred and accordingly, specific future years' payments are not reasonably estimable. Funding projections beyond the next twelve months as of December 31, 2013 are not practical to estimate due to the rules affecting tax-deductible contributions and the impact from the plan asset performance, interest rates and potential U.S. and international legislation.
- ⁴ Unrecognized tax benefits are reported as a component of other long-term liabilities. Due to the inherent uncertainty of the underlying tax positions, we are unable to reasonably estimate in which future periods these unrecognized tax benefits will be settled.
- ⁵ Customer deposits consist of amounts provided in connection with long-term supply agreements which must be returned to the customers according to the terms of the agreements.
- ⁶ Represents the estimated fair value of contingent consideration payable remaining related to past acquisitions.

We have agreed to indemnify some of our solar wafer and semiconductor customers against claims of infringement of the intellectual property rights of others in our sales contracts with these customers. The terms of most of these indemnification obligations generally do not provide for a limitation of our liability. We have not had any claims related to these indemnification obligations as of December 31, 2013.

We generally warrant the operations of its solar energy systems. Due to the absence of historical material warranty claims and expected future claims, we have not recorded a material warranty accrual related to solar energy systems as of December 31, 2013.

In connection with several contracts to sell outright solar energy systems, we have guaranteed the systems' performance for two years following the date of interconnection. Also, under separate operations and maintenance services agreements, we guaranteed the uptime availability of the system over the term of the arrangement, which may last 20 years. To the extent there are shortfalls associated with either of the guarantees, we are required to indemnify the purchaser up to the guaranteed amount through a cash payment. The maximum losses that we may be subject to for non-performance are contractually limited by the terms of each executed agreement.

Our pension and other post-employment benefits expense and obligations are actuarially determined. See "Critical Accounting Policies and Estimates." Effective January 2, 2002, we amended our defined benefit pension plan to discontinue future benefit accruals for certain participants. In addition, effective January 2, 2002, no new participants will be added to the defined benefit pension plan. Effective January 1, 2012, we amended the defined benefit pension plan to freeze the accumulation of new benefits for all participants.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires us to make estimates and assumptions in certain circumstances that affect amounts reported in our consolidated

financial statements and related footnotes. In preparing these financial statements, we have made our best estimates of certain amounts included in the financial statements. Application of accounting policies and estimates, however, involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. In arriving at our critical accounting estimates, factors we consider include how accurate the estimate or assumptions have been in the past, how much the estimate or assumptions have changed and how reasonably likely such change may have a material impact. Our significant accounting policies are more fully described in Note 2 to the Consolidated Financial Statements herein.

Revenue Recognition

Solar Energy System Sales

Solar energy system sales involving real estate

We recognize revenue for solar energy system sales with the concurrent sale or the concurrent lease of the underlying land, whether explicit or implicit in the transaction, in accordance with ASC 360-20, *Real Estate Sales*. For these transactions, we evaluate the solar energy system to determine whether the equipment is integral equipment to the real estate; therefore, the entire transaction is in substance the sale of real estate and subject to revenue recognition under ASC 360-20. A solar energy system is determined to be integral equipment when the cost to remove the equipment from its existing location, ship and reinstall at a new site, including any diminution in fair value, exceeds ten percent of the fair value of the equipment at the time of original installation. For those transactions subject to ASC 360-20, we recognize revenue and profit using the full accrual method once the sale is consummated, the buyer's initial and continuing investments are adequate to demonstrate its commitment to pay, our receivable is not subject to any future subordination, and we have transferred the usual risk and rewards of ownership to the buyer. If these criteria are met and we execute a sales agreement prior to the delivery of the solar energy system and have an original construction period of three months or longer, we recognize revenue and profit under the percentage of completion method of accounting applicable to real estate sales when we can reasonably estimate progress towards completion. During 2013, 2012 and 2011 we recognized \$32.5 million, \$72.8 million and \$54.3 million, respectively, of revenue using the percentage of completion method for solar energy system sales involving real estate.

If the criteria for recognition under the full accrual method are met except that the buyer's initial and continuing investment is less than the level determined to be adequate, then we will recognize revenue using the installment method. Under the installment method, we record revenue up to our costs incurred and apportion each cash receipt from the buyer between cost recovered and profit in the same ratio as total cost and total profit bear to the sales value. During 2012 and 2011, we recognized revenue of \$22.7 million and \$28.5 million using the installment method. In 2013, we did not have sales that qualified for installment method treatment.

If we retain some continuing involvement with the solar energy system and do not transfer substantially all of the risks and rewards of ownership, profit shall be recognized by a method determined by the nature and extent of our continuing involvement, provided the other criteria for the full accrual method are met. In certain cases, we may provide our customers guarantees of system performance or uptime for a limited period of time and our exposure to loss is contractually limited based on the terms of the applicable agreement. In accordance with real estate sales accounting guidance, the profit recognized is reduced by our maximum exposure to loss (and not necessarily our most probable exposure), until such time that the exposure no longer exists.

Other forms of continuing involvement that do not transfer substantially all of the risks and rewards of ownership preclude revenue recognition under real estate accounting and require us to account for any cash payments using either the deposit or financing method. Such forms of continuing involvement may include contract default or breach remedies that provide us with the option or obligation to repurchase the solar energy system. Under the deposit method, cash payments received from customers are reported as deferred revenue for solar energy systems on the consolidated balance sheet, and under the financing method, cash payments received from customers are considered debt and reported as solar energy financing and capital lease obligations on the consolidated balance sheet.

Solar energy system sales not involving real estate

We recognize revenue for solar energy system sales without the concurrent sale or the concurrent lease of the underlying land at the time a sales arrangement with a third party is executed, delivery has occurred and we have determined that the sales price is fixed or determinable and collectible. For transactions that involve a construction period of three months or longer, we recognize the revenue in accordance with ASC 605-35, *Construction-Type and Production-Type Contracts*, using the percentage of completion method, measured by actual costs incurred for work completed to total estimated costs at completion for each transaction. Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs and travel costs. Marketing and administration costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts are recognized in full during the period in which

such losses are determined. Changes in job performance, job conditions and estimated profitability, including those arising from contract penalty provisions and final contract settlements, may result in revisions to costs and revenue and are recognized in the period in which the revisions are determined. During the years ended December 31, 2013 and December 31, 2012, we recorded \$53.5 million and \$25.0 million, respectively, of revenue under the percentage of completion method for solar energy systems not involving real estate. There were no such amounts recognized in 2011.

Solar energy system sales with service contracts

We frequently negotiate and execute solar energy system sales contracts and post-system-sale service contracts contemporaneously, which we combine and evaluate together as a single arrangement with multiple deliverables. The total arrangement consideration is first separated and allocated to post-system-sale separately priced extended warranty and maintenance service contracts, and the revenue associated with that deliverable is recognized on a straight-line basis over the contract term. The remaining consideration is allocated to each unit of accounting based on the respective relative selling prices, and revenue is recognized for each unit of accounting when the revenue recognition criteria have been met.

Sale with a leaseback

We are a party to master lease agreements that provide for the sale and simultaneous leaseback of certain solar energy systems constructed by us. We must determine the appropriate classification of the sale leaseback on a project-by-project basis because the terms of the solar energy systems lease schedule may differ from the terms applicable to other solar energy systems. In addition, we must determine if the solar energy system is considered integral equipment to the real estate upon which it resides. We do not recognize revenue on the sales transactions for any sales with a leaseback. Instead, revenue is recognized through the sale of electricity and energy credits which are generated as energy is produced. The terms of the lease and whether the system is considered integral to the real estate upon which it resides may result in either one of the following sale leaseback classifications:

Financing arrangements

The financing method is applicable when we have determined that the assets under the lease are real estate. This occurs due to either a transfer of land or the transfer of a lease involving real estate and the leased equipment is integral equipment to the real estate. A sale leaseback is classified as a financing sale leaseback if we have concluded the leased assets are real estate and we have a prohibited form of continuing involvement, such as an option or obligation to repurchase the assets under our master lease agreements.

Under a financing sale leaseback, we do not recognize any upfront profit because a sale is not recognized. The full amount of the financing proceeds is recorded as solar energy financing debt, which is typically secured by the solar energy system asset and its future cash flows from energy sales, but generally has no recourse to us under the terms of the arrangement.

We use our incremental borrowing rate to determine the principal and interest component of each lease payment. However, to the extent that our incremental borrowing rate will result in either negative amortization of the financing obligation or a built-in loss at the end of the lease (e.g. net book value of the system asset exceeds the financing obligation), the rate is adjusted to eliminate such results. The interest rate is adjusted accordingly for the majority of our financing leasebacks because our future minimum lease payments do not typically exceed the initial proceeds received from the buyer-lessor. As a result, most of our lease payments are reported as interest expense, the principal of the financing debt does not amortize, and we expect to recognize a gain upon the final lease payment at the end of the lease term equal to the unamortized balance of the financing debt less the write-off of the system assets net book value.

Operations and maintenance

Operations and maintenance revenue is billed and recognized as services are performed. Costs of these revenues are expensed in the period they are incurred.

Solar energy service revenues, energy credits and incentives

For owned or capitalized solar energy systems in the U.S., we may receive incentives or subsidies from various state governmental jurisdictions in the form of renewable energy credits ("RECs"), which we sell to third parties. We may also receive performance-based incentives ("PBIs") from public utilities. The Solar Energy segment recorded total PBI revenue of \$22.3 million, \$31.4 million and \$24.3 million for the years ended December 31, 2013, 2012 and 2011, respectively, and total REC revenue of \$14.0 million, \$17.3 million and \$15.1 million for the years ended December 31, 2013, 2012 and 2011, respectively. Both the RECs and PBIs are based on the actual level of output generated from the system. RECs are generated as our solar energy systems generate electricity. Typically, we enter into five to ten year binding contractual arrangements with

utility companies or other investors who purchase RECs at fixed rates. REC revenue is recognized at the time we have transferred a REC pursuant to an executed contract relating to the sale of the RECs to a third party. For PBIs, production from our operated systems is verified by an independent third party and, once verified, revenue is recognized based on the terms of the contract and the fulfillment of all revenue recognition criteria. There are no penalties in the event electricity is not produced for PBIs. However, if production does not occur on the systems for which we have sale contracts for our RECs, we may have to purchase RECs on the spot market or pay specified contractual damages. Historically, we have not had to purchase material amounts of RECs to fulfill our REC sales contracts.

Recording of a sale of RECs and receipt of PBIs under U.S. GAAP are accounted for under ASC 605, *Revenue Recognition*. There are no differences in the process and related revenue recognition between REC sales to utilities and non-utility customers. Revenue is recorded when all revenue recognition criteria are met, including: there is persuasive evidence an arrangement exists (typically through a contract), services have been rendered through the production of electricity, pricing is fixed and determinable under the contract and collectability is reasonably assured. For RECs, the revenue recognition criteria are met when the energy is produced and a REC is generated and transferred to a third party pursuant to a contract with that party fixing the price for the REC. For PBIs, revenue is recognized upon validation of the kilowatt hours produced from a third party metering company because the quantities to be billed to the utility are determined and agreed to at that time.

Wafer and Other Product Sales

Revenue is recognized for wafer and other product sales when title transfers, the risks and rewards of ownership have been transferred to the customer, the fee is fixed or determinable and collection of the related receivable is reasonably assured, which is generally at the time of shipment for non-consignment orders. In the case of consignment orders, title passes when the customer pulls the product from the assigned storage facility or storage area or, if the customer does not pull the product within a contractually stated period of time (generally 60–90 days), at the end of that period, or when the customer otherwise agrees to take title to the product. Our wafers are generally made to customer specifications, and we conduct rigorous quality control and testing procedures to ensure that the finished wafers meet the customer's specifications before the product is shipped. We consider international shipping term definitions in our determination of when title passes. We defer revenue for multiple element arrangements based on an average fair value per unit for the total arrangement when we receive cash in excess of fair value. We also defer revenue when pricing is not fixed or determinable or other revenue recognition criteria is not met.

In connection with certain of our long-term solar wafer supply agreements, we have received various equity instruments and other forms of additional consideration. In each case, we have recorded the estimated fair value of the additional consideration to long-term deferred revenue and will recognize the deferred revenue on a pro-rata basis as product is shipped over the life of the agreements.

Inventories

Inventories consists of raw materials, labor and manufacturing overhead and are valued at the lower of cost or market. Fixed overheads are allocated to the costs of conversion based on the normal capacity of our production facilities. Unallocated overheads during periods of abnormally low production levels are recognized as cost of goods sold in the period in which they are incurred. Raw materials and supplies are generally stated at weighted-average cost and goods and work-in-process and finished goods inventories are stated at standard cost as adjusted for variances, which approximates weighted-average actual cost. The valuation of inventory requires us to estimate excess and slow moving inventory. The determination of the value of excess and slow moving inventory is based upon assumptions of future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

Inventories also includes raw materials (such as solar panels) and supplies used to construct future solar energy systems developed for sale to third parties, which have not been designated to a specific project as of the balance sheet date. When the inventory is designated for use to build a specific project, the inventory will be reclassified to either solar energy systems held for development and sale or to property, plant and equipment - construction in progress, which is determined based on our intended use of the system. The cost of raw materials for solar energy systems is based on the first-in, first-out (FIFO) method.

Solar Energy Systems Held for Development and Sale

Solar energy systems are classified as either held for development and sale or as property, plant and equipment based on our intended use of the system once constructed and provided that certain criteria to be classified as held for sale are met. The classification of the system affects the future accounting and presentation in the consolidated financial statements, including the consolidated statement of operations and statement of cash flows. Cash transactions related to the construction and sale of solar energy systems classified as held for development and sale are recorded as operating activities in the consolidated

statement of cash flows and within gross margins in the statement of operations when sold. Solar energy systems that are classified as property, plant and equipment generally relate to our sale leaseback transactions. The costs to construct solar energy systems classified as property, plant and equipment are recorded in the investing activities of the consolidated statement of cash flows. The proceeds received for the sale and subsequent leaseback are considered financing inflows within the consolidated statement of cash flows.

Solar energy systems held for development include solar energy system project related assets for projects that have commenced and are actively marketed and intended to be sold. Development costs include capitalizable costs for items such as permits, acquired land, deposits and work-in-process, among others. Work-in-process includes materials, labor and other capitalizable costs incurred to construct solar energy systems.

Solar energy systems held for sale are completed solar energy systems that have been interconnected. Solar energy systems held for sale are available for immediate sale in their present conditions subject only to terms that are usual and customary for sales of these types of assets. In addition, we are actively marketing the systems to potential third party buyers, and it is probable that the system will be sold within one year of its placed in service date. Solar energy systems held for sale also include systems under contract with a buyer that are accounted for using the deposit method, whereby cash proceeds received from the buyer are held as deposits until a sale can be recognized.

We do not depreciate our solar energy systems while classified as held for sale and any energy or incentive revenues are recorded to other income, as such revenues are incidental to our intended use of the system (direct sale to a third party buyer). If facts and circumstances change such that it is no longer probable that the system will be sold within one year of the system's completion date, the system will be reclassified to property, plant and equipment, and we will record depreciation expense in the amount that would have otherwise been recorded during the period the system was classified as held for sale.

Property, Plant and Equipment

We record property, plant and equipment at cost and depreciate it evenly over the assets’ estimated useful lives as follows:

	Years
Software	3 - 10
Buildings and improvements	2 - 50
Machinery and equipment	1 - 30
Solar energy systems	23 - 30

Expenditures for repairs and maintenance are charged to expense as incurred. Additions and betterments are capitalized. The cost and related accumulated depreciation on property, plant and equipment sold or otherwise disposed of are removed from the capital accounts and any gain or loss is reported in current-year operations.

We often construct solar energy systems for which we do not have a fixed-price construction contract and, in certain instances, we may construct a system and retain ownership of the system or perform a sale-leaseback. For these projects, we earn revenues associated with the energy generated by the solar energy system, capitalize the cost of construction to solar energy system property, plant and equipment and depreciate the system over its estimated useful life. For solar energy systems under construction for which we intend to retain ownership and finance the system, we recognize all costs incurred as solar system construction in progress.

We may sell a solar energy system and simultaneously lease back the solar energy system. Property, plant and equipment accounted for as capital leases (primarily solar energy systems) are depreciated over the life of the lease. Solar energy systems that have not reached consummation of a sale under real estate accounting and have been leased back are recorded at the lower of the original cost to construct the system or its fair value and depreciated over the equipment's estimated useful life. For those sale leasebacks accounted for as capital leases, the gain, if any, on the sale leaseback transaction is deferred and recorded as a contra-asset that reduces the cost of the solar energy system, thereby reducing depreciation expense over the life of the asset. Generally, as a result of various tax attributes that accrue to the benefit of the lessor/tax owner, solar energy systems accounted for as capital leases are recorded at the net present value of the future minimum lease payments because this amount is lower than the cost and fair market value of the solar energy system at the lease inception date.

Leasehold improvements are depreciated over the shorter of the estimated useful life of the asset or the remaining lease term, including renewal periods considered reasonably assured of execution.

When we are entitled to incentive tax credits for property, plant and equipment, we reduce the asset carrying value by the amount of the credit, which reduces future depreciation.

Consolidated depreciation expense for the years ended December 31, 2013, 2012 and 2011 was \$206.2 million, \$200.6 million and \$217.7 million, respectively, and includes depreciation expense for capital leases of \$4.3 million, \$4.3 million and \$9.7 million for the years ended December 31, 2013, 2012 and 2011, respectively.

The cost of constructing facilities, equipment and solar energy systems includes costs incurred during the asset's construction period. Capitalized interest totaled \$22.3 million, \$19.9 million, and \$18.1 million for the years ended December 31 2013, 2012 and 2011, respectively.

Asset retirement obligations are recognized at fair value in the period in which they are incurred and the carrying amount of the related long-lived asset is correspondingly increased. Over time, the liability is accreted to its expected future value. The corresponding asset capitalized at inception is depreciated over the useful life of the asset. We operate under solar power services agreements with some customers that include a requirement for the removal of the solar energy systems at the end of the term of the agreement. In addition, we could have certain legal obligations for asset retirements related to disposing of materials in the event of closure, abandonment or sale of certain of our manufacturing facilities. We recognize a liability in the period in which we have determined the time frame that the asset will no longer operate and information is available to reasonably estimate the liability's fair value.

Intangible Assets

Our indefinite-lived intangible assets include power plant development arrangements acquired in a business combination which relate to anticipated future economic benefits associated with our customer backlog and pipeline relationships. We initially treat backlog and pipeline as indefinite-lived intangible assets, similar to GAAP treatment of in-process R&D, which is not subject to amortization. These intangibles will be allocated to fixed assets as the construction of the related solar energy systems stemming from the existing backlog and pipeline is completed and will ultimately be charged to the statement of operations through cost of goods sold if the projects is sold in a direct sale or depreciation expense if the project is retained on the balance sheet. These assets are tested annually for impairment on December 1 of each year, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. December 1 is the date in which the annual impairment review is performed for all indefinite lived intangible assets.

Intangible assets that have determinable estimated lives are amortized over those estimated lives. The straight-line method of amortization is used because it best reflects the pattern in which the economic benefits of the intangible asset are consumed or otherwise used up. The amounts and useful lives assigned to intangible assets acquired impact the amount and timing of future amortization. Reviews are performed to determine whether the carrying value of an asset is impaired, based on comparisons to undiscounted expected future cash flows or some other fair value measure. If this comparison indicates that there is impairment, the impaired asset is written down to fair value, which is typically calculated using discounted expected future cash flows utilizing an appropriate discount rate. Impairment is based on the excess of the carrying amount over the fair value of those assets.

The useful lives of our intangible assets subject to amortization are as follows:

	<u>Years</u>
Favorable energy credits	4-18
Customer sales backlog and relationships	1-6
Trade name	15
Developed technology	5

Variable Interest Entities

Our business involves the formation of special purpose vehicles (referred to as "project companies") to own the project assets and execute agreements for the construction and maintenance of the assets, as well as power purchase agreements or feed in tariff agreements with a buyer who will purchase the electricity generated from the solar energy system once it is operating. We may establish joint ventures with non-related parties to share in the risks and rewards associated with solar energy system development, which are facilitated through equity ownership of a project company. The project companies engage us to engineer, procure and construct the solar energy system and may separately contract with us to perform predefined operational and maintenance services post construction. We evaluate the terms of those contracts as well as the joint venture agreements to determine if the entity is a variable interest entity ("VIE"), as well as if we are the primary beneficiary.

VIEs are primarily entities that lack sufficient equity to finance their activities without additional financial support from other parties or whose equity holders, as a group, lack one or more of the following characteristics: (a) direct or indirect ability to

make decisions; (b) obligation to absorb expected losses; or (c) right to receive expected residual returns. VIEs must be evaluated quantitatively and qualitatively to determine the primary beneficiary, which is the reporting entity that has (a) the power to direct activities of a VIE that most significantly impact the VIEs economic performance and (b) the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. The primary beneficiary is required to consolidate the VIE for financial reporting purposes. A VIE should have only one primary beneficiary, but may not have a primary beneficiary if no party meets the criteria described above.

To determine a VIE's primary beneficiary, an enterprise must perform a qualitative assessment to determine which party, if any, has the power to direct activities of the VIE and the obligation to absorb losses and/or receive its benefits. Therefore, an enterprise must identify the activities that most significantly impact the VIE's economic performance and determine whether it, or another party, has the power to direct those activities. When evaluating whether we are the primary beneficiary of a VIE, and must therefore consolidate the entity, we perform a qualitative analysis that considers the design of the VIE, the nature of our involvement and the variable interests held by other parties. If that evaluation is inconclusive as to which party absorbs a majority of the entity's expected losses or residual returns, a quantitative analysis is performed to determine the primary beneficiary.

For our consolidated VIEs, we have presented on our consolidated balance sheets, to the extent material, the assets of our consolidated VIEs that can only be used to settle specific obligations of the consolidated VIE, and the liabilities of our consolidated VIEs for which creditors do not have recourse to our general assets outside of the VIE.

We are the primary beneficiary of ten VIEs in solar energy projects that we consolidated as of December 31, 2013, four of which existed and were consolidated by the Company as of December 31, 2012. During the year ended December 31, 2013, one solar energy system project company and one other entity that were consolidated as of December 31, 2012 were deconsolidated.

Income Taxes

Deferred income taxes arise because of a different tax basis of assets or liabilities between financial statement accounting and tax accounting, which are known as temporary differences. We record the tax effect of these temporary differences as deferred tax assets (generally items that can be used as a tax deduction or credit in future periods) and deferred tax liabilities (generally items for which we receive a tax deduction, but have not yet been recorded in the consolidated statement of operations). We regularly review our deferred tax assets for realizability, taking into consideration all available evidence, both positive and negative, including historical pre-tax and taxable income (losses), projected future pre-tax and taxable income (losses) and the expected timing of the reversals of existing temporary differences. In arriving at these judgments, the weight given to the potential effect of all positive and negative evidence is commensurate with the extent to which it can be objectively verified. Reportable U.S. GAAP income from our financing sale-leaseback transactions in the U.S. is deferred until the end of the lease term, generally 20-25 years, through the extinguishment of the debt. However, sale-leaseback transactions generate current U.S. taxable income at the time of the sale, with the timing differences increasing deferred tax assets. As a result of the continued decline in solar market conditions, the restructuring charges announced in December 2011, and cumulative losses in the U.S. and certain foreign jurisdictions, we recorded a material non-cash valuation allowance against the deferred tax assets at December 31, 2011. See Note 14 for further discussion.

We believe our tax positions are in compliance with applicable tax laws and regulations. Tax benefits are recognized only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50 percent likely to be realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in our tax returns that do not meet these recognition and measurement standards. Uncertain tax benefits, including accrued interest and penalties, are included as a component of other long-term liabilities because we do not anticipate that settlement of the liabilities will require payment of cash within the next twelve months. The accrual of interest begins in the first reporting period that interest would begin to accrue under the applicable tax law. Penalties, when applicable, are accrued in the financial reporting period in which the uncertain tax position is taken on a tax return. We recognize interest and penalties related to uncertain tax positions in income tax expense, which is consistent with our historical policy. We believe that our income tax accrued liabilities, including related interest, are adequate in relation to the potential for additional tax assessments. There is a risk, however, that the amounts ultimately paid upon resolution of audits 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 (loss) income and cash flows. We review our accrued liabilities quarterly, and we may adjust such liabilities due to proposed assessments by tax authorities, changes in facts and circumstances, issuance of new regulations or new case law, negotiations between tax authorities of different countries concerning our transfer prices between our subsidiaries, the resolution of entire audits, or the expiration of statutes of limitations. Adjustments are most likely to occur in the year during which major audits are closed.

During the current year, we have repatriated the earnings of certain wholly owned subsidiaries to the United States. We do not provide for U.S. income taxes on the remaining undistributed earnings of our foreign subsidiaries which would be payable if the undistributed earnings were distributed to the U.S., as we consider those foreign earnings to be permanently reinvested outside the U.S. We plan foreign remittance amounts based on projected cash flow needs as well as the working capital and long-term investment requirements of our foreign subsidiaries and our domestic operations.

We have made our best estimates of certain income tax amounts included in the financial statements. Application of our accounting policies and estimates, however, involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. In arriving at our estimates, factors we consider include how accurate the estimate or assumptions have been in the past, how much the estimate or assumptions have changed and how reasonably likely such change may have a material impact.

Employee-Related Liabilities

We have a long-term net liability for our consolidated defined benefit pension and other post-employment benefit plans. Our obligations are funded in accordance with provisions of federal law. We recognize the overfunded or underfunded status of a defined benefit postretirement plan as an asset or liability in our statement of financial position and recognize changes in that funded status in the year in which the changes occur through comprehensive income.

Our pension and other post-employment liabilities are actuarially determined, and we use various actuarial assumptions, including the discount rate, rate of salary increase, and expected return on assets, to estimate our costs and obligations. If our assumptions do not materialize as expected, expenditures and costs that we incur could differ from our current estimates. We determine the expected return on plan assets based on our pension plans' actual asset mix as of the beginning of the year. While the assumed expected rate of return on the U.S. Pension plan assets was 8.5% in both 2013 and 2012, the actual return experienced in our pension plan assets in the comparable periods in 2013 and 2012 was 14.6% and 12.8%, respectively. We consult with the plans' actuaries to determine a discount rate assumption that reflects the characteristics of our plans, including expected cash outflows from our plans, and utilize an analytical tool that incorporates the concept of a hypothetical yield curve, developed from corporate bond (AA quality) yield information. Assuming a 100 basis point increase in the discount rate, our 2013 pension expense would have been approximately \$0.4 million higher. Assuming a 100 basis point decrease in the discount rate, our 2013 pension expense would have been approximately \$0.6 million lower.

Effective January 1, 2012, the amortization period for the unamortized loss was changed to the average future life expectancy of the all plan participants, which was derived from an actuarial mortality table. This change was triggered by the small number of active plan participants relative to the total plan participants. Prior to 2012, the amortization period was derived based on the average remaining service period of the active participants expected to receive benefits. This change has reduced the amortization expense related to the unrealized loss.

Valuation of Convertible Debt

On December 20, 2013, we completed the offering of \$600 million aggregate principal amount of 2.00% convertible senior notes due 2018 (the "2018 Notes") and \$600 million aggregate principal amount of 2.75% convertible senior notes due 2021 (the "2021 Notes" and, together with the 2018 notes, the "Notes"). These convertible debt instruments require recognition of both a debt obligation and conversion option derivative liability in the Consolidated Financial Statements. The debt component is required to be recognized at the fair value of a similar debt instrument that does not have an associated derivative component. The conversion option derivative liability is recorded at fair value as described in more detail below under "Derivative Financial Instruments and Hedged Activities." The accounting guidance also requires an accretion of the resulting debt discount as interest expense using the effective interest rate method over the expected life of the convertible debt.

Stock-Based Compensation

Stock-based compensation expense for all share-based payment awards is based on the estimated grant-date fair value. We recognize these compensation costs net of an estimated forfeiture rate and recognize the compensation costs for only those shares expected to vest on a straight-line basis over the requisite service period of the award, which is generally the option vesting term. We recognize stock-based compensation expense for all grants on a straight-line basis over the requisite service period of the entire award for ratable awards. Compensation expense for awards with market or performance conditions reflects the estimated probability that the market and/or performance conditions will be met and is recognized ratably over the service period(s) of the award. We estimate the future forfeiture rate taking into consideration our historical experience during the preceding four fiscal years. For our market condition awards, the grant date fair value was calculated for these awards using a probabilistic approach under a Monte-Carlo simulation taking into consideration volatility, interest rates and expected term.

Determining the appropriate fair value model and calculating the fair value of share-based payment awards require the making of subjective assumptions, including the expected life of the share-based payment awards and stock price volatility. The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates, but these estimates involve inherent uncertainties and the application of management judgment. As a result, if factors change and we use different assumptions, our stock-based compensation expense could be materially different in the future. In addition, we are required to estimate the expected forfeiture rate and recognize expense only for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the stock-based compensation expense could be significantly different from what we have recorded in the current period.

Contingencies

We are involved in conditions, situations or circumstances in the ordinary course of business with possible gain or loss contingencies that will ultimately be resolved when one or more future events occur or fail to occur. We continually evaluate uncertainties associated with loss contingencies and record a charge equal to at least the minimum estimated liability for a loss contingency when both of the following conditions are met: (i) information available prior to issuance of the financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements and (ii) the loss or range of loss can be reasonably estimated. Legal costs are expensed when incurred. Gain contingencies are not recorded until realized or realizable.

Fair Value Measurements

Fair value accounting guidance establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability, and are based on market data obtained from sources independent of us. Unobservable inputs reflect assumptions market participants would use in pricing the asset or liability based on the best information available in the circumstances. The hierarchy is broken down into three levels based on the reliability of inputs as follows:

- Level 1—Valuations based on quoted prices in active markets for identical assets or liabilities that we have the ability to access. Valuation adjustments and block discounts are not applied to Level 1 instruments. Because valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these instruments does not entail a significant degree of judgment.
- Level 2—Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly. Valuations for Level 2 are prepared on an individual instrument basis using data obtained from recent transactions for identical securities in inactive markets or pricing data from similar instruments in active and inactive markets.
- Level 3—Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

We maintain various financial instruments recorded at cost in the December 31, 2013 and 2012 balance sheets that are not required to be recorded at fair value. For these instruments, we used the following methods and assumptions to estimate the fair value:

- Cash equivalents, restricted cash, accounts receivable and payable, customer deposits, income taxes receivable and payable, short-term borrowings, and accrued liabilities—cost approximates fair value because of the short maturity period; and
- Long-term debt—fair value is based on the amount of future cash flows associated with each debt instrument discounted at our current estimated borrowing rate for similar debt instruments of comparable terms.

Derivative Financial Instruments and Hedging Activities

All derivative instruments are recorded on the consolidated balance sheet at fair value. Derivatives not designated as hedge accounting and used to hedge foreign-currency-denominated balance sheet items are reported directly in earnings along with offsetting transaction gains and losses on the items being hedged. Derivatives used to hedge foreign-currency denominated cash flows and floating rate debt may be accounted for as cash flow hedges, as deemed appropriate. Gains and losses on derivatives designated as cash flow hedges are recorded in other comprehensive (loss) income and reclassified to earnings in a manner that matches the timing of the earnings impact of the hedged transactions. The ineffective portion of all hedges, if any, is recognized currently in earnings. Derivatives used to manage the foreign exchange risk associated with a net investment denominated in another currency are accounted for as a net investment hedge. The effective portion of the hedge will be recorded in the same

manner as foreign currency translation adjustment in other comprehensive (loss) income. When the investment is dissolved and we recognize a gain or loss in other income (expense), the associated hedge gain or loss in other comprehensive (loss) income will be reclassified to other income (expense).

Derivatives not designated as hedging

We generally use currency forward contracts to manage foreign currency exchange risk relating to current trade receivables and payables with our foreign subsidiaries and current trade receivables and payables with our customers and vendors denominated in foreign currencies (primarily the Euro, the Japanese Yen, the Canadian Dollar, the South African Rand and certain other Asian currencies). The purpose of our foreign currency forward contract activities is to protect us from the risk that the dollar net cash flows resulting from foreign currency transactions will be negatively affected by changes in exchange rates. We do not hold or issue financial instruments for speculative or trading purposes. Gains or losses on our forward exchange contracts, as well as the offsetting losses or gains on the related hedged receivables and payables, are included in non-operating expense (income) in the consolidated statement of operations. Net currency losses on unhedged foreign currency positions totaled \$8.6 million, \$17.8 million and \$4.7 million in 2013, 2012 and 2011, respectively.

Additionally, the embedded conversion options within senior convertible notes are derivative instruments that are required to be separated from the Notes and accounted for separately as derivative instruments (derivative liabilities) with changes in fair value reported in the Consolidated Statements of Operations until such transactions settle or expire. The embedded conversion option derivative instruments are measured at fair value utilizing Level 2 inputs consisting of the exercise price of the instruments, the price and volatility of our common stock, the risk free interest rate and the contractual term. Such derivative instruments are not traded on an open market as the banks are the counterparties to the instruments.

In connection with the senior convertible notes offering, we also entered into privately negotiated convertible note hedge transactions (collectively, the "Note Hedge") and warrant transactions (collectively, the "Warrants" and together with the Note Hedge, the "Call Spread Overlay"), with certain of the initial purchasers of the Notes or their affiliates. Assuming full performance by the counterparties, the Call Spread Overlay is meant to effectively reduce our potential payout over the principal amount on the Notes upon conversion of the Notes. The Note Hedge and Warrants, which are indexed our common stock, are derivative instruments that require mark-to-market accounting treatment due to their cash settlement features until such transactions settle or expire. The Note Hedge and Warrants are measured at fair value utilizing Level 2 inputs consisting of the exercise price of the instruments, the price and volatility of our common stock, the risk free interest rate and the contractual term. Such derivative instruments are not traded on an open market. Valuation techniques utilize the inputs described above in addition to liquidity and institutional credit risk inputs.

Derivatives designated as hedging

In addition to the currency forward contracts purchased to hedge transactional currency risks, we may enter into currency forward contracts to hedge cash flow risks associated with future purchases of raw materials. Our cash flow hedges are designed to protect against the variability in foreign currency rates between a foreign currency and the U.S. Dollar. As of December 31, 2013, there were no currency forward contracts outstanding being accounted for as cash flow hedges.

We are party to ten interest rate swap instruments, five of which are accounted for using hedge accounting. The interest rate swaps are used to manage risks generally associated with interest rate fluctuations. Each contract has been accounted for as a qualifying cash flow hedge in accordance with derivative instrument and hedging activities guidance, whereby changes in the fair market value are reflected as adjustments to the fair value of the derivative instruments as reflected in the accompanying consolidated financial statements. The counterparties to these agreements are financial institutions. The fair values of the contracts are estimated by obtaining quotations from the financial institutions. The fair value is an estimate of the net amount that we would pay or receive on December 31, 2013, if the agreements were transferred to other parties or cancelled by us.

During 2013, we entered into cross currency swaps accounted for as cash flow hedges. The cross currency swaps are used to manage risk associated with debt instruments denominated in a currency different from our functional currency. The contracts have been accounted for as qualifying cash flow hedges in accordance with derivative instruments and hedging activities guidance, whereby changes in the fair market value are reflected as adjustments to the fair value of the derivative instruments as reflected in the accompanying consolidated financial statements. The counterparty to these agreements are financial institutions. The fair value of the contracts are estimated by obtaining quotations from the financial institutions. The fair value is an estimate of the net amount that we would pay or receive on December 31, 2013, if the agreements were transferred to another party or cancelled by us.

Investments

Cost and Equity Method Investments

Cost method investments are initially recorded and subsequently carried at their historical cost and income is recorded to the extent there are dividends. We use the equity method of accounting for our equity investments where we hold more than 20 percent of the outstanding stock of the investee or where we have the ability to significantly influence the operations or financial decisions of the investee. We initially record the investment at cost and adjust the carrying amount each period to recognize our share of the earnings or losses of the investee based on our ownership percentage. We review our equity and cost method investments periodically for indicators of impairment.

ACCOUNTING STANDARDS UPDATES NOT YET EFFECTIVE

In February 2013, the FASB issued Accounting Standards Update No. 2013-04, *Liabilities (Topic 405): Obligations Resulting from Joint and Several Liability Arrangements for which the Total Amount of the Obligation Is Fixed at the Reporting Date*, which addresses the recognition, measurement, and disclosure of certain obligations resulting from joint and several liability arrangements including debt arrangements, other contractual obligations, and settled litigation and judicial rulings. We will adopt ASU 2013-04 in the first quarter of 2014 and do not expect that the adoption will have a material impact on our consolidated financial statements.

In March 2013, the FASB issued Accounting Standards Update No. 2013-05, *Foreign Currency Matters (Topic 830): Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity*, which addresses the accounting for the cumulative translation adjustment when a parent either sells a part or all of its investment in a foreign entity or no longer holds a controlling financial interest in a subsidiary or group of assets that is a nonprofit activity or a business within a foreign entity. We will adopt ASU 2013-05 in the first quarter of 2014 and do not expect that the adoption will have a material impact on our consolidated financial statements.

In July 2013, the FASB issued Accounting Standards Update No. 2013-11, *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*, which requires an entity to present an unrecognized tax benefit as a reduction of a deferred tax asset for a net operating loss (NOL) carryforward, or similar tax loss or tax credit carryforward, rather than as a liability when (1) the uncertain tax position would reduce the NOL or other carryforward under the tax law of the applicable jurisdiction and (2) the entity intends to use the deferred tax asset for that purpose. The ASU does not require new recurring disclosures. We will adopt ASU 2013-11 in the first quarter of 2014 and do not expect that the adoption will have a material impact on our consolidated financial statements.

MARKET RISK

Our market risk is mainly related to financial and capital markets risk.

The overall objective of our financial risk management program is to reduce the potential negative earnings effects from changes in foreign exchange and interest rates arising in our business activities. We manage these financial exposures through operational means and by using various financial instruments. These practices may change as economic conditions change.

To mitigate financial market risks of foreign currency exchange rates, we utilize currency forward contracts. We do not use derivative financial instruments for speculative or trading purposes. We generally hedge transactional currency risks with currency forward contracts. Gains and losses on these foreign currency exposures are generally offset by corresponding losses and gains on the related hedging instruments, resulting in negligible net exposure to us. A substantial majority of our revenue and capital spending is transacted in U.S. Dollars. However, we do enter into transactions in other currencies, primarily, the Euro, the Japanese Yen, the Canadian Dollar, the South African Rand and certain other Asian currencies. To protect against reductions in value and volatility of future cash flows caused by changes in foreign exchange rates, we have established transaction-based hedging programs. Our hedging programs reduce, but do not always eliminate, the impact of foreign currency exchange rate movements. In addition to the direct effects of changes in exchange rates, such changes typically affect the volume of sales or the foreign currency sales price as competitors' products become more or less attractive. Our Taiwan, Malaysia and Singapore based subsidiaries use the U.S. Dollar as their functional currencies for U.S. GAAP purposes and do not hedge New Taiwanese Dollar, Malaysian Ringgit or Singapore Dollar exposures.

The fair market value of our Notes is subject to interest rate risk, market price risk and other factors due to the convertible feature of the Notes. The fair market value will generally increase as interest rates fall and decrease as interest rates rise. In

addition, the fair market value of the Notes will generally increase as the market price of our common stock increases and decrease as the market price of our common stock falls. The interest and market value changes affect the fair market value of the Notes, but do not impact our financial position, cash flows or results of operations due to the fixed nature of the debt obligations, except to the extent increases in the value of our common stock may provide the holders of our Notes the right to convert to cash in certain instances. The aggregate estimated fair value of the Notes was \$837.5 million as of December 31, 2013 based on quoted market prices as reported by an independent pricing source. A 10% increase in quoted market prices would increase the estimated fair value of our Notes to \$921.3 million and a 10% decrease in the quoted market prices would decrease the estimated fair value of our Notes to \$753.8 million.

Our remaining long-term debt portfolio consists primarily of fixed-rate instruments, but we have variable debt instruments with a carrying amount of \$946.6 million as of December 31, 2013. Of this amount, \$247.8 million is hedged using interest rate swaps both economically and as cash flow hedges. If the relevant market rate for all of our variable pay-rate borrowings had been 100 basis points higher or lower than actual in 2013, our interest expense would have changed by \$7.0 million, partially offset by our interest rate hedges. The notional amounts and fair values of our interest rate cash flow hedges at December 31, 2013 were \$225.7 million and \$0.8 million liability, respectively. A similar hypothetical 100 basis points higher or lower rate than actual in 2013 would result in an estimated fair value change of approximately \$2.3 million. Because these interest rate swaps are accounted for as a cash flow hedge, the change in fair value would be included within other accumulated comprehensive income (loss) in the balance sheet. We also have interest rate swaps that are considered economic hedges. The change in fair value of the economic swaps would be included in non-operating expense in the statement of operations. The notional amounts and fair values of our economic interest rate swap hedges, including upward amortizing instruments, as of December 31, 2013 is \$308.9 million and \$0.8 million asset, respectively. A similar hypothetical 100 basis points higher or lower rate than actual in 2013 would result in an estimated fair value change of approximately \$3.1 million. We are also subject to interest rate risk related to our cash equivalents, pension plan assets and capital leases. In addition to interest rate risk on our cash equivalents and pension plan assets, we are subject to issuer credit risk because the value of our assets may change based on liquidity issues or adverse economic conditions affecting the creditworthiness of the issuers or group of issuers of the assets we may own. Our pension plan assets are invested primarily in marketable securities including common stocks, bonds and interest bearing deposits. See additional discussion in “Liquidity and Capital Resources” and “Critical Accounting Policies and Estimates.” Due to the diversity of and numerous securities in our portfolio, estimating a hypothetical change in value of our portfolio based on estimated changes in interest rates and issuer risk is not practical.

Our business model is highly sensitive to interest rate fluctuations and the availability of liquidity, and would be adversely affected by increases in interest rates or liquidity constraints. Our solar energy business requires access to additional capital to fund projected growth. During the construction phase of solar energy systems, we provide short-term working capital support to a project company or may obtain third party construction financing to fund engineering, procurement and installation costs. To the extent that our access to capital is limited or on unfavorable terms, our rate of growth of the Solar Energy segment may be limited by capital access. Additionally, many of our customers and potential customers depend on debt financing to purchase our solar energy systems. An increase in interest rates could make it difficult for our customers to secure the financing necessary to purchase our solar energy systems on favorable terms, or at all, and thus lower demand for our Solar Energy products, reduce revenue and adversely impact our operating results. An increase in interest rates could lower a customer’s return on investment in a system or make alternative investments more attractive relative to solar energy systems, which, in each case, could cause our customers to seek alternative investments that promise higher returns or demand higher returns from our solar energy systems, reduce gross margin and adversely impact our operating results.

UNAUDITED QUARTERLY FINANCIAL INFORMATION

2013	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Dollars in millions, except per share data				
Net sales	\$ 443.6	\$ 401.3	\$ 611.5	\$ 551.2
Gross profit	49.7	49.2	60.6	(14.2)
Net loss	(101.4)	(96.4)	(112.1)	(304.0)
Net loss (income) attributable to noncontrolling interests	12.0	(6.5)	4.1	17.6
Net loss attributable to SunEdison stockholders	(89.4)	(102.9)	(108.0)	(286.4)
Basic loss per share	(0.40)	(0.45)	(0.47)	(1.07)
Diluted loss per share	(0.40)	(0.45)	(0.47)	(1.07)
Market close stock prices:				
High	5.66	8.72000000	10.22000000	13.49000000
Low	3.44	4.08	6.46	8.35

In the first quarter of 2013, we recognized \$25.0 million of revenue related to an amendment of a long-term solar wafer supply contract with Tainergy. In the third quarter of 2013, we terminated our long-term solar wafer supply agreement with Gintech Energy Corporation and subsequently amended. As part of that amendment, we retained a deposit and recognized \$22.0 million of revenue.

In the fourth quarter of 2013, management concluded the start-up analysis of the Merano, Italy polysilicon facility and determined that, based on recent developments and current market conditions, restarting the facility was not aligned with our business strategy. Accordingly, we have decided to indefinitely close that facility and the related chlorosilanes facility obtained from Evonik. As a result, in the fourth quarter of 2013, we recorded approximately \$37.0 million of non-cash impairment charges to write down these assets to their current estimated salvage value.

Fourth quarter 2013 gross profit was negatively impacted by our decision to retain more projects on the balance sheet as well as a \$10.2 million impairment of intangible assets and \$6.4 million of lower of cost or market charges pertaining to solar related inventory. In the fourth quarter of 2013, we completed the redemption of the \$550 million outstanding aggregate principal amount of the 7.75% senior notes due 2019 and the \$200 million second lien term loan with an interest rate of 10.75%. As a result of these redemptions, we recognized a loss on early extinguishment of debt in the consolidated statement of operations of \$75.1 million.

2012	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Dollars in millions, except per share data				
Net sales	\$ 519.2	\$ 808.4	\$ 601.6	\$ 600.7
Gross profit	50.1	90.4	86.9	108.2
Net income (loss)	(99.5)	(75.9)	38.4	(11.7)
Net (income) loss attributable to noncontrolling interests	0.9	(1.3)	(1.4)	(0.1)
Net (loss) income attributable to SunEdison stockholders	(98.6)	(77.2)	37.0	(11.8)
Basic (loss) income per share	(0.43)	(0.33)	0.16	(0.05)
Diluted (loss) income per share	(0.43)	(0.33)	0.16	(0.05)
Market close stock prices:				
High	5.95	3.84	3.35	3.41
Low	3.50	1.44	1.68	2.15

During the third quarter 2012, we agreed to terminate a long-term solar wafer agreement with Conergy AG. We recognized \$37.1 million as revenue during the third quarter 2012 due to the fact that we were relieved of our future performance obligations under the agreement.

In the third quarter 2012, we executed two settlement agreements with Evonik Industries AG and Evonik Degussa SpA (Evonik) pertaining to disputes arising from our early termination of two take-or-pay supply agreements. One of the original

supply agreements also included a provision for the construction and operation of a chlorosilanes plant located on our existing Merano, Italy site for our benefit. Pursuant to the settlement reached, we paid Evonik a total of 70 million euro as well as forfeit a \$10.2 million deposit with Evonik. As a result of the settlement, a favorable adjustment to our 2011 Global Plan was made in the third quarter 2012 resulting in \$69.2 million of income classified within restructuring and impairment on the consolidated statement of operations. In the fourth quarter 2012, we obtained title to the chlorosilanes plant, which resulted in \$31.7 million of income in the consolidated statement of operations.

In connection with the preparation of our consolidated financial statements for the nine months ended September 30, 2012, management identified an error and revised the amounts previously presented for cost of goods sold due to a non-cash inventory adjustment which eliminated intercompany profit for the three months ended March 31, 2012 and the three and six month periods ended June 30, 2012. We have determined that the effects of these revisions were not material to previously issued financial statements for the three months ended March 31, 2012 and the three and six months ended June 30, 2012. However, the amounts reflected in the table above have been revised to reflect these adjustments. Specifically, cost of goods sold was increased by \$6.6 million for the three months ended March 31, 2012 and by \$16.0 million for the three months ended June 30, 2012. As a result, the net loss increased from \$92.0 million to \$98.6 million for the three months ended March 31, 2012 and the net loss increased from \$61.3 million to \$77.2 million and from \$153.3 million to \$175.8 million for the three and six months ended June 30, 2012, respectively.

Consolidated Statements of Operations

For the year ended December 31,

	2013	2012	2011
In millions, except per share data			
Net sales	\$ 2,007.6	\$ 2,529.9	\$ 2,715.5
Cost of goods sold	1,862.3	2,194.3	2,420.6
Gross profit	145.3	335.6	294.9
Operating expenses:			
Marketing and administration	361.6	302.2	348.8
Research and development	71.1	71.8	87.5
Goodwill impairment charges	—	—	440.5
Restructuring (reversals) charges	(10.8)	(83.5)	350.7
Gain on receipt of property, plant and equipment	—	(31.7)	—
Long-lived asset impairment charges	37.0	19.6	367.9
Operating income (loss)	(313.6)	57.2	(1,300.5)
Non-operating expenses (income):			
Interest expense	189.2	135.3	77.2
Interest income	(6.5)	(3.6)	(4.5)
Early extinguishment of debt	75.1	—	—
Other, net	20.4	7.0	10.9
Total non-operating expenses	278.2	138.7	83.6
Loss before income tax expense (benefit) and equity in earnings (loss) of joint ventures	(591.8)	(81.5)	(1,384.1)
Income tax expense	27.8	64.9	73.1
Loss before equity in earnings (loss) of joint ventures	(619.6)	(146.4)	(1,457.2)
Equity in earnings (loss) of joint ventures, net of tax	5.7	(2.3)	(62.8)
Net loss	(613.9)	(148.7)	(1,520.0)
Net loss (income) attributable to noncontrolling interests	27.2	(1.9)	(16.0)
Net loss attributable to SunEdison stockholders	\$ (586.7)	\$ (150.6)	\$ (1,536.0)
Basic loss per share (see Note 12)	\$ (2.46)	\$ (0.66)	\$ (6.68)
Diluted loss per share (see Note 12)	\$ (2.46)	\$ (0.66)	\$ (6.68)

See accompanying notes to consolidated financial statements.

Consolidated Statements of Comprehensive Loss

	For the year ended December 31,		
	2013	2012	2011
In millions			
Net loss	\$ (613.9)	\$ (148.7)	\$ (1,520.0)
Other comprehensive loss, net of tax:			
Net translation adjustments, net of \$6.6 tax benefit in 2013	(49.7)	(18.5)	(2.5)
Gain (loss) on available-for-sale securities	7.6	(2.8)	(24.9)
(Loss) gain on hedging instruments	(8.1)	(0.4)	7.1
Net actuarial gain (loss) and prior service credit, net of \$10.5 tax benefit and \$10.5 tax expense in 2012 and 2011, respectively	32.6	(11.9)	(16.0)
Other comprehensive loss, net of tax	(17.6)	(33.6)	(36.3)
Total comprehensive loss	(631.5)	(182.3)	(1,556.3)
Net loss (income) attributable to noncontrolling interests	27.2	(1.9)	(16.0)
Net translation adjustment attributable to noncontrolling interests	(2.6)	(2.3)	(1.7)
Comprehensive loss attributable to SunEdison stockholders	<u>\$ (606.9)</u>	<u>\$ (186.5)</u>	<u>\$ (1,574.0)</u>

See accompanying notes to consolidated financial statements.

Consolidated Balance Sheets

	As of December 31,	
	2013	2012
In millions, except share data		
Assets		
Current assets:		
Cash and cash equivalents	\$ 573.5	\$ 553.8
Cash committed for construction projects, including consolidated variable interest entities of \$143.6 and \$0 in 2013 and 2012, respectively	258.0	27.8
Restricted cash	70.1	63.4
Accounts receivable, net	351.5	220.4
Inventories	248.4	247.8
Solar energy systems held for development and sale	460.1	133.8
Prepaid and other current assets	423.4	212.4
Total current assets	2,385.0	1,459.4
Investments	41.1	49.6
Property, plant and equipment, net:		
Non-solar energy systems	1,108.7	1,213.1
Solar energy systems, including consolidated variable interest entities of \$157.5 and \$53.1 in 2013 and 2012, respectively	2,014.2	1,459.9
Restricted cash	73.8	50.2
Note hedge derivative asset	514.8	—
Other assets	542.9	513.1
Total assets	\$ 6,680.5	\$ 4,745.3

See accompanying notes to consolidated financial statements.

	As of December 31,	
	2013	2012
In millions, except share data		
Liabilities and Stockholders' Equity		
Current liabilities:		
Current portion of long-term debt and short term borrowings	\$ 2.8	\$ 3.4
Short-term solar energy system debt financings and capital leaseback obligations, including consolidated variable interest entities of \$5.8 and \$2.9 in 2013 and 2012, respectively	394.7	97.8
Accounts payable	867.7	477.0
Accrued liabilities	417.5	343.0
Contingent consideration payable related to acquisitions	15.2	23.1
Deferred revenue for solar energy systems	154.7	113.1
Customer and other deposits	36.7	77.2
Total current liabilities	1,889.3	1,134.6
Long-term debt, less current portion	875.8	758.7
Long-term solar energy system financings and capital leaseback obligations, less current portion, including consolidated variable interest entities of \$234.6 and \$69.2 in 2013 and 2012, respectively	2,302.9	1,508.4
Pension and post-employment liabilities	49.2	52.7
Customer and other deposits	103.3	184.5
Deferred revenue for solar energy systems	87.4	146.0
Non-solar energy system deferred revenue	2.6	29.2
Conversion option derivative liability	506.5	—
Warrant derivative liability	270.5	—
Other liabilities	251.8	253.8
Total liabilities	6,339.3	4,067.9
Redeemable noncontrolling interest	—	11.3
Stockholders' equity:		
Preferred stock, \$.01 par value, 50.0 shares authorized, none issued or outstanding in 2013 or 2012	—	—
Common stock, \$.01 par value, 300.0 shares authorized, 266.9 and 241.9 shares issued in 2013 and 2012, respectively	2.7	2.4
Additional paid-in capital	457.7	647.7
(Accumulated deficit) retained earnings	(168.0)	425.3
Accumulated other comprehensive loss	(60.0)	(39.8)
Treasury stock, less than 0.1 and 10.6 shares in 2013 and 2012, respectively	(0.2)	(460.3)
Total SunEdison stockholders' equity	232.2	575.3
Noncontrolling interests	109.0	90.8
Total stockholders' equity	341.2	666.1
Total liabilities and stockholders' equity	\$ 6,680.5	\$ 4,745.3

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows

For the year ended December 31,

	2013	2012	2011
In millions			
Cash flows from operating activities:			
Net loss	\$ (613.9)	\$ (148.7)	\$ (1,520.0)
Adjustments to reconcile net loss to net cash (used in) provided by operating activities:			
Depreciation and amortization	268.3	246.9	227.1
Loss on early extinguishment of debt	75.1	—	—
Goodwill impairment charges	—	—	440.5
Long-lived asset impairment charges	48.3	20.0	381.7
Investment impairments	3.8	3.6	78.9
Stock-based compensation	30.2	31.7	43.9
Deferred revenue recognized	(60.4)	(73.8)	(67.9)
Expense for deferred taxes	24.2	10.5	60.0
Loss on supplier contracts	—	—	77.9
Change in contingent consideration for acquisitions	5.6	13.3	(25.2)
Other	(3.1)	12.9	6.0
Changes in operating assets and liabilities:			
Accounts receivable	(103.9)	(19.6)	73.6
Inventories	(0.9)	94.8	(108.2)
Solar energy systems held for sale and development	(405.7)	(72.4)	(167.5)
Income taxes receivable and payable	4.2	8.7	(16.5)
Prepaid and other current assets	(232.4)	5.6	27.8
Accounts payable and accrued liabilities	300.8	(343.7)	226.2
Customer and other deposits	(50.9)	(33.9)	109.5
Deferred revenue for solar energy systems	23.4	121.5	123.4
Pension and post-employment liabilities	(2.1)	1.8	11.0
Other assets and liabilities	(17.4)	(142.7)	2.5
Net cash used in operating activities	(706.8)	(263.5)	(15.3)
Cash flows from investing activities:			
Capital expenditures	(133.1)	(139.0)	(452.5)
Construction of solar energy systems	(465.3)	(346.9)	(598.1)
Cash paid for acquisitions, net of cash acquired	(7.3)	—	(164.0)
Proceeds from sale and maturities of investments	15.1	—	—
Net proceeds from equity method investments	68.4	5.8	95.7
Purchases of cost and equity method investments	(67.0)	(47.8)	(50.4)
Receipts from (payments to) vendors for refundable deposits on long-term agreements and loans	1.1	8.6	(14.5)
Change in restricted cash, net	(37.2)	15.7	(123.8)
Change in cash committed for construction projects, net	(240.5)	(27.8)	—
Proceeds from sale of property plant and equipment	—	—	43.9
Other	4.9	0.1	0.8
Net cash used in investing activities	(860.9)	(531.3)	(1,262.9)
Cash flows from financing activities:			
Proceeds from long-term debt	1,200.0	196.0	550.0
Proceeds from solar energy system financing and capital lease obligations	1,305.9	904.2	1,071.2
Repayments of solar energy system financing and capital lease obligations	(147.7)	(246.2)	(266.5)
Net repayments of customer deposits related to long-term supply agreements	(75.7)	(24.4)	(57.7)

Principal payments on long-term debt	(752.3)	(3.6)	(3.7)
Payments on early extinguishment of debt	(52.4)	—	—
Payments for note hedge	(341.3)	—	—
Proceeds from warrant transactions	270.5	—	—
Cash paid for contingent consideration	(3.7)	(69.2)	(50.2)
Proceeds from (contributions to) noncontrolling interests	39.9	50.8	(49.0)
Common stock issued (repurchased)	239.6	(0.5)	(3.6)
Deferred financing fees	(87.4)	(42.3)	(39.8)
Other	(0.5)	—	—
Net cash provided by financing activities	<u>1,594.9</u>	<u>764.8</u>	<u>1,150.7</u>
Effect of exchange rate changes on cash and cash equivalents	<u>(7.5)</u>	<u>(2.0)</u>	<u>6.0</u>
Net increase (decrease) in cash and cash equivalents	19.7	(32.0)	(121.5)
Cash and cash equivalents at beginning of period	553.8	585.8	707.3
Cash and cash equivalents at end of period	<u>\$ 573.5</u>	<u>\$ 553.8</u>	<u>\$ 585.8</u>

Supplemental disclosures of cash flow information:

Interest payments (including debt issuance costs), net of amounts capitalized	\$ 255.2	\$ 170.9	\$ 155.9
Income taxes paid (refunded), net	39.9	40.9	13.7

Supplemental schedule of non-cash investing and financing activities:

Accounts payable incurred (relieved) for acquisition of fixed assets, including solar energy systems	\$ 123.9	\$ 49.7	\$ (68.0)
Net debt transferred to and assumed by buyer upon sale of solar energy systems	66.8	403.1	104.6
Conversion of note payable to equity	—	—	—
Acquisitions:			
Fair value of assets acquired	—	—	334.5
Goodwill	—	—	97.8
Liabilities assumed and noncontrolling interests	—	—	(158.0)
Loans prior to acquisition	—	—	(16.0)
Other non-cash consideration	—	—	(90.7)
Less: cash acquired	—	—	(3.6)
Cash paid, net of cash acquired	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 164.0</u>

See accompanying notes to consolidated financial statements.

Consolidated Statements of Stockholders' Equity

	Equity Attributable to Redeemable Noncontrolling Interests	Common Stock Issued		Additional Paid-in Capital	(Accumulated Deficit) Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Common Stock Held in Treasury		Total SunEdison Stockholders' Equity	Noncontrolling Interests	Total Stockholders' Equity
		Shares	Amount				Shares	Amount			
In millions											
Balance at December 31, 2010	\$ —	237.9	\$ 2.4	\$ 557.9	\$ 2,113.5	\$ 34.1	(10.0)	\$ (456.2)	\$ 2,251.7	\$ 43.9	\$ 2,295.6
Comprehensive (loss) income:	—	—	—	—	(1,536.0)	(38.0)	—	—	(1,574.0)	17.7	(1,556.3)
Stock plans, net	—	1.3	—	40.4	—	—	(0.5)	(3.6)	36.8	—	36.8
Stock issued for SunEdison contingent consideration	—	2.1	—	24.5	—	—	—	—	24.5	—	24.5
Acquired noncontrolling interests	—	—	—	—	—	—	—	—	—	39.7	39.7
Net repayments to noncontrolling interest	—	—	—	(1.1)	—	—	—	—	(1.1)	(54.3)	(55.4)
Balance at December 31, 2011	\$ —	241.3	\$ 2.4	\$ 621.7	\$ 577.5	\$ (3.9)	(10.5)	\$ (459.8)	\$ 737.9	\$ 47.0	\$ 784.9
Comprehensive (loss) income:	(0.3)	—	—	—	(150.6)	(35.9)	—	—	(186.5)	4.2	(182.3)
Stock plans, net	—	0.6	—	26.0	—	—	(0.1)	(0.5)	25.5	—	25.5
Fair value adjustment to redeemable noncontrolling interest	1.6	—	—	—	(1.6)	—	—	—	(1.6)	—	(1.6)
Net contributions from noncontrolling interests	10.0	—	—	—	—	—	—	—	—	39.6	39.6
Balance at December 31, 2012	\$ 11.3	241.9	\$ 2.4	\$ 647.7	\$ 425.3	\$ (39.8)	(10.6)	\$ (460.3)	\$ 575.3	\$ 90.8	\$ 666.1
Comprehensive loss:	(3.2)	—	—	—	(586.7)	(20.2)	—	—	(606.9)	(24.6)	(631.5)
Stock plans, net	—	1.3	—	32.0	—	—	(0.2)	(1.2)	30.8	—	30.8
Secondary offering	—	23.7	0.3	(222.0)	—	—	10.8	461.3	239.6	—	239.6
Acquired noncontrolling interests	—	—	—	—	—	—	—	—	—	17.2	17.2
Fair value adjustment to redeemable noncontrolling interest	6.8	—	—	—	(6.8)	—	—	—	(6.8)	—	(6.8)
Reclassification of redeemable noncontrolling interest to liability	(14.9)	—	—	—	—	—	—	—	—	—	—
Net contributions from noncontrolling interests	—	—	—	—	0.2	—	—	—	0.2	25.6	25.8
Balance at December 31, 2013	\$ —	266.9	\$ 2.7	\$ 457.7	\$ (168.0)	\$ (60.0)	—	\$ (0.2)	\$ 232.2	\$ 109.0	\$ 341.2

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

1. NATURE OF OPERATIONS

At the annual stockholders' meeting on May 30, 2013, stockholders approved a change in the name of the company from MEMC Electronic Materials, Inc. to SunEdison, Inc. As a result of the name change, effective June 3, 2013, the company's stock symbol on the New York Stock Exchange changed from "WFR" to "SUNE" to reflect the new corporate name.

We are a major developer and seller of photovoltaic energy solutions and a global leader in the development, manufacture and sale of silicon wafers to the semiconductor industry. We are one of the world's leading developers of solar energy projects and, we believe, one of the most geographically diverse. Our technology leadership in silicon and downstream solar are enabling the Company to expand our customer base and lower our costs throughout the silicon supply chain.

From January 1, 2010 until December 31, 2011, we were organized by end market, with three business segments: Solar Materials, Solar Energy and Semiconductor Materials. Solar Materials manufactured and sold silicon wafers for solar applications, primarily 156 millimeter. Solar Energy was comprised of the solar energy business unit which designed, developed, and constructed solar energy systems. Semiconductor Materials provides silicon wafers ranging from 100 millimeter (4 inch) to 300 millimeter (12 inch) as the base material for the production of semiconductor devices. During the fourth quarter of 2011, we initiated a large scale global restructuring plan across all of our reportable segments (see Note 3). As part of our restructuring plan, effective January 1, 2012, we consolidated our two solar business units' operations into one business unit, and since that date, we have been engaged in two reportable segments, Solar Energy and Semiconductor Materials. These consolidated financial statements and related notes to the consolidated financial statements, including prior year financial information, are presented based on two reporting segments for all periods presented.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Use of Estimates

In preparing our financial statements, we use estimates and assumptions that may affect reported amounts and disclosures. Estimates are used when accounting for investments, depreciation, amortization, leases, accrued liabilities including restructuring, warranties, employee benefits, derivatives, stock-based compensation, income taxes, solar energy system installation and related costs, percentage-of-completion on long-term construction contracts, the fair value of assets and liabilities recorded in connection with business combinations, and goodwill and asset recoverability, including allowances, among others. These estimates and assumptions are based on current facts, historical experience and various other factors that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and the recording of revenue, costs and expenses that are not readily apparent from other sources. To the extent there are material differences between the estimates and actual results, our future results of operations would be affected.

Reclassifications

Certain amounts in prior fiscal years have been reclassified to conform with the presentation adopted in the current fiscal year.

For the year ended December 31, 2013 and 2012, we have revised the presentation of cash and cash equivalents to separately disclose cash committed for construction projects. As a result, as of December 31, 2012, "Cash and cash equivalents" have been revised from \$572.6 million to \$553.8 million and short-term "Restricted cash" have been revised from \$72.4 million to \$63.4 million. We have determined the effects of these revisions were not material to previously issued financial statements for the year ended December 31, 2012.

In connection with the preparation of our consolidated financial statements for the year ended December 31, 2013, we have revised our previously reported balance sheet as of December 31, 2012 to report certain deferred tax balances totaling \$43.7 million, which had previously been reported as net deferred taxes. As a result, as of December 31, 2012, "Prepaid Expenses and Other Current Assets" have been revised from \$212.2 million to \$212.4 million, "Other Assets" have been revised from \$469.6 million to \$513.1 million, "Accrued Liabilities" have been revised from \$344.2 million to \$343.0 million and "Other Liabilities" have been revised from \$208.9 million to \$253.8 million. We have determined the effects of these revisions were not material to previously issued financial statements for the year ended December 31, 2012. The revision had no effect on previously reported statements of operations, comprehensive income (loss), stockholders' equity or cash flows. These revisions have been reflected in this Form 10-K to the extent applicable and will be reflected for all annual periods presented in our future filings.

Principles of Consolidation

Our consolidated financial statements include the accounts of SunEdison Inc. and our wholly and majority-owned subsidiaries as well as variable interest entities ("VIEs") for which we are the primary beneficiary. We record noncontrolling interests for non-wholly owned consolidated subsidiaries. As of December 31, 2013 and December 31, 2012 our total noncontrolling interest on the consolidated balance sheet was \$109.0 million and \$90.8 million, respectively. All significant intercompany balances and transactions among our consolidated subsidiaries have been eliminated. We have also eliminated our pro-rata share of sales, costs of goods sold and profits related to sales to equity method investees.

Variable Interest Entities

Our business involves the formation of special purpose vehicles (referred to as "project companies") to own the project assets and execute agreements for the construction and maintenance of the assets, as well as power purchase agreements or feed in tariff agreements with a buyer who will purchase the electricity generated from the solar energy system once it is operating. We may establish joint ventures with non-related parties to share in the risks and rewards associated with solar energy system development, which are facilitated through equity ownership of a project company. The project companies engage us to engineer, procure and construct the solar energy system and may separately contract with us to perform predefined operational and maintenance services post construction. We evaluate the terms of those contracts as well as the joint venture agreements to determine if the entity is a variable interest entity ("VIE"), as well as if we are the primary beneficiary.

VIEs are primarily entities that lack sufficient equity to finance their activities without additional financial support from other parties or whose equity holders, as a group, lack one or more of the following characteristics: (a) direct or indirect ability to make decisions; (b) obligation to absorb expected losses; or (c) right to receive expected residual returns. VIEs must be evaluated quantitatively and qualitatively to determine the primary beneficiary, which is the reporting entity that has (a) the power to direct activities of a VIE that most significantly impact the VIEs economic performance and (b) the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive benefits from the VIE that could potentially be significant to the VIE. The primary beneficiary is required to consolidate the VIE for financial reporting purposes. A VIE should have only one primary beneficiary, but may not have a primary beneficiary if no party meets the criteria described above.

To determine a VIE's primary beneficiary, an enterprise must perform a qualitative assessment to determine which party, if any, has the power to direct activities of the VIE and the obligation to absorb losses and/or receive its benefits. Therefore, an enterprise must identify the activities that most significantly impact the VIE's economic performance and determine whether it, or another party, has the power to direct those activities. When evaluating whether we are the primary beneficiary of a VIE, and must therefore consolidate the entity, we perform a qualitative analysis that considers the design of the VIE, the nature of our involvement and the variable interests held by other parties. If that evaluation is inconclusive as to which party absorbs a majority of the entity's expected losses or residual returns, a quantitative analysis is performed to determine the primary beneficiary.

For our consolidated VIEs, we have presented on our consolidated balance sheets, to the extent material, the assets of our consolidated VIEs that can only be used to settle specific obligations of the consolidated VIE, and the liabilities of our consolidated VIEs for which creditors do not have recourse to our general assets outside of the VIE.

We are the primary beneficiary of ten VIEs in solar energy projects that we consolidated as of December 31, 2013, four of which existed and were consolidated by the Company as of December 31, 2012. During the year ended December 31, 2013, one solar energy system project company and one other entity that were consolidated as of December 31, 2012 were deconsolidated.

Cash and Cash Equivalents

Cash equivalents include highly liquid commercial paper, time deposits and money market funds with original maturity periods of three months or less when purchased. As of December 31, 2013 and 2012 approximately \$327.6 million and \$410.7 million, respectively, of these cash and cash equivalents was held by our foreign subsidiaries, a portion of which may be subject to repatriation tax effects. We believe that any repatriation tax effects would have minimal impacts on future cash flows. Cash and cash equivalents consist of the following:

	As of December 31,	
	2013	2012
Dollars in millions		
Cash	\$ 461.9	\$ 495.7
Cash equivalents:		
Commercial paper	50.0	10.0
Money market funds	54.8	48.1
Time Deposits	6.8	—
	<u>\$ 573.5</u>	<u>\$ 553.8</u>

Cash Committed for Construction Projects

Cash committed for construction projects includes loan proceeds deposited into project company bank accounts in the normal course of business for general use only in the operations of the project company to build the solar energy systems. The loan proceeds cannot be used by other project companies or for general corporate purposes. In certain instances, withdrawal of such funds may only occur after certain milestones or expenditures during construction have been incurred and approved by the lender in accordance with the normal terms of the debt agreement. Approval for the disbursement of such funds are typically received based on support for the qualified expenditures related to the project and no default of the loan.

Restricted Cash

Restricted cash consists of cash on deposit in financial institutions that is restricted from use in operations. In certain transactions, we have agreed to issue a letter of credit or provide security deposits regarding the performance or removal of a solar energy system. Incentive application fees are deposited with local governmental jurisdictions which are held until the construction of the applicable solar energy system is completed. In addition, cash received during the lease term of a sale leaseback transaction may be subject to a security and disbursement agreement which generally establishes a reserve requirement for scheduled lease payments under our master lease agreements as discussed below under *Revenue Recognition, Solar Energy System Sales, Sale with a leaseback*, for each leaseback arrangement, as well as certain additional reserve requirements that may be temporarily required in an accrual account. All of the reserve requirements for scheduled lease payments for all projects under each master lease agreement must be satisfied before cash is disbursed under the master lease agreements.

Allowance for Doubtful Accounts

We establish an allowance for doubtful accounts to adjust our receivables to amounts considered to be ultimately collectible. Our allowance is based on a variety of factors, including the length of time receivables are past due, significant one-time events, the financial health of our customers and historical experience. The balance of our allowance for doubtful accounts was \$5.0 million and \$4.4 million as of December 31, 2013 and 2012, respectively. Our provision for bad debts was \$0.7 million, a \$0.3 million benefit due to the recovery of previously written off accounts and a \$1.4 million expense for the years ended December 31, 2013, 2012 and 2011, respectively. There were \$0.1 million, \$0.2 million and \$4.3 million of write-offs for bad debts for the years ended December 31, 2013, 2012, and 2011 respectively.

Inventories

Inventories consists of raw materials, labor and manufacturing overhead and are valued at the lower of cost or market. Fixed overheads are allocated to the costs of conversion based on the normal capacity of our production facilities. Unallocated overheads during periods of abnormally low production levels are recognized as cost of goods sold in the period in which they are incurred. Raw materials and supplies are generally stated at weighted-average cost and goods and work-in-process and finished goods inventories are stated at standard cost as adjusted for variances, which approximates weighted-average actual cost. The valuation of inventory requires us to estimate excess and slow moving inventory. The determination of the value of excess and slow moving inventory is based upon assumptions of future demand and market conditions. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required.

Inventories also includes raw materials (such as solar panels) and supplies used to construct future solar energy systems developed for sale to third parties, which have not been designated to a specific project as of the balance sheet date. When the inventory is designated for use to build a specific project, the inventory will be reclassified to either solar energy systems held for development and sale or to property, plant and equipment - construction in progress, which is determined based on our intended use of the system. The cost of raw materials for solar energy systems is based on the first-in, first-out (FIFO) method.

Solar Energy Systems Held for Development and Sale

Solar energy systems are classified as either held for development and sale or as property, plant and equipment based on our intended use of the system once constructed and provided that certain criteria to be classified as held for sale are met. The classification of the system affects the future accounting and presentation in the consolidated financial statements, including the consolidated statement of operations and statement of cash flows. Transactions related to the construction and sale of solar energy systems classified as held for development and sale are classified as operating activities in the consolidated statement of cash flows and within gross profit in the statement of operations when sold. Solar energy systems that are classified as property, plant and equipment generally relate to our sale leaseback transactions. The costs to construct solar energy systems classified as property, plant and equipment are classified in the investing activities of the consolidated statement of cash flows. The proceeds received for the sale and subsequent leaseback are classified as cash flows from financing activities within the consolidated statement of cash flows.

Solar energy systems held for development include solar energy system project related assets for projects that have commenced and are actively marketed and intended to be sold. Development costs include capitalizable costs for items such as permits, acquired land, deposits and work-in-process, among others. Work-in-process includes materials, labor and other capitalizable costs incurred to construct solar energy systems.

Solar energy systems held for sale are completed solar energy systems that have been interconnected. Solar energy systems held for sale are available for immediate sale in their present conditions subject only to terms that are usual and customary for sales of these types of assets. In addition, we are actively marketing the systems to potential third party buyers, and it is probable that the system will be sold within one year of its placed in service date. Solar energy systems held for sale also include systems under contract with a buyer that are accounted for using the deposit method, whereby cash proceeds received from the buyer are held as deposits until a sale can be recognized.

We do not depreciate our solar energy systems while classified as held for sale. Any energy or incentive revenues are recorded to other income, as such revenues are incidental to our intended use of the system (direct sale to a third party buyer). If facts and circumstances change such that it is no longer probable that the system will be sold within one year of the system's completion date, the system will be reclassified to property, plant and equipment, and we will record depreciation expense in the amount that would have otherwise been recorded during the period the system was classified as held for sale.

Investments

Cost and Equity Method Investments

Cost method investments are initially recorded and subsequently carried at their historical cost and income is recorded to the extent there are dividends. We use the equity method of accounting for our equity investments where we hold more than 20 percent of the outstanding stock of the investee or where we have the ability to significantly influence the operations or financial decisions of the investee. We initially record the investment at cost and adjust the carrying amount each period to recognize our share of the earnings or losses of the investee based on our ownership percentage. We review our equity and cost method investments periodically for indicators of impairment.

Available-for-Sale Investments

Investments designated as available-for-sale are reported at fair value with unrealized gains and losses, net of tax, recorded in accumulated other comprehensive (loss) income. Purchases and sales of available-for-sale investments are included in investing activities in the consolidated statement of cash flows.

Investments are evaluated at each period end date for impairment, including classification as temporary or other-than-temporary. Unrealized losses are recorded to other income and expense when a decline in fair value is determined to be other-than-temporary. We review several factors to determine whether a loss is other-than-temporary. These factors include but are not limited to: (i) the nature of the investment; (ii) the cause and duration of the impairment; (iii) the extent to which fair value is less than cost; (iv) the financial condition and near term prospects of the issuer; and (v) our ability to hold the security for a period of time sufficient to allow for any anticipated recovery in fair value. Realized gains and losses are accounted for on the specific identification method. We determine the fair value of our debt securities using quoted prices from active and inactive markets, traded prices for similar assets, or fair value measurements based on a pricing model. We also review our ability and intent to liquidate our investments within the next 12 month operating cycle to determine the appropriate short or long-term classification. Our ability to liquidate is determined based on a review of current and short-term credit and capital market conditions and the financial condition and near term prospects of the issuer.

Property, Plant and Equipment

We record property, plant and equipment at cost and depreciate it evenly over the assets' estimated useful lives as follows:

	Years
Software	3 - 10
Buildings and improvements	2 - 50
Machinery and equipment	1 - 30
Solar energy systems	23 - 30

Expenditures for repairs and maintenance are charged to expense as incurred. Additions and betterments are capitalized. The cost and related accumulated depreciation on property, plant and equipment sold or otherwise disposed of are removed from the capital accounts and any gain or loss is reported in current-year operations.

We often construct solar energy systems for which we do not have a fixed-price construction contract and, in certain instances, we may construct a system and retain ownership of the system or perform a sale-leaseback. For these projects, we earn revenues associated with the energy generated by the solar energy system, capitalize the cost of construction to solar energy system property, plant and equipment and depreciate the system over its estimated useful life. For solar energy systems under construction for which we intend to retain ownership and finance the system, we recognize all costs incurred as solar system construction in progress.

We may sell a solar energy system and simultaneously lease back the solar energy system. Property, plant and equipment accounted for as capital leases (primarily solar energy systems) are depreciated over the life of the lease. Solar energy systems that have not reached consummation of a sale under real estate accounting and have been leased back are recorded at the lower of the original cost to construct the system or its fair value and depreciated over the equipment's estimated useful life. For those sale leasebacks accounted for as capital leases, the gain, if any, on the sale leaseback transaction is deferred and recorded as a contra-asset that reduces the cost of the solar energy system, thereby reducing depreciation expense over the life of the asset. Generally, as a result of various tax attributes that accrue to the benefit of the lessor/tax owner, solar energy systems accounted for as capital leases are recorded at the net present value of the future minimum lease payments because this amount is lower than the cost and fair market value of the solar energy system at the lease inception date.

Leasehold improvements are depreciated over the shorter of the estimated useful life of the asset or the remaining lease term, including renewal periods considered reasonably assured of execution.

When we are entitled to incentive tax credits for property, plant and equipment, we reduce the asset carrying value by the amount of the credit, which reduces future depreciation.

Consolidated depreciation expense for the years ended December 31, 2013, 2012 and 2011 was \$206.2 million, \$200.6 million and \$217.7 million, respectively, and includes depreciation expense for capital leases of \$4.3 million, \$4.3 million and \$9.7 million for the years ended December 31, 2013, 2012 and 2011, respectively.

The cost of constructing facilities, equipment and solar energy systems includes interest costs incurred during the asset's construction period. Capitalized interest totaled \$22.3 million and \$19.9 million for the years ended December 31, 2013 and 2012, respectively.

Asset retirement obligations are recognized at fair value in the period in which they are incurred and the carrying amount of the related long-lived asset is correspondingly increased. Over time, the liability is accreted to its expected future value. The corresponding asset capitalized at inception is depreciated over the useful life of the asset. We operate under solar power services agreements with some customers that include a requirement for the removal of the solar energy systems at the end of the term of the agreement. In addition, we could have certain legal obligations for asset retirements related to disposing of materials in the event of closure, abandonment or sale of certain of our manufacturing facilities. We recognize a liability in the period in which we have determined the time frame that the asset will no longer operate and information is available to reasonably estimate the liability's fair value.

Impairment of Property, Plant and Equipment

We periodically assess the impairment of long-lived assets/asset groups when conditions indicate a possible loss. Reviews are performed to determine whether the carrying value of an asset is impaired, based on comparisons to undiscounted expected future cash flows or some other fair value measure. If this comparison indicates that there is impairment, the impaired asset is

written down to fair value, which is typically calculated using: (i) quoted market prices or (ii) discounted expected future cash flows utilizing an appropriate discount rate. Impairment is based on the excess of the carrying amount over the fair value of those assets. See Note 9 for additional discussion regarding the impairment charges on long-lived assets recorded during the year ended December 31, 2013, 2012 and 2011.

Goodwill and Intangible Assets

Goodwill is recorded as the difference, if any, between the aggregate consideration paid for an acquisition and the fair value of the net tangible and intangible assets acquired and liabilities assumed. Goodwill and intangible assets determined to have indefinite lives are not amortized, but rather are subject to an impairment test annually, on December 1, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Our indefinite-lived intangible assets include power plant development arrangements acquired in a business combination which relate to anticipated future economic benefits associated with our customer backlog relationships. These intangible assets are allocated to fixed assets upon completion of the construction of the related solar energy systems stemming from the existing backlog.

The goodwill impairment test involves a two-step approach. Under the first step, we determine the fair value of each reporting unit to which goodwill has been assigned. We compare the fair value of the reporting unit to its carrying value, including goodwill. If the estimated fair value exceeds the carrying value, no impairment loss is recognized. If the carrying value exceeds the fair value, goodwill is considered potentially impaired and the second step is completed in order to measure the impairment loss. Under the second step, if applicable, we calculate the implied fair value of goodwill by deducting the fair value of all tangible and intangible net assets, including any unrecognized intangible assets, of the reporting unit from the fair value of the reporting unit as determined in the first step.

We then compare the implied fair value of goodwill to the carrying value of goodwill. If the implied fair value of goodwill is less than the carrying value of goodwill, we recognize an impairment loss equal to the difference. See Note 9 for discussion on the goodwill impairment charges recorded during the year ended December 31, 2011. As of December 31, 2013, we had an immaterial amount of goodwill.

Intangible assets that have determinable estimated lives are amortized over those estimated lives. The straight-line method of amortization is used because it best reflects the pattern in which the economic benefits of the intangible asset are consumed or otherwise used up. The amounts and useful lives assigned to intangible assets acquired impact the amount and timing of future amortization. Reviews are performed to determine whether the carrying value of an asset is impaired, based on comparisons to undiscounted expected future cash flows or some other fair value measure. If this comparison indicates that there is impairment, the impaired asset is written down to fair value, which is typically calculated using discounted expected future cash flows utilizing an appropriate discount rate. Impairment is based on the excess of the carrying amount over the fair value of those assets. See Note 9 for additional discussion regarding the impairment charges on long-lived assets recorded during the year ended December 31, 2013, 2012 and 2011.

The estimated useful lives of our intangible assets subject to amortization are as follows:

	Years
Favorable energy credits	4 - 18
Customer sales backlog and relationships	1 - 6
Trade name	15
Developed technology	5

Operating Leases

We enter into lease agreements for a variety of business purposes, including office and manufacturing space, office and manufacturing equipment and computer equipment. A portion of these are noncancellable operating leases.

Capital Leases

We are party to master lease agreements that provide for the sale and simultaneous leaseback of certain solar energy systems constructed by us. For those transactions which do not fall under real estate accounting, we record a lease liability and the solar energy system is retained on our balance sheet. The excess of the cash proceeds of the sale leaseback over the costs to construct the solar energy system is retained by us and used to fund current operations and new solar energy projects. See further discussion in *Revenue Recognition* below.

Customer and Other Deposits

We have executed long-term solar wafer supply agreements, including amendments, with multiple customers which required the customers to provide security deposits. The terms of these deposits vary, but are generally required to be applied against a portion of current sales on credit or refunded to customers over the term of the applicable agreement. We also receive short-term deposits from customers, deposits from suppliers and, in 2013 and 2012, received deposits in connection with a supply and license agreement with one of our joint ventures. See Note 5.

Revenue Recognition

Solar Energy System Sales

Solar energy system sales involving real estate

We recognize revenue for solar energy system sales with the concurrent sale or the concurrent lease of the underlying land, whether explicit or implicit in the transaction, in accordance with ASC 360-20, *Real Estate Sales*. For these transactions, we evaluate the solar energy system to determine whether the equipment is integral equipment to the real estate; therefore, the entire transaction is in substance the sale of real estate and subject to revenue recognition under ASC 360-20. A solar energy system is determined to be integral equipment when the cost to remove the equipment from its existing location, ship and reinstall at a new site, including any diminution in fair value, exceeds ten percent of the fair value of the equipment at the time of original installation. For those transactions subject to ASC 360-20, we recognize revenue and profit using the full accrual method once the sale is consummated, the buyer's initial and continuing investments are adequate to demonstrate its commitment to pay, our receivable is not subject to any future subordination, and we have transferred the usual risk and rewards of ownership to the buyer. If these criteria are met and we execute a sales agreement prior to the delivery of the solar energy system and have an original construction period of three months or longer, we recognize revenue and profit under the percentage of completion method of accounting applicable to real estate sales when we can reasonably estimate progress towards completion. During 2013, 2012 and 2011 we recognized \$32.5 million, \$72.8 million and \$54.3 million, respectively, of revenue using the percentage of completion method for solar energy system sales involving real estate.

If the criteria for recognition under the full accrual method are met except that the buyer's initial and continuing investment is less than the level determined to be adequate, then we will recognize revenue using the installment method. Under the installment method, we record revenue up to our costs incurred and apportion each cash receipt from the buyer between cost recovered and profit in the same ratio as total cost and total profit bear to the sales value. During 2012 and 2011, we recognized revenue of \$22.7 million and \$28.5 million using the installment method. In 2013, we did not have sales that qualified for installment method treatment.

If we retain some continuing involvement with the solar energy system and do not transfer substantially all of the risks and rewards of ownership, profit shall be recognized by a method determined by the nature and extent of our continuing involvement, provided the other criteria for the full accrual method are met. In certain cases, we may provide our customers guarantees of system performance or uptime for a limited period of time and our exposure to loss is contractually limited based on the terms of the applicable agreement. In accordance with real estate sales accounting guidance, the profit recognized is reduced by our maximum exposure to loss (and not necessarily our most probable exposure), until such time that the exposure no longer exists.

Other forms of continuing involvement that do not transfer substantially all of the risks and rewards of ownership preclude revenue recognition under real estate accounting and require us to account for any cash payments using either the deposit or financing method. Such forms of continuing involvement may include contract default or breach remedies that provide us with the option or obligation to repurchase the solar energy system. Under the deposit method, cash payments received from customers are reported as deferred revenue for solar energy systems on the consolidated balance sheet, and under the financing method, cash payments received from customers are considered debt and reported as solar energy financing and capital lease obligations on the consolidated balance sheet.

Solar energy system sales not involving real estate

We recognize revenue for solar energy system sales without the concurrent sale or the concurrent lease of the underlying land at the time a sales arrangement with a third party is executed, delivery has occurred and we have determined that the sales price is fixed or determinable and collectible. For transactions that involve a construction period of three months or longer, we recognize the revenue in accordance with ASC 605-35, *Construction-Type and Production-Type Contracts*, using the percentage of completion method, measured by actual costs incurred for work completed to total estimated costs at completion for each transaction. Contract costs include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, tools, repairs and travel costs. Marketing and administration costs are charged to

expense as incurred. Provisions for estimated losses on uncompleted contracts are recognized in full during the period in which such losses are determined. Changes in job performance, job conditions and estimated profitability, including those arising from contract penalty provisions and final contract settlements, may result in revisions to costs and revenue and are recognized in the period in which the revisions are determined. During the years ended December 31, 2013 and December 31, 2012, we recorded \$53.5 million and \$25.0 million, respectively, of revenue under the percentage of completion method for solar energy systems not involving real estate. There were no such amounts recognized in 2011.

Solar energy system sales with service contracts

We frequently negotiate and execute solar energy system sales contracts and post-system-sale service contracts contemporaneously, which we combine and evaluate together as a single arrangement with multiple deliverables. The total arrangement consideration is first separated and allocated to post-system-sale separately priced extended warranty and maintenance service contracts, and the revenue associated with that deliverable is recognized on a straight-line basis over the contract term. The remaining consideration is allocated to each unit of accounting based on the respective relative selling prices, and revenue is recognized for each unit of accounting when the revenue recognition criteria have been met.

Sale with a leaseback

We are a party to master lease agreements that provide for the sale and simultaneous leaseback of certain solar energy systems constructed by us. We must determine the appropriate classification of the sale leaseback on a project-by-project basis because the terms of the solar energy systems lease schedule may differ from the terms applicable to other solar energy systems. In addition, we must determine if the solar energy system is considered integral equipment to the real estate upon which it resides. We do not recognize revenue on the sales transactions for any sales with a leaseback. Instead, revenue is recognized through the sale of electricity and energy credits which are generated as energy is produced. The terms of the lease and whether the system is considered integral to the real estate upon which it resides may result in either one of the following sale leaseback classifications:

Financing arrangements

The financing method is applicable when we have determined that the assets under the lease are real estate. This occurs due to either a transfer of land or the transfer of a lease involving real estate and the leased equipment is integral equipment to the real estate. A sale leaseback is classified as a financing sale leaseback if we have concluded the leased assets are real estate and we have a prohibited form of continuing involvement, such as an option or obligation to repurchase the assets under our master lease agreements.

Under a financing sale leaseback, we do not recognize any upfront profit because a sale is not recognized. The full amount of the financing proceeds is recorded as solar energy financing debt, which is typically secured by the solar energy system asset and its future cash flows from energy sales, but generally has no recourse to us under the terms of the arrangement.

We use our incremental borrowing rate to determine the principal and interest component of each lease payment. However, to the extent that our incremental borrowing rate will result in either negative amortization of the financing obligation or a built-in loss at the end of the lease (e.g. net book value of the system asset exceeds the financing obligation), the rate is adjusted to eliminate such results. The interest rate is adjusted accordingly for the majority of our financing leasebacks because our future minimum lease payments do not typically exceed the initial proceeds received from the buyer-lessor. As a result, most of our lease payments are reported as interest expense, the principal of the financing debt does not amortize, and we expect to recognize a gain upon the final lease payment at the end of the lease term equal to the unamortized balance of the financing debt less the write-off of the system assets net book value.

Operations and maintenance

Operations and maintenance revenue is billed and recognized as services are performed. Costs of these revenues are expensed in the period they are incurred.

Solar energy service revenues, energy credits and incentives

For owned or capitalized solar energy systems in the U.S., we may receive incentives or subsidies from various state governmental jurisdictions in the form of renewable energy credits ("RECs"), which we sell to third parties. We may also receive performance-based incentives ("PBIs") from public utilities. The Solar Energy segment recorded total PBI revenue of \$22.3 million, \$31.4 million and \$24.3 million for the years ended December 31, 2013, 2012 and 2011, respectively, and total REC revenue of \$14.0 million, \$17.3 million and \$15.1 million for the years ended December 31, 2013, 2012 and 2011, respectively. Both the RECs and PBIs are based on the actual level of output generated from the system. RECs are generated as

our solar energy systems generate electricity. Typically, we enter into five to ten year binding contractual arrangements with utility companies or other investors who purchase RECs at fixed rates. REC revenue is recognized at the time we have transferred a REC pursuant to an executed contract relating to the sale of the RECs to a third party. For PBIs, production from our operated systems is verified by an independent third party and, once verified, revenue is recognized based on the terms of the contract and the fulfillment of all revenue recognition criteria. There are no penalties in the event electricity is not produced for PBIs. However, if production does not occur on the systems for which we have sale contracts for our RECs, we may have to purchase RECs on the spot market or pay specified contractual damages. Historically, we have not had to purchase material amounts of RECs to fulfill our REC sales contracts.

Recording of a sale of RECs and receipt of PBIs under U.S. GAAP are accounted for under ASC 605, *Revenue Recognition*. There are no differences in the process and related revenue recognition between REC sales to utilities and non-utility customers. Revenue is recorded when all revenue recognition criteria are met, including: there is persuasive evidence an arrangement exists (typically through a contract), services have been rendered through the production of electricity, pricing is fixed and determinable under the contract and collectability is reasonably assured. For RECs, the revenue recognition criteria are met when the energy is produced and a REC is generated and transferred to a third party pursuant to a contract with that party fixing the price for the REC. For PBIs, revenue is recognized upon validation of the kilowatt hours produced from a third party metering company because the quantities to be billed to the utility are determined and agreed to at that time.

Wafer and Other Product Sales

Revenue is recognized for wafer and other product sales when title transfers, the risks and rewards of ownership have been transferred to the customer, the fee is fixed or determinable and collection of the related receivable is reasonably assured, which is generally at the time of shipment for non-consignment orders. In the case of consignment orders, title passes when the customer pulls the product from the assigned storage facility or storage area or, if the customer does not pull the product within a contractually stated period of time (generally 60–90 days), at the end of that period, or when the customer otherwise agrees to take title to the product. Our wafers are generally made to customer specifications, and we conduct rigorous quality control and testing procedures to ensure that the finished wafers meet the customer's specifications before the product is shipped. We consider international shipping term definitions in our determination of when title passes. We defer revenue for multiple element arrangements based on an average fair value per unit for the total arrangement when we receive cash in excess of fair value. We also defer revenue when pricing is not fixed or determinable or other revenue recognition criteria is not met.

In connection with certain of our long-term solar wafer supply agreements, we have received various equity instruments and other forms of additional consideration. In each case, we have recorded the estimated fair value of the additional consideration to long-term deferred revenue and will recognize the deferred revenue on a pro-rata basis as product is shipped over the life of the agreements.

Valuation of Convertible Debt

On December 20, 2013, we completed the offering of \$600.0 million aggregate principal amount of 2.00% convertible senior notes due 2018 (the "2018 Notes") and \$600.0 million aggregate principal amount of 2.75% convertible senior notes due 2021 (the "2021 Notes" and, together with the 2018 notes, the "Notes"). These convertible debt instruments require recognition of both a debt obligation and conversion option derivative liability in the Consolidated Financial Statements. The debt component is required to be recognized at the fair value of a similar debt instrument that does not have an associated derivative component. The conversion option derivative liability is recorded at fair value as described in more detail above under "Derivative Financial Instruments and Hedged Activities." The accounting guidance also requires an accretion of the resulting debt discount as interest expense using the effective interest rate method over the expected life of the convertible debt.

Derivative Financial Instruments and Hedging Activities

All derivative instruments are recorded on the consolidated balance sheet at fair value. Derivatives not designated as hedge accounting and used to hedge foreign-currency-denominated balance sheet items are reported directly in earnings along with offsetting transaction gains and losses on the items being hedged. Derivatives used to hedge foreign-currency denominated cash flows and floating rate debt may be accounted for as cash flow hedges, as deemed appropriate. Gains and losses on derivatives designated as cash flow hedges are recorded in other comprehensive (loss) income and reclassified to earnings in a manner that matches the timing of the earnings impact of the hedged transactions. The ineffective portion of all hedges, if any, is recognized currently in earnings. Derivatives used to manage the foreign currency exchange risk associated with a net investment denominated in another currency are accounted for as a net investment hedge. The effective portion of the hedge will be recorded in the same manner as foreign currency translation adjustment in other comprehensive (loss) income. When the investment is dissolved and we recognize a gain or loss in other income (expense), the associated hedge gain or loss in other comprehensive (loss) income will be reclassified to other income (expense).

Derivatives not designated as hedging

We generally use currency forward contracts to manage foreign currency exchange risk relating to current trade receivables and payables with our foreign subsidiaries and current trade receivables and payables with our customers and vendors denominated in foreign currencies (primarily Japanese Yen and Euro). The purpose of our foreign currency forward contract activities is to protect us from the risk that the dollar net cash flows resulting from foreign currency transactions will be negatively affected by changes in exchange rates. We do not hold or issue financial instruments for speculative or trading purposes. Gains or losses on our forward contracts, as well as the offsetting losses or gains on the related hedged receivables and payables, are included in non-operating expense (income) in the consolidated statement of operations. Net currency losses on unhedged foreign currency positions totaled \$8.6 million, \$17.8 million and \$4.7 million in 2013, 2012 and 2011, respectively.

Additionally, the embedded conversion options within senior convertible notes are derivative instruments that are required to be separated from the Notes. Changes in fair value of these conversion options are reported in the Consolidated Statements of Operations until such transactions settle or expire. The embedded conversion option derivative instruments are measured at fair value utilizing Level 2 inputs consisting of the exercise price of the instruments, the price and volatility of our common stock, the risk free interest rate and the contractual term. Such derivative instruments are not traded on an open market as the banks are the counterparties to the instruments.

In connection with the senior convertible notes offering, we also entered into privately negotiated convertible note hedge transactions (collectively, the "Note Hedge") and warrant transactions (collectively, the "Warrants" and together with the Note Hedge, the "Call Spread Overlay"), with certain of the initial purchasers of the Notes or their affiliates. Assuming full performance by the counterparties, the Call Spread Overlay is meant to effectively reduce our potential payout over the principal amount on the Notes upon conversion of the Notes. The Note Hedge and Warrants, which are indexed to our common stock, are derivative instruments that require mark-to-market accounting treatment, with changes recorded to other income and expense in the Statement of Operations, due to their cash settlement features until such transactions settle or expire. The Note Hedge and Warrants are measured at fair value utilizing Level 2 inputs consisting of the exercise price of the instruments, the price and volatility of our common stock, the risk free interest rate and the contractual term. Such derivative instruments are not traded on an open market. Valuation techniques utilize the inputs described above in addition to liquidity and institutional credit risk inputs.

Derivatives designated as hedging

In addition to the currency forward contracts purchased to hedge transactional currency risks, we may enter into currency forward contracts to hedge cash flow risks associated with future purchases of raw materials. Our cash flow hedges are designed to protect against the variability in foreign currency rates between a foreign currency and the U.S. Dollar. As of December 31, 2013, there were no currency forward contracts outstanding being accounted for as cash flow hedges.

We are party to ten interest rate swap instruments, five of which are accounted for using hedge accounting. The interest rate swaps are used to manage risks generally associated with interest rate fluctuations. Each contract has been accounted for as a qualifying cash flow hedge in accordance with derivative instrument and hedging activities guidance, whereby changes in the fair market value are reflected as adjustments to the fair value of the derivative instruments as reflected in the accompanying consolidated financial statements. The counterparties to these agreements are financial institutions. The fair values of the contracts are estimated by obtaining quotations from the financial institutions. The fair value is an estimate of the net amount that we would pay or receive on December 31, 2013, if the agreements were transferred to other parties or cancelled by us.

During 2013, we entered into cross currency swaps accounted for as cash flow hedges. The cross currency swaps are used to manage risk associated with debt instruments denominated in a currency different from our functional currency. The contracts have been accounted for as qualifying cash flow hedges in accordance with derivative instruments and hedging activities guidance, whereby changes in the fair market value are reflected as adjustments to the fair value of the derivative instruments as reflected in the accompanying consolidated financial statements. The counterparty to these agreements are financial institutions. The fair value of the contracts are estimated by obtaining quotations from the financial institutions. The fair value is an estimate of the net amount that we would pay or receive on December 31, 2013, if the agreements were transferred to another party or cancelled by us.

During 2010, we entered into a Euro currency forward contract related to an equity method investment that was accounted for as an economic hedge. The effective portion of the hedge was recorded in the same manner as foreign currency translation adjustment in other comprehensive (loss) income. During 2011, we recognized a gain of \$17.3 million on this hedge and at the same time recognized a foreign currency loss on our investment of \$14.3 million. Both amounts were recorded in other, net in our consolidated statement of operations, as the remaining investment and related forward contracts were liquidated in the fourth quarter of 2011. See Note 4 for further discussion.

Translation of Foreign Currencies

We determine the functional currency of each subsidiary based on a number of factors, including the predominant currency for the subsidiary's sales and expenditures and the subsidiary's borrowings. When a subsidiary's local currency is considered its functional currency, we translate its financial statements to U.S. Dollars as follows:

- Assets and liabilities using exchange rates in effect at the balance sheet date; and
- Statement of operations accounts at average exchange rates for the period.

Adjustments from the translation process are presented in accumulated other comprehensive (loss) income in stockholders' equity.

Income Taxes

Deferred income taxes arise because of a different tax basis of assets or liabilities between financial statement accounting and tax accounting, which are known as temporary differences. We record the tax effect of these temporary differences as deferred tax assets (generally items that can be used as a tax deduction or credit in future periods) and deferred tax liabilities (generally items for which we receive a tax deduction, but have not yet been recorded in the consolidated statement of operations). We regularly review our deferred tax assets for realizability, taking into consideration all available evidence, both positive and negative, including historical pre-tax and taxable income (losses), projected future pre-tax and taxable income (losses) and the expected timing of the reversals of existing temporary differences. In arriving at these judgments, the weight given to the potential effect of all positive and negative evidence is commensurate with the extent to which it can be objectively verified. Reportable U.S. GAAP income from our financing sale-leaseback transactions in the U.S. is deferred until the end of the lease term, generally 20-25 years, through the extinguishment of the debt. However, sale-leaseback transactions generate current U.S. taxable income at the time of the sale, with the timing differences increasing deferred tax assets. As a result of the continued decline in solar market conditions, the restructuring charges announced in December 2011, and cumulative losses in the U.S. and certain foreign jurisdictions, we recorded a material non-cash valuation allowance against the deferred tax assets at December 31, 2011. See Note 14 for further discussion.

We believe our tax positions are in compliance with applicable tax laws and regulations. Tax benefits are recognized only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50 percent likely to be realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in our tax returns that do not meet these recognition and measurement standards. Uncertain tax benefits, including accrued interest and penalties, are included as a component of other long-term liabilities because we do not anticipate that settlement of the liabilities will require payment of cash within the next twelve months. The accrual of interest begins in the first reporting period that interest would begin to accrue under the applicable tax law. Penalties, when applicable, are accrued in the financial reporting period in which the uncertain tax position is taken on a tax return. We recognize interest and penalties related to uncertain tax positions in income tax expense, which is consistent with our historical policy. We believe that our income tax accrued liabilities, including related interest, are adequate in relation to the potential for additional tax assessments. There is a risk, however, that the amounts ultimately paid upon resolution of audits 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 (loss) income and cash flows. We review our accrued liabilities quarterly, and we may adjust such liabilities due to proposed assessments by tax authorities, changes in facts and circumstances, issuance of new regulations or new case law, negotiations between tax authorities of different countries concerning our transfer prices between our subsidiaries, the resolution of entire audits, or the expiration of statutes of limitations. Adjustments are most likely to occur in the year during which major audits are closed.

During the current year, we have repatriated the earnings of certain wholly owned subsidiaries to the United States. We do not provide for U.S. income taxes on the remaining undistributed earnings of our foreign subsidiaries which would be payable if the undistributed earnings were distributed to the U.S., as we consider those foreign earnings to be permanently reinvested outside the U.S. We plan foreign remittance amounts based on projected cash flow needs as well as the working capital and long-term investment requirements of our foreign subsidiaries and our domestic operations.

We have made our best estimates of certain income tax amounts included in the financial statements. Application of our accounting policies and estimates, however, involves the exercise of judgment and use of assumptions as to future uncertainties and, as a result, actual results could differ from these estimates. In arriving at our estimates, factors we consider include how accurate the estimate or assumptions have been in the past, how much the estimate or assumptions have changed and how reasonably likely such change may have a material impact.

Stock-Based Compensation

Stock-based compensation expense for all share-based payment awards is based on the estimated grant-date fair value. We recognize these compensation costs net of an estimated forfeiture rate for only those shares expected to vest on a straight-line basis over the requisite service period of the award, which is generally the option vesting term. For ratable awards, we recognize compensation costs for all grants on a straight-line basis over the requisite service period of the entire award. We estimate the forfeiture rate taking into consideration our historical experience during the preceding four fiscal years.

We routinely examine our assumptions used in estimating the fair value of employee options granted. As part of this assessment, we have determined that our historical stock price volatility and historical pattern of option exercises are appropriate indicators of expected volatility and expected term. The interest rate is determined based on the implied yield currently available on U.S. Treasury zero-coupon issues with a remaining term equal to the expected term of the award. We estimate the fair value of options using the Black-Scholes option-pricing model for our ratable and cliff vesting options. For our market condition awards, the grant date fair value was calculated for these awards using a probabilistic approach under a Monte Carlo simulation taking into consideration volatility, interest rates and expected term.

Contingencies

We are involved in conditions, situations or circumstances in the ordinary course of business with possible gain or loss contingencies that will ultimately be resolved when one or more future events occur or fail to occur. If some amount within a range of loss appears at the time to be a better estimate than any other amount within the range, that amount will be accrued. When no amount within the range is a better estimate than any other amount, however, the minimum amount in the range will be accrued. We continually evaluate uncertainties associated with loss contingencies and record a charge equal to at least the minimum estimated liability for a loss contingency when both of the following conditions are met: (i) information available prior to issuance of the financial statements indicates that it is probable that an asset had been impaired or a liability had been incurred at the date of the financial statements and (ii) the loss or range of loss can be reasonably estimated. Legal costs are expensed when incurred. Gain contingencies are not recorded until realized or realizable.

Shipping and Handling

Costs to ship products to customers are included in marketing and administration expense in the consolidated statement of operations. Amounts billed to customers, if any, to cover shipping and handling are included in net sales. Cost to ship products to customers were \$20.8 million, \$24.6 million and \$22.0 million for the years ended December 31, 2013, 2012 and 2011, respectively.

Fair Value Measurements

Fair value accounting guidance establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability, and are based on market data obtained from sources independent of us. Unobservable inputs reflect assumptions market participants would use in pricing the asset or liability based on the best information available in the circumstances. The hierarchy is broken down into three levels based on the reliability of inputs as follows:

- Level 1—Valuations based on quoted prices in active markets for identical assets or liabilities that we have the ability to access. Valuation adjustments and block discounts are not applied to Level 1 instruments. Because valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these instruments does not entail a significant degree of judgment.
- Level 2—Valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly. Valuations for Level 2 are prepared on an individual instrument basis using data obtained from recent transactions for identical securities in inactive markets or pricing data from similar instruments in active and inactive markets.
- Level 3—Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

We maintain various financial instruments recorded at cost in the December 31, 2013 and 2012 balance sheets that are not required to be recorded at fair value. For these instruments, we used the following methods and assumptions to estimate the fair value:

- Cash equivalents, restricted cash, accounts receivable and payable, customer deposits, income taxes receivable and payable, short-term borrowings, and accrued liabilities—cost approximates fair value because of the short maturity period; and
- Long-term debt—fair value is based on the amount of future cash flows associated with each debt instrument discounted at our current estimated borrowing rate for similar debt instruments of comparable terms.

Redeemable Noncontrolling Interest

Redeemable noncontrolling interests are equity interests in common stock of consolidated subsidiaries that have redemption features that are not solely within our control. These interests are classified as temporary equity because their redemption is considered probable. These interests are measured at the greater of estimated redemption value at the end of each reporting period or the initial carrying amount of the redeemable noncontrolling interests adjusted for cumulative earnings allocations. Adjustments to report redeemable noncontrolling interests at estimated redemption value are determined after the attribution of net income or loss of the subsidiary and are recorded to retained earnings, or in the absence of retained earnings, additional paid-in-capital.

Accounting Standards Updates

In February 2013, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update 2013-02 ("ASU 2013-02"), *Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income (AOCI)*, to provide guidance about AOCI disclosure requirements. ASU 2013-02 does not change the current requirements for reporting net income or other comprehensive income in financial statements; however, it does require an entity to provide information about the amounts reclassified out of AOCI by component. In addition, an entity is required to present, either on the face of the statement where net income is presented or in the notes, significant amounts reclassified out of AOCI by the respective line items of net income only if the amount reclassified is required under U.S. GAAP to be reclassified to net income in its entirety in the same reporting period. This standard was adopted on January 1, 2013. See Note 13 for further information.

In February 2012, the FASB issued Accounting Standards Update No. 2012-2, *Intangibles Goodwill and Other (Topic 350): Testing Indefinite-Lived Intangible Assets for Impairment*, which amends ASU 2012-2 and states that companies can use a qualitative approach to measuring indefinite-lived intangible assets and Goodwill rather than a quantitative approach. In addition, it is not required for an entity to disclose the quantitative information about significant unobservable inputs used in fair value measurements categorized within level 3 of the fair value hierarchy required by ASC 820-10-50-2 that relate to the financial accounting and reporting for an indefinite-lived intangible asset after its initial recognition. This standard was adopted on January 1, 2013, and did not have a material impact on our consolidated financial statements.

In June 2011, the FASB issued Accounting Standards Update 2011-05 ("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. 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. This standard was adopted on January 1, 2012.

In October 2009, the FASB issued ASU 2009-13, which updates the current guidance pertaining to multiple-element revenue arrangements included in ASC 605-25, *Multiple-Element-Arrangements*. The Company adopted this guidance on January 1, 2011.

3. RESTRUCTURING, IMPAIRMENT AND OTHER CHARGES

2011 Global Plan

During the second half of 2011, the semiconductor and solar industries experienced downturns, of which the downturn in solar was more severe. In December 2011, in order to better align our business to then current and expected market conditions in the semiconductor and solar markets, as well as to improve our overall cost competitiveness and cash flows across all segments, we committed to a series of actions to reduce our global workforce, right size production capacity and accelerate operating cost reductions in 2012 and beyond (the "2011 Global Plan"). These actions included:

- Reducing total workforce by approximately 1,400 persons worldwide, representing approximately 20% of the company's employees;
- Shutting the company's Merano, Italy polysilicon facility as of December 31, 2011;
- Reducing production capacity at the company's Portland, Oregon crystal facility and slowing the ramp of the Kuching, Malaysia wafering facility; and
- Consolidating our solar wafering and solar energy system operations into a single Solar Energy business unit, effective January 1, 2012.

In addition, based on the market capitalization of the company compared to book value and the adverse market conditions, we incurred charges associated with restructuring, impairment of long-lived assets, impairments of goodwill and certain investments, and write-downs of inventory and the realizability of deferred tax assets. The following is a summary of the charges recorded during the year ended December 31, 2011:

In millions	Segment			Total	Statement of Operations Classification
	Semiconductor Materials	Solar Energy	Corporate		
Restructuring	\$ 35.6	\$ 303.0	\$ 0.9	\$ 339.5	Restructuring charges
Long-lived asset impairment (see Note 8)	7.4	358.0	—	365.4	Long-lived asset impairment charges
Goodwill impairment (see Note 9)	—	384.1	—	384.1	Goodwill impairment charges
Investment and joint venture impairments (see Note 5)	—	78.9	—	78.9	Other, net and equity in loss of joint ventures
Inventory adjustments and other (see Note 6)	14.2	82.5	—	96.7	Cost of goods sold

During 2011, restructuring charges consisted of \$62.1 million of severance and other one-time benefits for employees terminated under the 2011 Global Plan, \$226.4 million of estimated liabilities accrued as a result of us canceling or not being able to fulfill the entire purchase obligation for certain supplier contracts and \$51.0 million of other related charges. Total cash payments made under the 2011 Global Plan during the year ended December 31, 2011 were \$1.8 million. See tables below for cash payments made during the years ended December 31, 2013 and 2012. For additional discussion on the charges associated with the impairment of long-lived assets, impairments of goodwill and certain investments, and write-downs of inventory and the realizability of deferred tax assets, see the respective footnotes noted in the above table.

In addition, during June 2011, we committed to actions to reduce overall manufacturing costs across our global sites, as well as to realign certain general and administrative expenses due to industry and customer specific developments. These actions included relocation of certain operations and reductions in headcount. During the year ended December 31, 2011, we recorded restructuring charges of \$6.8 million for severance and other related employee benefits associated with these actions. Cash payments of \$9.9 million were made during 2011 that were also related to these actions.

Details of the 2012 expenses, cash payments and expected costs incurred related to the 2011 Global Plan are set out in the following table:

In millions	Accrued January 1, 2012	Year-to-date Restructuring Charges (Reversals)	Cash Payments	Currency	Accrued December 31, 2012	As of December 31, 2012	
						Cumulative Costs Incurred	Total Costs Expected to be Incurred
2011 Global Plan							
Severance and employee benefits	\$ 60.2	\$ —	\$ (27.8)	\$ (0.7)	\$ 31.7	\$ 63.2	\$ 63.2
Contract termination	260.0	(93.4)	(34.3)	2.2	134.5	164.6	164.6
Other	51.1	(2.1)	(11.9)	1.2	38.3	49.7	49.7
Total	\$ 371.3	\$ (95.5)	\$ (74.0)	\$ 2.7	\$ 204.5	\$ 277.5	\$ 277.5

On September 4, 2012, we executed two settlement agreements with Evonik Industries AG and Evonik Degussa SpA ("Evonik"), one of our suppliers, to settle disputes arising from our early termination of two take-or-pay supply agreements in connection with the 2011 Global Plan. One of the original supply agreements also included a provision for the construction and operation of a chlorosilanes plant located on our existing Merano, Italy site for our benefit. Pursuant to the settlement agreements, we will pay Evonik a total of 70.0 million euro, of which 25.0 million euro was paid in 2012 and 45.0 million euro was paid in 2013. The settlement also required our forfeiture of a \$10.2 million deposit with Evonik. As a result of these settlement agreements, a favorable adjustment to our 2011 Global Plan accrual was recorded in the third quarter of 2012 resulting in \$69.2 million of income within restructuring and impairment on the consolidated statement of operations. Additionally, on December 30, 2012, as part of the settlement with Evonik, we obtained title to the related chlorosilanes plant, which resulted in \$31.7 million of income on the consolidated statement of operations in the fourth quarter of 2012.

Details of the 2013 expenses, cash payments and expected costs incurred related to the 2011 Global Plan are set out in the following table:

In millions							As of December 31, 2013	
	Accrued January 1, 2013	Year-to-date Restructuring Charges (Reversals)	Cash Payments	Non-Cash Settlements	Currency	Accrued December 31, 2013	Cumulative Costs Incurred	Total Costs Expected to be Incurred
2011 Global Plan								
Severance and employee benefits	\$ 31.7	\$ (10.9)	\$ (0.3)	\$ —	\$ 0.8	\$ 21.3	\$ 52.3	\$ 52.3
Contract termination	134.5	0.5	(60.5)	(34.8)	0.5	40.2	165.1	165.1
Other	38.3	(1.1)	(12.4)	(1.6)	1.1	24.3	48.6	48.6
Total	<u>\$ 204.5</u>	<u>\$ (11.5)</u>	<u>\$ (73.2)</u>	<u>\$ (36.4)</u>	<u>\$ 2.4</u>	<u>\$ 85.8</u>	<u>\$ 266.0</u>	<u>\$ 266.0</u>

On August 8, 2013, we entered into a settlement agreement with ReneSola Singapore PTE. LTD ("ReneSola") relating to the termination of the long-term polysilicon and long-term wafer supply agreement entered on June 9, 2010. This settlement agreement relieved each party of its remaining obligations. In relation to the supply agreement, we made a refundable deposit so that, in the event of a purchase shortfall during the term of the supply agreement, ReneSola could, pursuant to the terms of the supply agreement, apply any remaining deposits toward purchase shortfalls. Prior to the settlement agreement, there was approximately \$34.8 million remaining in the refundable deposit. Since ReneSola was entitled to draw down on and retain the remainder of the refundable deposit upon execution of the settlement agreement, we reversed the remaining refundable deposit asset and corresponding customer deposit liability. There was no impact to the consolidated statements of operations as a result of this settlement agreement.

In the fourth quarter of 2013, management concluded the start-up analysis of the Merano, Italy polysilicon facility and determined that, based on recent developments and current market conditions, restarting the facility was not aligned with our business strategy. Accordingly, we have decided to indefinitely close that facility and the related chlorosilanes facility obtained from Evonik. As a result, in the fourth quarter of 2013, we recorded approximately \$37.0 million of impairment charges to write down these assets to their current estimated salvage value.

The \$11.5 million credit recognized pertaining to the 2011 Global Plan for the year ended December 31, 2013 is primarily the result of a reversal of liabilities related to the costs associated with the Merano, Italy polysilicon and other semiconductor facilities due to settlements of certain contractual obligations and changes in estimates.

4. DERIVATIVES AND HEDGING INSTRUMENTS

SunEdison's hedging activities consist of:

		Assets (Liabilities or Equity) Fair Value	
		As of December 31, 2013	As of December 31, 2012
In millions	Balance Sheet Classification		
Derivatives designated as hedging:			
Interest rate swaps	Prepaid and other current assets	\$ 1.6	\$ —
Interest rate swaps	Accumulated other comprehensive income	(1.6)	—
Interest rate swaps	Accrued liabilities	(2.4)	(5.0)
Interest rate swaps	Accumulated other comprehensive loss	1.6	4.3
Cross currency swaps	Accrued liabilities	(2.4)	—
Cross currency swaps	Accumulated other comprehensive loss	2.4	—
Derivatives not designated as hedging:			
Note hedge	Note hedge derivative asset	\$ 514.8	\$ —
Conversion option	Conversion option derivative liability	(506.5)	—
Warrant	Warrant derivative liability	(270.5)	—
Currency forward contracts	Prepaid and other current assets	0.7	0.5
Currency forward contracts	Accrued liabilities	(11.5)	(7.1)
Interest rate swaps	Prepaid and other current assets	1.0	—
Interest rate swaps	Accrued liabilities	(0.2)	—

Losses		
Year Ended December 31, 2013	Year Ended December 31, 2012	Year Ended December 31, 2011
In millions	Statement of Operations Classification	
Derivatives not designated as hedging:		
Currency forward contracts	Other, net	\$ 8.0 \$ 9.0 \$ 7.4
Interest rate swaps	Interest expense	0.2 — —

To mitigate financial market risks of fluctuations in foreign currency exchange rates, we utilize currency forward contracts. We do not use derivative financial instruments for speculative or trading purposes. We generally hedge transactional currency risks with currency forward contracts. Gains and losses on these foreign currency exposures are generally offset by corresponding losses and gains on the related hedging instruments, reducing our net exposure. A substantial portion of our revenue and capital spending is transacted in U.S. Dollars. However, we do enter into transactions in other currencies, primarily the Euro, the Japanese Yen, the Canadian Dollar, the South African Rand and certain other Asian currencies. To protect against reductions in value and volatility of future cash flows caused by changes in foreign exchange rates, we have established transaction-based hedging programs. Our hedging programs reduce, but do not always eliminate, the impact of foreign currency exchange rate movements. At any point in time, we may have outstanding contracts with several major financial institutions for these hedging transactions. Our maximum credit risk loss with these institutions is limited to any gain on our outstanding contracts. As of December 31, 2013 and 2012, these currency forward contracts had net notional amounts of \$401.0 million and \$320.5 million, respectively, and are accounted for as economic hedges.

In addition to the currency forward contracts purchased to hedge transactional currency risks, we entered into currency forward contracts during 2010 to hedge cash flow risks associated with future purchases of raw materials denominated in Euros. These forward contracts were established as cash flow hedges designed to protect against the variability in foreign currency rates between the Euro and U.S. Dollar. The cash flow hedges were accounted for using hedge accounting. As of June 30, 2011, the future purchases of raw materials associated with these cash flow hedges were no longer deemed probable and accordingly, the related gains of \$14.2 million on the forward contracts were reclassified from accumulated other comprehensive (loss) income into earnings. During the third quarter of 2011, these forward contracts were liquidated, resulting in a loss of \$6.6 million. There were no outstanding currency forward contracts designated as cash flow hedges as of December 31, 2013 and 2012.

During the second quarter of 2013, we entered into a cross currency swap with a notional amount of \$185.8 million accounted for as a cash flow hedge. The amounts recorded to the consolidated balance sheet, as provided in the table above, represent the

fair value of the net amount that would settle on the balance sheet date if the swap was transferred to other third parties or canceled by us. The effective portion of this cash flow hedge instrument during the year ended December 31, 2013 was recorded to accumulated other comprehensive income (loss) on the consolidated balance sheet. No ineffectiveness was recognized during the year ended December 31, 2013.

As of December 31, 2013, we are party to five interest rate swap instruments that are accounted for using hedge accounting. These instruments are used to hedge floating rate debt and are accounted for as cash flow hedges. Under the interest rate swap agreements, we pay the fixed rate and the financial institution counterparties to the agreements pay us a floating interest rate as indicated in the table below. The amount recorded in the consolidated balance sheet, as provided in the table below, represents the estimated fair value of the net amount that we would settle on December 31, 2013, if the agreements were transferred to other third parties or cancelled by us. The effective portion of these cash flow hedges for the year ended December 31, 2013, 2012 and 2011 were losses of \$2.4 million, \$5.0 million and \$4.5 million, respectively. These were recorded to accumulated other comprehensive income (loss). There was no material ineffectiveness recorded for the year ended December 31, 2013, December 31, 2012, and December 31, 2011 respectively. There were no outstanding currency forward contracts designated as cash flow hedges as of December 31, 2013, 2012 and 2011.

As of December 31, 2013, we are party to five interest rate swap instruments that are accounted for as economic hedges. These instruments are used to hedge floating rate debt and are not accounted for as cash flow hedges. Under the interest rate swap agreements, we pay the fixed rate and the financial institution counterparties to the agreements pay us a floating interest rate as indicated in the table below. The amount recorded in the consolidated balance sheet, as provided in the table below, represents the estimated fair value of the net amount that we would settle on December 31, 2013, if the agreements were transferred to other third parties or cancelled by us. Because these hedges are deemed economic hedges and not accounted for under hedge accounting, the changes in fair value are recorded to non-operating expense (income) within the consolidated statement of operations. The net fair value of these hedges as of December 31, 2013 was an asset of \$0.8 million.

As of December 31, 2013, we have upward amortizing interest rate swap agreements that are used as an economic hedge related to several consolidated solar energy system projects for which we own 8.2% of the project companies. These instruments are used to hedge floating rate debt with a construction loan availability of \$200.0 million and are not designated as a cash flow hedge. Under the swap agreement, we pay the fixed rate and the counterparty to the agreement pays us a floating interest rate. The amount recorded in the consolidated balance sheet, as provided in the table above, represents the estimated fair value of the net amount that we would settle on December 31, 2013 if the agreements were transferred to other third parties or cancelled by us. Because these agreements are designated as an economic hedge and not accounted for under hedge accounting, the changes in fair value are recorded to non-operating expense (income) within the consolidated statement of operations. During the year ended December 31, 2013, we recorded \$0.5 million to interest expense for fair value adjustments. These amounts are reduced in the consolidated statement of operations by approximately \$0.5 million attributable to a non-controlling interest representing the 91.8% of the project companies we do not own. We also have an upward amortizing interest rate swap agreement that is designated as a cash flow hedge related to a solar energy system project. This instrument is used to hedge floating rate debt with a construction loan availability of \$185.8 million. The changes in fair value are recorded to accumulated other comprehensive income (loss) on the consolidated balance sheets, as provided in the table below, with any ineffectiveness recorded in the consolidated statement of operations. No such ineffectiveness was recognized during the year ended December 31, 2013.

In connection with the senior convertible notes offered in December, 2013 as discussed in Note 10, we entered into privately negotiated convertible note hedge transactions and warrant transactions. Assuming full performance by the counterparties, these instruments are meant to effectively reduce our potential payout over the principal amount on the senior convertible notes upon conversion. Refer to Note 10 for additional information.

A summary of all interest rate swap instruments outstanding as of December 31, 2013 are as follows:

Designation	Notional Amount in Local Currency (in millions)	Notional Currency	Fixed Rate	Variable Rate	Termination Date	Assets (Liabilities) Fair Value at December 31, 2013
Interest rate swap #1 - Cash Flow Hedge	4.2	EURO	5.10%	Euribor plus 1.5%	6/30/2023	\$(1.4)
Interest rate swap #2 - Cash Flow Hedge	1.7	EURO	5.10%	Euribor plus 1.5%	6/30/2023	\$(0.6)
Interest rate swap #3 - Cash Flow Hedge	30.8	CAD	3.30%	Canadian Deposit Offering Rate	6/5/2028	\$(0.4)
Interest rate swap #4 - Cash Flow Hedge	1,856.1	ZAR	2.74%	3-Month USD LIBOR BBA plus 230 bps spread	9/30/2014	\$1.6
Interest rate swap #5 - Cash Flow Hedge	12.4	CAD	3.61%	3 Month CDOR	7/31/2031	\$—
Interest rate swap #6 - Economic Hedge	94.0	MYR	4.25%	MYR-KLIBOR-BNM	3/31/2028	\$0.4
Interest rate swap #7 - Economic Hedge	37.9	MYR	4.40%	MYR-KLIBOR-BNM	3/31/2028	\$0.1
Interest rate swap #8 - Economic Hedge	180.0	THB	6.47%	MLR minus 2.0%	12/31/2023	\$(0.2)
Interest rate swap #9 - Economic Hedge	1,459.7	ZAR	5.25%	ZAR-JIBAR-SAFEX Rate	3/31/2024	\$0.1
Interest rate swap #10 - Economic Hedge	1,296.8	ZAR	5.25%	ZAR-JIBAR-SAFEX Rate	3/31/2024	\$0.4

5. INVESTMENTS

The carrying value of short-term and long-term investments consists of the following:

	As of December 31,	
	2013	2012
In millions		
Equity method investments	\$ 33.2	\$ 23.3
Equity investments at cost	7.9	12.9
Items measured at fair value on a recurring basis	—	13.4
Time deposits	0.2	0.3
Total investments	\$ 41.3	\$ 49.9
Less: Short-term investments	0.2	0.3
Long-term investments	\$ 41.1	\$ 49.6

Equity Method Investments

We have made equity method investments, which are primarily to joint ventures, totaling \$63.7 million during the year ended December 31, 2013. Generally, these investments are designed to create additional capacity in our Solar Energy segment. Our aggregate remaining contractual investment commitments to our joint ventures as of December 31, 2013 is up to an additional \$68.8 million. The contracts governing these joint ventures generally do not have any specific time frames for these future investments, however, we expect to fund approximately \$68.4 million of these commitments in 2014.

During the year ended December 31, 2013, we recorded equity method investment impairments totaling \$2.0 million that management deemed to be in an other than temporary loss position. There was no similar impairment recognized in the year ended 2012. However, due to adverse solar market conditions in 2011 and expected future reduced sales volumes, we recorded impairment charges associated with certain equity method investments that management deemed to be other than temporary totaling \$67.3 million.

Samsung Fine Chemicals Joint Venture

In February 2011, we entered into an equity method joint venture with Samsung Fine Chemicals Co. Ltd. (the "SMP JV") for the construction and operation of a new facility to produce high purity polysilicon in Ulsan, South Korea. The SMP JV will

manufacture and supply polysilicon to us and to international markets. MEMC Singapore Pte. Ltd.'s ownership interest in the joint venture is 50% and Samsung Fine Chemicals Co. Ltd. owns the other 50%.

In September 2011, we executed a Supply and License Agreement with the SMP JV under which we will license and sell to the joint venture certain technology and related equipment used for producing polysilicon. Throughout 2013, we received proceeds under the Supply and License Agreement based on certain milestones we achieved throughout the construction, installation and testing of the equipment, which we expect to continue through the second half of 2014. Proceeds received from the SMP JV under the Supply and License Agreement will be recorded as a reduction in our basis in the SMP JV investment and to the extent that our basis in the investment is zero, the remaining proceeds received will be recorded as a long-term liability. To the extent the total cash proceeds received exceed the sum of our cost basis in the equipment plus our capital contributions to the SMP JV and when we have no remaining performance obligations, a net gain would be recognized on the transaction.

During the year ended December 31, 2013, under the Supply and License Agreement we made total equity contributions of \$60.0 million. Since inception of the SMP JV, the proceeds received have exceeded our investment, and we recorded this as a reduction in our equity investment balance with the excess of \$39.8 million recorded in long-term customer and other deposits. The cash received is recorded as an investing inflow within the consolidated statement of cash flows. Our total cash commitments, inclusive of the \$116.2 million invested thus far, are expected to be approximately \$185.0 million through 2014. We expect our remaining cash commitments to be substantially offset by proceeds received under the Supply and License Agreement.

Equity Investments at Cost

During the years ended December 31, 2013, 2012 and 2011, we recorded an other-than-temporary impairment charges of \$3.2 million, \$3.6 million, and \$11.6 million, respectively, associated with certain cost method investments. The impairments were a result of the length and severity of a fair value decline below our cost basis, with no turnaround in the foreseeable future. We have assessed and determined that there have been no other events or circumstances that had a material adverse effect on our other cost method investments during this period.

Investments Recorded at Fair Value

During the fourth quarter of 2013, we sold our investment in Gintech Energy Corporation ("Gintech"), acquired in connection with the execution of a long-term supply agreement. Proceeds from the sale of the investment totaled \$15.0 million, and we recognized a gain of \$2.0 million on the sale.

6. INVENTORIES

Inventories consist of the following:

	As of December 31,	
	2013	2012
In millions		
Raw materials and supplies	\$ 114.7	\$ 89.1
Goods and work-in-process	98.8	109.1
Finished goods	34.9	49.6
Total inventories	<u>\$ 248.4</u>	<u>\$ 247.8</u>

Solar products expected to be sold externally are classified as finished goods and solar products expected to be consumed internally to support our downstream solar business are classified as goods and work in process.

Solar Energy segment inventories of \$62.3 million and \$27.3 million at December 31, 2013 and 2012, respectively, consist of raw materials and supplies not allocated to a solar energy system. Included in the table above at December 31, 2013, was \$22.9 million of finished goods inventory held on consignment, compared to \$27.7 million at December 31, 2012.

During the years ended December 31, 2013, and 2012, we recorded lower of cost or market charges totaling \$18.5 million and \$3.4 million respectively, to work in process and raw materials inventory, primarily related to adverse solar market pricing conditions.

Due to adverse solar market conditions and related price decreases, which led to the reduction of solar wafer production at our Kuching, Malaysia and Portland, Oregon plants and the shuttering of our Merano, Italy polysilicon facility, we recorded lower

of cost or market charges on our raw materials and supplies inventory of \$53.7 million, in the year ended December 31, 2011. In addition, we recorded charges of approximately \$30.2 million for goods and work-in-process in the year ended December 31, 2011. Further, we recorded charges for finished goods inventory primarily related to the adverse solar market conditions which led to underutilization of our Kuching solar wafering plant in the amount of \$29.7 million for the year ended December 31, 2011.

Due to the earthquake in Japan on March 11, 2011, wafer production in our semiconductor wafer plant in Japan was suspended from that time through April 12, 2011. Due to the unplanned downtime, we recorded a total of \$14.9 million of adjustments during the year ended December 31, 2011 as period charges to cost of goods sold for the under absorption of production costs. We recorded no similar adjustments for the years ended December 31, 2013 and 2012.

7. SOLAR ENERGY SYSTEMS HELD FOR DEVELOPMENT AND SALE

Solar energy systems held for development and sale consist of the following:

	As of December 31,	
	2013	2012
In millions		
Under development	\$ 419.7	\$ 133.8
Systems held for sale	40.4	—
Total solar energy systems held for development and sale	\$ 460.1	\$ 133.8

See Note 2 for a discussion of solar energy systems held for development and sale.

8. PROPERTY, PLANT AND EQUIPMENT (INCLUDING CONSOLIDATED VIEs)

Property, plant and equipment consists of the following:

	As of December 31,	
	2013	2012
In millions		
Land	\$ 5.6	\$ 6.1
Software	31.3	31.1
Buildings and improvements	322.2	320.5
Machinery and equipment	1,670.5	1,605.5
Solar energy systems	1,686.1	1,306.5
Total property, plant and equipment, at cost	\$ 3,715.7	\$ 3,269.7
Less accumulated depreciation	(1,120.0)	(964.1)
	\$ 2,595.7	\$ 2,305.6
Construction in progress – non solar energy systems	79.4	141.4
Construction in progress – solar energy systems	447.8	226.0
Total property, plant and equipment, net	\$ 3,122.9	\$ 2,673.0

We recorded asset impairment charges of \$38.2 million for the year ended December 31, 2013, of which \$37.0 million relates to the assets at our Merano, Italy polysilicon and chlorosilanes facilities to write down these assets to their current estimated salvage value, which was based primarily on an appraisal. These charges are reflected in the long-lived asset impairment charges in our consolidated statement of operations. We obtained title to a chlorosilanes plant as part of the settlement with Evonik, which resulted in \$31.7 million of income on the consolidated statement of operations in the fourth quarter of 2012.

Due to the downturn in solar market conditions, we performed an asset impairment analysis of the polysilicon production assets at our shuttered Merano, Italy facility, as well as solar wafering assets at our Portland, Oregon, Kuching, Malaysia and St. Peters, Missouri facilities in the fourth quarter of 2011. As a result of this analysis, we recognized asset impairment charges of \$354.7 million during the year ended December 31, 2011, which were recorded in long-lived asset impairment charges in our consolidated statement of operations.

The polysilicon manufacturing assets at our shuttered Merano, Italy polysilicon facility were impaired at December 31, 2011 and written down to their net realizable salvage value, which was based primarily on an appraisal. For our solar wafering

assets, we estimated the fair value of the asset group using discounted expected cash flows and recorded an impairment charge during 2011 because the net carrying value of the asset group exceeded its fair value. The value of these assets deteriorated because of the significant market price declines and we ceased or scaled back manufacturing operations due to changes in future service potential. We developed our expected cash flows based on assumptions that were consistent with our then current and forecast operating plans, which are considered Level 3 inputs in the fair value hierarchy. Cash flows cover a time period that coincides with the estimated remaining useful life of the primary assets and a probability factor was assigned to each cash flow scenario to derive the expected present value based on a risk-free discount rate.

9. GOODWILL AND INTANGIBLE ASSETS

The carrying values of intangible assets at December 31, 2013 and December 31, 2012 are as follows:

In millions	Weighted Average Amortization Period	December 31, 2013			December 31, 2012		
		Gross Carrying Amount	Accumulated Amortization or Allocated to Solar Energy System	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization or Allocated to Solar Energy System	Net Carrying Amount
Amortizable intangible assets:							
Favorable energy credits	7	\$ 14.2	\$ (11.6)	\$ 2.6	\$ 14.2	\$ (9.0)	\$ 5.2
Customer relationships	8	5.5	(3.1)	2.4	5.7	(2.4)	3.3
Trade name	15	4.5	(1.2)	3.3	4.1	(0.9)	3.2
Internally developed software	4	1.9	(1.9)	—	1.3	(1.3)	—
Developed technology	4	21.6	(9.4)	12.2	12.0	(6.0)	6.0
Non-compete agreement	1	1.2	(1.2)	—	1.2	(1.2)	—
Total amortizable intangible assets		\$ 48.9	\$ (28.4)	\$ 20.5	\$ 38.5	\$ (20.8)	\$ 17.7
Indefinite lived assets:							
In-process technology ⁽¹⁾	Indefinite	\$ 0.9	\$ —	\$ 0.9	\$ 0.9	\$ —	\$ 0.9
Power plant development arrangements ⁽²⁾	Indefinite	132.6	(62.2)	70.4	143.3	(47.7)	95.6
Total indefinite lived assets		\$ 133.5	\$ (62.2)	\$ 71.3	\$ 144.2	\$ (47.7)	\$ 96.5

⁽¹⁾ The useful life for in-process technology will be determined once the research and development process is complete and, at that time, amortization of the asset will begin.

⁽²⁾ Power plant development arrangements are reclassified to the solar energy system (property, plant and equipment or inventory) upon completion of the related solar energy system. Depending on the classification of the system as held for development and sale or property, plant and equipment, amortization expense is recognized in cost of goods sold or in depreciation expense.

For the years ended December 31, 2013, 2012 and 2011, we recognized amortization expense and expense for power plant development arrangement intangible assets allocated to solar energy systems of \$21.5 million, \$34.6 million and \$9.4 million, respectively. We incurred impairment charges of \$10.2 million in 2013 for our power plant development intangible asset and \$1.4 million, \$1.2 million, and \$6.6 million primarily on our customer relationships, developed technology, and in-process technology intangible assets, for the years ended December 31, 2013, 2012 and 2011, respectively. No power plant development impairments were recorded during fiscal years 2012 and 2011.

We expect to recognize annual expense on our amortizable intangible assets as follows:

In millions	2014	2015	2016	2017	2018
Amortization	\$ 5.6	\$ 2.8	\$ 2.6	\$ 1.9	\$ 1.9

Goodwill & Impairments

In 2011, the entire carrying amount of goodwill was impaired and was recorded to goodwill impairment charges in the consolidated statement of operations. No impairments were recorded during fiscal years 2013 and 2012.

During 2011, the Solar Energy segment was comprised of the Solar Materials reporting unit and the former Solar Energy reporting unit, both of which carried a goodwill balance. We perform our annual goodwill impairment test on December 1 of each year, however, due to deteriorating economic conditions in the solar industry, we performed an interim impairment analysis during the third quarter of 2011. As of September 30, 2011, our net book value was significantly above the market capitalization of our common stock. During June 2011 and continuing through September 2011, we observed a strong

correlation between the decline in our market capitalization and the decline in pricing in the solar wafer market, caused by an overall softening of demand in the solar materials supply chain. We evaluated the following items, among others, in determining whether there were impairment indicators requiring an evaluation of goodwill impairment as of an interim date: the impact of solar wafer price declines on our Solar Materials reporting unit and on our raw material costs for our Solar Energy reporting unit; advanced materials technologies at our Solar Materials reporting unit; the financial performance of each reporting unit in fiscal year 2011 to date; and our internal forecast data. We determined that there were indicators of potential impairment due to the items previously mentioned and the sustained decline in our common stock price resulting in a market capitalization below book value. Based on the above, we determined that there was a triggering event, which required us to perform a Step 1 goodwill impairment during the third quarter of 2011 for both the Solar Materials and Solar Energy reporting units.

We prepared a discounted cash flow ("DCF") model for each of the reporting units to assess the recoverability of the goodwill using significant unobservable inputs (Level 3), which we then reconciled to our average market capitalization over a reasonable period of time, which included a control premium supported by recent transactions, as of September 30, 2011. For our DCF models, we used inputs we believed a market participant would use, including earnings projections and other cash flow assumptions over future periods plus a terminal value assuming a long-term growth rate. We believe the DCF model represents a reliable valuation method for this purpose because it reflects the information a market participant would likely use to value each of the reporting units.

Solar Materials reporting unit

In performing this test for our Solar Materials reporting unit, we made a downward revision in the forecasted cash flows as a result of a decrease in the market price for silicon products and weaker demand for solar products. Our analysis also included considerations of our market capitalization. Based on the results of our analysis in which we estimated the fair value of the goodwill as of September 30, 2011, we concluded that the carrying value of goodwill exceeded its fair value and, as a result, recorded an impairment charge totaling \$56.4 million during the third quarter of 2011. This impairment charge was entirely associated with our Solaicx acquisition completed in July 2010 and represented the full carrying value of the goodwill related to the Solar Materials reporting unit.

Solar Energy reporting unit

Based on the impairment test performed, it was determined that there was no impairment of goodwill of the Solar Energy reporting unit as of September 30, 2011 given that the estimated fair value of the Solar Energy reporting unit based on our forecast was in excess of its carrying value. Management's assumptions were based on an analysis of current and expected future economic conditions and the updated strategic plan for this reporting unit. Key assumptions in the calculation of fair value were the discount rate, growth rates in sales and profit margins and long-term cash forecasts, as well as our reconciliation to our market capitalization. The assumptions used in our valuation model included projected growth of our business including pipeline and new business, expected cost reductions and future price declines. We utilized a discount rate which we believed was commensurate with the then current volatility in earnings and cash flows in the solar industry. The estimated fair value of the Solar Energy reporting unit at September 30, 2011 based on our forecast, after analyzing various data points, including our market capitalization, was in excess of the carrying value.

During the fourth quarter of 2011, conditions in the solar industry continued to decline, including selling prices of solar energy systems. These declines were due to continued softening in demand for the systems, including recent announcements of decreases in government funded solar energy subsidies. We believe these economic factors caused our market capitalization to deteriorate during the fourth quarter of 2011. We performed an updated analysis to estimate the fair value of our Solar Energy reporting unit, which included a reconciliation by reporting unit to our market capitalization. The carrying value was in excess of fair value requiring a Step 2 analysis to be performed. The Step 2 goodwill impairment analysis required that we estimate the fair values of all assets and liabilities and compare the resulting net assets to our estimated fair value of the reporting unit. The estimate of fair values included Level 1, 2 and 3 inputs and included assumptions such as the replacement cost of property, plant and equipment, sales value of inventories and work-in-process and debt fair values based on rates a market participant would use. Based on this analysis, the estimated fair value of the Solar Energy reporting unit was determined to be below the estimated fair value of the net assets and goodwill was estimated to be zero. Therefore, we recorded a goodwill impairment charge for the Solar Energy reporting unit of \$384.1 million in the fourth quarter of 2011. After this impairment charge, which included goodwill associated with the acquisitions of SunEdison, Fotowatio Renewable Ventures, Inc ("FRV U.S."), and three other 2011 acquisitions, the goodwill balance of the Solar Energy reporting unit was zero as of December 31, 2011.

10. DEBT AND CAPITAL LEASE OBLIGATIONS

Debt (including consolidated VIEs) and capital lease obligations outstanding consist of the following:

	As of December 31, 2013			As of December 31, 2012		
	Total	Current and Short-Term	Long-Term	Total	Current and Short-Term	Long-Term
In millions						
Non-solar energy system debt and capital leases:						
Convertible senior notes due 2018, net of discount	\$ 460.0	\$ —	\$ 460.0	\$ —	\$ —	\$ —
Convertible senior notes due 2021, net of discount	408.2	—	408.2	—	—	—
Senior notes due 2019	—	—	—	550.0	—	550.0
Second lien term loan, net of discount	—	—	—	196.1	—	196.1
Long-term notes	10.4	2.8	7.6	16.0	3.4	12.6
Total non-solar energy system debt and capital leases	\$ 878.6	\$ 2.8	\$ 875.8	\$ 762.1	\$ 3.4	\$ 758.7
Solar energy system debt, financings and capital leaseback obligations:						
Short-term debt, weighted average interest rate of 6.55% and 6.47%, respectively	\$ 68.9	\$ 68.9	\$ —	\$ 14.7	\$ 14.7	\$ —
System pre-construction, construction and term debt	1,028.0	305.0	723.0	271.3	61.3	210.0
Capital leaseback obligations	94.0	4.5	89.5	93.3	7.5	85.8
Financing leaseback obligations	1,384.8	16.2	1,368.6	1,107.2	14.3	1,092.9
Other system financing transactions	121.9	0.1	121.8	119.7	—	119.7
Total solar energy system debt, financings and capital leaseback obligations	\$ 2,697.6	\$ 394.7	\$ 2,302.9	\$ 1,606.2	\$ 97.8	\$ 1,508.4
Total debt outstanding	\$ 3,576.2	\$ 397.5	\$ 3,178.7	\$ 2,368.3	\$ 101.2	\$ 2,267.1

Non-Solar Energy System Debt and Capital Leases

Convertible Senior Notes

On December 20, 2013, we issued \$600.0 million in aggregate principal amount of 2.00% convertible senior notes due 2018 and \$600.0 million aggregate principal amount of 2.75% convertible senior notes due 2021 in a private placement offering. We received net proceeds, after payment of debt financing fees, of \$1,167.3 million in the offering, before the redemption of the \$550.0 million outstanding aggregate principal amount of the 7.75% senior notes due 2019 and the repayment of the \$200.0 million outstanding aggregate principal amount of the 10.75% second lien term loan and before payment of the net cost of the call spread overlay described below.

Interest on the 2018 Notes is payable on April 1 and October 1 of each year, beginning on April 1, 2014. Interest on the 2021 Notes is payable on January 1 and July 1 of each year, beginning on July 1, 2014. The 2018 Notes and the 2021 Notes mature on October 1, 2018 and January 1, 2021, respectively, unless earlier converted or purchased.

The Notes are convertible at any time until the close of business on the business day immediately preceding July 1, 2018 (in the case of the 2018 Notes) or October 1, 2020 (in the case of the 2021 Notes) only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending March 31, 2014, if the closing sale price of our common stock, for at least 20 trading days (whether or not consecutive) in the period of 30 consecutive trading days ending on the last trading day of the calendar quarter immediately preceding the calendar quarter in which the conversion occurs, is more than 120% of the conversion price of the Notes in effect on each applicable trading day; (2) during the five consecutive business day period following any 10 consecutive trading-day period in which the trading price for the notes for each such trading day is less than 98% of the closing sale price of our common stock on such trading day multiplied by the applicable conversion rate on such trading day; or (3) upon the occurrence of specified corporate events. On and after July 1, 2018 (in the case of the 2018 Notes) or October 1, 2020 (in the case of the 2021 Notes) and until the close of business on the second scheduled trading day immediately prior to the applicable stated maturity date, the Notes are convertible regardless of the foregoing conditions based on an initial conversion price of \$14.62 per share of our common stock.

The conversion price will be subject to adjustment in certain events, such as distributions of dividends or stock splits. The Notes are convertible only into cash, shares of our common stock or a combination thereof at our election. However, we must

settle conversions solely in cash until we have obtained the requisite approvals from our stockholders to (i) amend our restated certificate of incorporation to sufficiently increase the number of authorized but unissued shares of our common stock to permit the conversion and settlement of all Notes into shares of our common stock, and (ii) authorize the issuance of the maximum numbers of shares described above in accordance with the continued listing standards of The New York Stock Exchange. Holders may also require us to repurchase all or a portion of the Notes upon a fundamental change, as defined in the indenture agreement, at a cash repurchase price equal to 100% of the principal amount plus accrued and unpaid interest. In the event of certain events of default, such as our failure to make certain payments or perform or observe certain obligations thereunder, the trustee or holders of a specified amount of then-outstanding Notes will have the right to declare all amounts then outstanding due and payable. We may not redeem the Notes prior to the applicable stated maturity date.

The Notes are general unsecured obligations and rank senior in right of payment to any of our future indebtedness that is expressly subordinated in right of payment to the Notes; equal in right of payment to our existing and future unsecured indebtedness that is not so subordinated; effectively subordinated in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and to all existing and future indebtedness (including trade payables) incurred by our subsidiaries.

The embedded conversion options within the Notes are derivative instruments that are required to be separated from the Notes and accounted for separately as derivative instruments (derivative liabilities) with changes in fair value reported in the Consolidated Statements of Operations until such transactions settle or expire. The initial fair value of the embedded conversion options was recognized as a reduction in the carrying value of "Convertible debt, net of current portion" in the Consolidated Balance Sheet.

The embedded conversion option derivative instruments are measured at fair value utilizing Level 2 inputs consisting of the exercise price of the instruments, the price and volatility of our common stock, the risk free interest rate and the contractual term. Such derivative instruments are not traded on an open market as the banks are the counterparties to the instruments.

We recognized an immaterial amount of interest expense during the year ended December 31, 2013 related to the amortization of the debt discount on the Notes. As of December 31, 2013, the unamortized debt discount associated with the 2018 Notes and 2021 Notes will be recognized as interest expense as follows:

In millions	Debt Discount 2018 Notes	Debt Discount 2021 Notes
2014	\$ 25.4	\$ 10.2
2015	27.4	21.6
2016	29.6	23.6
2017	32.0	25.8
2018	25.6	28.2
2019	—	30.8
2020	—	33.6
2021	—	17.9
	<u>\$ 140.0</u>	<u>\$ 191.7</u>

Call Spread Overlay for Convertible Senior Notes

Concurrent with the issuance of the Notes, we entered into privately negotiated convertible note hedge transactions (collectively, the "Note Hedge") and warrant transactions (collectively, the "Warrants" and together with the Note Hedge, the "Call Spread Overlay"), with certain of the initial purchasers of the Notes or their affiliates. Assuming full performance by the counterparties, the Call Spread Overlay is meant to effectively reduce our potential payout over the principal amount on the Notes upon conversion of the Notes.

Under the terms of the Note Hedge, we bought from affiliates of certain of the initial purchasers of the Notes options to acquire, at an exercise price of \$14.62 per share, subject to anti-dilution adjustments, up to 82.1 million shares of our common stock. Each Note Hedge is a separate transaction, entered into by the Company with each option counterparty, and is not part of the terms of the Notes. Each Note Hedge is exercisable upon the conversion of the Notes and expires on the corresponding maturity dates of the Notes.

Under the terms of the Warrants, we sold to affiliates of certain of the initial purchasers of the Notes warrants to acquire, on the stated expiration date of each Warrant, up to 82.1 million shares of our common stock at an exercise price of \$18.35 per share, subject to anti-dilution adjustments. Each Warrant transaction is a separate transaction, entered into by the Company with each option counterparty, and is not part of the terms of the Notes.

The Note Hedge and Warrants, which are indexed to our common stock, are derivative instruments that require mark-to-market accounting treatment due to their cash settlement features until such transactions settle or expire. The Note Hedge and Warrants are measured at fair value utilizing Level 2 inputs consisting of the exercise price of the instruments, the price and volatility of our common stock, the risk free interest rate and the contractual term. Such derivative instruments are not traded on an open market. Valuation techniques utilize the inputs described above in addition to liquidity and institutional credit risk inputs.

Bridge Credit Facility

On December 20, 2013, we entered into a credit agreement by and among the Company, the lenders identified therein and Deutsche Bank AG New York Branch, as administrative agent, lender, and letter of credit issuer (the “Bridge Credit Facility”). The Bridge Credit Facility provided for a senior secured letter of credit facility in an aggregate principal amount up to \$320.0 million and had a term ending December 15, 2014. The purpose of the Bridge Credit Facility was to backstop outstanding letters of credit issued by Bank of America, N.A. under our former revolving credit facility, which was terminated simultaneously with our entry into the Bridge Credit Facility (subject to our obligation to continue paying fees in respect of outstanding letters of credit).

Our obligations under the Bridge Credit Facility were guaranteed by certain of our domestic subsidiaries. Our obligations and the guaranty obligations of our subsidiaries were secured by first priority liens on and security interests in substantially all present and future assets of the Company and the subsidiary guarantors, including a pledge of the capital stock of certain of our domestic and foreign subsidiaries.

Interest under the Bridge Credit Facility accrued on the committed amount of \$320.0 million regardless of actual utilization, and varied from 7.75% to 15.0%, depending on the inputs described above in addition to liquidity. Interest was due and payable in arrears at the end of each fiscal quarter and on the maturity date of the Bridge Credit Facility. Drawn amounts on letters of credit were due within three business days, and interest accrued on drawn amounts at a base rate plus the applicable interest rate spread noted above. We paid fees of \$7.6 million upon entry into the Bridge Credit Facility, which were recognized as deferred financing fees and which will be amortized over the term of the Bridge Credit Facility.

The Bridge Credit Facility contained representations, covenants and events of default typical for credit arrangements of comparable size, including maintaining a consolidated leverage ratio of 3.5 to 1.0 and a minimum liquidity amount of \$400.0 million. The Bridge Credit Facility also contained a customary material adverse effects clause and a cross default clause. The cross default clause was applicable to defaults on other indebtedness in excess of \$35.0 million, excluding our non-recourse indebtedness. In addition, the Bridge Credit Facility included a covenant to satisfy certain post-closing obligations relating to the creation and perfection of liens in favor of our creditors under the Bridge Credit Facility. Failure to comply with the specified deadlines in this covenant would have resulted in the Bridge Credit Facility interest rate increasing to 15.0%. As of December 31, 2013, we were in compliance with all covenants of the Bridge Credit Facility.

The Bridge Credit Facility also contained mandatory prepayment provisions applicable to specified asset sale transactions as well as our receipt of proceeds from certain insurance or condemnation events and the incurrence of additional indebtedness.

As of December 31, 2013, we had no borrowings outstanding under the Bridge Credit Facility, although we had \$228.1 million of outstanding third party letters of credit backed by the Bridge Credit Facility, which reduced the available capacity. Therefore, funds available under the Bridge Credit Facility were \$91.9 million as of December 31, 2013.

Credit Facility

On February 28, 2014, we entered into a credit agreement with the lenders identified therein, Wells Fargo Bank, National Association, as administrative agent, Goldman Sachs Bank USA and Deutsche Bank Securities Inc., as joint lead arrangers and joint syndication agents, and Goldman Sachs Bank USA, Deutsche Bank Securities Inc., Wells Fargo Securities, LLC and Macquarie Capital (USA) Inc., as joint bookrunners (the “Credit Facility”). The Credit Facility provides for a senior secured letter of credit facility in an aggregate principal amount up to \$265.0 million and has a term ending February 28, 2017. The Credit Facility will be used to backstop outstanding letters of credit issued by Bank of America, N.A. under our former

revolving credit facility until they expire, as well as for general corporate purposes. Subject to certain conditions, we may request that the aggregate commitments be increased to an amount not to exceed \$400 million.

Our obligations under the Credit Facility are guaranteed by certain of our domestic subsidiaries. Our obligations and the guaranty obligations of our subsidiaries are secured by first priority liens on and security interests in substantially all present and future assets of the Company and the subsidiary guarantors, including a pledge of the capital stock of certain of our domestic and foreign subsidiaries.

Interest under the Credit Facility accrues on the daily amount available to be drawn under outstanding letters of credit or bankers' acceptances, at a rate of 3.75%. Interest is due and payable in arrears at the end of each fiscal quarter and on the maturity date of the Credit Facility. Drawn amounts on letters of credit are due within seven business days, and interest accrues on drawn amounts at a base rate plus 2.75%.

The Credit Facility contains representations, covenants and events of default typical for credit arrangements of comparable size, including maintaining a consolidated leverage ratio of 3.0 to 1.0 which excludes the Notes (measurement commencing with the last day of the fiscal quarter ending December 31, 2014) and a minimum liquidity amount (measurement commencing with the last day of the fiscal quarter ending June 30, 2014) of the lesser of (i) \$400.0 million and (ii) the sum of (x) \$300.0 million plus (y) the amount, if any, by which the aggregate commitments exceed \$300.0 million at such time. The Credit Facility also contains a customary material adverse effects clause and a cross default clause. The cross default clause is applicable to defaults on other indebtedness in excess of \$50.0 million, excluding our non-recourse indebtedness.

The Credit Facility also contains mandatory prepayment and/or cash collateralization provisions applicable to specified asset sale transactions as well as our receipt of proceeds from certain insurance or condemnation events and the incurrence of additional indebtedness.

Senior Notes Due 2019

On December 20, 2013, we issued a notice of redemption for all \$550.0 million outstanding aggregate principal amount of the 7.75% Senior Notes due April 1, 2019 (the "2019 Notes") and discharged our obligations under the related indenture agreement. We used a portion of the proceeds received upon the completion of the convertible senior notes offering discussed above to redeem the 2019 Notes and to pay related redemption premiums and fees. We recognized a loss on early extinguishment of debt of \$49.1 million, which was comprised of redemption premiums of \$39.8 million and the write-off of unamortized deferred loan costs of \$9.3 million.

Revolving Credit Facility

On December 20, 2013, we terminated our \$400.0 million corporate revolving credit facility with Bank of America, N.A. We recognized a loss on extinguishment of debt of \$2.1 million as a result of the write-off of unamortized deferred loan costs.

Long-term Notes

Long-term notes at December 31, 2013 totaling \$10.4 million are owed to a bank by our Japanese subsidiary, are guaranteed by us, and are secured by the property, plant and equipment of our Japanese subsidiary. These loans mature in years ranging from 2013 to 2017. The guarantees would require us to satisfy the loan obligations in the event that the Japanese subsidiary failed to pay such debt in accordance with its stated terms.

Second Lien Term Loan Credit Agreement

On December 20, 2013, we repaid all amounts borrowed under and terminated the \$200.0 million Second Lien Credit Agreement, dated September 28, 2012, by and among the Company, Goldman Sachs Bank USA, Deutsche Bank Securities Inc. and the lenders party thereto (the "Second Lien Term Loan") and terminated the Guaranty Agreement, dated September 28, 2012, by and between each of the guarantor subsidiaries in favor of Goldman Sachs Bank USA as Administrative Agent for the benefit of itself and the secured parties named therein (the "Guaranty Agreement"). We used a portion of the proceeds received upon the completion of the convertible senior notes offering discussed above to repay the amounts borrowed and to pay related make-whole premiums and fees. We recognized a loss on early extinguishment of debt of \$23.9 million, which was comprised of make-whole premiums of \$11.7 million and the write-off of unamortized deferred loan costs and debt discount of \$8.9 million and \$3.3 million, respectively.

Other Financing Commitments

We have short-term committed financing arrangements of approximately \$30.6 million at December 31, 2013, of which there were no short-term borrowings outstanding as of December 31, 2013. Of this amount, \$15.9 million is unavailable because it relates to the issuance of third party letters of credit. Interest rates are negotiated at the time of the borrowings.

Solar Energy System Debt, Financings and Capital Leaseback Obligations

Our solar energy systems for which we have short-term and long-term debt, capital leaseback and finance obligations are included in separate legal entities. Of this total debt outstanding, \$2,655.8 million relates to project specific non-recourse financing that is backed by solar energy system operating assets. This debt has recourse to those separate legal entities but no recourse to us under the terms of the applicable agreements. The recourse finance obligations above are fully collateralized by the related solar energy system assets. These obligations may also include limited guarantees by us related to operations, maintenance and certain indemnities.

Short-term Debt

On September 30, 2011, we amended and restated our non-recourse project construction financing revolver, which has a term of three years, from \$50.0 million to \$300.0 million. Interest on borrowings under the agreement will be based on our election at LIBOR plus an applicable margin (currently 3.5%) or at a defined prime rate plus an applicable margin (currently 2.5%). The construction financing revolver also requires us to pay various fees, including a commitment fee (currently 1.1%). The construction financing revolver will be used to support the construction costs of utility and rooftop solar energy systems throughout the U.S. and Canada. The construction loans are non-recourse debt to entities outside of the project company legal entities that subscribe to the debt and is secured by a pledge of the collateral, including the project contracts and equipment. This revolver also includes a customary material adverse effects clause whereby a breach may disallow a future draw but not acceleration of payment. This revolver also maintains a cross default clause whose remedy, among other rights, includes the right to restrict future loans as well as the right to accelerate principal and interest payments. Because this is non-recourse financing, covenants relate specifically to the collateral amounts and transfer of right restrictions.

During 2012, due to various amendments and lenders entering and exiting the facility, the non-recourse construction financing revolver capacity was lowered from 300.0 million to \$150.0 million. Under the terms of the amendments, depending on the credit ratings issued by the two credit agencies that provide ratings on the Company, we are required to post, at our election, a letter of credit or surety bond equal to 15.0% of the total outstanding balance in order to continue to make additional borrowings under this facility. As of December 31, 2013, based on the credit rating provided by one of the credit agencies, a letter of credit equal to 15.0% of the \$59.7 million outstanding balance was posted as of December 31, 2013. Additionally, \$3.9 million of deferred financing fees were charged to interest expense during the second quarter of 2012, as a result of these amendments. No similar charges were incurred in the comparable periods of 2013 or 2011.

As of December 31, 2013 and December 31, 2012, there was \$59.7 million and \$7.4 million, respectively, outstanding on this revolver.

In the event additional construction debt is needed and the remainder of the original capacity is not renewed or replaced, we have the ability to draw upon the available capacity of our Credit Facility (discussed above). In the event we cannot renew, replace or backfill the remainder of the original capacity with other financing or have adequate net working capital, such inability to fund future projects may have an adverse impact on our business growth plans, financial position and results of operations.

System Pre-Construction, Construction and Term Debt

We typically finance our solar energy projects through project entity specific debt secured by the project entity's assets (mainly the solar energy system) with no recourse to us. Typically, these financing arrangements provide for a construction loan, which upon completion will be converted into a term loan, and generally do not restrict the future sale of the project entity to a third party buyer. On December 31, 2013, we had system construction and term debt outstanding of \$1,028.0 million. Included in this amount is \$243.9 million of fixed rate non-recourse debt financing arrangement used to finance the construction of a SunEdison owned solar power plant executed in the third quarter of 2013. Additionally, a portion also relates to variable rate debt with interest rates that are tied to either the London Interbank Offered Rate, the Euro Interbank Offer Rate, the Canadian Dollar Offered Rate or the PRIME rate. The variable interest rates have primarily been hedged by our outstanding interest rate swaps as discussed in Note 4. The interest rates on the remaining construction and term debt range from 3.0% to 18.0% and have maturities that range from 2014 to 2033.

During the second quarter of 2012, we violated covenants of two non-recourse solar energy system loans as a result of the devaluation of the local currency (Indian Rupee). On September 28, 2012, we obtained a waiver from the lender for the covenant violations, which had a grace period which has now expired. As of December 31, 2013, we are in default and accordingly, the amounts outstanding of \$23.6 million under these loans are classified as current. We are currently in negotiations with the counterparty to extend this waiver, and we can make no assurances that such waiver can be obtained or the covenants will be met. The solar energy systems for these two project companies collateralize the loans and there is no recourse outside of these project companies.

Capital Leaseback Obligations

We are party to master lease agreements that provide for the sale and simultaneous leaseback of certain solar energy systems constructed by us. On December 31, 2013, we had \$94.0 million of capital lease obligations outstanding. Generally, this classification occurs when the term of the lease is greater than 75% of the estimated economic life of the solar energy system and the transaction is not subject to real estate accounting. The terms of the leases are typically 25 years with certain leases providing terms as low as 10 years and providing for early buyout options. The specified rental payments are based on projected cash flows that the solar energy system will generate. Since the SunEdison acquisition date on November 20, 2009, we have not entered into any arrangements that have resulted in accounting for the sale leaseback as a capital lease.

Financing Leaseback Obligations

As more fully described in Note 2, in certain transactions we account for the proceeds of sale leasebacks as financings, which are typically secured by the solar energy system asset and its future cash flows from energy sales, but without recourse to us under the terms of the arrangement. The structure of the repayment terms under the lease results in negative amortization throughout the financing period, and we therefore recognize the lease payments as interest expense. The balance outstanding for sale leaseback transactions accounted for as financings as of December 31, 2013 is \$1,384.8 million, which includes the below mentioned transactions. The maturities range from 2021 to 2038 and are collateralized by the related solar energy system assets with a carrying amount of \$1,384.8 million.

On March 31, 2011, one of our project subsidiaries executed a master lease agreement with a U.S. financial institution which provides for the sale and simultaneous leaseback of certain solar energy systems constructed by us. The total capacity under this agreement is \$124.4 million, of which \$123.6 million is outstanding and \$0.8 million is available as of December 31, 2013. The specified rental payments will be based on projected cash flows that the solar energy systems will generate.

On September 24, 2012, one of our project subsidiaries executed a master lease agreement with a U.S. financial institution which provides for the sale and simultaneous leaseback of certain solar energy systems constructed by us. The total capacity under this agreement was \$101.4 million, of which \$92.8 million is outstanding and \$8.6 million was available as of December 31, 2013. The specified rental payments will be based on projected cash flows that the solar energy systems will generate.

Other System Financing Transactions

Other system financing transactions represent the cash proceeds that we received in connection with an executed solar energy system sales contract that has not met the sales recognition requirements under real estate accounting and has been accounted for as a financing. Included in other system financing is \$18.4 million of proceeds collected under three separate solar energy system sales agreements with the buyer that provides the buyer with a put option that could become an obligation in the event that we are unable to fulfill certain performance warranties set to expire during 2015. The remaining portion of other system financings of \$103.5 million relates to cash proceeds received in connection with separate solar energy system sales contracts for which we have substantial continuing involvement. There are no principal or interest payments associated with these transactions. Of the \$103.5 million, \$41.3 million relates to two projects sold in Italy which did not meet the requirements to record revenue due to an indemnification that expires in 2016. The remaining amount relates to eight projects sold in the U.S., Korea, and Canada.

Maturities

Financing Leaseback Obligations

The aggregate amounts of minimum lease payments on our financing leaseback obligations are \$1,384.8 million. Payments from 2014 through 2018 are as follows:

In millions	2014	2015	2016	2017	2018
Minimum lease payments	\$ 23.3	\$ 16.2	\$ 16.1	\$ 15.9	\$ 15.3

Capital Leaseback Obligations

The aggregate amounts of payments on capital leases after December 31, 2013 are as follows:

In millions	
2014	\$ 7.2
2015	6.5
2016	6.5
2017	6.5
2018	6.1
Thereafter	91.1
Total minimum lease payments	123.9
Less amounts representing interest	(29.9)
Present value of minimum lease payments	94.0
Less current portion of obligations under capital leases	(4.5)
Noncurrent portion of obligations under capital leases	\$ 89.5

Other Debt

The aggregate amounts of payments on short-term and long-term debt, excluding capital and financing leaseback obligations, after December 31, 2013 are as follows:

In millions	2014	2015	2016	2017	2018	Thereafter	Total
Maturities of debt (a)	\$ 360.8	\$ 93.6	\$ 70.7	\$ 32.2	\$ 639.8	\$ 1,233.4	\$ 2,430.5

(a) Included in maturities of long-term debt is \$121.9 million of maturities relating to other system financing transactions that represent the contract price for solar energy systems under existing sales contracts that contain certain contractual provisions that preclude sale treatment under real estate accounting rules. We account for these transactions as financings of \$18.4 million and \$103.5 million that will mature upon the expiration of the contractual provisions that preclude sale treatment in years 2015 and thereafter, respectively. These could become payment obligations in the event we default under the executed sales agreement, and the buyer may execute its contractual option to put (sell) the project back to us for a full refund of the contract price.

Capitalized Interest

During the years ended December 31, 2013 and 2012, we capitalized \$22.3 million and \$19.9 million of interest to the consolidated balance sheet, respectively.

11. STOCKHOLDERS' EQUITY

On September 18, 2013, we completed the issuance and sale in a registered public offering (the "Offering") of 34,500,000 shares of the Company's common stock, par value \$0.01 per share, at a public offering price of \$7.25 per share, less discounts and commissions of \$0.29 per share. All of the shares of common stock previously held as treasury stock were issued in connection with the Offering. We received net proceeds of approximately \$239.6 million, after deducting underwriting discounts and commissions and related offering costs.

Preferred Stock

We have 50.0 million authorized shares of \$.01 par value preferred stock and no preferred shares issued and outstanding as of December 31, 2013 and 2012. The Board of Directors is authorized, without further action by the stockholders, to issue any or all of the preferred stock.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders. Subject to the rights of any holders of preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by the Board of Directors. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in the distribution of all assets remaining after payment of liabilities, subject to the rights of any holders of preferred stock. The declaration and payment of future dividends on our common stock, if any, will be at the sole discretion of the Board of Directors and is subject to restrictions as contained in our debt agreements. There were no dividends declared or paid during the years ended December 31, 2013, 2012 and 2011.

Our Board of Directors has approved a \$1.0 billion stock repurchase program. The stock repurchase program allows us to purchase common stock from time to time on the open market or through privately negotiated transactions using available cash. The specific timing and amount of repurchases will vary based on market conditions and other factors and may be modified, extended or terminated by the Board of Directors at any time. No shares were repurchased in 2013, 2012, or 2011 under the stock repurchase program. From inception through December 31, 2013, we have repurchased 9.0 million shares at a total cost of \$448.0 million.

Redeemable Noncontrolling Interest

On June 27, 2012, we issued redeemable common stock in certain consolidated subsidiaries to a non-affiliated third party for \$10.4 million in proceeds (net of stock issuance costs) representing a 15% noncontrolling interest in those consolidated subsidiaries, which was initially reported as Redeemable Noncontrolling Interest in the temporary equity section on the consolidated balance sheet. Under the terms of the arrangement, the noncontrolling interest holder had an option to make additional investments up to an aggregate of approximately \$55.0 million. The noncontrolling interest holder also had a contingent right to require us to repurchase the holder's 15% interest at a redemption price that did not represent fair value. Accordingly, we adjusted the redeemable noncontrolling interest to its expected redemption value, resulting in a \$1.6 million reduction to retained earnings as of December 31, 2012.

On September 24, 2013, we entered into a Share Sale Agreement with the noncontrolling interest holder, pursuant to which we agreed to repurchase the shares of redeemable common stock for a total of \$14.9 million in four installments with payments beginning January 15, 2014 and continuing each quarter through October 15, 2014. As a result of our unconditional obligation under the Share Sale Agreement, the amount previously reported as Redeemable Noncontrolling Interest was reclassified to Accrued Liabilities and Other Liabilities in the consolidated balance sheet and adjusted to reflect the fair value of our obligation, which resulted in a reduction in retained earnings (accumulated deficit) of \$2.4 million.

Stock-Based Compensation

We have equity incentive plans that provide for the award of non-qualified stock options, restricted stock, performance shares, and restricted stock units to employees, non-employee directors and consultants. We issue new shares to satisfy stock option exercises. During the second quarter of 2013, 16.5 million shares were registered for issuance under our equity incentive plan pursuant to a plan amendment approved by our stockholders at the annual stockholders' meeting on May 30, 2013. In September 2013, 5.6 million of the shares reserved for issuance under the plan were used in connection with the Offering discussed above. As of December 31, 2013, there were 5.3 million shares remaining available for future grant under these plans. Options to employees are generally granted upon hire and annually or semi-annually, usually with four-year ratable vesting, although certain grants have three, four or five-year cliff vesting and some options have performance-based vesting criteria. No option has a term of more than 10 years. The exercise price of stock options granted has historically equaled the market price on the date of the grant.

The following table presents information regarding outstanding stock options as of December 31, 2013 and activity during the year then ended:

	Shares	Weighted-Average Exercise Price	Aggregate Intrinsic Value (in millions)	Weighted-Average Remaining Contractual Life
Beginning of year	21,411,119	\$ 6.12		
Granted	5,996,083	8.78		
Exercised	(448,081)	3.55		
Forfeited	(2,708,669)	5.50		
Expired	(507,688)	18.73		
End of year	23,742,764	\$ 6.64	\$ 164.4	8
Options exercisable at year-end	4,360,031	\$ 12.70	\$ 13.4	6

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value (the difference between our closing stock price on the last trading day of 2013 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on December 31, 2013. This amount changes based on the fair market value of our stock. There were no material amounts of option exercises and related cash receipts or tax benefits realized for 2013, 2012 or 2011.

At our May 25, 2012 annual meeting of stockholders, stockholders approved amendments to our equity incentive plans to permit a one-time stock option exchange program pursuant to which certain employees, excluding directors and executive officers, would be permitted to surrender for cancellation certain outstanding stock options with an exercise price substantially greater than our then current trading price in exchange for fewer stock options at a lower exercise price. The option exchange program commenced on July 17, 2012 and closed on August 17, 2012. The number of new stock options replacing surrendered eligible options was determined by an exchange ratio dependent on the exercise price of the original options and constructed to result in the new option value being approximately equal to the value of surrendered options. The program was designed to cause us to incur minimal incremental stock-based compensation expense in future periods. The option exchange resulted in the cancellation of 6.9 million old options and the issuance of 2.0 million new options with an award date of August 20, 2012 and a new exercise price of \$2.77 per share, which were considered forfeited or expired, depending on whether the old options were vested or not. New options issued in the exchange vest over a two or three year period depending on whether the surrendered options were fully or partially vested. The incremental fair value created under the stock option exchange was \$0.2 million, and this cost will be recognized on a straight line basis over the two or three year vesting period. The compensation cost of the original awards will continue to be expensed under the original vesting schedule.

During the third quarter of 2012, we granted an aggregate of 9.4 million options with a 10-year contractual term to select employees, including senior executives, excluding the chief executive officer. The options will vest in three tranches 1 year after our stock achieves the following three price hurdles for 30 consecutive calendar days: \$7.00, \$10.00 and \$15.00. If the individual price hurdles are not met within five years of the grant date, the options tied to that individual price hurdle will be cancelled. The grant date fair value of these awards was \$11.0 million and this compensation cost will be expensed on a straight line basis over the service period of each separately identified tranche. The grant date fair value was calculated for these awards using a probabilistic approach under a Monte Carlo simulation taking into consideration volatility, interest rates and expected term. Because the vesting of these awards is based on stock price performance (a market condition), it is classified as an equity award. Two of the three market price hurdles were met during 2013 and therefore the options tied to those hurdles will vest in 2014. The third price hurdle was not met during 2013.

Our weighted-average assumptions are as follows:

	2013	2012	2011
Risk-free interest rate	1.0%	0.8%	1.7%
Expected stock price volatility	62.8%	68.1%	65.7%
Expected term until exercise (years)	4	4	4
Expected dividends	—%	—%	—%

The weighted-average grant-date fair value per share of options granted was \$4.03, \$1.18 and \$5.94 for 2013, 2012 and 2011, respectively. As of December 31, 2013, \$36.3 million of total unrecognized compensation cost related to stock options is expected to be recognized over a weighted-average period of 2.7 years.

Restricted stock units represent the right to receive a share of our stock at a designated time in the future, provided the stock unit is vested at the time. Recipients of restricted stock units do not pay any cash consideration for the restricted stock units or the underlying shares, and do not have the right to vote or have any other rights of a stockholder until such time as the underlying shares of stock are distributed. Restricted stock units granted to non-employee directors generally vest over a two-year period from the grant date. Restricted stock units granted to employees usually have three, four or five year cliff vesting, or four-year ratable vesting, and certain grants are subject to performance conditions established at the time of grant.

In conjunction with our purchase of SunEdison LLC on November 20, 2009, we approved a Special Inducement Grant Plan. Pursuant to this plan, SunEdison LLC's senior management and certain continuing SunEdison LLC employees received an aggregate of 584,372 restricted stock units which cliff vested on the one year anniversary date of the acquisition. Also under this plan, continuing SunEdison LLC employees were granted an additional aggregate of 1,644,529 restricted stock units which will be subject to both future performance and time vesting requirements. The performance requirements of this latter set of grants are tied to the same metrics as the contingent consideration payable to SunEdison LLC unit holders. SunEdison LLC met its performance requirements and the former SunEdison LLC employees had the following vesting schedule: (i) 34% of such earned grants vested on January 31, 2011, (ii) 33% vested on December 31, 2011, and (iii) the remaining 33% vested on December 31, 2012. The expense associated with these RSUs was not considered part of the purchase price of SunEdison LLC because the employees were required to render future service in order to vest in these awards and thus, the compensation expense is recognized over the future vesting periods as the services are rendered. The amount of stock compensation expense for the years ended December 31, 2013 and 2012 related to the cliff vesting awards was not material and was \$1.6 million for the year ended December 31, 2011. The amount of stock compensation expense related to the performance awards was not material for the year ended December 31, 2013 and was \$2.7 million and \$3.2 million for the years ended December 31, 2012 and 2011, respectively.

The following table presents information regarding outstanding restricted stock units as of December 31, 2013 and changes during the year then ended:

	Restricted Stock Units	Aggregate Intrinsic Value (in millions)	Weighted- Average Remaining Contractual Life
Beginning of year	4,401,768		
Granted	1,528,160		
Converted	(1,188,634)		
Forfeited	(702,512)		
End of year	4,038,782	\$ 56.4	2

At December 31, 2013, there were no restricted stock units which were convertible. As of December 31, 2013, \$17.7 million of total unrecognized compensation cost related to restricted stock units is expected to be recognized over a weighted-average period of approximately 2 years. The weighted-average fair value of restricted stock units on the date of grant was \$8.88, \$3.06 and \$11.09 in 2013, 2012 and 2011, respectively.

The amount of stock-based compensation cost capitalized into inventory and fixed assets was not material for the years ended December 31, 2013, 2012 and 2011. Further, the recognition of excess tax benefits from share-based payment arrangements was not material for the years ended December 31, 2013, 2012 and 2011.

Stock-based compensation expense recorded for the years ended December 31, 2013, 2012 and 2011 was allocated as follows:

	2013	2012	2011
In millions			
Cost of goods sold	\$ 6.1	\$ 5.9	\$ 5.9
Marketing and administration	20.0	21.7	32.5
Research and development	3.6	3.8	5.0
Stock-based employee compensation	\$ 29.7	\$ 31.4	\$ 43.4

12. (LOSS) EARNINGS PER SHARE

In 2013, 2012 and 2011, basic and diluted (loss) earnings per share (EPS) were calculated as follows:

	2013		2012		2011	
	Basic	Diluted	Basic	Diluted	Basic	Diluted
In millions, except per share amounts						
EPS Numerator:						
Net loss attributable to common stockholders	\$ (586.7)	\$ (586.7)	\$ (150.6)	\$ (150.6)	\$ (1,536.0)	\$ (1,536.0)
Adjustment of redeemable noncontrolling interest	(6.8)	(6.8)	(1.6)	(1.6)	—	—
Adjusted net loss to common stockholders	<u>\$ (593.5)</u>	<u>\$ (593.5)</u>	<u>\$ (152.2)</u>	<u>\$ (152.2)</u>	<u>\$ (1,536.0)</u>	<u>\$ (1,536.0)</u>
EPS Denominator:						
Weighted-average shares outstanding	\$ 241.7	\$ 241.7	\$ 230.9	\$ 230.9	\$ 229.9	\$ 229.9
Stock options and restricted stock units	—	—	—	—	—	—
Common stock related to acquisitions	—	—	—	—	—	—
Total shares	<u>241.7</u>	<u>241.7</u>	<u>230.9</u>	<u>230.9</u>	<u>229.9</u>	<u>229.9</u>
Loss per share	<u>\$ (2.46)</u>	<u>\$ (2.46)</u>	<u>\$ (0.66)</u>	<u>\$ (0.66)</u>	<u>\$ (6.68)</u>	<u>\$ (6.68)</u>

For the year ended December 31, 2013 and 2012, the numerator of the EPS calculation included the amount recorded to adjust the redeemable noncontrolling interest balance to redemption value. As a result of the Share Sale Agreement entered into with the noncontrolling interest holder (see Note 11), the numerator of the EPS calculation will be reduced by the noncontrolling interest holder's share of any earnings of the subsidiary until we have repurchased all of the noncontrolling interest holder's shares.

Weighted-average shares outstanding for the year ended December 31, 2013 includes the impact of the issuance of 34,500,000 shares of common stock on September 18, 2013 in the registered public offering (see Note 11).

In 2013, 2012 and 2011, all options and warrants to purchase our stock and restricted stock units were excluded from the calculation of diluted EPS because the effect was antidilutive due to the net loss incurred for the respective periods.

13. COMPREHENSIVE LOSS

Comprehensive income (loss) represents a measure of all changes in equity that result from recognized transactions and other economic events other than transactions with owners in their capacity as owners. Other comprehensive loss includes foreign currency translations, gains (losses) on available-for-sale securities, gains (losses) on hedging instruments and pension and other post-employment related adjustments.

The following table presents the changes in each component of accumulated other comprehensive loss, net of tax:

In millions	Foreign Currency Items ⁽¹⁾	Available-for-sale Securities	Hedging Activities	Pension and Other Post-Employment Plans	Accumulated Other Comprehensive Loss
Balance, December 31, 2012	\$ 32.3	\$ (7.6)	\$ (4.3)	\$ (60.2)	\$ (39.8)
Other comprehensive (loss) income before reclassifications	(52.3)	9.5	(8.9)	30.5	(21.2)
Amounts reclassified from accumulated other comprehensive (loss) income	—	(1.9)	0.8	2.1	1.0
Net other comprehensive (loss) income	<u>(52.3)</u>	<u>7.6</u>	<u>(8.1)</u>	<u>32.6</u>	<u>(20.2)</u>
Balance, December 31, 2013	<u>\$ (20.0)</u>	<u>\$ —</u>	<u>\$ (12.4)</u>	<u>\$ (27.6)</u>	<u>\$ (60.0)</u>

⁽¹⁾ Excludes foreign currency adjustments as it relates to noncontrolling interests. Refer to the consolidated statements of comprehensive loss.

The following table presents the changes in each component of accumulated other comprehensive loss, net of tax, and the affected line in the consolidated statement of operations for reclassifications:

In millions	For the Year Ended December 31, 2013
	Net of Tax Amount
Foreign currency translation adjustments	\$ (52.3)
Unrealized gain on available-for-sale securities	9.5
Reclassifications for sale on available-for-sale securities ⁽²⁾	(1.9)
Unrealized loss on hedging instruments	(8.9)
Loss on settlements of hedging instruments ⁽¹⁾	0.8
Actuarial gain	30.5
Reclassifications for amortization of prior service credits and net actuarial loss ⁽³⁾	2.1
Other comprehensive loss	\$ (20.2)

⁽¹⁾ These other comprehensive loss components are included in interest expense.

⁽²⁾ These other comprehensive loss components are included in other non-operating expense, net.

⁽³⁾ These other comprehensive loss components are included in marketing and administration expenses.

14. INCOME TAXES

The net loss before income tax expense (benefit) and equity in earnings (loss) of joint ventures consists of the following:

In millions	For the Year Ended December 31,		
	2013	2012	2011
U.S.	\$ (549.4)	\$ (261.1)	\$ (780.6)
Foreign	(42.4)	179.6	(603.5)
Total	\$ (591.8)	\$ (81.5)	\$ (1,384.1)

Income tax expense (benefit) consists of the following:

In millions	Current	Deferred	Total
Year ended December 31, 2013:			
U.S. Federal	\$ (13.1)	\$ 47.6	\$ 34.5
State and local	1.7	(6.1)	(4.4)
Foreign	6.1	(8.4)	(2.3)
Total	\$ (5.3)	\$ 33.1	\$ 27.8
Year ended December 31, 2012:			
U.S. Federal	\$ 38.9	\$ (0.2)	\$ 38.7
State and local	(14.0)	0.7	(13.3)
Foreign	47.5	(8.0)	39.5
Total	\$ 72.4	\$ (7.5)	\$ 64.9
Year ended December 31, 2011:			
U.S. Federal	\$ 6.7	\$ 37.2	\$ 43.9
State and local	4.6	4.7	9.3
Foreign	15.9	4.0	19.9
Total	\$ 27.2	\$ 45.9	\$ 73.1

Effective Tax Rate

Income tax expense differed from the amounts computed by applying the statutory U.S. federal income tax rate of 35% to loss before income taxes and equity in earnings (loss) of joint ventures. The "Effect of foreign operations" includes the net reduced taxation of foreign profits from combining jurisdictions with rates above and below the U.S. federal statutory rate and the impact of U.S. foreign tax credits.

For the Year Ended December 31,

	2013	2012	2011
Income tax at federal statutory rate	(35.0)%	(35.0)%	(35.0)%
Increase (reduction) in income taxes:			
Effect of foreign operations	(8.7)	(71.6)	19.3
Foreign incentives	(0.4)	(5.7)	(1.1)
Foreign repatriation	—	(2.1)	0.4
State income taxes, net of U.S. Federal benefit	(0.4)	(16.6)	0.7
Tax authority positions, net	0.2	3.8	1.2
Valuation allowance	47.1	183.2	15.1
Other, net	1.9	23.6	4.7
Effective tax rate	4.7 %	79.6 %	5.3 %

The 2013 net expense is primarily attributable to the tax expense recognized at various rates in certain foreign jurisdictions which generate taxable income, charges recognized to establish valuation allowance on certain deferred tax assets due to the likely inability to realize a benefit for certain future tax deductions and a net expense of \$9.6 million due to the closure of the Internal Revenue Service (“IRS”) examination as discussed below.

The 2012 net expense is primarily the result of the worldwide operational earnings mix at various rates, charges recognized to establish valuation allowances on certain deferred tax assets due to the likely inability to realize benefit for certain future tax deductions, a net increase to the accrual for uncertain tax positions, and the impact of examination of tax returns by the IRS, partially offset by the release of a valuation allowance in a foreign jurisdiction.

The 2011 net expense is primarily the result of charges taken to value certain deferred tax assets as a result of the continued decline in solar market conditions, the restructuring charges announced on December 8, 2011, and cumulative losses in the U.S. and certain foreign jurisdictions. The domestic impact is the combination of charges taken related to certain deferred tax and the impact, including foreign tax credits, of the deemed repatriation of the earnings of certain foreign subsidiaries. The foreign impact is a net tax expense lower than the U.S. federal income tax rate due to lower statutory tax rates, available tax incentives and reserves for uncertain tax positions.

Certain of our subsidiaries have been granted a concessionary tax rate of between 0% and 5% on all qualifying income for a period of up to five to ten years based on investments in certain machinery and equipment and other development and expansion activities, resulting in tax benefits for 2013, 2012 and 2011 of approximately \$2.2 million, \$4.6 million and \$15.7 million, respectively. Under the awards, the income tax rate for qualifying income will be an incentive tax rate lower than the corporate tax rate. These subsidiaries were in compliance with the qualifying conditions of these tax incentives during 2013, 2012 and 2011. The last of these incentives will expire between 2017 and 2022.

During the third quarter of 2013, we concluded the IRS examination for the 2007 through 2010 years and, as a result, we recorded favorable and unfavorable adjustments to our accrual for uncertain tax positions. The net effect to our tax provision for the closure of the exam was a \$9.6 million tax expense.

We are currently under examination by the IRS for the 2011 tax year. We are also under examination by certain foreign tax jurisdictions. We believe it is reasonably possible that some portions of these examinations could be completed within the next twelve months and have currently recorded amounts in the financial statements that are reflective of the current status of these examinations. We are subject to examination in various jurisdictions for the 2006 through 2012 tax years.

During 2013, we distributed all the earnings of certain foreign wholly owned subsidiaries to the U.S. These earnings were previously considered permanently reinvested in the business and, accordingly, the potential deferred tax impacts related to these earnings was not recognized. The current tax expense recorded for these earnings was \$256.4 million which was fully offset by foreign tax credits. Additionally, during the fourth quarter of 2013, we determined the undistributed earnings of one of our foreign wholly owned subsidiaries would be remitted to the U.S. in the foreseeable future. These earnings were also previously considered permanently reinvested in the business and, accordingly, the potential deferred tax effects related to these earnings was not recognized. The deferred tax effect of this newly planned remittance was not material and was fully offset by a valuation allowance. The undistributed earnings of all other foreign subsidiaries are not expected to be remitted to the U.S. parent corporation in the foreseeable future. Federal and state income taxes have not been provided on accumulated but undistributed earnings of these foreign subsidiaries aggregating approximately \$123.0 million and \$382.7 million as of

December 31, 2013 and 2012, respectively. The determination of the amount of the unrecognized deferred tax liability related to our undistributed earnings is not practicable.

Uncertain Tax Positions

A reconciliation of the beginning and ending amount of gross unrecognized tax benefits is as follows:

	For the year ended December 31,	
	2013	2012
In millions		
Beginning of year	\$ 50.9	\$ 46.2
Additions based on tax positions related to the current year	7.8	7.8
Reductions due to settlement with tax authorities	(34.2)	—
Decreases for tax positions of prior years	(7.8)	(3.1)
End of year	\$ 16.7	\$ 50.9

As of December 31, 2013 and 2012, we had \$17.1 million and \$53.2 million, respectively, of unrecognized tax benefits, net of U.S. federal, state and local deductions, associated with open tax years for which we are subject to audit in U.S. federal, and various state and foreign jurisdictions. This also includes estimated interest and penalties. The current change to the liability includes a decrease of \$34.2 million primarily related to closure of the U.S. IRS examination. All of our unrecognized tax benefits at December 31, 2013 and 2012 would favorably affect our effective tax rate if recognized.

Interest and penalties were not material for the year ended December 31, 2013. During the years ended December 31, 2012 and 2011, we recognized approximately \$0.2 million and \$0.4 million, respectively, in interest and penalties and had approximately \$0.4 million and \$2.3 million accrued at December 31, 2013 and 2012, respectively, for the payment of interest and penalties.

Deferred Taxes

The tax effects of the major items recorded as deferred tax assets and liabilities are:

	As of December 31,	
	2013	2012
In millions		
Deferred tax assets:		
Inventories	\$ 11.9	\$ 14.9
Restructuring liabilities	87.3	31.2
Accrued liabilities	61.1	52.0
Solar energy systems	571.0	461.9
Deferred revenue	51.3	66.3
Property, plant and equipment	52.9	35.7
Pension, medical and other employee benefits	—	12.2
Foreign repatriation	—	3.4
Net operating loss carry forwards	110.3	132.3
Foreign tax credits	252.9	70.8
Other	92.5	75.6
Total deferred tax assets	\$ 1,291.2	\$ 956.3
Valuation allowance	(785.9)	(510.5)
Net deferred tax assets	\$ 505.3	\$ 445.8
Deferred tax liabilities:		
Solar energy systems	\$ (372.9)	\$ (286.7)
Branch operations	(51.8)	—
Other	(14.9)	(74.2)
Total deferred tax liabilities	\$ (439.6)	\$ (360.9)
Net deferred tax assets	\$ 65.7	\$ 84.9

The solar energy systems deferred tax asset of \$571.0 million is entirely associated with the Solar Energy segment. For tax purposes, income is recognized in the initial transaction year for all solar system sales and sale leasebacks; Note 2 discusses the book accounting for each of the different revenue recognition policies. The deferred tax asset represents the future disallowance of deferred book revenue recognized in post transaction years.

Our deferred tax assets and liabilities, netted by taxing jurisdiction, are reported in the following captions in the consolidated balance sheet:

	As of December 31,	
	2013	2012
In millions		
Current deferred tax assets, net (recorded in prepaids and other current assets)	\$ 87.9	\$ 89.0
Non-current deferred tax liabilities, net (recorded in other liabilities)	(22.2)	(4.1)
Total	\$ 65.7	\$ 84.9

Our net deferred tax assets totaled \$65.7 million as of December 31, 2013 compared to \$84.9 million at December 31, 2012. The decrease of \$19.2 million in net deferred tax assets from 2012 to 2013 is primarily attributable to additional deferred tax liabilities, principally related to solar system deferred tax liabilities. Deferred tax assets generated in 2013 were reduced by recognizing an increase in the valuation allowance associated with our U.S. operations, which were in a three-year cumulative loss position in both 2012 and 2013. This contributed to the majority of the increase in the valuation allowance in 2013. We believe that it is more likely than not, based on our projections of future taxable income in certain jurisdictions, that we will generate sufficient taxable income to realize the benefits of the net deferred tax assets of \$65.7 million. At December 31, 2013, we had deferred tax assets associated with net operating loss carryforwards of \$17.7 million in a certain foreign jurisdiction that will not expire.

15. EMPLOYEE-RELATED LIABILITIES

Pension and Post-Employment Benefit Plans

We sponsor a defined benefit pension plan covering certain U.S. employees and a non-qualified pension plan under the Employee Retirement Income Security Act of 1974. The U.S. defined benefit plan covered most U.S. employees prior to January 2, 2002 when we ceased adding new participants to the plan and amended the plan to discontinue future benefit accruals for certain participants. Effective January 1, 2012, the accumulation of new benefits for all participants under the U.S. defined benefit pension plan was frozen. The non-qualified pension plan provides pension benefits in addition to the benefits provided by the U.S. defined benefit pension plan. Eligibility for participation in this plan requires coverage under the U.S. defined benefit plan and other specific circumstances. The non-qualified plan has also been amended to discontinue future benefit accruals.

We also sponsor defined benefit pension plans for our eligible employees in Japan and Taiwan.

We also provide post-retirement health care benefits and post-employment disability benefits to certain eligible U.S. employees. On January 1, 2002, we amended the health care plan to discontinue benefits for certain participants. Effective January 2, 2002, no new participants will be eligible for post-retirement health care benefits under the plan. The health care plan is contributory, with retiree contributions adjusted annually, and contains other cost-sharing features such as deductibles and coinsurance.

Effective January 1, 2012, the amortization period for the unamortized unrealized loss was changed to the remaining life expectancy of the plan participants, which was derived from an actuarial mortality table. This change was triggered since substantially all the plan participants are now inactive or retired. Prior to 2012, the amortization period was derived based on the average remaining service period of the active participants expected to receive benefits.

Net periodic post-retirement benefit cost (income) consists of the following:

<u>Year Ended December 31,</u>	<u>Pension Plans</u>			<u>Health Care and Other Plans</u>		
	<u>2013</u>	<u>2012</u>	<u>2011</u>	<u>2013</u>	<u>2012</u>	<u>2011</u>
In millions						
Service cost	\$ 1.0	\$ 1.1	\$ 2.9	\$ —	\$ —	\$ —
Interest cost	6.7	7.8	9.4	0.7	0.8	1.1
Expected return on plan assets	(13.7)	(13.8)	(15.4)	—	—	—
Amortization of prior service credit	—	—	—	(0.7)	(0.7)	(0.5)
Net actuarial loss (gain)	2.9	4.1	7.9	(0.1)	(0.5)	(1.5)
Settlement charges	—	6.7	—	—	—	—
Net periodic benefit cost (income)	<u>\$ (3.1)</u>	<u>\$ 5.9</u>	<u>\$ 4.8</u>	<u>\$ (0.1)</u>	<u>\$ (0.4)</u>	<u>\$ (0.9)</u>

In 2012, our pension plans experienced significant lump sum payment activity related to the 2011 global reduction in force described in Note 3. This event triggered settlement accounting in 2012 in both the U.S. and foreign plans because there were significant pension benefit obligations settled during 2012. Settlement accounting was not triggered in 2013 or 2011.

To determine pension and post-employment benefit measurements for the plans, we use a measurement date of December 31. Our pension and post-employment benefit cost (income) and obligations are actuarially determined, and we use various actuarial assumptions, including the discount rate, rate of salary increase, and expected return on plan assets to estimate our pension cost (income) and obligations. The following is a table of actuarial assumptions used to determine the net periodic benefit cost (income):

<u>Year Ended December 31,</u>	Pension Plans			Health Care and Other Plans		
	2013	2012	2011	2013	2012	2011
Weighted-average assumptions:						
Discount rate	3.14%	3.65%	4.58%	3.38%	3.93%	5.09%
Expected return on plan assets	8.38%	8.34%	8.36%	NA	NA	NA
Rate of compensation increase	NA	NA	3.63%	3.75%	3.75%	3.75%
Current health care cost trend rate	NA	NA	NA	8.00%	8.00%	8.00%
Ultimate health care cost trend rate	NA	NA	NA	4.50%	5.00%	5.00%
Year the rate reaches ultimate trend rate	NA	NA	NA	2022	2018	2017

We determine the expected return on plan assets based on our pension plans' intended long-term asset mix. The expected investment return assumption used for the pension plans reflects what the plans can reasonably expect to earn over a long-term period considering plan target allocations. The expected return includes an inflation assumption and adds real returns for the asset mix and a premium for active management, and subtracts expenses. While the assumed expected rate of return on the U.S. pension plan assets in 2013 and 2012 was 8.5%, the actual return experienced on our U.S. pension plan assets in 2013 and 2012 was 14.6% and 12.8%, respectively.

We consult with the plans' actuaries to determine a discount rate assumption for pension and other post-retirement and post-employment plans that reflects the characteristics of our plans, including expected cash outflows from our plans, and utilize an analytical tool that incorporates the concept of a hypothetical yield curve.

The rate of compensation increase assumption is not applicable to the pension plans because these plans are frozen.

The following summarizes the change in benefit obligation, change in plan assets, and funded status of the plans:

<u>Year ended December 31,</u>	<u>Pension Plans</u>		<u>Health Care and Other Plans</u>	
	<u>2013</u>	<u>2012</u>	<u>2013</u>	<u>2012</u>
In millions				
Change in benefit obligation:				
Benefit obligation at beginning of year	\$ 223.5	\$ 227.2	\$ 21.5	\$ 20.1
Service cost	1.0	1.1	—	—
Interest cost	6.7	7.8	0.7	0.8
Plan participants' contributions	—	—	0.4	0.5
Actuarial loss (gain)	(16.2)	17.8	(4.2)	2.3
Gross benefits paid	(15.0)	(8.7)	(1.3)	(2.2)
Settlements	—	(21.0)	—	—
Currency exchange gain	(3.0)	(0.7)	—	—
Benefit obligation at end of year	<u>\$ 197.0</u>	<u>\$ 223.5</u>	<u>\$ 17.1</u>	<u>\$ 21.5</u>
Change in plan assets:				
Fair value of plan assets at beginning of year	\$ 171.8	\$ 176.0	\$ —	\$ —
Actual gain on plan assets	23.7	22.3	—	—
Employer contributions	0.8	0.6	0.9	1.7
Plan participants' contributions	—	—	0.4	0.5
Settlements	—	(18.5)	—	—
Gross benefits paid	(15.0)	(8.7)	(1.3)	(2.2)
Currency exchange (loss) gain	(0.1)	0.1	—	—
Fair value of plan assets at end of year	<u>\$ 181.2</u>	<u>\$ 171.8</u>	<u>\$ —</u>	<u>\$ —</u>
Net amount recognized	<u>\$ (15.8)</u>	<u>\$ (51.7)</u>	<u>\$ (17.1)</u>	<u>\$ (21.5)</u>
Amounts recognized in statement of financial position:				
Other assets, noncurrent	\$ 18.4	\$ —	\$ —	\$ —
Accrued liabilities, current	(0.8)	(0.6)	(1.3)	(1.4)
Pension and post-employment liabilities, noncurrent	(33.4)	(51.1)	(15.8)	(20.1)
Net amount recognized	<u>\$ (15.8)</u>	<u>\$ (51.7)</u>	<u>\$ (17.1)</u>	<u>\$ (21.5)</u>

Amounts recognized in accumulated other comprehensive (loss) income (before tax):

<u>As of December 31,</u>	<u>Pension Plans</u>		<u>Health Care and Other Plans</u>	
	<u>2013</u>	<u>2012</u>	<u>2013</u>	<u>2012</u>
In millions				
Net actuarial loss (gain)	\$ 57.1	\$ 86.8	\$ (4.4)	\$ (0.3)
Prior service credit	—	—	(11.4)	(12.1)
Net amount recognized	<u>\$ 57.1</u>	<u>\$ 86.8</u>	<u>\$ (15.8)</u>	<u>\$ (12.4)</u>

The estimated amounts that will be amortized from accumulated other comprehensive (loss) income into net periodic benefit cost (income) in 2014 are as follows:

In millions	<u>Pension Plans</u>	<u>Health Care and Other Plans</u>
Actuarial loss (gain)	\$ 1.9	\$ (1.1)
Prior service credit	—	(0.7)
Total	<u>\$ 1.9</u>	<u>\$ (1.8)</u>

The following is a table of the actuarial assumptions used to determine the benefit obligations of our pension and other post-employment plans:

<u>As of December 31,</u>	Pension Plans		Health Care and Other Plans	
	2013	2012	2013	2012
Weighted-average assumptions:				
Discount rate	3.80%	3.14%	4.28%	3.37%
Rate of compensation increase	NA	NA	3.75%	3.75%

The composition of our plans and age of our participants are such that, as of December 31, 2013 and 2012, the health care cost trend rate no longer has a significant effect on the valuation of our other post-employment benefits plans.

The investment objectives of our pension plan assets are as follows:

- To achieve a favorable relative return as compared with inflation;
- To achieve an above average total rate of return relative to capital markets;
- Preservation of capital through a broad diversification among asset classes which react, as nearly as possible, independently to varying economic and market circumstances; and
- Long-term growth, with a degree of emphasis on stable growth, rather than short-term capital gains.

The pension plans are invested primarily in marketable securities, including common stocks, bonds and interest-bearing deposits. The weighted-average allocation of pension benefit plan assets at year ended December 31 were as follows:

<u>Asset Category (Dollars in millions)</u>	2013 Target Allocation	Actual Allocation	
		2013	2012
Cash	—%	2%	2%
Group annuity contract	—%	28%	31%
Equity securities	60%	59%	54%
Fixed income securities	40%	11%	13%
Total	100%	100%	100%

Judgment is required in evaluating both quantitative and qualitative factors in the determination of significance for purposes of fair value level classification. Valuation techniques used are generally required to maximize the use of observable inputs and minimize the use of unobservable inputs.

Following is a description of the valuation techniques and inputs used for instruments measured at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Mutual Funds

Mutual funds are valued at the closing price reported on the active market on which they are traded and are classified within Level 1 of the valuation hierarchy.

Group Annuity Contract

This investment represents a fully benefit-responsive guaranteed group annuity contract, with no maturity date. The group annuity contract is designed to provide safety of principal, liquidity, and a competitive rate of return. The fair value of the group annuity contract is estimated to be the contract value, which represents contributions plus earnings, less participant withdrawals and administrative expenses. Contract value is the relevant measurement attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the arrangement. The crediting interest rate is reset quarterly to prevailing market rates, and the pension plan can make withdrawals from the group annuity contract subject to certain provisions and restrictions. As of December 31, 2013 and 2012, these restrictions did not result in an impairment of value below contract value. This investment is considered to be cash for purposes of our portfolio target allocations.

While we believe the valuation methods are appropriate and consistent with other market participants' methods, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table sets forth by level within the fair value hierarchy the investments held by the pension plans at December 31, 2013. This table does not include \$4.1 million in cash in accordance with the disclosure requirements of ASC 820.

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Equity mutual funds:				
Large cap funds	\$ 46.9	\$ —	\$ —	\$ 46.9
Mid cap funds	13.7	—	—	13.7
Small cap funds	13.8	—	—	13.8
International funds	22.8	—	—	22.8
Emerging market funds	9.3	—	—	9.3
Fixed income mutual funds:				
Investment grade bond funds	6.9	—	—	6.9
Corporate bond funds	13.3	—	—	13.3
Group Annuity Contract	—	—	50.4	50.4
Total assets at fair value	<u>\$ 126.7</u>	<u>\$ —</u>	<u>\$ 50.4</u>	<u>\$ 177.1</u>

The following table sets forth by Level within the fair value hierarchy the investments held by the pension plans at December 31, 2012. This table does not include \$3.3 million in cash in accordance with the disclosure requirements of ASC 820.

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Equity mutual funds:				
Large cap funds	\$ 38.5	\$ —	\$ —	\$ 38.5
Mid cap funds	11.1	—	—	11.1
Small cap funds	11.0	—	—	11.0
International funds	22.0	—	—	22.0
Emerging market funds	10.3	—	—	10.3
Fixed income mutual funds:				
Investment grade bond funds	8.3	—	—	8.3
Corporate bond funds	13.6	—	—	13.6
Group annuity contract	—	—	53.7	53.7
Total assets at fair value	<u>\$ 114.8</u>	<u>\$ —</u>	<u>\$ 53.7</u>	<u>\$ 168.5</u>

The table below sets forth a summary of changes in the fair value of the Plan's Level 3 assets for the years ended December 31, 2013 and 2012.

	Year Ended	
	December 31, 2013	December 31, 2012
Balance, beginning of year	\$ 53.7	\$ —
Purchases	0.2	54.9
Sales	(4.6)	(1.7)
Interest credited during the year	1.1	0.5
Balance, end of year	<u>\$ 50.4</u>	<u>\$ 53.7</u>

For the years ended December 31, 2013 and 2012, the Plans had no transfers between Levels 1, 2, and 3.

Our pension obligations are funded in accordance with provisions of federal law. The funding status of our U.S pension plan was overfunded by \$18.4 million and underfunded by \$19.5 million as of December 31, 2013 and December 31, 2012, respectively. Our foreign pension plans and health care and other plans were in an underfunded status as of December 31, 2013 and 2012. As of December 31, 2013, the accumulated benefit obligation for our U.S. pension plan was \$159.5 million and the fair value of plan assets was \$177.9 million.

As discussed above, in 2013 the U.S. pension plan assets increased to more than the accumulated benefit obligation. As of December 31, 2013 and 2012, the projected benefit obligation, accumulated benefit obligation and fair value of plan assets for pension plans with an accumulated benefit obligation in excess of plan assets were as follows:

	Pension Plans	
	2013	2012
In millions		
Projected benefit obligation, end of year	\$ 37.6	\$ 223.5
Accumulated benefit obligation, end of year	25.4	212.5
Fair value of plan assets, end of year	3.3	171.8

We expect contributions to our pension and post-employment plans in 2014 to be approximately \$1.1 million and \$1.3 million, respectively. We estimate that the future benefits payable for the pension and other post-retirement plans are as follows:

	Pension Plans	Health Care and Other Plans
In millions		
2014	\$ 17.4	\$ 1.3
2015	15.0	1.3
2016	14.3	1.3
2017	12.9	1.2
2018	12.3	1.2
2019-2023	58.2	5.9

Defined Contribution Plans

We sponsor a defined contribution plan under Section 401(k) of the Internal Revenue Code covering all U.S. salaried and hourly employees, and a defined contribution plan in Taiwan covering most salaried and hourly employees of our Taiwan subsidiary. Our costs included in our consolidated statement of operations totaled \$9.0 million, \$9.1 million and \$9.4 million for 2013, 2012 and 2011, respectively.

Other Employee-Related Liabilities

Employees of our subsidiaries in Italy and Korea are covered by an end of service entitlement that provides payment upon termination of employment. Contributions to these plans are based on statutory requirements and are not actuarially determined. The accrued liability was \$22.2 million and \$21.6 million at December 31, 2013 and 2012, respectively, and is included in other long-term liabilities and accrued liabilities on our balance sheet. The accrued liability is based on the vested benefits to which the employee is entitled assuming employee termination at the measurement date.

16. VARIABLE INTEREST ENTITIES

We are the primary beneficiary of ten VIEs in solar energy projects that we consolidated as of December 31, 2013, four of which existed and were consolidated by the Company as of December 31, 2012. During the year ended December 31, 2013, one solar energy system project company and one other entity that were consolidated as of December 31, 2012 were deconsolidated.

The carrying amounts and classification of our consolidated VIEs' assets and liabilities included in our consolidated balance sheet are as follows:

	As of December 31,	
	2013	2012
In millions		
Current assets	\$ 274.1	\$ 10.3
Noncurrent assets	167.2	56.2
Total assets	\$ 441.3	\$ 66.5
Current liabilities	\$ 22.0	\$ 8.5
Noncurrent liabilities	275.4	69.6
Total liabilities	\$ 297.4	\$ 78.1

The amounts shown in the table above exclude intercompany balances which are eliminated upon consolidation. All of the assets in the table above are restricted for settlement of the VIE obligations, and all of the liabilities in the table above can only be settled using VIE resources. The company has not identified any material VIEs during the year ended December 31, 2013, for which we determined that we are not the primary beneficiary and thus did not consolidate.

During the third quarter of 2013, a VIE (Existing VIE) consolidated by us made an investment in an entity that was determined to be a VIE (New VIE) for which our consolidated Existing VIE was determined to be the primary beneficiary. Therefore, we consolidated the underlying New VIE as of September 30, 2013. During the fourth quarter of 2014, certain contractual amendments and related events required us to reevaluate these entities, and as a result, we concluded that we were no longer determined to be the primary beneficiary of these entities as of December 31, 2013. We therefore deconsolidated the assets and liabilities of the Existing VIE and the assets and liabilities based on provisional amounts associated with preliminary purchase accounting of the New VIE as of December 31, 2013.

17. REVENUE AND PROFIT DEFERRALS

	As of December 31,	
	2013	2012
In millions		
Deferred revenue and profit for solar energy systems:		
Short-term profit deferrals and deposits on solar energy system sales	\$ 154.7	\$ 113.1
Long-term profit deferrals and deposits on solar energy system sales	66.3	126.4
Deferred subsidy revenue	21.1	19.6
Total solar energy system deferred revenue	\$ 242.1	\$ 259.1
Non-solar energy system deferred revenue:		
Short-term deferred revenue	\$ —	\$ —
Long-term deferred revenue	2.6	29.2
Total non-solar energy system deferred revenue	\$ 2.6	\$ 29.2
Total deferred revenue	\$ 244.7	\$ 288.3

Solar Energy System Deferred Revenue

Our Solar Energy segment deferred revenue includes profit deferrals for performance guarantees on systems sold during 2013 and prior periods subject to real estate accounting, customer deposits received for solar energy systems under development, and deferred incentive subsidies that will be amortized over the depreciable life of the system. Profit deferrals for performance guarantees include system production guarantees that generally expire within two years of the system sale date and system uptime guarantees that generally expire during the final years of the system service contract term, which can extend up to twenty years. During the year ended December 31, 2013, we recognized revenue of \$32.3 million related to profit deferral guarantees that expired on projects in Italy and Spain the were sold in 2011. Changes in solar energy system deferred revenue are dependent on the timing of when the guarantees expire and when additional projects are sold.

In addition to the deferred revenue above, we may receive upfront incentives or subsidies from various state governmental jurisdictions that are deferred and recognized on a straight-line basis over the depreciable life of the related solar energy system. During 2013, we received \$2.5 million in upfront incentive payments and recognized \$0.9 million as revenue.

Non Solar Energy System Deferred Revenue

In connection with our long-term solar wafer supply agreements executed during 2006 and subsequent amendments, we have received various equity instruments and other forms of additional consideration. In each case, we have recorded the estimated fair value of the additional consideration to long-term deferred revenue and will recognize the deferred revenue on a pro-rata basis as product is shipped over the life of the agreements. In addition, we have received upfront non-refundable customer deposits upon execution of certain take-or-pay contracts which are deferred and amortized against future purchases. These deposits will be recognized in earnings as we fulfill future customer purchase orders, for which the timing of such orders is not contractually fixed or specified.

On September 30, 2013, we terminated our long-term solar wafer supply agreement with Gintech Energy Corporation ("Gintech") originally entered into on October 25, 2006 and subsequently amended. Under the terms of the original supply agreement, we were to supply Gintech with solar wafers at agreed upon prices on a take or pay basis, and Gintech was required to advance funds to us in the form of both refundable and non-refundable deposits. As part of a separate agreement, we also acquired shares of Gintech stock and shares of stock in a related Gintech entity at amounts deemed to be less than fair value. The non-refundable deposit was recorded as deferred revenue since it could only be fully retained by us after we fulfilled our supply obligations pursuant to the supply agreement. The difference between fair value and the amounts paid for stock were also recorded as deferred revenue since this represented consideration provided by Gintech as part of the supply agreement. Throughout the term of the supply agreement, we have amortized a portion of the deferred revenue into revenue based on actual quantities delivered. As part of the settlement, Gintech agreed that we would retain \$21.9 million of the non-refundable deposit without recourse. In relation to the settlement, we recognized \$22.9 million of revenue in 2013 representing the total amount of the unamortized non-refundable deposit and the total amount of the unamortized difference between fair value and the amounts paid for the stock. Pursuant to the termination agreement, the remaining \$35.1 million refundable deposit will be repaid to Gintech over time with payments beginning December 31, 2013 and continuing each quarter through June 30, 2016.

On March 29, 2013, we amended a long-term solar wafer supply agreement with Tainergy Tech Co., LTD ("Tainergy"). Under the terms of the supply agreement, we were to supply solar grade silicon wafers over a ten-year period at pre-determined pricing for certain volumes on a take-or-pay basis. Tainergy had advanced funds to us in the form of both refundable and non-refundable deposits pursuant to the agreement. Tainergy did not meet its purchase obligations pursuant to the supply agreement and agreed to settle the purchase shortfalls for the first four contract years. As part of the settlement, Tainergy agreed that we would deduct and retain \$25.0 million of the refundable capacity reservation deposit without recourse and as a result, we recognized \$25.0 million as revenue in the first quarter of 2013. In addition to the settlement of purchase shortfalls for the first four contract years, we agreed to significantly reduce required minimum purchase volumes in the remaining six contract years, as well as to modify the pricing terms to be based on market rates similar to our other long-term solar wafer supply agreements. The remaining deposit will be refunded ratably as purchases are made over the remaining six contract years. The forfeiture of the deposit of \$25.0 million, which was previously reflected as a liability, has been reflected as cash provided by operating activities and cash used in financing activities in the consolidated statement of cash flows.

On September 25, 2012, we agreed to terminate a long-term solar wafer supply agreement with Conergy AG. Under the terms of the supply agreement, we were to supply solar grade silicon wafers over a ten-year period at pre-determined pricing for certain volumes on a take-or-pay basis. Conergy had advanced funds to us in the form of both refundable and non-refundable deposits pursuant to the agreement. As part of the termination agreement with Conergy, we returned \$21.3 million of the deposits and collected \$26.7 million. In addition, Conergy agreed to assign to us certain operations and maintenance service agreements for solar projects in Germany, Italy and Spain or, if agreement could not be reached on those assignments, Conergy agreed to pay us \$3.0 million in cash. This assignment was subject to our due diligence. We recognized \$37.1 million as revenue at September 30, 2012 due to the fact we were relieved of our future performance obligations under the agreement. The retention of the deposit, which was previously reflected as a liability, in satisfaction of the take or pay requirement has been classified as an operating cash inflow in the consolidated statement of cash flows. During the third quarter of 2013, pursuant to the terms of the termination agreement, we completed the due diligence period and elected not to take any operation and maintenance service agreements from Conergy and instead elected to receive the \$3.0 million in cash, of which \$2.0 million was collected in 2013 with the remainder collected in January 2014. There was no impact to the consolidated statements of operations as a result of this election.

During the second quarter of 2011, we resolved our long-term solar wafer supply agreement with Suntech. The consideration was comprised of the retention by us of \$53.0 million of cash previously deposited by Suntech under the supply agreement and held by us at the time of the resolution, and a commitment to pay \$67.0 million, which has been paid. Also, we have retained the Suntech warrant originally issued to us in July 2006, which had a related unamortized balance recorded in deferred revenues of \$56.4 million prior to the resolution of the long-term solar wafer supply agreement. These three components totaled \$176.4 million, of which \$149.4 million, \$19.4 million and \$6.9 million was recorded during the second, third and fourth

quarter of 2011, respectively. The remaining \$0.7 million was deferred as of December 31, 2011 and was recognized as revenue in the first quarter of 2012.

18. FAIR VALUE MEASUREMENTS

The following table summarizes the financial instruments measured at fair value on a recurring basis classified in the fair value hierarchy (Level 1, 2 or 3) based on the inputs used for valuation in the accompanying consolidated balance sheets:

Assets (liabilities) in millions	As of December 31, 2013				As of December 31, 2012			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Available-for-sale investments	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 13.4	\$ —	\$ 13.4
Interest rate swap assets	—	2.6	—	2.6	—	—	—	—
Interest rate swap liabilities	—	(2.6)	—	(2.6)	—	(5.0)	—	(5.0)
Currency forward contracts asset	0.7	—	—	0.7	0.5	—	—	0.5
Currency forward contracts liability	(11.5)	—	—	(11.5)	(7.1)	—	—	(7.1)
Cross currency swaps	—	(2.4)	—	(2.4)	—	—	—	—
Note hedge derivatives	—	514.8	—	514.8	—	—	—	—
Conversion option derivative	—	(506.5)	—	(506.5)	—	—	—	—
Warrant derivative	—	(270.5)	—	(270.5)	—	—	—	—
Contingent consideration related to acquisitions	—	—	(35.2)	(35.2)	—	—	(24.9)	(24.9)
Total	<u>\$ (10.8)</u>	<u>\$ (264.6)</u>	<u>\$ (35.2)</u>	<u>\$ (310.6)</u>	<u>\$ (6.6)</u>	<u>\$ 8.4</u>	<u>\$ (24.9)</u>	<u>\$ (23.1)</u>

We acquired less than 10% of the common stock of Gintech at the same time as the execution of a long-term supply agreement with that customer. This investment is accounted for at fair value and is classified as a long-term available-for-sale investment. We sold our entire investment in Gintech in the fourth quarter of 2013.

Our interest rate swaps are considered over the counter derivatives, and fair value is calculated using a present value model with contractual terms for maturities, amortization and interest rates. Level 2, or market observable inputs, such as yield and credit curves are used within the present value models in order to determine fair value. Refer to Note 10 for fair value disclosures on the note hedge derivative, warrant derivative and conversion option derivative referenced above.

The fair value of our currency forward contracts is measured by the amount that would have been paid to liquidate and repurchase all open contracts and was a net liability of \$10.8 million at December 31, 2013, and a net liability of \$6.6 million at December 31, 2012. See Note 4 for additional discussion.

We have estimated the fair value of the contingent consideration outstanding as of December 31, 2013 related to acquisitions at \$35.2 million, which reflects a discount at a credit adjusted interest rate for the period of the contingency. That measure is based on significant inputs that are not observable in the market, which U.S. GAAP refers to as Level 3 inputs. Key assumptions include (i) a discount rate and (ii) a probability adjustment related to the entities' ability to meet operational metrics. See Note 19 for additional discussion.

There were no transfers between Level 1 and Level 2 financial instruments during the year ended December 31, 2013. The following table summarizes changes in Level 3 assets and liabilities measured at fair value on a recurring basis for the years ended December 31, 2013 and 2012:

In millions	Contingent Consideration Related to Acquisitions	Total
Balance at December 31, 2011	\$ (90.8)	\$ (90.8)
Total unrealized losses included in earnings	(15.0)	(15.0)
Acquisitions	80.9	80.9
Balance at December 31, 2012	\$ (24.9)	\$ (24.9)
Total unrealized losses included in earnings	(6.2)	(6.2)
Payment of contingent consideration	15.9	15.9
Acquisitions, purchases, sales, redemptions and maturities	(20.0)	(20.0)
Balance at December 31, 2013	\$ (35.2)	\$ (35.2)
The amount of total losses in 2012 included in earnings attributable to the change in unrealized losses relating to assets and liabilities still held at December 31, 2012	\$ (15.0)	
The amount of total losses in 2013 included in earnings attributable to the change in unrealized losses relating to assets and liabilities still held at December 31, 2013	\$ (6.2)	

- (1) Amounts included in earnings are recorded to non-operating expense (income) in the consolidated statement of operations, except for the amounts for contingent consideration related to acquisitions, for which changes to the fair value were recorded to marketing and administration in the consolidated statement of operations for fair market value adjustments and to interest expense for accretion.

The following table presents the carrying amount and estimated fair value of our outstanding short-term debt, long-term debt and capital lease obligations as of December 31, 2013 and December 31, 2012:

In millions	As of December 31, 2013		As of December 31, 2012	
	Carrying Amount	Estimated Fair Value (1)	Carrying Amount	Estimated Fair Value (1)
Total debt and capital lease obligations	\$ 3,576.2	\$ 2,681.2	\$ 2,368.3	\$ 1,736.2

- (1) Fair value of our debt, excluding our 2018 and 2021 Notes and our 2019 Notes and Second Lien Term Loan, is calculated using a discounted cash flow model with consideration for our non-performance risk (Level 3 assumptions). The estimated fair value of our 2018 and 2021 Notes and 2019 Notes and Second Lien Term Loan, were based on a broker quotation (Level 1). The estimated fair value of our solar energy system debt related to sale-leasebacks is significantly lower than the carrying value of such debt because the fair value estimate is based on the fair value of our fixed lease payments over the term of the leases (Level 3 assumptions). Under real estate accounting, this debt is recorded as a financing obligation, and substantially all of our lease payments are recorded as interest expense with little to no reduction in our debt balance over the term of the lease. As a result, our outstanding sale-leaseback debt obligations will generally result in a one-time gain recognition at the end of the leases for the full amount of the debt. The timing difference between expense and gain recognition will result in increased expense during the term of the leases with a significant book gain at the end of the lease.

19. COMMITMENTS AND CONTINGENCIES

Contingent Consideration

Contingent consideration was recorded in connection with the September 2, 2011 acquisition of Fotowatio Renewable Ventures, Inc ("FRV U.S."). The amount payable was based on FRV U.S. achieving certain milestones in the development of specific solar energy systems over a defined time period. On July 6, 2012, contingent consideration related to the acquisition of FRV U.S. was paid in full in the amount of \$66.4 million.

Contingent consideration was due to the former Solaicx shareholders if certain operational criteria were met from July 1, 2010 through December 31, 2011. The amount payable was based on Solaicx achieving revenues of at least \$60.0 million during such time period, up to a maximum revenue target of \$71.8 million, with the payout on a linear basis between those two amounts. This would entitle the former Solaicx shareholders to receive up to an additional \$27.6 million of a combination of cash and our common stock, with the number of shares fixed at the date of the acquisition agreement. We have concluded that

the revenue targets were not met. The former Solaicx shareholders are disputing whether those performance milestones were met.

Contingent consideration was recorded in connection with three other entities acquired during 2011 and one entity acquired during 2013. The amount payable in cash is based on the entities achieving specific financial metrics or milestones in the development, installation and interconnection of solar energy systems. As of December 31, 2013, the aggregate maximum payouts which could occur under these arrangements is approximately \$38.3 million.

During the years ended December 31, 2013, 2012 and 2011, we recorded an unfavorable adjustment to income of \$5.6 million, an unfavorable adjustment to income of \$12.8 million and a favorable adjustment to income of \$26.3 million, respectively, related to all of our contingent consideration liabilities. These adjustments were based on our revised estimates of operational criteria and project milestones being achieved and were recorded to marketing and administration expense. As of December 31, 2013, a total of \$35.2 million is accrued for contingent consideration and the total maximum aggregate exposure is \$65.9 million. Of the total amount accrued, \$15.2 million is recorded as a short-term liability in contingent consideration related to acquisitions and \$20.0 million is recorded in other liabilities as a long-term liability.

Capital Lease Obligations

As more fully described in Note 10, we are party to master lease agreements that provide for the sale and simultaneous leaseback of certain solar energy systems constructed by us.

Operating Leases and Purchase Obligations

We lease land, buildings, equipment and automobiles under operating leases. Rental expense was \$27.3 million, \$23.6 million and \$17.6 million in 2013, 2012 and 2011, respectively. The total future commitments under operating leases as of December 31, 2013 were \$79.4 million, of which \$77.8 million is noncancellable. Our operating lease obligations as of December 31, 2013 were as follows:

	Payments Due By Period						
	Total	2014	2015	2016	2017	2018	Thereafter
In millions							
Operating Leases	\$ 79.4	\$ 24.9	\$ 22.0	\$ 14.9	\$ 6.9	\$ 3.6	\$ 7.1

Purchase Commitments

We recognized charges of \$5.3 million, \$5.5 million and \$37.4 million during the years ended December 31, 2013, 2012 and 2011, respectively, to cost of goods sold related to the estimated probable shortfall to our purchase obligations associated with certain take-or-pay agreements we have with suppliers for raw materials.

Additionally, as part of our restructuring activities announced in the fourth quarter of 2011, we provided notice to several of our vendors with whom we had long-term supply contracts that we will no longer be fulfilling our purchase obligations under those contracts. During the quarter ended December 31, 2012, one of these vendors filed a notice of arbitration alleging that we failed to comply with our contractual purchase obligations with that vendor. As of December 31, 2013, we have recorded total accruals of \$40.2 million associated with the estimated settlements arising from these purchase obligations with multiple vendors, \$8.9 million of which is recorded to short-term accrued liabilities and \$31.3 million is recorded as long-term other liabilities in our consolidated balance sheet. The amount accrued as of December 31, 2013 represents our best estimate of the probable amounts to settle all of our purchase obligations based on presently known information, which involve the use of assumptions requiring significant judgment. We estimate the range of reasonably possible losses to be up to approximately \$169.0 million, inclusive of the Wacker claims as discussed below in the legal proceedings section. These estimates include the contractual terms of the agreements, including whether or not there are fixed volumes and/or fixed prices. In addition, under certain contracts, the counterparty may have a contractual obligation to sell the materials to mitigate their losses. We also included in our estimate of losses consideration around whether we believe the obligation will be settled through arbitration, litigation or commercially viable alternative resolutions or settlements. We intend to vigorously defend ourselves against any arbitration or litigation. Due to the inherent uncertainties of arbitration and litigation, we cannot predict the ultimate outcome or resolution of such actions. The actual amounts ultimately settled with these vendors could vary significantly, which could have a material adverse impact on our business, results of operations and financial condition.

Indemnification

We have agreed to indemnify some of our solar wafer and semiconductor customers against claims of infringement of the intellectual property rights of others in our sales contracts with these customers. Historically, we have not paid any claims under these indemnification obligations, and we do not have any pending indemnification claims as of December 31, 2013.

We generally warrant the operation of our solar energy systems for a period of time. Certain parts and labor warranties from our vendors can be assigned to our customers. Due to the absence of historical material warranty claims and expected future claims, we have not recorded a material warranty accrual related to solar energy systems as of December 31, 2013. We may also indemnify our customers for tax credits and feed in tariffs associated with the systems we construct and then sell, including sale leasebacks. During the year ended December 31, 2013, we made additional payments, net of recoveries, under the terms of the lease agreements to indemnify our sale leaseback customers for approximately \$7.0 million for shortfalls in amounts approved by the U.S. Treasury Department related to Grant in Lieu program tax credits. We are working with our sale leaseback customers and the U.S. Treasury Department to recover these shortfalls. Based on current information, we are unable to estimate additional exposures to the indemnification of tax credits and feed in tariffs.

In connection with certain contracts to sell solar energy systems directly or as sale-leasebacks, our SunEdison LLC subsidiary has guaranteed the systems' performance for various time periods following the date of interconnection. Also, under separate operations and maintenance services agreements, SunEdison LLC has guaranteed the uptime availability of the systems over the term of the arrangements, which may last up to 20 years. To the extent there are shortfalls in either of the guarantees, SunEdison LLC is required to indemnify the purchaser up to the guaranteed amount through a cash payment. The maximum losses that SunEdison LLC may be subject to for non-performance are contractually limited by the terms of each executed agreement.

Legal Proceedings

We are involved in various legal proceedings which arise in the ordinary course of business. Although it is not possible to predict the outcome of these matters, we believe that the ultimate outcome of these proceedings, individually and in the aggregate, will not have a material adverse effect on our financial position, cash flows or results of operations.

S.O.I.TEC Silicon on Insulator Technologies S.A. v. MEMC Electronic Materials, Inc.

On May 19, 2008, S.O.I.TEC Silicon on Insulator Technologies S.A. ("Soitec") and Commissariat A L'Energie Atomique ("CEA") filed a complaint against the company in the U.S. District Court for the District of Delaware (Civil Action No. 08-292) alleging infringement, including willful infringement, by SunEdison of three U.S. patents related to silicon-on-insulator technology, and requested damages and an injunction. Soitec and CEA filed an amended complaint on July 21, 2009, adding a fourth, related patent to the lawsuit. SunEdison filed a counterclaim against Soitec for infringement of one of SunEdison's U.S. patents. The court bifurcated the case into two phases, a first liability phase, which, to the extent liability is found, would be followed by a second damages phase. In a memorandum opinion dated October 13, 2010, the court found that all of SunEdison's current products and processes do not infringe any valid claim of the four asserted Soitec patents.

After the court's October 13, 2010 ruling in favor of SunEdison, the only remaining claim that Soitec continued to assert at trial was a single patent claim directed against some mono-implant research and development efforts conducted by SunEdison approximately six to eight years ago, none of which have occurred since 2006, and none of which are material or relevant to the current operations at SunEdison. The court held a jury trial from October 25, 2010 to November 2, 2010. SunEdison continued to assert at trial its counterclaim for infringement of SunEdison's patent. On November 2, 2010, the jury found that certain of Soitec's wafers infringed the patent asserted by SunEdison at trial. The jury also found that one of the Soitec patent claims was valid. This single patent claim covers SunEdison's mono-implant research and development efforts that ended in 2006. On July 13, 2011, the court denied all post trial motions. Soitec subsequently filed an appeal and SunEdison filed a cross-appeal. The appeal is now fully briefed in the U.S. Court of Appeals for the Federal Circuit. The appeal was stayed pending en banc review of a jurisdictional question unrelated to the merits of the appeal.

In November 2013, we, Soitec and CEA entered into a settlement agreement to resolve all outstanding claims and disputes relating to this litigation matter. In connection with the settlement agreement, we and Soitec also entered into (i) a patent cross-licensing agreement, pursuant to which certain patents owned by each party relating to SOI technologies will be licensed to the other party for research and development purposes, and (ii) a supply agreement, pursuant to which we will manufacture and sell to Soitec certain silicon wafer products at a discounted price. The settlement included no upfront payment. However, in the event Soitec does not purchase a sufficient amount of wafers under the cross-license to receive the discount, then we may pay Soitec the maximum amount of \$0.3 million in any future year.

On December 26, 2008, a putative class action lawsuit was filed in the U.S. District Court for the Eastern District of Missouri by plaintiff, Jerry Jones, purportedly on behalf of all participants in and beneficiaries of SunEdison's 401(k) Savings Plan (the "Plan") between September 4, 2007 and December 26, 2008, inclusive. The complaint asserted claims against SunEdison and certain of its directors, employees and/or other unnamed fiduciaries of the Plan. The complaint alleges that the defendants breached certain fiduciary duties owed under the Employee Retirement Income Security Act, generally asserting that the defendants failed to make full disclosure to the Plan's participants of the risks of investing in SunEdison's stock and that the company's stock should not have been made available as an investment alternative in the Plan. The complaint also alleges that SunEdison failed to disclose certain material facts regarding SunEdison's operations and performance, which had the effect of artificially inflating SunEdison's stock price.

On June 1, 2009, an amended class action complaint was filed by Mr. Jones and another purported participant of the Plan, Manuel Acosta, which raises substantially the same claims and is based on substantially the same allegations as the original complaint. However, the amended complaint changes the period of time covered by the action, purporting to be brought on behalf of beneficiaries of and/or participants in the Plan from June 13, 2008 through the present, inclusive. The amended complaint seeks unspecified monetary damages, including losses the participants and beneficiaries of the Plan allegedly experienced due to their investment through the Plan in SunEdison's stock, equitable relief and an award of attorney's fees. No class has been certified and discovery has not begun. The company and the named directors and employees filed a motion to dismiss the complaint, which was fully briefed by the parties as of October 9, 2009. The parties each subsequently filed notices of supplemental authority and corresponding responses. On March 17, 2010, the court denied the motion to dismiss. The SunEdison defendants filed a motion for reconsideration or, in the alternative, certification for interlocutory appeal, which was fully briefed by the parties as of June 16, 2010. The parties each subsequently filed notices of supplemental authority and corresponding responses. On October 18, 2010, the court granted the SunEdison defendants' motion for reconsideration, vacated its order denying the SunEdison defendants' motion to dismiss, and stated that it will revisit the issues raised in the motion to dismiss after the parties supplement their arguments relating thereto. Both parties filed briefs supplementing their arguments on November 1, 2010. On June 28, 2011, plaintiff Jerry Jones filed a notice of voluntary withdrawal from the action. On June 29, 2011, the Court entered an order withdrawing Jones as one of the plaintiffs in this action. The parties each have continued to file additional notices of supplemental authority and responses thereto. On September 27, 2012, the SunEdison defendants moved for oral argument on their pending motion to dismiss; plaintiff Manuel Acosta joined in the SunEdison defendants' motion for oral argument on October 9, 2012. The Court has not ruled on this motion for oral argument.

SunEdison believes the above class action is without merit, and we will assert a vigorous defense. Due to the inherent uncertainties of litigation, we cannot predict the ultimate outcome or resolution of the foregoing class action proceedings or estimate the amounts of, or potential range of, loss with respect to these proceedings. An unfavorable outcome is not expected to have a material adverse impact on our business, results of operations and financial condition. We have indemnification agreements with each of our present and former directors and officers, under which we are generally required to indemnify each such director or officer against expenses, including attorney's fees, judgments, fines and settlements, arising from actions such as the lawsuits described above (subject to certain exceptions, as described in the indemnification agreements).

Wacker Chemie AG v. SunEdison, Inc.

On December 20, 2012, Wacker Chemie AG ("Wacker") filed a notice of arbitration with the Swiss Chambers' Arbitration Institution (the "SCAI") against the Company, requesting the resolution of a dispute arising from two agreements and a subsequent settlement agreement entered into between Wacker and the Company. Following a hearing before the Arbitral Tribunal where procedural matters were established by the SCAI pursuant to the parties' agreement, on September 27, 2013, Wacker filed a complete statement of claim. In the statement of claim, Wacker alleges that the Company failed to comply with its contractual obligations, in particular that the Company failed to take or pay for certain quantities of polycrystalline silicon as required under the settlement agreement. Wacker claims a payment of 22.8 million Euro plus interest for the payment of outstanding invoices and an amount of 68.6 million Euro for damages it claims as a result of the alleged breach by the Company through August 2013, and an amount of approximately 23.6 million Euro (yet to be determined) for damages it claims as a result of the alleged breach by the company for the months of September, October, November and December 2013, plus interest thereon. These amounts are included in the estimated range of reasonably possible losses as discussed above in the purchase obligations section. The Company filed its statement of defense on January 10, 2014. The Company intends to vigorously defend this action.

From time to time, we may conclude it is in the best interests of our stockholders, employees, vendors and customers to settle one or more litigation matters, and any such settlement could include substantial payments; however, other than as may be noted above, we have not reached this conclusion with respect to any particular matter at this time. There are a variety of factors that influence our decision to settle any particular individual matter, and the amount we may choose to pay or accept as

payment to settle such matters, including the strength of our case, developments in the litigation (both expected and unexpected), the behavior of other interested parties, including non-parties to the matter, the demand on management time and the possible distraction of our employees associated with the case and/or the possibility that we may be subject to an injunction or other equitable remedy. It is difficult to predict whether a settlement is possible, the amount of an appropriate settlement or when is the opportune time to settle a matter in light of the numerous factors that go into the settlement decision.

20. REPORTABLE SEGMENTS

From January 1, 2010 until December 31, 2011, we were organized by end market, with three business segments: Solar Materials, Solar Energy and Semiconductor Materials. During the fourth quarter of 2011, we initiated a large scale global restructuring plan across all of our reportable segments (see Note 3). As part of our restructuring plan, effective January 1, 2012, we consolidated our two solar business units' operations into one business unit, and since that date we have been engaged in two reportable segments, Solar Energy and Semiconductor Materials.

Our Solar Energy segment provides solar energy services that integrate the design, installation, financing, monitoring, operations and maintenance portions of the downstream solar market to provide a comprehensive solar energy service to our customers. The results of the segment include the operating of, leasing of and sale of solar energy systems and services to customers who purchase renewable energy by delivering solar power to them under long term power purchase arrangements and feed in tariff arrangements. Our Solar Energy segment also manufactures polysilicon, silicon wafers and solar modules to support our downstream solar business, as well as for sale to external customers.

Our Semiconductor Materials segment includes the development, production and marketing of semiconductor wafers with a wide variety of features satisfying numerous product specifications to meet our customers' exacting requirements, which wafers are utilized in the manufacture of semiconductor devices.

The Chief Operating Decision Maker ("CODM") is our Chief Executive Officer. The CODM evaluates segment performance based on segment operating profit plus interest expense. In order to determine segment operating profit, standard costs are used as the basis for raw material costs allocated between segments and any related variances are allocated based on usage of those raw materials. We incur expenses for research and development costs and marketing activities that are not specific to any one segment or allocated to any segments. These costs, as well as general corporate marketing and administration costs, substantially all of our stock compensation expense, research and development administration costs, legal professional services and related costs, and other items are not evaluated by segment and are included in Corporate and other below. Because certain sites include operations, facilities and/or back office functions that are utilized to support our Semiconductor Materials and Solar Energy businesses, we do not have discrete financial information for total assets. Accordingly, the CODM does not consider total assets when analyzing segment performance. The CODM also evaluates the business on several other key operating metrics, including free cash flow.

In millions	For the year ended December 31,		
	2013	2012	2011
Net sales:			
Solar Energy	\$ 1,101.4	\$ 1,612.4	\$ 1,692.4
Semiconductor Materials	906.2	917.5	1,023.1
Consolidated net sales	<u>\$ 2,007.6</u>	<u>\$ 2,529.9</u>	<u>\$ 2,715.5</u>
Operating (loss) income:			
Solar Energy	\$ (189.0)	\$ 162.2	\$ (1,144.0)
Semiconductor Materials	(10.5)	(5.0)	(31.1)
Corporate and other	(114.1)	(100.0)	(125.4)
Consolidated operating (loss) income	<u>\$ (313.6)</u>	<u>\$ 57.2</u>	<u>\$ (1,300.5)</u>
Interest expense:			
Solar Energy	\$ 102.1	\$ 76.5	\$ 35.5
Semiconductor Materials	—	(1.2)	(1.6)
Corporate and other	87.1	60.0	43.3
Consolidated interest expense	<u>\$ 189.2</u>	<u>\$ 135.3</u>	<u>\$ 77.2</u>
Depreciation and amortization:			
Solar Energy	\$ 139.5	\$ 119.3	\$ 102.9
Semiconductor Materials	119.3	121.6	124.2
Corporate and other	9.5	6.0	—
Consolidated depreciation and amortization	<u>\$ 268.3</u>	<u>\$ 246.9</u>	<u>\$ 227.1</u>
Capital expenditures:			
Solar Energy ⁽¹⁾	\$ 505.6	\$ 401.9	\$ 901.4
Semiconductor Materials	85.3	75.1	144.6
Corporate and other	7.5	8.9	4.6
Consolidated capital expenditures	<u>\$ 598.4</u>	<u>\$ 485.9</u>	<u>\$ 1,050.6</u>

⁽¹⁾ Consists primarily of construction of solar energy systems of \$465.3 million, \$346.9 million and \$598.1 million for the years ended December 31, 2013, 2012 and 2011, respectively.

All Segments

Due to macroeconomic circumstances, which affected all of our segments, in December 2011 we committed to a series of actions that reduced our global workforce, right sized our production capacity and accelerated operating cost cutting measures in 2012 and 2013. In addition, based on the adverse market conditions, we incurred charges in 2011 associated with the impairment of long-lived assets, impairments of goodwill and certain investments, write-downs of inventory and the realizability of deferred tax assets (see Note 3 for a summary of these charges by reportable segment).

Solar Energy

During the year ended December 31, 2013, we recognized \$25.0 million of revenue for the Tainergy contract amendment and \$22.9 million of revenue related to the contract termination with Gintech, along with \$37.0 million of asset impairments related to the Merano, Italy facilities. During the year ended December 31, 2012, we recognized revenue of \$37.1 million for the termination of the Conergy long-term wafer supply agreement. Similarly, during the years ended December 31, 2012 and December 31, 2011, there was \$0.7 million and \$175.7 million, respectively, of revenue recognized as part of the Suntech wafer supply contract resolution.

As discussed in Note 3, during the year ended December 31, 2012 we recorded a favorable adjustment of \$69.2 million of income related to the settlement of the Evonik take or pay contract as well as a gain of \$31.7 million related to the receipt of a manufacturing plant from Evonik. In addition to the above items and other restructuring, impairment, and other charges discussed in Note 3, we recognized charges of \$5.3 million during the year ended December 31, 2013 and \$5.5 million and \$37.4 million during the years ended December 31, 2012 and 2011, respectively, to cost of goods sold related to the estimated probable shortfall to our purchase obligations associated with certain take-or-pay agreements we have with suppliers for raw materials. See Note 19.

Given the deterioration in polysilicon and solar wafer pricing, we recorded a lower of cost or market adjustment on our raw material and finished goods inventory in the Solar Energy segment of approximately \$18.5 million, \$3.4 million and \$107.0 million in the years ended December 31, 2013, December 31, 2012 and December 31, 2011, respectively. See Note 6.

We recorded a goodwill impairment of \$440.5 million for the Solar Energy segment in the year ended December 31, 2011 (see Note 9). No such impairments were taken in 2013 or 2012.

Semiconductor Materials

Due to the earthquake in Japan on March 11, 2011, our semiconductor wafer production in Japan was suspended from that time through April 12, 2011. Because of the unplanned downtime and damages to the plant, we recorded \$27.2 million as period charges to operating margin in the year ended December 31, 2011, with \$15.8 million recorded to cost of goods sold due to the under absorption of costs, inventory adjustments, and asset impairment charges. We had no similar adjustments during the years ended December 31, 2013 and December 31, 2012.

During the year ended December 31, 2012 and December 31, 2011, we recorded insurance recoveries related to the above earthquake charges of \$4.0 million and \$4.0 million, respectively. We had no similar charges during the year ended December 31, 2013.

Corporate and Other

Approximately \$8.6 million of net expenses were recorded in Corporate and other related to legal cases during the year ended December 31, 2011. No such net expenses related to legal cases were recorded in 2013 or 2012. Because the business decisions resulting in this litigation affected multiple segments, these expenses were recorded to Corporate and other. The remaining portion of expenses recorded to Corporate and other included stock-based compensation expense, general corporate marketing and administration costs, research and development administration costs, legal and tax professional services and related costs, and other personnel costs not reflected in the operating segments. The increase in Corporate and other expenses for the year ended December 31, 2013 relative to the same period in 2012 was attributable to increases in staffing, higher expenses related to growth initiatives, and non-capitalizable costs incurred in connection with the Offering, preparation for the Semiconductor Offering and the proposed SunEdison YieldCo IPO.

Geographic Segments

Geographic financial information is as follows:

Net Sales to Customers

	For the Year Ended December 31,		
	2013	2012	2011
In millions			
United States	\$ 475.1	\$ 735.3	\$ 447.5
Foreign	1,532.5	1,794.6	2,268.0
Total	\$ 2,007.6	\$ 2,529.9	\$ 2,715.5

Foreign revenues were derived from sales to the following countries:

	For the Year Ended December 31,		
	2013	2012	2011
In millions			
Taiwan	\$ 472.5	\$ 408.4	\$ 530.0
Canada	279.1	248.6	104.9
Korea	220.3	198.8	237.1
China	77.7	82.8	598.8
Italy	71.3	234.2	375.6
Spain	9.6	175.8	42.3
Other foreign countries	402.0	446.0	379.3
Total	\$ 1,532.5	\$ 1,794.6	\$ 2,268.0

Net sales are attributed to countries based on the location of the customer.

Our customers fall into five categories: (i) semiconductor device and solar cell and module manufacturers; (ii) commercial customers, which principally include private equity firms, large, national retail chains and real estate property management firms; (iii) federal, state and municipal governments; (iv) financial institutions, private equity firms and insurance companies; and (v) utilities. Our customers are located in various geographic regions including North America, Europe, and Asia Pacific, and are generally well capitalized. As such, our concentration of credit risk is considered minimal. For our solar energy systems, we typically collect the full sales proceeds upon final close and transfer of the system. During the year ended December 31, 2013, one customer accounted for 10% of total sales. Sales to any specific customer did not exceed 10% of consolidated net sales for the years ended December 31, 2012 or 2011.

Property, plant and equipment, net of accumulated depreciation

	As of December 31,	
	2013	2012
In millions		
United States	\$ 1,811.3	\$ 1,510.0
Malaysia	262.4	202.5
Taiwan	208.9	231.7
Italy	197.7	215.9
Chile	167.8	—
Korea	132.7	141.1
Japan	90.9	120.9
Other foreign countries	251.2	250.9
Total	<u>\$ 3,122.9</u>	<u>\$ 2,673.0</u>

21. PROPOSED IPO OF SUNEDISON SEMICONDUCTOR, LTD.

On August 22, 2013, we announced our plan to pursue an initial public offering (the “Semiconductor Offering”) of our semiconductor business through a newly formed company to be known as SunEdison Semiconductor, Ltd., and in connection therewith, filed a registration statement with respect to such proposed Semiconductor Offering with the SEC on September 9, 2013 with subsequent amendments filed on November 1, 2013 and December 17, 2013. We plan to sell a minority ownership interest in the semiconductor business to the public. We have deferred all incremental costs directly attributable to this offering and will charge those costs against the gross proceeds of the offering as a reduction of SunEdison Semiconductor, Ltd.'s additional paid-in capital. Any incremental costs not directly attributable to the Semiconductor Offering will be expensed as incurred. The incremental costs are not material to our financial statements.

The completion of the proposed Semiconductor Offering is subject to market conditions, certain customary conditions, including approval by our Board of Directors of the final terms of the offering, receipt of all regulatory approvals, including the effectiveness of the registration statement originally filed with the SEC on September 9, 2013, including any subsequent amendments.

22. SUBSEQUENT EVENTS

On December 12, 2013, we announced our plan to monetize certain of our solar generation assets by aggregating them under a dividend growth-oriented subsidiary (“SunEdison YieldCo”) and divesting an interest in SunEdison YieldCo through an initial public offering (the “proposed SunEdison YieldCo IPO”). SunEdison YieldCo would primarily own assets located in North America, as well as projects in Canada, the United Kingdom and Chile. We expect that we would retain majority ownership of SunEdison YieldCo, and would provide specified support services to SunEdison YieldCo, for a fee. We submitted on a confidential basis a registration statement on February 14, 2014 with the SEC with respect to the proposed SunEdison YieldCo IPO.

The completion of the proposed SunEdison YieldCo IPO and related transactions are subject to numerous conditions, including market conditions, approval by our Board of Directors of the terms of the proposed SunEdison YieldCo IPO and receipt of all regulatory approvals, including the effectiveness of the registration statement that has been submitted to the SEC.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
SunEdison, Inc.:

We have audited the accompanying consolidated balance sheets of SunEdison, Inc. and subsidiaries (the Company) as of December 31, 2013 and 2012, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2013. We also have audited the Company's internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control - Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our 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 consolidated 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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of SunEdison, Inc. and subsidiaries as of December 31, 2013 and 2012, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2013, in conformity with U.S. generally accepted accounting principles. Also in our opinion, SunEdison, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control - Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

/s/ KPMG LLP

St. Louis, Missouri
March 6, 2014

Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We carried out an evaluation as of December 31, 2013, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2013.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

As of December 31, 2013, management conducted an assessment of the effectiveness of the Company's internal control over financial reporting based upon the framework issued by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control—Integrated Framework (1992)*. Based on management's assessment utilizing these criteria, our management concluded that, as of December 31, 2013, our internal control over financial reporting was effective.

Our independent registered public accounting firm, KPMG, LLP who audited the consolidated financial statements included in this annual report has audited the effectiveness of our internal controls over financial reporting, as stated in its report, which appears in its Report of Independent Registered Public Accounting Firm, above and is incorporated herein by this reference.

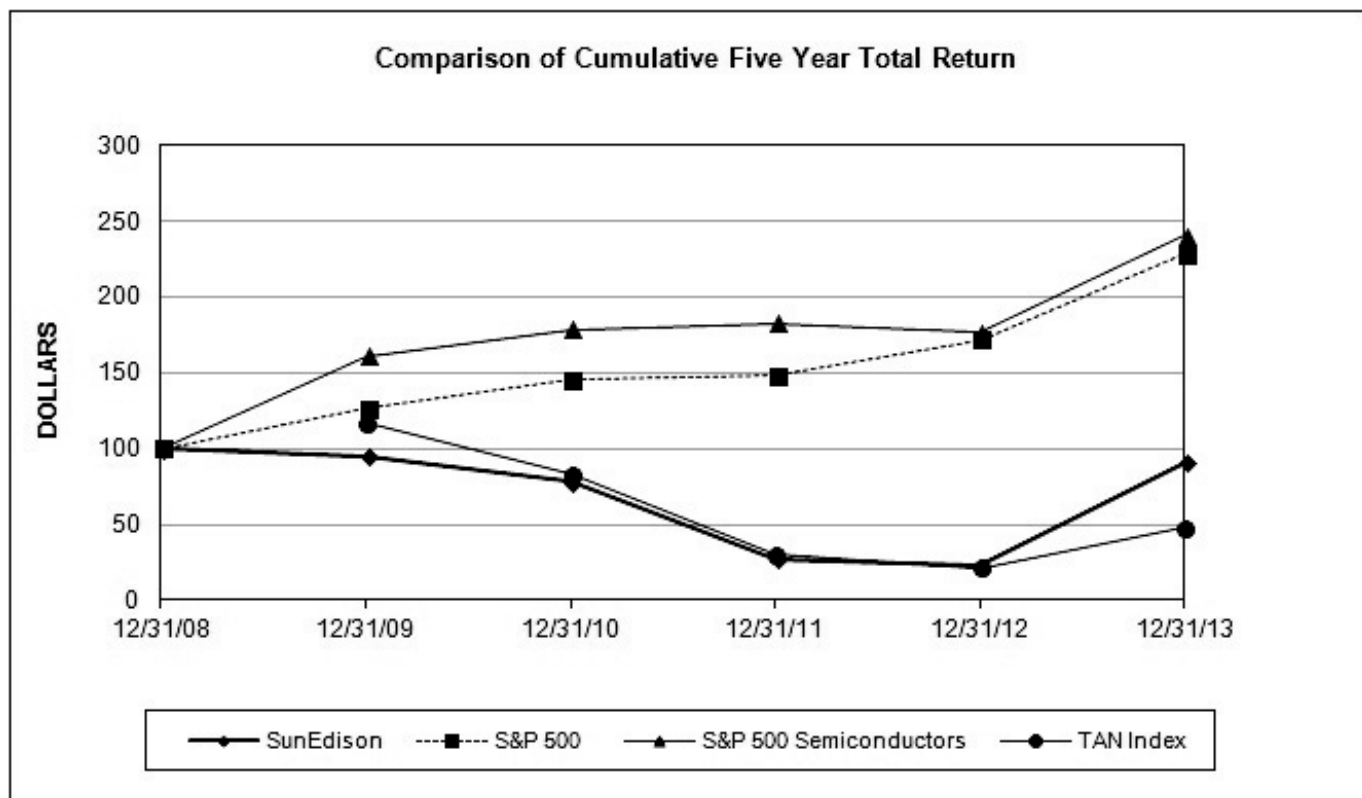
Changes in Internal Control Over Financial Reporting

There have been no changes in SunEdison's internal control over financial reporting during the quarter or year ended December 31, 2013 that have materially affected, or are reasonably likely to materially affect, SunEdison's internal control over financial reporting.

STOCK PRICE PERFORMANCE GRAPH

The graph below compares cumulative total stockholder return with the cumulative total return (assuming reinvestment of dividends) of the S&P 500 Index, the S&P 500 Semiconductors Index and the TAN index. The information on the graph covers the period from December 31, 2008 through December 31, 2013. The stock price performance shown on the graph is not necessarily indicative of future stock price performance.

Prepared by Standard and Poor's Capital IQ 2/26/2014



*The TAN index is included from its inception date of 9/16/08

		INDEXED RETURNS				
	Base	Years Ending				
	Period					
Company / Index	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012	12/31/2013
SunEdison, Inc.	100	95.38	78.85	27.59	22.48	91.39
S&P 500 Index	100	126.46	145.51	148.59	172.37	228.19
S&P 500 Semiconductors	100	160.98	179.01	183.03	176.77	240.31
TAN Index	100	116.88	83.57	30.59	21.19	48.28

Stockholders' Information

CORPORATE OFFICE

SunEdison, Inc.
501 Pearl Drive (City of O'Fallon)
St. Peters, Missouri 63376
(636) 474-5000
www.sunedison.com

TRANSFER AGENT AND REGISTRAR

Computershare Investor Services, L.L.C.
2 North LaSalle Street
P.O. Box A3504
Chicago, Illinois 60690-3504
(312) 360-5433
www.computershare.com

STOCKHOLDER INQUIRIES

Inquiries regarding address corrections, lost certificates, changes of registration, stock certificate holdings and other stockholder account matters should be directed to SunEdison's transfer agent, Computershare Investor Services, L.L.C., at the address or phone number above.

COMMON STOCK LISTING

SunEdison's common stock is traded on the New York Stock Exchange under the symbol "SUNE". On April 4, 2014, the Company had 262 stockholders of record. On April 4, the high and low sale prices of the common stock were \$19.75 and \$17.95, respectfully. We have not paid dividends on our common stock for the last two years. Our corporate credit facility and indentures related to outstanding notes contain restrictions on our payment of dividends. See our Management's Discussion and Analysis of Financial Condition and Results of Operation ("Liquidity and Capital Resources") for further information.

FORM 10-K

Stockholders may obtain, free of charge, a copy of SunEdison's Annual Report on Form 10-K and related financial statement schedules for the year ended December 31, 2013, filed with the Securities and Exchange Commission, by visiting our website (www.SunEdison.com), by writing SunEdison's Investor Relations Department or by calling (636) 474-5000.

FINANCIAL INFORMATION

SunEdison maintains a web page on the Internet at www.SunEdison.com where we publish information, including earnings releases, other news releases and significant corporate disclosures.

CONTACT INFORMATION

All requests and inquiries should be directed to:

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