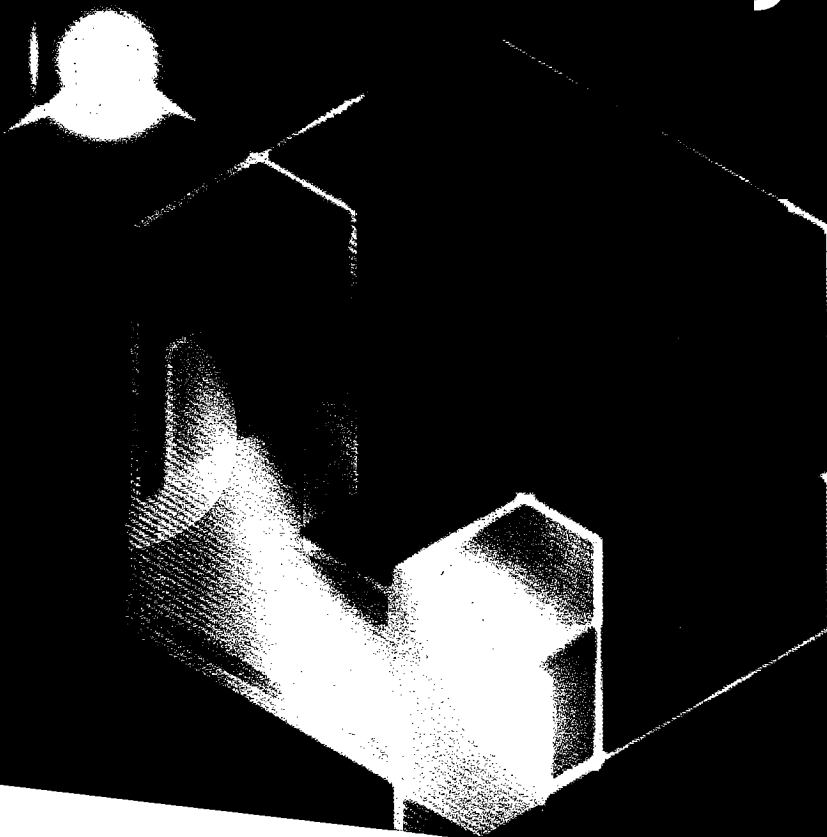




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Growth Begins Here

增长从这里开始

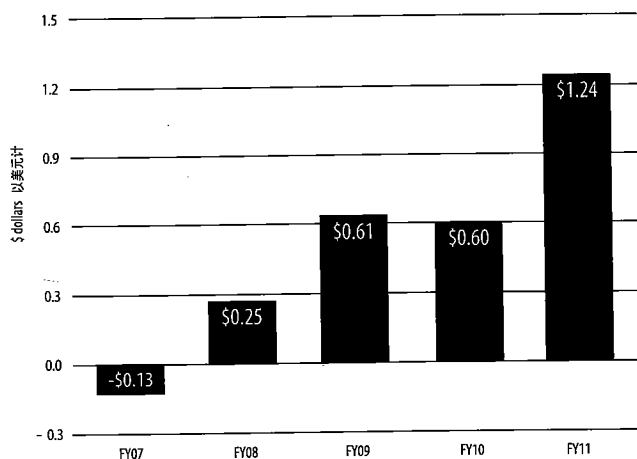


GTSOLAR®

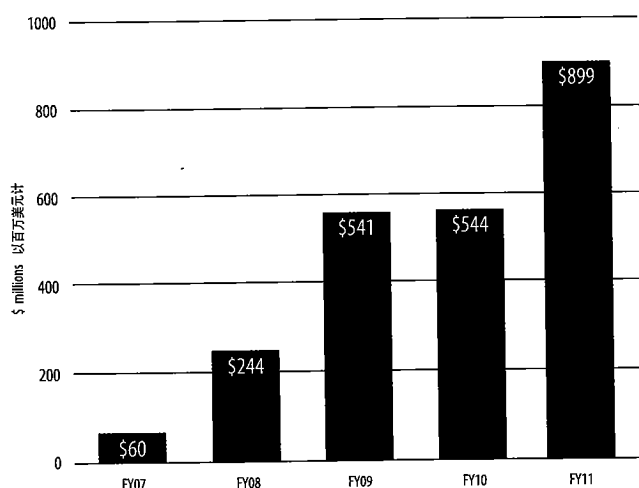
2011 Annual Report
2011 年年度报告

REVENUE AND EARNINGS 销售收入与盈利

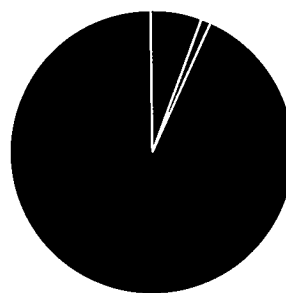
EPS-Fully Diluted, Net Income EPS (每股收益) — 完全稀释、净收益



5-Year Revenue 5 年期收入



Revenue By Geography 按地理分区的收入占有比例



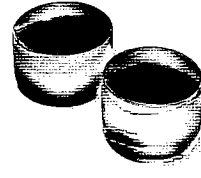
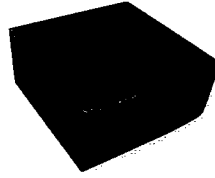
- Asia 93%
亚洲 93%
- Europe 6%
欧洲 6%
- US & Other Regions 1%
美国及其他地区 1%

FINANCIAL HIGHLIGHTS 财务摘要

Our financial performance for the year was very strong. Revenue grew to \$899 million, a 65 percent year-over-year increase. Gross margins for the year were above 42 percent, nearly two percentage points higher than last year, reflecting our ability to manage costs during a time of accelerated growth and expansion while continuing to receive fair value for our products.

我们本年度的财务绩效十分强劲。销售额为 8.99 亿美元，年增长率为 65%。今年的毛利润率高于 42%，较去年增长两个百分点左右，反映出我们在加速增长和扩张的同时，控制成本的能力，我们的产品继续获得其合理价值。

Innovation. Expertise. Excellence. 创新。专业。卓越。



POLYSILICON 多晶硅

More than 40,000 metric tons of polysilicon were produced in calendar 2010 using our CVD reactors. This represents over 70% of the installed merchant capacity

Highest throughput and lowest power consumption results in lowest \$/kg cost polysilicon production

在 2010 年，采用我们的 CVD 还原炉生产的多晶硅超过 40,000 公吨。这占据了全部市场供应的 70%。

高产量低能耗使多晶硅料的每千克生产成本降到最低。

PHOTOVOLTAIC 光伏

More than 3,000 DSS furnaces shipped worldwide since the introduction of our DSS™240 in 2003

Continuous innovation delivers sustainable value to customers by improving productivity and lowering manufacturing costs

自 2003 年推出 DSS™240 以来，已有超过 3,000 多台 DSS 铸锭炉被运送至全球各地

我们持续不断的技术创新，帮助了客户提高生产效率和降低生产成本，为客户提供持久价值。

SAPPHIRE 蓝宝石

Sapphire material manufacturing capacity has tripled since the Crystal Systems acquisition in July 2010

Over \$940 million in ASF furnace bookings since the announcement of our first commercial sale in December 2010

自 2010 年 7 月收购 Crystal Systems 以来，蓝宝石的生产能力已达到原有的三倍。

自 2010 年 12 月我们公布了第一次订单以后，高级蓝宝石长晶炉 (ASF) 的订单量已经超过 9.4 亿美元

EVOLVING. CHANGING. GROWING. 发展。改变。增长。

Our business, like the industries we serve, is evolving, changing and growing.

With the acquisition of Crystal Systems, we now provide equipment and services that support the growth of solar energy and LED industries.

That is why we are changing our name to GT Advanced Technologies. The new name retains the familiar GT. At the same time, our new name refers to the wider range of markets we serve, leveraging our expertise in crystal growth technology. Our focus remains clear – deliver sustained value to our customers with products and services that improve productivity, elevate performance and lower costs.

如同我们服务的行业，我们的业务也在日益发展、改变和增长。

随着成功收购 Crystal Systems，我们目前可提供设备与服务，支持太阳能和 LED 行业的发展。

这正是我们将公司更名为 GT Advanced Technologies 的原因。新名称即保留了我们熟知的 GT；同时，我们的全新公司名称说明我们提供服务之市场更加广泛，也意味着公司扩大了市场领域；从而可以充分利用我们在晶体生长技术方面的专业知识。我们的业务重点依然非常明确，即通过提供可以提高生产效率、提升性能和降低成本之产品与服务，为我们的客户提供持久价值。

We provide equipment and services that support the growth of the **Solar and LED** industries for a cleaner and more sustainable energy future.

GT is a global leader in crystalline growth equipment and technologies in polysilicon, photovoltaics and sapphire. Our innovative products and industry experience are enabling the evolution of renewable energy technologies by reducing cost, elevating performance and improving quality.

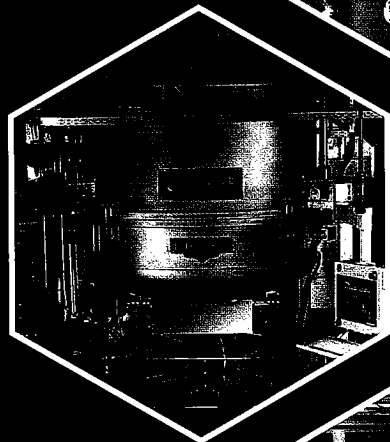
我们提供设备与服务支持太阳能与 LED 行业的发展，以便创造一个更加清洁与可持续发展的能源产业未来。

GT 是一家制造晶体生长设备并拥有多晶硅、太阳能光伏及蓝宝石技术的全球领先企业。凭借我们的创新产品与行业经验，我们可以通过降低成本、提高绩效及改善质量等方式来发展可再生能源技术

Polysilicon

Polysilicon Production Technologies

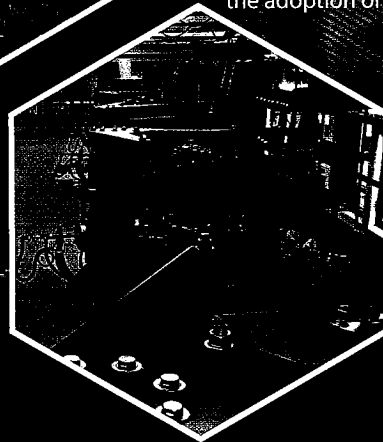
Our full range of polysilicon production products and services offer proven value to customers with some of the lowest \$/kilogram cost of polysilicon produced in the industry.



Photovoltaic

Multicrystalline Ingot Growth Systems

Our industry-leading DSS furnaces melt polysilicon and cast multicrystalline ingots used to produce solar wafers, the key material used in solar cells. We deliver sustained value to our customers by developing innovations in crystal growth technology that lowers the cost of production and improves material quality to help drive the adoption of solar energy.



Sapphire

Advanced Sapphire Materials and Equipment

Our advanced sapphire furnaces deliver consistent crystal quality, large capacity, and high throughput that help lower the cost of energy-saving LED applications.

多晶硅

多晶硅生产技术

我们的一系列多晶硅生产设备与服务可为客户提供已经得到验证的价值，如业内最低的每千克硅料生产成本。

光伏

多晶硅铸锭生长系统

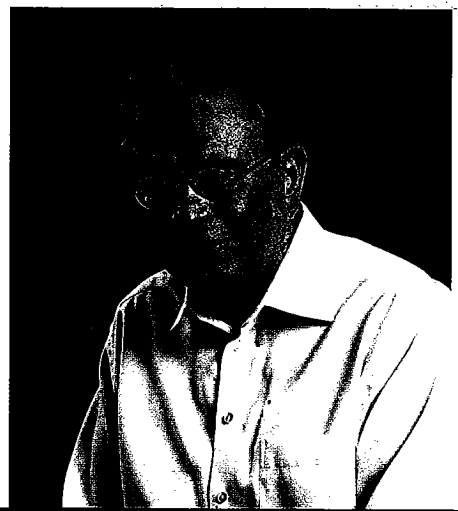
我们行业领先的 DSS 多晶硅铸炉，通过融化多晶硅原料和铸造多晶硅铸锭，生产出太阳能电池所需要的重要材料硅片。我们通过研发晶体生长创新技术，降低生产成本并提高材料质量，为我们的客户提供持久价值，从而帮助推动太阳能的应用。

蓝宝石

高质量蓝宝石材料及先进的设备

我们的高质量蓝宝石长晶炉可提供始终如一的晶体质量，并具有大容量及高生产量之特点，这有助于降低节能 LED 应用的成本。

TO OUR SHAREHOLDERS



Fiscal 2011 was a transformational year for our company. We successfully diversified the company's business portfolio, accelerated the pace of new product development, invested heavily in new growth initiatives, strengthened our operating team and added jobs in the U.S. while moving the company's base of operations to Hong Kong to be closer to our customers.

In addition, last November we repurchased most of the remaining shares of GT Solar common stock held by GT Solar Holdings, LLC, whose members included all of the Company's private equity investors. This repurchase effectively completed our transition from a company with a majority of its shares in private equity hands to an independent company.

Our financial performance for the year was very strong. Revenue grew to \$899 million, a 65 percent year-over-year increase. Gross margin for the year was slightly above 42 percent, nearly two percentage points higher than last year, reflecting our ability to manage costs during a time of accelerated growth and expansion while continuing to receive appropriate value for our products. Our net bookings totaled approximately \$1.1 billion and our backlog at the end of the year was nearly \$1.2 billion. Fully diluted earnings per share more than doubled year-over-year to \$1.24. We ended the year with approximately \$363 million in cash and \$120 million in debt after having made significant investments in our business.

All of our business segments contributed to this success:

The PV industry added an extraordinary amount of new capacity during the year and GT was able to respond to this demand and deliver the highest number of DSS products in its history. In fiscal 2011, we introduced two new products to our DSS product line, the DSS™450HP and our DSS™650. Each of these products builds on our legacy of providing customers with an upgrade path to higher levels of performance and productivity with each new system. Maintaining this level of technical innovation is critical to our continued success in the market and we expect to significantly increase our research and development investment in our new fiscal year in an effort to maintain our pace of innovation.

Our ability to quickly ramp production coupled with the market-leading performance of our products allowed us to maintain our leading position in the PV market during the year. More specifically, our total PV bookings for the year were approximately \$767 million and we shipped 1,470 DSS furnaces, more

PRESIDENT'S LETTER CONTINUED

than five times the number of DSS systems shipped in FY10. We have now shipped over 3,000 DSS furnaces to customers since the first DSS system was introduced in 2003. Very importantly, we continued to add new customers and proved our ability to get appropriate value for our technology in spite of increased competition.

In our polysilicon business, we now have a complete end-to-end polysilicon production offering that includes hydrochlorination, CVD reactors, filament production, and product handling and packaging equipment. During the year we booked over \$215 million in new polysilicon business and ended the year with a healthy backlog of over \$537 million. We estimate that in calendar year 2010, our reactors produced over 70 percent of the polysilicon produced by merchant market producers.

We continued to win new business from both new polysilicon customers as well as from our installed base because of the performance our technology delivers. In the face of reducing subsidies, eroding end market prices and pressure on margins, the solar industry must drive to lower cost if growth is to be sustained. The cost of producing high-quality polysilicon is an essential element of the equation as competitive pressures among polysilicon producers are likely to drive business to only the most efficient and cost effective suppliers. We believe these trends put us in a strong competitive position to win future business given our solid track record of delivering market leading technology that enables the march to lower production costs. Along these lines, during the year we introduced the SDR™400, our fourth-generation CVD reactor, capable of producing over

400 metric tons of polysilicon annually. We also announced that our next-generation CVD reactor, the SDR™600, is scheduled for beta testing at a customer site this summer. This newest product is the fifth significant upgrade to our SDR product line in the last four years.

During the year we adopted a strategy of diversification intended to build on our core operational strengths and technical knowhow. The primary goal is to invest in new strategic initiatives that provide growth opportunities outside of our primary solar markets.

On July 29, 2010, we completed our first such investment with the acquisition of Crystal Systems, Inc. of Salem, Massachusetts, a producer of sapphire material for the LED and other industrial market segments. Crystal Systems is recognized worldwide for its ability to produce high-quality, large diameter sapphire material. Sapphire is the primary substrate used in the manufacture of LED chips and industry analysts expect the LED industry to grow as a result of the increased use of LEDs in general illumination applications in the coming years. We believe the expected growth of the LED industry will increase demand for sapphire material and our goal is to position GT as a leading supplier of advanced crystallization equipment to companies that will produce sapphire material to satisfy this market demand.

We announced the first commercial sales of our Advanced Sapphire Furnace (ASF) in December 2010, and since then we have booked more than \$940 million in orders; one such order totaling \$460

million, the largest single order in our company's history. The rapid adoption of our ASF equipment by the market is a testament to our customers' confidence in our ability to deliver a technically superior product, and our ability to commercialize technology and to quickly scale to volume production as demonstrated by the successful expansion of our Salem facility.

Our recently completed state-of-the-art expansion of our sapphire manufacturing facility in Salem, Massachusetts, triples our capacity to produce high-quality material. While our core sapphire strategy remains focused on establishing market leadership with our ASF equipment, the additional manufacturing capacity in Salem will allow us to provide sapphire material to industrial markets and take advantage of the strong market for LED grade material while our equipment customers are still ramping up their capacity. In the long term, our Salem operation will continue to function as our sapphire R&D facility and equipment showcase, but its primary focus will shift to supporting the growth potential in industrial markets outside of the LED industry.

The addition of our sapphire materials and equipment product lines diversifies the scope of our business beyond solar but does not complete our diversification process. Our ability to generate cash gives us the financial flexibility to support further expansion into new and promising areas for growth. In that regard, we are in the process of rebranding the company and will be changing our name to GT Advanced Technologies. Our new name and brand reflect our broader strategic platform as the leading

company focused on enabling and advancing the growth of renewable energy and industries that require high-quality advanced materials.

As I reflect upon the success of this past year, there is much to be thankful for and there are a lot of people to recognize for contributing to our success. I'd like to thank our suppliers and partners who worked with us to ensure we were able to meet our customer shipments. I'd like to also thank our shareholders for the confidence they have in our company. I want to express my gratitude to our employees for their continued dedication and hard work throughout the year as we accelerated the pace of our product development and delivered record levels of shipments to our global customer base. Lastly, I want to thank our customers for their continued support and trust in our company. We will continue to work hard to earn your loyalty and support the growth of your businesses.

A handwritten signature in black ink, appearing to read 'Tom Gutierrez'.

Tom Gutierrez
President and Chief Executive Officer

致股东

2011 财政年度对我们公司来说是充满转变的一年。我们成功地实现了公司业务投资组合的多样化、加快了新产品的研发速度、加大了对新增长项目的投资、强化了运营团队并增加了美国地区的工作人员数目，同时还将在公司运营总部转移至香港，以更加贴近我们的客户。

此外，我们还于去年 11 月购回了由 GT 太阳能控股有限责任公司 (GT Solar Holdings, LLC) 所持有之 GT 太阳能普通股的大部分剩余股份，该公司成员包括公司的所有私人股本投资者。这次回购行为有效完成了公司过渡程序，即由一家大部分股份以私人股本形式所有的公司转变为一家独立公司。

我们本年度的财务绩效十分强劲。收益增长至 8.99 亿美元，年增长率为 65%。今年的毛利率略高于 42%，较去年增长两个百分点，反映出我们在加速增长和扩张的同时管理成本的能力，并且我们的产品继续获得其适当的价值。我们的净销售总额约为 11 亿美元，年底未结订单总额约为 12 亿美元。完全稀释每股收益较去年增长一倍多，达到 1.24 美元。在经过全年的重大商业投资后，年底时我们的现金余额达到 3.63 亿美元，债务额为 1.2 亿美元。

我们所有的业务部门都为这一成就付出了努力：

PV 事业部在上一年度大量增加了新的生产能力，而 GT 部门能够响应这一需求并交付了历史上数量最多

的 DSS 产品。2011 财政年度，我们在 DSS 产品系列中推出了两款新产品，DSS™450HP 和 DSS™650。每款产品都以我们的传统为基础，即采用全新系统为客户提供实现更高绩效水平和生产力的改进方法。维持这种技术创新的水平是我们在市场中获得持续成功的关键，我们期待在新的财政年度中大幅增加研发投入，以保持这一创新速度。

快速提高产量的能力与产品的市场领先业绩结合在一起，使得我们于本年度保持了在 PV 市场的领先地位。更确切地说，我们全年的 PV 订单总额大约为 7.67 亿美元，DSS 铸锭炉发货量为 1,470 台，超过 2010 财政年度所出运的 DSS 系统的五倍多。自 2003 年第一套 DSS 系统推出以来，我们现已为客户发送超过 3,000 台 DSS 铸锭炉。特别重要的是，我们继续吸引全新客户并证明自身的能力，以在愈加激烈的竞争环境中为我们的技术获取适当的价值。

在多晶硅事业部中，我们现已拥有完整的多晶硅料整线产品系列，包括氯化氢反应、CVD 还原炉、硅芯生

产和产品处理与包装设备。在上一年度中，我们的多晶硅业务订货额超过 2.15 亿美元，并且在年末时

拥有超过 5.36 亿美元的良好未结订单总额。我们估计在 2010 日历年，我们的还原炉所生产的多晶硅

产品占据了商业市场制造商之生产总量的 70% 多。

由于我们的技术可实现的出众业绩，我们继续从新的多晶硅客户和现有老客户赢得新业务。面临着财政补助的减少、市场价格的贬值和利润压力，太阳能行业如果想要继续保持增长就必须降低成本。生产高质量多晶硅的成本是平衡等式的必要组成部分，因为多晶硅制造商之间的激烈竞争压力很可能驱使该行业仅保留住那些最高效且具有最高性价比的供应商。考虑到我们为市场提供领先技术的可靠业绩记录，我们相信这种趋势将使我们获得有利的竞争地位以赢得未来的业务，并不断降低生产成本。除这些产品线外，我们还于上一财政年度推出了 SDR™400，它是每年能够生产超过 400 公吨多晶硅的第四代 CVD 还原炉。我们还公布，我们计划于今年夏天在客户现场对我们的新一代 CVD 还原炉 (SDR™600) 进行样机测试。此最新产品是我们在过去的四年中对我们的 SDR 产品线进行的第五次重大升级。

在这一年里，我们采用了多元化策略，旨在建立我们的核心运营优势及技术知识。我们的首要目标是投资全新的战略方案，从而在我们的主要太阳能市场外创造业务增长机会。

2010 年 7 月 29 日，随着成功收购了马萨诸塞州塞勒姆市的 Crystal Systems, Inc. (一家为 LED 及其

他工业市场部门提供蓝宝石材料的生产商)，我们完成了公司的首个此类投资项目。Crystal Systems 凭借

其生产优质、大直径蓝宝石材料的能力而享誉全球。蓝宝石是用于制造 LED 芯片的主要基材，而行业分

析师期望 LED 行业可随着未来数年中普通照明应用对 LED 使用量的增加，从而获得行业的发展。我们

认为 LED 行业的预期增长将会增加蓝宝石材料的需求量，而我们的目标是将 GT 打造为一家可为生产

蓝宝石材料的公司提供高级长晶设备的领先供应商，以满足该市场的需求。

自 2010 年 12 月，我们公布了第一次商业促销以后，高级蓝宝石长晶炉 (ASF) 的订单量已经超过价值 9.4 亿美元，而其中一笔订单总价值达 4.6 亿美元，这是我们公司有史以来价值最高的单笔订单。我们的 ASF 设备在市场上的迅速普及，充分证明了我们的客户对我们的信任，无论是我们交付技术精良之产品的能力，还是我们使技术商业化以及如我们的塞勒姆工厂的成功扩展所展示的那样快速实现批量化生产的能力。

最近，我们还完成了对马萨诸塞州塞勒姆市的蓝宝石生产设备的最先进工艺升级扩展工作，使我们生产优质材料的能力较原来提高了两倍。当我们的核心蓝宝石策略仍然侧重于利用我们的 ASF 设备建立市场领导地位时，塞勒姆公司的额外生产能力使我们能够为工业市场供应蓝宝石材料，并从 LED 级材料的强大市场中

获取利益，而此时使用我们的设备之客户仍在提升他们的产能。从长远来看，塞勒姆公司将继续作为我们的蓝宝石研发机构和设备展示机构而进行各种运营活动，但是该公司的业务重点将转移为支持 LED 领域外工业市场中的增长潜能。

增加我们的蓝宝石材料及设备产品线可以使我们的业务范围实现多样化 (不再局限于太阳能方面)，但是这并未完成我们的多样化程序。我们获取现金的能力可赋予我们财务灵活性，从而支持我们进一步向具有潜力的全新领域扩张以获得发展。由此，我们正处于重新打造公司品牌的过程中，并将我们的公司名称变更为 GT Advanced Technologies。我们全新的名称与品牌反映出我们更广泛的策略平台，即我们这一全球领先公司将重点关注可再生能源及需要优质先进材料的行业之增长的实现与推动。

当我回顾过去这一年中公司取得的各项成就时，我发现我应感谢许多事，以及众多为我们的成就做出贡献之人。我想感谢我们的供应商和合作伙伴，感谢他们与我们齐心协力，以确保我们能够满足我们客户的发货需求。我还要感谢我们的股东，感谢他们对公司所持的信心。我想向我们的员工表达我的感激之情，感谢他们在我们加速研发产品、并为全球客户群交付创纪录的发货水平的这一年中，所付出的持久奉献以及辛勤工作。最后，我想感谢我们的客户，感谢他们一直以来对我们公司的支持与信任。我们将继续努力工作，以便赢得您的信任与忠诚，并为您的业务增长提供有力支持。

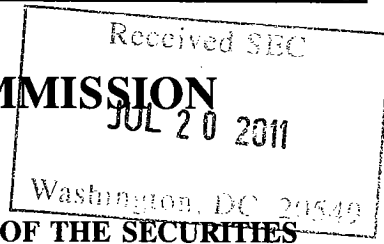


Tom Gutierrez
总裁兼首席执行官

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K



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

For the fiscal year ended April 2, 2011

or

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

For the transition period from to

Commission file number: 001-34133

GT Solar International, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

03-0606749
(I.R.S. Employer
Identification No.)

243 Daniel Webster Highway
Merrimack, New Hampshire 03054
(Address of principal executive offices, including zip code)

(603) 883-5200

(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common stock, \$0.01 par value	The NASDAQ Global Select Market

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

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

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

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

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a
smaller reporting company)

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

The aggregate market value of the registrant's common stock, \$0.01 par value per share, held by non-affiliates of the registrant on October 2, 2010, the last business day of the registrant's most recently completed second fiscal quarter, was approximately \$827 million (based on the closing sales price of the registrant's common stock on that date). As of May 20, 2011, 125,893,592 shares of the registrant's common stock, \$0.01 par value per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

The information required by Part III of this Annual Report on Form 10-K, to the extent not set forth herein, is incorporated by reference from the registrant's definitive proxy statement relating to the Annual Meeting of Shareholders to be held in 2011, which will be filed with the Securities and Exchange Commission within 120 days after the end of the fiscal year to which this Annual Report on Form 10-K relates.

GT Solar International, Inc.

Form 10-K

Year Ended April 2, 2011

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Cautionary Statements Concerning Forward-Looking Statements

This Annual Report on Form 10-K contains “forward-looking statements” that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. The statements contained in this Annual Report on Form 10-K that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are identified by the use of words such as, but not limited to, “anticipate,” “believe,” “continue,” “could,” “estimate,” “prospects,” “forecasts,” “expect,” “intend,” “may,” “will,” “plan,” “target,” and similar expressions or variations intended to identify forward-looking statements and include statements about our expectations of future periods with respect to, among other things, annual PV installations in 2015, expected increase in end user demand for solar energy, backlog, backlog conversions, gross margins, when our business segments will recognize revenue and the amount that will be recognized, potential increase in demand for CVD reactors, customer concentrations, demand for our products, effects of government tariffs, change in tax rates and the reasons therefore, cost of solar equipment, investments in solar energy, growth of our business and product portfolio, fluctuation of polysilicon revenue, long term prospects for the solar industry and our PV, polysilicon and sapphire segments, PV business accounting for a majority of our revenue, outcome of litigation, research and development expense, tax rates and our plans to produce and sell crystal sapphire materials and advanced sapphire crystal growth furnaces. Gross margin composition, customer relationship supporting continued growth in our PV business, growth in both the HB LED market and corresponding growth in the sapphire market, general illumination being one of the fastest growing applications for HB LEDs, increase in demand for large area sapphire material, growth in sales of upgrades, parts and services supplied by us increasing with the number of installed DSS furnaces, our relationships with leading Chinese solar companies and our expanded base of operations in China enhancing our ability to compete against the lower cost Chinese PV capital equipment companies in our markets, increase in polysilicon production capacity from 2010 to 2015, the number of sapphire equipment and sapphire material customers that we will have (and whether they are customers of our other business segments), all of our growth strategies, sales to customers in Asia will continue to be a significant portion of sales over the next several years as polysilicon and sapphire manufacturing is expected to continue to grow in that region, timeframes during which we expect to deliver our products to customers after entering into an agreement, delivery of additional ASF furnaces throughout the first half of the fiscal year ending March 31, 2012, dependence on a limited number of customers, increase in the sapphire materials business, expected increase in the use of ASF furnaces by us and our equipment customers, increased demand on suppliers and our expected growth of our business segments, results of litigation and amounts paid in connection with litigation, all information contained in “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Factors Affecting the Results of Our Operations”, increase in research and development spending, gross margins in fiscal 2012 including amounts attributable to ASF furnaces, timing of recognizing revenue that is included in deferred revenue, cash generated from operations together with our existing cash and customer deposits and any borrowings under the Credit Agreement, including the Revolving Facility, will be sufficient to satisfy working capital requirements, commitments for capital expenditures and other cash requirements for the foreseeable future, including at least the next twelve months, total capital expenditures in our fiscal year ending March 31, 2012 are ranging from approximately \$25 million to approximately \$30 million, consisting primarily of improvements to our business information systems, manufacturing equipment and expected expansion of our facilities in Asia. These statements are based on the beliefs and assumptions of our management derived from information currently available to management. Such forward-looking statements are subject to risks, uncertainties and other important factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements, and such factors include, but are not limited to, the risks discussed in Part I, Item 1A under the heading titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Forward-looking statements speak only as of the date of this Annual Report on Form 10-K. We undertake

no obligation to publicly update or review any forward-looking statements to reflect events or circumstances after the date of such statements.

Information regarding markets, market size, market growth rates, forecasts and other industry data contained in this Annual Report on Form 10-K consists of estimates based on data and reports compiled by professional organizations, industry consultants and analysts, on data from other external sources, and on our knowledge and internal surveys of the photovoltaic, polysilicon and sapphire industries. Marketbuzz 2011, an annual report dated March 2011 prepared by Solarbuzz LLC, an international solar energy market research and consulting company that reports on the solar industry, and Yole Développement, an international market research and consulting company that reports on the sapphire and LED industries, were the primary sources for third party industry data and forecasts used in this Annual Report on form 10-K.

In view of the emerging nature of the photovoltaic, polysilicon and sapphire industries and the absence of publicly available information on most of the photovoltaic equipment, polysilicon and sapphire material and equipment manufacturers (including, without limitation, their existing production capacity, business plans and strategies), the estimates for the size of the photovoltaic, polysilicon and sapphire markets and their projected growth rates set out in this Annual Report on Form 10-K should be considered with caution. Certain market share information and other statements in this Annual Report on Form 10-K regarding the photovoltaic, polysilicon and sapphire industries and our position relative to our competitors is not based on published statistical data or information obtained by independent third parties. Rather, such information and statements reflect our management's best estimates based upon information obtained from trade and industry organizations and associations and other contacts within the photovoltaic, polysilicon and sapphire industries. While we believe our internal estimates to be reasonable, they have not been verified by independent sources.

PART I

Item 1. *Business*

Our Company

GT Solar International, Inc., through its subsidiaries (referred to collectively herein as “we,” “us” and “our”), is a global provider of polysilicon production technology and multicrystalline ingot growth systems and related photovoltaic manufacturing services for the solar industry, and sapphire growth systems and material for the LED and other specialty markets. Our customers include several of the world’s largest solar companies as well as companies in the chemical industry.

Our principal products are:

- Chemical vapor deposition (CVD) reactors and related equipment used to produce polysilicon, the key raw material used in silicon-based solar wafers and cells;
- Directional solidification (DSS) furnaces and related equipment used to cast multicrystalline silicon ingots by melting and cooling polysilicon in a precisely controlled process. These ingots are used to make photovoltaic (PV) wafers which are, in turn, used to make solar cells;
- Advanced sapphire furnaces (ASF) used to crystallize sapphire boules by melting and cooling aluminum oxide in a precisely controlled process. These sapphire boules are used to make sapphire wafers, the preferred substrate for manufacturing light emitting diode (LED) devices, and for use in other specialty markets; and
- Sapphire material is produced in our sapphire production facility and sold directly to customers. These materials are primarily used to make a variety of products such as epitaxial-ready wafers for the LED industry and other specialty markets.

GT Solar International, Inc. (the “Company”) was originally incorporated in Delaware in September 2006. On September 27, 2006, we completed an internal reorganization through which GT Solar International, Inc. became the parent company of GT Solar Incorporated, our principal operating subsidiary.

In July 2008, we completed an initial public offering of 30,300,000 shares of common stock by GT Solar Holdings, LLC. In March 2010, we completed a secondary public offering of 28,750,000 shares of common stock by GT Solar Holdings, LLC.

On July 29, 2010, we acquired privately-held Crystal Systems, Inc., which we refer to as Crystal Systems, a crystal growth technology company that produces sapphire material used for LED applications, as well as other specialty markets, such as medical, research, aerospace industries and defense.

In September 2010, we completed a secondary offering of 11,000,000 shares of common stock by GT Solar Holdings, LLC. At the same time we completed an additional secondary offering of 14,000,000 shares of common stock by GT Solar Holdings, LLC, such sale was made to UBS AG and UBS Securities LLC in connection with an offering by UBS AG of its Mandatorily Exchangeable Notes due 2013.

On November 12, 2010, GT Solar International, Inc. repurchased 26,500,000 shares of our common stock from GT Solar Holdings, LLC, such repurchase was funded with our available cash.

We did not receive any proceeds in connection with any of the foregoing offerings by GT Solar Holdings, LLC. As of April 2, 2011, we believe that GT Solar Holdings, LLC held less than 10% of the outstanding shares of our common stock.

PV Industry Overview

Today, the majority of the world's electricity supply is generated by fossil fuels such as oil, coal and natural gas. Volatile global energy prices, increasing demand for electricity, particularly in developing economies, growing environmental awareness of the consequences of fossil fuel-based energy sources and the desire for energy security are, we believe, driving the demand for renewable energy sources such as solar photovoltaic (PV) systems. PV systems are used in industrial, commercial and residential applications to convert sunlight directly into electricity. Today, electricity costs generated from PV energy are higher than electricity generated by traditional energy sources, although the difference has decreased substantially in recent years. To offset the higher costs associated with solar energy and to encourage the adoption of alternative energy supplies, certain countries have implemented various tax credits and other incentives in connection with the use of renewable energy.

A solar industry research firm reported that the 2010 world PV market, as measured by total customer installations, increased to 18.2 gigawatts (or GW) from 7.9GW in 2009, a 139% growth increase year over year. The global PV market grew at a compound annual growth rate of 67% between 2005 and 2010. PV industry revenues in 2010 were approximately \$82.1 billion. The industry research firm, in its "Green World" scenario, also estimates that in 2015 the annual PV installations at end-user sites may reach approximately 36.4GW with global PV industry revenues of approximately \$96.2 billion for 2015.

The PV industry growth has been historically driven by incentive programs such as feed-in-tariffs (or FITs), most notably in Germany. FITs have been set at a level that allowed for cost efficient PV manufacturers, and end-market investors alike, to earn a sufficient return on their solar project investments. Of the 18.2GW of total installed demand in 2010, 71% or 12.9GW was attributable to just three countries in Europe: Germany, Italy and the Czech Republic. In 2011, the governmental support regarding continued support for financial incentive programs remains uncertain.

However, recent decisions by certain governments to reduce or eliminate FITs may result in reduced demand for PV equipment.

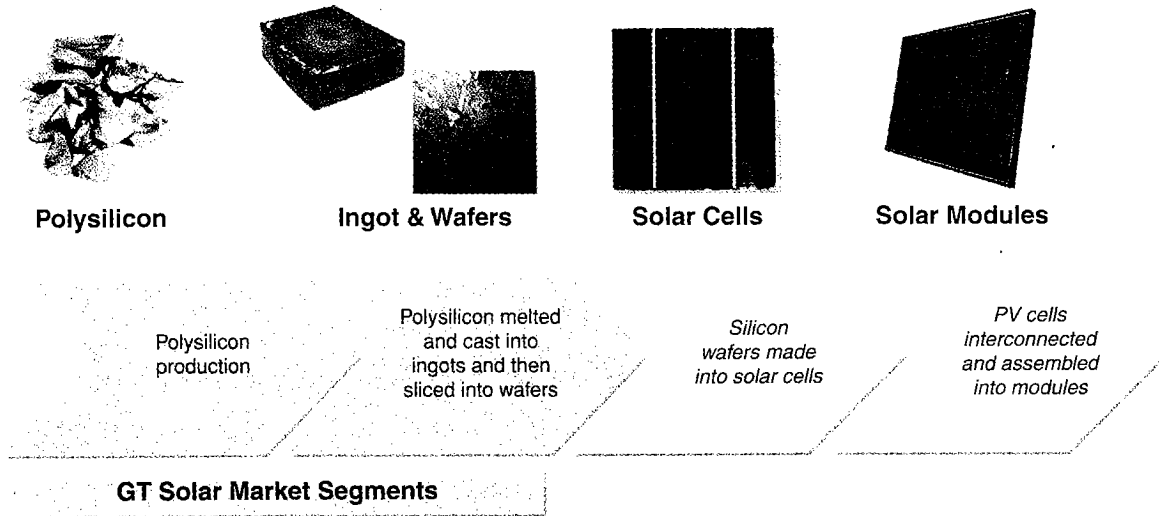
PV Manufacturing Trends

Manufacturers across the various segments comprising the PV manufacturing process are lowering their manufacturing costs and improving cell efficiency in an effort to make solar generated electricity more price competitive with electricity generated from traditional sources. According to Solarbuzz, a solar industry research firm, solar module prices have fallen from an average of \$3.30 per watt in the fourth quarter of 2008 to an estimated \$2.17 per watt in the fourth quarter of 2010.

In 2010, China continued to be one of the fastest growing global regions for PV manufacturing. According to Solarbuzz, at the end of 2010, 68% of the world's PV silicon wafer production capacity was located in China (including Taiwan), up from 65% in 2009. Economic incentives offered by the Chinese government and the availability of low cost labor have, we believe, accelerated the expansion of PV manufacturing capacity within the country. In the fiscal year ended April 2, 2011, 93% of our revenue was from existing or new customers in Asia, with 71% generated of that amount from customers in China.

We also believe that the desire to reduce overall cost drove the growth of PV manufacturing in China in recent years and is creating a trend towards vertical integration among PV manufacturers. Larger, better capitalized manufacturers improve their competitive position by controlling a greater range of the PV manufacturing process. The expanded scale of their operations enhances their ability to control costs, preserve margins, and manage through the volatility in raw material prices. We have supplied equipment to three of the eight largest PV manufacturers in China based on wafer manufacturing capacity, according to Solarbuzz data.

The PV Manufacturing Process



The production of multicrystalline-based solar modules includes a number of manufacturing steps. The first step involves the production of raw polysilicon using one of several production techniques. Raw polysilicon is then cast into a multicrystalline ingot in a DSS furnace. The ingot then moves into the wafering operation where it is sawed into bricks and the bricks are then sawed into thin wafers. Next the wafers are processed into solar cells through a series of etching, doping, coating and electrical contact processes. The next step involves interconnecting and assembling solar cells into solar modules. Finally, solar modules along with other system components such as batteries and inverters are installed as solar power systems.

We design and sell capital equipment and related services used in both the polysilicon production and ingot production segments of the PV manufacturing process.

Sapphire Industry Overview

On July 29, 2010, we acquired privately-held Crystal Systems, Inc., a company that specializes in the manufacture of high-quality sapphire material used in the LED industry and other specialty industries such as medical and aerospace. Our sapphire material and equipment business focuses on two core strategies—producing high quality sapphire material for the LED and other specialty markets and selling our advanced sapphire furnace (ASF) to companies that intend to grow their own sapphire material.

Sapphire is one of the hardest materials on earth and is recognized for its durability, chemical resistivity and optical transmission qualities. These characteristics make sapphire an effective material for a variety of applications that require demanding optical and mechanical performance in industries such as aerospace and defense, oil and gas, and medical devices. Sapphire is a preferred substrate material for high brightness (HB) white, blue and green LED devices, currently representing over 80% of all substrate material used in LED applications. Therefore, as the HB LED market grows, we believe the sapphire substrate market will grow as well.

Common applications for LEDs include: color displays for mobile phones and other portable electronics such as GPS systems, MP3 players and digital camera flashes; backlighting units for large displays to replace conventional fluorescent back-lighting units, or BLUs, in LCD flat panel televisions, notebook computers and desktop monitors; car and truck headlights, turning and tail light functions as well as interior lighting; as the light sources on large signs, and outdoor displays such as jumbo screens

used in sporting arenas and electronic billboards; general illumination for replacement lamps, architectural lighting, retail displays commercial and industrial lights, residential lighting, street lights and off grid lighting for developing countries. General illumination is expected to be one of the fastest growing applications for HB LEDs.

Optical and Mechanical applications

Sapphire material is also used in a number of optical and mechanical applications including semiconductor wafer carriers, nozzles, bearings, blades, tubes, jewel bearings, high powered lasers and windows. Other applications such as liquid chromatography require well-annealed and low stressed material, which can be produced in our ASF crystallization furnaces.

Sapphire Manufacturing Trends

Historical methods of sapphire crystal growth have relied on several different technologies.

The value chain for producing epitaxial-ready LED substrates consists of the following key steps: crystal growth, coring, slicing, lapping and polishing. The crystal growth process represents approximately 48% of the total LED material substrate costs. The industry measures output quality in flatness, desired crystal planar orientation and crystalline structure uniformity. LED device manufacturers are seeking larger diameter sapphire wafers to allow them to achieve economies of scale. As downstream processing technologies such as MOCVD tools, which are used to grow compound semiconductor materials at the atomic scale, increase the capability to process larger wafers diameters such as 4-inch and 6-inch substrates, the demand for large area sapphire material is expected to grow.

The design of our ASF sapphire furnace has benefited from over 40 years of sapphire material process developments at Crystal Systems. We have leveraged this experience to create a furnace design that is, we believe, easy to operate, scalable and is capable of producing quality sapphire boules. The ASF production process includes a seeding, charging, melting, growing, and cooling cycle to create the sapphire boule. Each boule is inspected by using our optical homogeneity technique which is designed to ensure that no sub-optimized material enters the downstream processing steps.

The simplicity and reliability of our furnace design will, we believe, allow customers to operate high volume production environments to produce sapphire material with a lower capital investment compared to other competing crystallization technologies.

Our Business Segments

We report revenue from three business segments; our polysilicon business, our PV business, and our sapphire business. For financial information regarding revenues, profit or loss and total assets for each segment for each of the last three years, please refer to Note 17 in our Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K. None of the businesses in which our segments operate are seasonal.

Polysilicon Business

Polysilicon is a purified form of silicon that is a key raw material used to produce photovoltaic and microelectronic wafers. Our polysilicon business offers the technologies and equipment to the produce polysilicon. Our polysilicon business offers CVD reactors and related equipment engineering services such as trichlorosilane (TCS) and silane engineering services to existing polysilicon producers and new market entrants. Our CVD reactors utilize the Siemens process, a polysilicon production process which has been in existence for nearly fifty years. In July 2006, our polysilicon business received its first order for CVD reactors from OCI Company, Ltd. (formerly DC Chemical Co., Ltd.,) a leading Korean chemical company. From July 31, 2007 through April 2, 2011 we shipped over 200 CVD reactors.

CVD reactors—We sell CVD reactors that produce polysilicon. We market our CVD reactors under the names SDR™200, SDR™300 and SDR™400. We began offering these products commercially in April 2006. Our SDR200 CVD reactors are producing at levels greater than 200 MT of polysilicon annually and our SDR300 CVD reactors are producing in excess of 300 MT annually of polysilicon. Our most recent SDR reactor, the SDR400, is producing polysilicon in excess of 400 MT annually.

Polysilicon services, parts and other—In addition to CVD reactors for polysilicon manufacturing, we also provide technology and engineering services for the commissioning, start-up and optimization of our equipment and technology. We provide the basic engineering packages, process licenses and key equipment for the production and purification of trichlorosilane and silane. In 2009, our polysilicon business began offering equipment and engineering services to assist companies with the production of TCS, an essential raw material in both the semiconductor and solar industries. In 2010, we began offering hydrochlorination technology which is designed to lower the capital costs and power consumption of polysilicon production. Hydrochlorination technology eliminates the need for silicon tetrachloride converters which are required when using certain other technology.

We also provide ancillary equipment and technologies for producing starting seed rods used in our CVD reactors and for handling and processing the polysilicon into a finished product.

Our polysilicon segment focuses on product design, quality control, engineering services, project management providing technical know-how and process development related to the commissioning and production of polysilicon. One of our major goals is to lower the cost of producing high quality polysilicon for our customers by providing improved plant designs and increasing the throughput and efficiency of each new generation of our CVD reactors.

PV Business

The primary focus of our PV business includes the manufacture and sales of DSS™ crystallization furnaces and ancillary equipment required in the operation of DSS crystallization furnaces to cast multicrystalline silicon ingots. We believe we have established a leading position in the market for specialized furnace technology for the production of multicrystalline solar wafers. From April 1, 2005 through April 2, 2011, we shipped approximately 2,900 DSS crystallization furnaces.

DSS crystallization furnaces—Our DSS furnace is a specialized furnace used to melt polysilicon and cast multicrystalline ingots. Polysilicon is placed into a quartz crucible and the crucible is then loaded into the chamber of the DSS furnace where it is cast into multicrystalline ingots under precise heating and cooling conditions. Multicrystalline ingots are used to produce solar wafers, which ultimately become solar cells. Solar cells made from multicrystalline wafers represented approximately 55.5% of all solar cells produced in 2010 according to a sole-industry research firm. Our DSS crystallization furnaces are capable of applying precise incremental temperature changes, which is critical to forming quality ingots required for high efficiency solar cells. We have developed proprietary control software systems to automate the operation of the furnace during all stages of the crystal growth process. Our DSS furnaces share a common architecture, which are designed to allow customers to efficiently upgrade systems to generate greater throughput with an existing furnace. We market our DSS crystallization furnaces under the names DSS240, DSS450, DSS450HP, and DSS650.

All of the components and assemblies for our DSS furnaces are manufactured by third parties using our designs. Our manufacturing personnel focus on final assembly, integration and testing of the DSS furnace. We also provide engineering and product design, quality control, process engineering and engineering services related to the operation of our DSS furnaces.

Ancillary equipment—Our largest capacity DSS furnace, the DSS650, is capable of producing ingots that weigh up to 625 kilograms. Our ancillary equipment provides operators with material handling assistance during the preparation of the crucible before it is loaded with silicon and during the loading

and unloading of the crucible into the DSS furnace chamber at the start of the growth process and out of the DSS furnace chamber at the conclusion of the ingot growth process. Our ancillary equipment includes crucible coating stations, crucible manipulators, extraction tools and other material handling systems required to safely transport material during the ingot growth process. We report ancillary equipment revenue as other PV equipment.

Photovoltaic parts and services—The use of our products requires substantial technical know-how and many of our customers rely on us to design and optimize their production processes as well as train their employees in the use of our equipment. We sell replacement parts and consumables used in our DSS furnaces and other PV equipment. We also offer a range of services in connection with the sale of equipment, including facility design, equipment installation and integration, technical training and manufacturing process optimization. We typically charge for these services separately from the price of our equipment. As the number of our installed DSS crystallization furnaces continued to expand, we believe that sales of upgrades, parts and services will grow as well. We report revenue from PV parts and services as PV services, parts and other.

Sapphire Business

Our sapphire segment is focused in two areas: (i) the production of high quality sapphire material for the LED and other specialty markets, and (ii) the marketing and sales of our advanced sapphire furnaces to customers to enable them to produce their own sapphire material.

Sapphire Materials—We produce high quality sapphire material in our facility in Salem, Massachusetts. We sell this material to customers in the LED and other specialty markets, such as the aerospace, defense and medical device.

We manufacture and sell two principal types of sapphire materials.

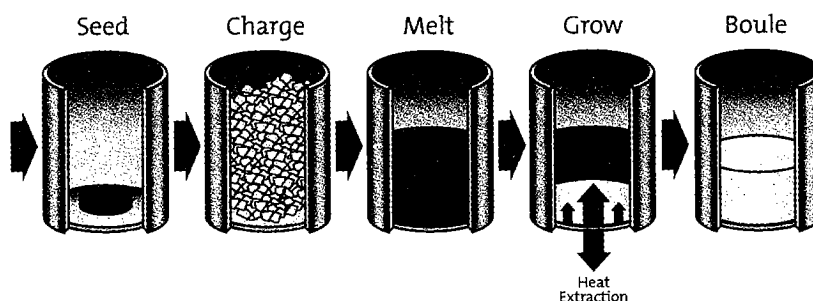
Sapphire Material: Using the material derived from the sapphire boule generated with our advanced sapphire furnaces, we are able to cut the sapphire material in a number of different dimensions, including as cores, rods, blanks, windows and tubes. In addition, due to the growth processes that we utilize, we are able to deliver to our customers high yields of material. In many cases, we are able to improve the performance of the material by fabricating such material using our sophisticated machining and tooling machinery. It is, however, frequently the case that additional finishing and polishing needs to be performed on the material before it can be utilized by an end-user in a commercial or research product. Customers for our sapphire material cover a broad range of industries, from aerospace to medical devices to research.

Titanium-doped Sapphire (Ti:Sapphire) Material: Utilizing a similar production technique, we generate sapphire boules that are doped with titanium. Titanium-doped sapphire has optical qualities which makes it useful in applications such as tunable lasers and photonics products. Unlike our standard sapphire material, we provide finishing and polishing for our Ti:Sapphire material. Customers for our Ti:Sapphire material principally consist of research institutions, including those working on proton cancer therapy and high energy physics.

ASF Crystallization Furnaces—Our advanced sapphire furnaces (ASF) crystallize sapphire material into sapphire boules. Our ASF technology is based on the heat exchanger method (HEM), a directional solidification technique which crystallizes the sapphire meltstock material during the growth process. We began entering into contracts to sell our ASF furnaces in the fall of 2010 and have been taking orders from new market entrants and existing PV customers who are interested in growing their own sapphire material for sale, we believe, primarily to the LED market. The design of our ASF crystallization furnace has benefited from the 40 years of sapphire crystal growing experience at Crystal Systems, Inc. We believe the similarities between our crystal growing operation and our ASF

equipment business gives us a competitive advantage in the market place. We market and sell our ASF furnaces under the names ASF85 and ASF100.

Advanced Sapphire Crystalline Growth Process



All of the components and assemblies for our ASF furnaces are manufactured by third parties using our designs. Our manufacturing personnel focus on final assembly, integration and testing of the ASF furnace prior to shipping the product to the customer. We also provide engineering and product design, quality control, process engineering and engineering services related to the operation of our ASF furnaces.

Target customers for our ASF furnaces include manufacturers from the solar and LED industries, as well as other diversified manufacturers.

We are in the process of commercializing our ASF furnaces and delivered the first furnaces to customers in May 2011 and expect to deliver additional furnaces throughout the first half of the fiscal year ending March 31, 2012. We have no experience installing and operating the ASF furnaces in customer facilities. If the ASF furnace does not operate properly in our customers' facilities, we will not be able to recognize revenue from the sale of furnaces in a timely manner, or at all. In addition, our sapphire business, and our overall business, would be materially and adversely impacted.

Turnkey Integration Services

We had offered complete turnkey integration services to our PV customers, using third party wafer, cell and module production equipment designed to produce a specified level of output. These services were sold to new market entrants in connection with the construction of new PV manufacturing facilities. Most of our turnkey revenues were from sales of wafer production lines, which provided additional sales opportunities for our DSS crystallization furnaces. During the three months ended July 3, 2010, we completed a review of our PV turnkey services and decided to no longer offer these services. This decision was based on our assessment of reduced market opportunities, as well as low gross margins compared to our other product lines. Our decision did not impact the recoverability of any tangible or intangible assets, and we did not incur any significant costs to eliminate this product offering. We have re-directed certain of the resources formerly engaged in our turnkey business into our sapphire business, including in assisting our effort to expand our materials business and to operate our sapphire equipment business.

Our Competitive Strengths

We believe that our competitive strengths include:

- *Key equipment supplier to many of the world's leading polysilicon and solar companies*—We have been providing manufacturing equipment to the solar industry for over a decade and have supplied equipment to many of the world's leading polysilicon, solar wafer, cell and module manufacturers, including OCI Company, Ltd, (formerly DC Chemical Co., Ltd.), LDK

Solar Co., Ltd., (LDK), Nexolon Co., Ltd., Green Energy Technology, Baoding Tianwei Yingli New Energy Resources Co., Ltd. (Yingli), Changzhou Trina Solar Energy Co., Ltd. (Trina) AG, and GCL—Poly Energy Holdings Limited.

- *Large and growing presence in China, a major growth market for solar manufacturing*—Today, many of the world’s leading solar manufacturing companies are based in China (including Taiwan), which according to Solarbuzz, accounted for approximately 68% of the world’s solar wafer manufacturing capacity in 2010. We have supplied equipment to three of the top eight leading PV manufacturers in China based on wafer manufacturing capacity, according to Solarbuzz data.

We have been doing business in China since 2002 and have continued to expand our base of operations to better serve the increased number of our China-based customers. In September 2009, we opened our Shanghai production facility to provide spare parts inventory, certain limited manufacturing furnaces, a demonstration and training center and other customer service capabilities for our Asia-based customers. In October 2010, we transitioned our global operations center to Hong Kong. We believe that our relationships with leading Chinese solar companies and our expanded base of operations in China will enhance our ability to compete against the lower cost Chinese PV capital equipment companies in our markets.

- *Leading market position in crystal growth equipment for the multicrystalline solar industry*—We believe our DSS crystallization furnaces are the most widely used furnaces for casting multicrystalline ingots in the solar industry. Since the introduction of our DSS240 in 2005, we have shipped approximately 2,900 furnaces to customers worldwide, the majority of which were to manufacturers in China. Our DSS furnaces produce high quality crystalline ingots with reliability and low cost of ownership. We believe our installed base of DSS units and other PV equipment promotes higher sales of parts and service in the future as our customers’ equipment ages.
- *Established supplier of technology to new entrants to the polysilicon industry*—Our polysilicon production technology is recognized for its ability to produce quality polysilicon at a low cost per kilogram. Our first commissioned new polysilicon production facility was for OCI Company, Ltd, a large South Korean chemical company. In its “Green World” scenario, Solarbuzz estimates that approximately 146,000 metric tons (MT) of polysilicon production capacity will be added from 2010 to 2015. As one of a small number of companies providing CVD reactors commercially, we believe we are well positioned to successfully compete for these opportunities.
- *Rapid commercialization of technology to enable the growth of new markets*—We have been successful in commercializing crystal growth technology that enables new entrants capitalize on expected market growth opportunities. We established a leading multicrystalline growth technology in the PV industry with our DSS furnace in 2005. In the fall of 2010, we began entering into contracts to sell our ASF sapphire crystallization furnace for commercial sale to companies interested in producing sapphire. The operational experience we have gained in successfully building and managing a high quality, global supply chain to support the growth of our DSS furnaces has allowed us to quickly ramp our ASF equipment business.
- *Supplier of quality sapphire material for the LED and other specialty markets*—Through our acquisition of Crystal Systems in July, 2010, we produce high quality sapphire material. Crystal Systems, utilizing learning from 40 years of sapphire crystal growing experience has made ongoing improvement in sapphire production and today is recognized for its ability to produce material that meets stringent technical requirements for applications such as high power lasers, windows for the aerospace and defense industry, and other industries such as medical device and oil and gas.

- *Outsourced manufacturing model*—Our manufacturing model is different from many capital equipment manufacturers in that we outsource most of the components used in our PV and sapphire equipment and the manufacturing of our polysilicon equipment. All of the components of our polysilicon products are shipped directly from our qualified vendors to the customer installation site. Components for our DSS crystallization furnaces are shipped to our facilities in Merrimack, New Hampshire and Shanghai and Hong Kong, China, where they are crated prior to shipping to our Hong Kong consolidation warehouse, for ultimate shipment to the customer. Our Merrimack, New Hampshire facility is also being expanded to accommodate the integration and final assembly of our ASF furnaces prior to shipping to the customer.

This model results in a highly flexible cost structure, modest working capital and physical plant requirements and a relatively small number of manufacturing employees. This model also improves our competitive position by keeping our cost of operations low.

- *Strong balance sheet*—Our strong financial position allows us to use our cash balances and cash flows from operations, subject to certain restrictions in our credit agreement, on strategic initiatives such as investments in new products or services or other growth opportunities. Additionally, we believe that our liquid working capital position is important due to the volatility that has occurred and may occur in the future in the solar industry.

Our Growth Strategies

Our growth strategies include:

- maintaining technology leadership in our core product areas through innovation and new product development;
- better serving our customers and lowering our costs by further expanding our operations in Asia;
- protecting our customers' investments in capital equipment by providing technical improvements for existing products that enhance their productivity and efficiency;
- leveraging our sapphire materials capabilities to become a supplier of crystal growth equipment to the sapphire industry; and
- developing or acquiring complementary technologies or businesses.

Competition

We compete on the basis of reputation, technology, delivery, service (both installation and aftermarket) and price. We principally compete with equipment manufacturers in the PV market for CVD reactors for the production of polysilicon and DSS furnaces for the production of multicrystalline ingots. Our sapphire materials and equipment business competes with a number of well established sapphire material producers and several sapphire furnace manufacturers.

Polysilicon business—Our CVD reactor products and other related services face direct competition from a small number of entities to the polysilicon production market. These competitors include MSA Apparatus Construction for Chemical Equipment Ltd, Centrotherm Elektrische Anlagen GmbH & Co., Morimatsu Industry Co. Ltd. and Poly Plant Project, Inc. We also face indirect competition from large, well-established companies that produce polysilicon primarily for the semiconductor industry. These companies have developed polysilicon production technology for their own use which they do not market to third parties. These indirect competitors include Hemlock Semiconductor Corporation, Wacker Chemie AG, Tokuyama Corporation, MEMC Electronic Materials, Inc. and Renewable Energy Corporation ASA.

PV business—Over the past several years, we have seen the emergence of low-cost competitors to our DSS crystallization furnaces. These competitors include ALD Vacuum Technologies AG, JYT Corporation, Ferrotec Corporation, PVA TePla AG, Centrotherm Elektrische Anlagen GmbH & Co., Jing Gong Technology, Zhejiang Jingsheng Mechanical & Electrical Co., Ltd., as well as a number of other furnace manufacturers. Several of these competitors, such as Centrotherm and Ferrotec are large integrated manufacturers with significant resources capable of competing for business globally.

Sapphire business—We face competition for the sale of our sapphire material from a number of well established companies. These competitors include Rubicon Technology, Inc., Sapphire Technology Co. Ltd. (Korea), Kyocera International Inc., Namiki Precision Jewel Co. Ltd., and Monocrystal as well as a number of other sapphire material suppliers. We also face competition for the sale of our advanced sapphire furnace from companies offering alternative technologies including Thermal Technology LLC and Advanced RenewableEnergy Company, LLC.

In addition, all three of our business segments experience competition from new entrants to the respective industries, many of these new entrants have significant resources and advanced technology, as well as competition from certain companies who formerly purchased materials from our equipment customers and have decided to manufacture their own polysilicon, silicon ingot and sapphire material by means of creating and building their own equipment.

Customers

We sell our products and services globally to polysilicon producers, solar wafer manufacturers, and sapphire producers. We also sell sapphire material to customers in the LED and other specialty markets. Our customers include, or are suppliers to, some of the world's leading solar wafer and cell manufacturers and LED manufacturers.

In any one year, we typically have a small number of customers in our polysilicon and PV segments, with any one customer representing a significant percentage of our total revenue. However, our customers and/or their contribution to our revenue typically change from year to year, as different customers replace equipment and undertake projects to add manufacturing capacity. We are new to the sapphire business, but expect that we will have a limited number of customers for our sapphire equipment, some of whom are customers of our PV and polysilicon segment, and a significantly greater number of customers for our sapphire materials. The following customers comprised 10% or more of our total net revenues for the fiscal years ended April 2, 2011, April 3, 2010, and March 28, 2009:

	Fiscal Year Ended					
	April 2, 2011		April 3, 2010		March 28, 2009	
	Revenue	% of Total	Revenue	% of Total	Revenue	% of Total
	(dollars in thousands)					
Jiangsu GCL Silicon Material Technology Development Co. Ltd.	\$172,627	19%	*	*%	*	*%
LDK Solar Co., Ltd	*	*%	\$185,249	34%	\$108,781	20%
OCI Company Ltd (formerly DC Chemical Co. Ltd)	*	*%	*	*%	92,544	17%
Baoding Tianwei, Yingli New Energy Resources Co., Ltd	*	*%	*	*%	74,533	14%
Glory Silicon Energy Co., Ltd.	*	*%	*	*%	57,896	11%

* Revenue from these customers was either zero or less than 10% of the total net revenue during the period.

We believe that our sales to customers in Asia will continue to be a significant portion of sales over the next several years as polysilicon and sapphire manufacturing is expected to continue to grow in that region. For more information about our revenue and long-lived assets by geographic region and our revenue, gross profit and assets by segment, please refer to Note 17 in our Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.

Sales, Marketing and Customer Support

We market our products principally through a direct sales force, and our equipment products through regional indirect sales representatives who solicit orders and identify potential sales opportunities in markets where our business is less established. All sales are made directly by us to the customer and our indirect sales representatives are not authorized to enter into sales contracts on our behalf.

Sales terms

We have established standard terms and conditions of sale for our products; however, sales contracts and prices can vary and are generally negotiated on a case-by-case basis. In the case of our polysilicon, PV and sapphire equipment sales, customers are generally required to make a cash deposit when the order is placed. Customers occasionally require us to provide a standby letter of credit to secure the cash deposit. In addition to cash deposits, customers are also generally required to either post a letter of credit or make advance payments of typically 90% of the value of the equipment prior to shipment. The balance, typically 10%, is paid upon customer acceptance of the equipment sold, which typically occurs within a two to twelve month period after shipping based upon contract terms. Because of the longer production times associated with our CVD reactors, customers are also required to make a series of installment payments as production milestones are achieved in addition to the initial cash deposit. In the event market conditions deteriorate, our existing terms and conditions in connection with equipment sales may not be sustainable.

The majority of sales for sapphire and Ti:sapphire material products are based on customer purchase orders. Payment for these materials is generally due in full within thirty days following shipment. Customers without a credit history are generally required to make an advance payment at least equal to the amount of the next current shipment(s). We have, in very limited circumstances, entered into longer term supply arrangements for sapphire material, which require, among other things, advance payments and other terms and conditions that are not included in a purchase order.

Product warranty

Our polysilicon products are generally sold with a standard warranty typically for a period not exceeding twenty-four months from delivery. Our PV and sapphire equipment are generally sold with a standard warranty for technical defects for a period equal to the shorter of: (i) twelve months from the date of acceptance by the customer; or (ii) fifteen months from the date of shipment. The warranty is typically provided on a repair or replacement basis and includes both products we manufacture and products that we supply our customers from other manufacturers. The Company's sapphire material products are generally sold with a standard warranty for a period not greater than 30 days, but in certain circumstances this warranty period has been extended to greater than 30 days. Our total warranty accruals for new warranties issued, was \$11.0 million for the fiscal year ended April 2, 2011, \$1.1 million for the fiscal year ended April 3, 2010, and \$2.3 million for the fiscal year ended March 28, 2009.

Customer support

Our polysilicon production equipment and crystallization furnaces are critical to the operation of our customers' manufacturing operations. Prior to an order being placed, a customer service representative advises the customer with respect to its facilities requirements and undertakes modeling of expected operating costs. Following delivery, our engineers assist with installation and integration of equipment at the customer's facility. After the sale is complete we often provide support services for a fee. As the number of our product installations increases, we will continue to offer our service and support.

Manufacturing and Suppliers

Our manufacturing model is different from many capital equipment manufacturers in that we outsource most of the components used in our PV and sapphire equipment. Our factory focuses on assembly operations and the production of proprietary components. Nearly all of the components of our polysilicon products are shipped directly from our qualified vendors to the customer installation site. Components for our DSS crystallization furnaces and our ASF sapphire furnaces are shipped to our facilities in Merrimack, New Hampshire and Shanghai and Hong Kong, China, where they are crated prior to shipping to our Hong Kong consolidation warehouse, for ultimate shipment to the customer. This model results in a flexible cost structure, modest working capital and physical plant requirements and a relatively small number of manufacturing employees.

Our DSS and ASF manufacturing operation uses a "forecast manufacturing" methodology to project our raw material needs sufficiently in advance of manufacturing lead times, in an attempt to diminish the threat of spot price volatility and generally minimizing the effect of supply shortages and disruptions. We believe this approach reduces product delivery times and increases scalability and factory utilization. Our polysilicon operations procure materials when customer orders are received.

We purchase a range of materials and components for use in our products from other manufacturers. Many component parts purchased by us are made to our specifications and under appropriate confidentiality arrangements. Purchased components represented approximately 82%, 87%, and 85% of cost of goods sold in the fiscal year ended April 2, 2011, April 3, 2010, and March 28, 2009, respectively. We attempt to secure multiple suppliers of our components to reduce our concentration risk and ensure adequate supply, but, in some cases, components and parts are obtained from a single vendor. In addition, we do not use any single supplier to produce all of the components for any single product in order to reduce the risk that a supplier could replicate our products. In many cases, but not all, we believe that these materials and components are available from multiple sources and that we are not dependent on any single supplier. We have well-established relationships with various domestic and foreign suppliers of the components used in our products. We generally are required to make a series of pre-payments to these vendors, which we fund from our working capital.

Research, Development and Engineering

Our research and development activities are focused on advancing, developing and improving technologies for the markets we serve. We also have cooperative research and development agreements with certain universities, customers and suppliers. Our research and development expense was \$23.8 million in the fiscal year ended April 2, 2011; \$21.4 million in the fiscal year ended April 3, 2010; and \$18.3 million in the fiscal year ended March 28, 2009.

Intellectual Property

We believe that our competitive position depends, in part, on our ability to protect our intellectual property resulting from our research, development, engineering, manufacturing, marketing, and technical and customer service activities. Under our intellectual property strategy we protect our

proprietary technology through a combination of patents, trademarks, copyrights, know-how and trade secrets, as well as employee and third party confidentiality and assignment of rights agreements. We focus on developing, identifying and protecting our technology and resulting intellectual property in a manner that supports our overall business and technology objectives. Although we rely on intellectual property that is primarily developed in-house for our solar, polysilicon and sapphire equipment and related products, we also enter into patent and/or technology licenses with other parties when we believe such licenses would advance or complement our products and technology or would otherwise be in our best interest.

One of the principal means of protecting our proprietary technology, including technical processes and equipment designs, is through trade secret protection and confidentiality agreements. Our personnel, including our research and development personnel, enter into confidentiality agreements and non-competition agreements with us. These agreements further address intellectual property protection issues and require our employees to assign to us, among other things, all of the inventions, designs and technologies they develop during the course of their employment with us. We also generally require our customers and business partners to enter into confidentiality agreements before we disclose any sensitive aspects of our technology or business plans. Confidentiality agreements, however, may be difficult to enforce in certain jurisdictions and, therefore, may be of limited value in protecting our intellectual property.

We seek patent protection in various countries when it is consistent with our strategy and the protection afforded justifies the required disclosure costs associated with the filing. We own, or have applied for, various patents and patent applications in the United States and other countries relating to our products, product uses and manufacturing processes. The patents and patent applications vary in scope and duration. As of May 1, 2011, we own twenty issued patents in the PV and semiconductor and sapphire fields in the United States, which will expire at various times between 2012 and 2028. We also held, as of May 1, 2011, eight patents in other jurisdictions which expire at various times between 2018 and 2020. Although the products made, sold or used under our patents or technology licenses are important to us, we believe at this time that our business as a whole is not materially dependent on any particular patent or technology license, or on the licensing of our patents or technology to third parties, other than our customers.

We have not been subject to any material claims for infringement, misappropriation or other violation of intellectual property rights, claims for compensation by employee inventors or claims disputing ownership of our proprietary technologies. We have instituted claims and actions against others for what we believe are infringement of our intellectual property rights.

Order Backlog

Our order backlog consists of signed purchase orders or other written contractual commitments. The table below sets forth our order backlog as of April 2, 2011 and April 3, 2010 by business segment:

Product Category	April 2, 2011		April 3, 2010	
	Amount	% of Backlog	Amount	% of Backlog
	(dollars in millions)			
Photovoltaic business	\$ 468	39%	\$441	49%
Polysilicon business	537	45%	465	51%
Sapphire business	184	16%	—	—
Total	<u>\$1,189</u>	<u>100%</u>	<u>\$906</u>	<u>100%</u>

Our order backlog as of April 2, 2011, included deferred revenue of \$154.6 million related to our PV business and \$290.9 million related to our polysilicon business. There were no amounts in deferred

revenue as of April 2, 2011 related to the sapphire business. Deferred revenue represents equipment that had been shipped to customers but not yet recognized as revenue. Cash received in deposits related to our order backlog were \$144.4 million as of April 2, 2011, and substantially all of the contracts in our order backlog require the customer to either post a standby letter of credit in our favor or make advance payment prior to shipment of equipment. From the date of a written commitment, we generally would expect to deliver PV products over a period ranging from three to nine months and polysilicon products over a period ranging from twelve to eighteen months, although portions of the related revenue are expected to be recognized over longer periods in many cases.

As of April 2, 2011, our order backlog for our sapphire business was comprised primarily of contracts related to our sapphire crystal growth furnaces that were received during the year ended April 2, 2011. In addition, our backlog includes short-term contracts or sales orders for sapphire materials. From the date of a written commitment, we generally would expect to deliver sapphire material products over a period ranging from three to nine months. We are in the process of commercializing our sapphire crystal growth furnaces and delivered the first two furnaces in May 2011 and expect to deliver additional furnaces throughout the first half of the fiscal year ending March 31, 2012. From the date of a written commitment, we would generally expect to deliver ASF furnaces over a period ranging from approximately 12 to 18 months. However, we have only shipped two ASF furnaces and our expectation of delivery time frames may not be accurate and it may actually take us a longer period of time as we develop this business.

Disregarding the effect of any contract terminations or modifications, we would expect to convert approximately 72% of our April 2, 2011 order backlog into revenue during fiscal year 2012, and approximately 28% during fiscal 2013 and 2014. Although, most of our orders require substantial non-refundable deposits, our order backlog as of any particular date should not be relied upon as indicative of our revenues for any future period. We began tracking our backlog as a performance measure on a consistent basis during 2007.

If a customer fails to perform on a timely basis, and such failure continues after notice of breach and a cure period, we may terminate the contract. Our contracts do not contain cancellation provisions and in the event of a customer breach, the customer may be liable for contractual damages. During the fiscal year ended April 2, 2011, we terminated or modified contracts resulting in a \$10.7 million reduction in our order backlog (82% of the reduction was from 3 contracts) as compared to the fiscal year ended April 3, 2010, where we terminated or modified contracts resulting in a \$105.0 million reduction in our order backlog (95% of the reduction was from 9 contracts). During the fiscal year ended April 2, 2011 and April 3, 2010 we recorded revenues of \$44.4 million and \$21.1 million, respectively, from terminated contracts.

As of April 2, 2011, our order backlog consisted of contracts with 35 PV customers, 18 of which have orders of \$3 million or greater; and contracts with 10 polysilicon customers, all of which have orders of \$3 million or greater. As of April 2, 2011, our sapphire business backlog consisted of several customers, five of which had orders of greater than \$3 million. Our April 2, 2011 backlog for the sapphire segment included new orders totaling \$184.2 million, of which \$174.2 million was related to sapphire equipment and \$10.0 million was related to sapphire material contracts.

Our order backlog as of April 2, 2011, included \$346.6 million attributed to one customer representing 10% or more our order backlog.

Employees

As of April 2, 2011, we employed 622 full-time employee equivalents and contract personnel, consisting of 124 engineering and research and development employees; 85 customer service representatives; 8 executives; 44 sales and marketing employees; 147 finance, general and administrative employees; 201 manufacturing staff; and 13 information technology employees. As of April 2, 2011,

300 employees were located at our Merrimack and Nashua, New Hampshire facilities, 74 employees were located at our Salem, Massachusetts facility, 59 employees were located at our Montana facility and 189 employees were located at our Asia facilities. None of our employees are currently represented by labor unions or covered by a collective bargaining agreement. We believe that relations with our employees are satisfactory.

Environmental Matters

Our Merrimack, New Hampshire and Salem, Massachusetts facilities are subject to an industrial user discharge permit governing the discharge of wastewater to the Merrimack and Salem sewer systems. Our Salem, Massachusetts facility is subject to permit related to the installation and storage of diesel sub-based fuel tanks and generators. There are no further environmental related permits required by us that are material to our business. We are not aware of any environmental issues that would have a material adverse effect on our operations generally.

Available Information

Our internet website address is <http://www.gtsolar.com>. Through our website, we make available, free of charge, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such materials are electronically filed, or furnished to, the Securities and Exchange Commission, or the SEC. These SEC reports can be accessed through the investor relations section of our website. The information found on our website is not part of this or any other report we file with or furnish to the SEC.

The charters of our Audit Committee, Compensation Committee, Nominating and Corporate Governance Committee, as well as our Code of Conduct and Code of Ethics for Senior Financial Officers, and Corporate Governance Guidelines are available on our website at www.gtsolar.com under "Corporate Governance". These items are also available in print to any stockholder who requests them by calling (603) 883-5200. This information is also available by writing to us, attention: Corporate Secretary, at the address on the cover of this Annual Report on Form 10-K.

Item 1A. Risk Factors

Our business, operating results and cash flows can be impacted by a number of factors, any one of which could cause our actual results to vary materially from recent results or from our anticipated future results. You should carefully consider the risks described below and the other information in this report before deciding to invest in shares of our common stock. These are the risks and uncertainties we believe are most important for you to consider. Additional risks and uncertainties not presently known to us, which we currently deem immaterial or which are similar to those faced by other companies in our industry or business in general, may also impair our business operations. If any of the following risks or uncertainties actually occurs, our business, financial condition and operating results would likely suffer. In that event, the market price of our common stock could decline and an investor in our common stock could lose all or part of their investment.

Risks Related to Our Business Generally

General economic conditions may have an adverse impact on demand for our products.

Demand for products requiring significant capital expenditures, such as our DSS units, CVD reactors and ASF furnaces, is affected by general economic conditions. A downturn in the global construction market reduces demand for solar panels in new residential and commercial buildings, which in turn reduces demand for our products that are used in the manufacture of PV wafers, cells and modules and polysilicon for the solar power industry. In addition, a downturn in the sapphire material market, and the sapphire-based LED market in particular (or if these markets do not experience any growth) would likely result in reduced demand for our sapphire material and our advanced sapphire furnaces. Uncertainties about economic conditions, negative financial news, tighter credit markets and declines in asset values have caused our customers to postpone making purchases of capital equipment and materials. Increasing budgetary pressures could reduce or eliminate government subsidies and economic incentives for on-grid solar electricity applications. A prolonged downturn in the global economy could have a material adverse effect on our business in a number of ways, including decreased demand for our products, which would result in lower sales and reduced backlog.

Uncertainty about future economic conditions makes it challenging for us to forecast our operating results, make business decisions and identify the risks that may affect our business. If we are not able to timely and appropriately adapt to changes resulting from the difficult macroeconomic environment, our business, results of operations and financial condition may be materially and adversely affected.

Current or future credit and financial market conditions could materially and adversely affect our business and results of operations in several ways.

Financial markets in the United States, Europe and Asia experienced extreme disruption in recent years, including, among other things, extreme volatility in security prices, tightened liquidity and credit availability, rating downgrades of certain investments and declining valuations of others. There can be no assurance that there will not be further tightening in credit markets, deterioration in the financial markets and reduced confidence in economic conditions. These economic developments adversely affect businesses such as ours in a number of ways. The tightening of credit in financial markets has resulted in reduced funding worldwide and a higher level of uncertainty for solar module and sapphire equipment manufacturers. As a result, some of our customers have been delayed in securing, or prevented from securing, funding adequate to honor their existing contracts with us or to enter into new contracts to purchase our products. We believe a reduction in the availability of funding for new manufacturing facilities and facility expansions in the solar and sapphire industries, or reduction demand for solar equipment panels or sapphire material, could cause a decrease in orders for certain of our products. We currently require most of our equipment customers to prepay a portion of the purchase price of their orders. We use these customer deposits to prepay our suppliers to reduce the need to borrow to cover our cash needs for working capital. This practice may not be sustainable if the recent market conditions continue. Some of our customers who have become financially distressed have failed to provide letters of credit or make payments in accordance with the terms of their existing contracts. If customers fail to post letters of credit or make payments, and we do not agree to revised terms, it could have a significant impact on our business, results of operations and financial condition.

During the fiscal years ended April 2, 2011 and April 3, 2010, some of our PV and polysilicon customers failed to make deposits when due under their contracts, and we terminated some of those contracts. In addition, certain of these customers requested extensions of delivery dates and other modifications. The resulting contract modifications included lower pricing and reductions in the number of units deliverable under the contracts, thereby reducing our order backlog. As a result of these terminations and other contract modifications, our PV and polysilicon order backlog was reduced by \$10.7 million during the fiscal year ended April 2, 2011 and by \$105.0 million during the fiscal year ended April 3, 2010.

As a result of PV and polysilicon customer delays or contract terminations, we reschedule or cancel, from time to time, purchase orders with our vendors to procure materials and reimburse the vendor for costs incurred to the date of termination plus predetermined profits. In addition, in the past, certain of the vendors from whom we purchased materials were unable to deliver their components because economic conditions had an adverse impact on their ability to operate their businesses and, in some cases, we were unable to recover advances paid to those vendors for components that were not delivered. For example, during the fiscal year ended March 28, 2009, we rescheduled and/or cancelled commitments to our vendors as a result of customer delays, contract modifications and terminations and we recorded losses of \$11.3 million relating to expected forfeitures of vendor advances and reserves against advances on inventory purchases with vendors that had become financially distressed. In cases where we are not able to cancel or modify purchase orders impacted by customer delays or terminations, our purchase commitments may exceed our order backlog requirements and we may be unable to redeploy the undelivered equipment. In addition, we may be required to pay advances to vendors in the future without being able to recover that advance if the vendor is placed in bankruptcy, becomes insolvent or otherwise experiences financial distress.

We are new to the sapphire material and equipment industry and have only delivered our first two ASF furnaces to customers (and have not operated these furnaces in the customers' facilities), but expect that the adverse impact of changes in the credit and financial markets on our sapphire business segment would be similar to that in our PV and polysilicon business segments. Delays in deliveries for products of all of our segments could cause us to have inventories in excess of our short-term needs and may delay our ability to recognize revenue on contracts in our order backlog. Contract breaches or cancellation of orders would prevent us from recognizing revenue on contracts in our order backlog and may require us to reschedule and/or cancel additional commitments to vendors in the future.

Credit and financial market conditions may similarly affect our suppliers. We may lose advances we make to our suppliers in the event they become insolvent because our advances are not secured or backed by letters of credit. The inability of our suppliers to obtain credit to finance development or manufacture our products could result in delivery delays or prevent us from delivering our products to our customers.

We are unable to predict the likely duration and severity of the disruption in financial markets and adverse worldwide economic conditions and any resulting effects or changes, including those described above, may have a material and adverse effect on our business, results of operations and financial condition.

Amounts included in our order backlog may not result in actual revenue or translate into profits.

Although our order backlog is based on signed purchase orders or other written contractual commitments, we cannot guarantee that our order backlog will result in actual revenue in the originally anticipated period or at all. In addition, the contracts included in our order backlog may not generate margins equal to our historical operating results. We began to track our order backlog on a consistent basis as a performance measure in 2007, and as a result, we do not have significant experience in determining the level of realization that we will actually achieve on our backlog. Our customers may experience project delays or defaults on the terms of their contracts with us as a result of external market factors and economic or other factors beyond our control. If a customer fails to perform its contractual obligations and we do not reasonably expect such customer to perform its obligations, we may terminate the contract. In addition, our backlog is at risk to varying degrees to the extent customers request that we extend the delivery schedules and make other modifications under their contracts in our order backlog. Any contract modifications that we negotiate could likely include an extension of delivery dates, and could result in lower pricing or in a reduction in the number of units deliverable under the contract, thereby reducing our order backlog. Our order backlog includes contracts with customers to whom we have sent notices of breach for failure to provide letters of credit

or to make payments when due. If we cannot come to an agreement with these customers, it could result in a further reduction of our order backlog. Other customers with contracts in our order backlog that are not currently under negotiation may approach us with requests for delays in the future, or may fail to make payments when due, which could further reduce our order backlog. As a result of terminations and other contract revisions, our order backlog was reduced by \$10.7 million during the fiscal year ended April 2, 2011 and by \$105.0 million during the fiscal year ended April 3, 2010. If our order backlog fails to result in revenue in a timely manner, or at all, we could experience a reduction in revenue, profitability and liquidity.

We currently depend on a small number of customers in any given fiscal year for a substantial part of our sales and revenue.

In each fiscal year, we depend on a small number of customers for a substantial part of our sales and revenue. For example, in the fiscal year ended April 2, 2011, one customer accounted for 19% of our revenue, in the fiscal year ended April 3, 2010, one customer accounted for 34% of our revenue and in the fiscal year ended March 28, 2009, four customers accounted for 62% of our revenue. In addition, as of April 2, 2011, we had a \$1.2 billion order backlog of which \$346.6 million was attributable to one customer. As a result, the default in payment by any of our major customers, the loss of existing orders or lack of new orders in the future, or a change in the product acceptance schedule by such customers could significantly reduce our revenues and have a material adverse effect on our financial condition, results of operations, business and/or prospects. We anticipate that our dependence on a limited number of customers in any given fiscal year will continue for the foreseeable future. There is a risk that existing customers will elect not to do business with us in the future or will experience financial difficulties. Furthermore, many of our customers are at an early stage and many are dependent on the equity capital markets to finance their purchase of our products. As a result, these customers could experience financial difficulties and become unable to fulfill their contracts with us. There is also a risk that our customers will attempt to impose new or additional requirements on us that reduce the profitability of sales to those customers for us. If we do not develop relationships with new customers, we may not be able to increase, or even maintain, our revenue, and our financial condition, results of operations, business and/or prospects may be materially adversely affected.

Our success depends on the sale of a limited number of products.

A significant portion of our operating profits has historically been derived from sales of DSS units, CVD reactors and STC converters, which sales accounted for 89% of our revenue for the fiscal year ended April 2, 2011, 91% of our revenue for the fiscal year ended April 3, 2010 and 89% of our revenue in the fiscal year ended March 28, 2009. There can be no assurance that DSS units and CVD reactors sales will increase beyond, or be maintained at, past levels or that any sales of sapphire materials or equipment will offset any decrease in sales of DSS units or CVD reactors. In fact, sales of our STC converters are substantially lower than in prior periods due to changes in technology. Factors affecting the level of future sales of our products include factors beyond our control, including, but not limited to, demand for solar products and sapphire material (including sapphire-based LED material) and competing product offerings by other equipment manufacturers. Even following the acquisition of Crystal Systems, there can be no assurance that we will be able to successfully diversify our product offering and thereby increase our revenue and/or maintain our profits in the event of a decline in DSS units and CVD reactors sales. If sales of our PV, polysilicon or sapphire products decline for any reason, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

We depend on a limited number of third party suppliers.

We use component parts supplied by a small number of third party suppliers in our polysilicon, PV and sapphire equipment products and ancillary equipment, and certain of these components are critical

to the manufacture and operation of certain of our products. For example, we use specialist manufacturers to provide vessels and power supplies which are essential to the manufacture and operation of our polysilicon products. In addition, certain of our products consist entirely of parts and components supplied by third party suppliers, and in these instances filling orders depends entirely upon parties over which we exercise little or no control, and if these contractors were unable to supply, or refused to supply, the parts and components, we would be unable to complete orders which would have a negative impact on our reputation and our business.

Further, our agreements with suppliers are typically short term in nature, which leaves us vulnerable to the risk that our suppliers may change the terms on which they have previously supplied products to us or cease supplying products to us at any time and for any reason.

In addition, our sapphire business depends on a small number of suppliers for certain raw materials, components, services and equipment used in manufacturing our products and our ASF furnaces. In particular, (i) the supply of meltstock we use to grow sapphire materials is limited and there may be an insufficient amount to grow our sapphire materials business as currently planned or available for the purchasers of our crystal growth furnaces and (ii) the supply of crucibles used in our ASF furnace, which require specialized manufacturing processes, may not be adequate to support the expected increase in the use of the ASF furnace by us or by customers of our ASF furnaces. We generally purchase these items with purchase orders, and we have no guaranteed supply arrangements with such suppliers.

There is no guarantee that we will maintain relationships with our existing suppliers or develop new relationships with other suppliers. In the ordinary course of business, we are also exposed to market risk from fluctuations in the price of raw materials necessary in the manufacture of our products, such as graphite, steel and molybdenum. In addition, certain of our suppliers are small companies that may cease operations for any reason, including financial viability reasons, and/or may be unable to meet any increases in our demand for component parts and equipment. We are also dependent on our suppliers to maintain the quality of the components and equipment we use and the increased demands placed on these suppliers as we expect to continue to grow may result in quality control problems. We may be unable to identify replacement or additional suppliers or qualify their products in a timely manner and on commercially reasonable terms, or at all. Component parts supplied by new suppliers may also be less suited to our products than the component parts supplied by our existing suppliers. Certain of the component parts used in our products have been developed, made or adapted specifically for us. Such parts are not generally available from other vendors and could be difficult or impossible to obtain elsewhere. As a result, there may be a significant time lag in securing an alternative source of supply. In addition, the inability of our suppliers to support our demand could be indicative of a marketwide scarcity of the materials, which could result in even longer interruptions in our ability to supply our products.

Our failure to obtain sufficient component parts and/or third party equipment that meet our requirements in a timely manner and on commercially reasonable terms could interrupt or impair our ability to assemble our products, and may adversely impact our plans to expand and grow our business, as well as result in a loss of market share. Further, such failure may prevent us from delivering our products as required by the terms of our contracts with our customers, and may harm our reputation and result in breach of contract and other claims being brought against us by our customers. Any changes to our current supply arrangements, whether to the terms of supply from existing suppliers or a change in our suppliers, may also increase our costs in a material amount.

As a result of any of the foregoing factors, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

We face competition in each of our business segments, and if our competitors are able to manufacture products that employ newer technologies or are otherwise more widely used than we currently utilize, and if we are unable to modify our products to adapt to such future changes, we may be unable to attract or retain customers.

The solar energy industry and the sapphire industry are both highly competitive and continually evolving as participants strive to increase their market share and new entrants strive to capture market share in each of these industries. In addition, the solar energy industry also has to compete with the larger conventional electric power industry. Many of our competitors have, and future competitors may also have, substantially greater financial, technical, manufacturing and other resources than we do. These resources may provide our competitors with an advantage because they can realize economies of scale, synergies and purchase certain raw materials and key components at lower prices. Current and potential competitors of ours may also have greater brand name recognition, more established distribution networks and larger customer bases, and may be able to devote more resources to the research, development, promotion and sale of their products or to respond more quickly to evolving industry standards and changes in market conditions. In addition, given the ability of other parties to access equipment technology in each of our segments, we also face low-cost competitors who offer products at very competitive prices. We may not be able to maintain our current share of the market in our respective businesses as competitive intensity increases and particularly as our customers are targeted by local competitors in China and other countries. Customers may place orders to supply equipment for new facilities or future expansions with our competitors, and we believe the likelihood that our customers and others will go to competitors has increased over time. Our failure to adapt to changing market conditions and to compete successfully with existing or new competitors may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

In relation to our polysilicon business, we are not the only provider of polysilicon production equipment to the market and the technology underlying our CVD reactor product is not the only known technology for producing polysilicon. Our CVD reactor is based on a method known as the Siemens process, whereby silicon depositions from silane or TCS gas are grown on heated rods inside a cooled bell jar. An alternative polysilicon production method is the fluidized bed reactor, or FBR, process, in which polysilicon is grown from hot polysilicon granules suspended in an upward flow of silane or TCS gas inside a specially designed chamber. A large scale FBR process has certain advantages over the Siemens process, including allowing for the continuous production and extraction of polysilicon, consuming less energy and being less labor intensive. There can be no assurance that the FBR process or other polysilicon growth technologies will not supersede the Siemens process as the most commonly used method of polysilicon production. If other technologies for producing polysilicon become more widely used or more widely available, demand for our CVD reactor product, may be adversely affected. Existing direct competitors of our polysilicon business include various companies that we believe deliver CVD reactors based upon what we believe is a Siemens process reactor design. There can be no assurance that our polysilicon business will compete successfully with these companies. Although we believe our CVD reactor to be distinct from the competing products offered by our competitors, there can be no assurance that our CVD reactor will compete successfully with their products. If we are unable to compete successfully with these other products, it may have a material adverse effect on our financial condition, results of operations, business and/or prospects. In addition, companies that produce polysilicon for their own purposes currently compete indirectly with our polysilicon business, as any increase in the supply of polysilicon may have an adverse effect of the demand for our CVD reactor.

The PV and sapphire industries are rapidly evolving and are highly competitive. Technological advances may result in lower manufacturing costs for these products and/or such product manufacturing equipment, and may render existing products and/or product manufacturing equipment of our PV and sapphire businesses obsolete. We will therefore need to keep pace with technological advances in these industries, including committing resources to ongoing research and development, acquiring new

technologies, continually improving our existing products and continually expanding and/or updating our product offering, in order to compete effectively in the future. Our failure to further refine our technologies and/or develop and introduce new solar power and sapphire products could cause our products to become uncompetitive or obsolete, which could adversely affect demand for our products, and our financial condition, results of operations, business and/or prospects.

Additionally, there are certain competitive factors that are particular to the sapphire material market including sapphire-based LED, and the sapphire equipment market. Our ability to expand into new applications in the sapphire material market and sapphire equipment market depends on continued advancement in the design and manufacture of sapphire and LEDs (including sapphire and non-sapphire-based LEDs) by others. This industry has been characterized by a rapid rate of development of new technologies and manufacturing processes, rapid changes in customer requirements, frequent product introductions and ongoing demands for greater functionality. The future success of our sapphire business will depend on our ability to develop new products for use in sapphire and sapphire-based LED applications and to adjust our product specifications in response to these developments in a timely manner. If our development efforts for sapphire material and equipment are not successful or are delayed, or if our newly developed products do not achieve market acceptance, we may be unable to attract or retain customers. In addition, although sapphire is currently the preferred substrate material for certain LED applications, we cannot be assured that the LED market demand for sapphire will continue. Research is also ongoing for the use of silicon substrates in LED applications. Moreover, if effective new sources of light other than sapphire-based LED devices are developed, our sapphire business' current products and technologies could become less competitive or obsolete. If sapphire is displaced as the substrate of choice for certain LED applications, or if sapphire-based LED is no longer a preferred technology among our customers, the financial condition and results of operations of our sapphire business could be adversely affected.

We may face product liability claims and/or claims in relation to third party equipment.

It is possible that our products could result in property damage and/or personal injury, whether by product malfunctions, defects, improper use or installation or other causes. We cannot predict whether or not product liability claims will be brought against us or the effect of any resulting negative publicity on our business, which may include loss of existing customers, failure to attract new customers and a decline in sales. The successful assertion of product liability claims against us could result in potentially significant monetary damages being payable by us, and we may not have adequate resources to satisfy any judgment against us. Furthermore, it may be difficult to determine whether any damage or injury was due to product malfunction, operator error, failure of the product to be operated and maintained in accordance with our specifications or the failure of the facility in which our products are used to comply with the facility specifications provided to our customers or other factors beyond our control. For example, one of our significant customers experienced chamber leakage involving a number of DSS units in its facilities which we believe was the result of their facility failing to conform to specifications. We nonetheless agreed to replace certain chambers at our cost. Other customers may experience similar issues in the future as a result of product defects, facilities not complying with specifications or other reasons. To date, we have not received any product liability or other claims with respect to these or any other accidents.

The bringing of product liability claims against us, whether ultimately successful or not, could have a material adverse effect on our financial condition, results of operations, business and/or prospects. We have provided third party equipment in connection with our product sales. There can be no guarantee that such third party equipment will function in accordance with our intended or specified purpose or that the customer's personnel, in particular those who are inexperienced in the use of the specialized equipment sold by us, will be able to correctly install and operate it, which may result in the return of products and/or claims by the customer against us. In the event of a claim against us, there is no guarantee that we will be able to recover all or any of our loss from the third party equipment

provider. Any such claim could have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Our future success depends on our management team and on our ability to attract and retain key employees and to integrate new employees into our management team successfully.

We are dependent on the services of our management team. Although certain of these individuals are subject to service agreements with us, any and all of them may choose to terminate their employment with us on thirty or fewer days' notice. The loss of any member of the management team could have a material adverse effect on our financial condition, results of operations, business and/or prospects. There is a risk that we will not be able to retain or replace these or other key employees. Integrating new employees into our management team could prove disruptive to our daily operations, require a disproportionate amount of resources and management attention and ultimately prove unsuccessful. This may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

We may be unable to attract, train and retain technical personnel.

Our future success depends, to a significant extent, on our ability to continue to develop and improve our technology and to attract, train and retain experienced and knowledgeable technical personnel. Recruiting and retaining capable personnel, particularly those with expertise in the polysilicon or PV products industries and the sapphire industry, is vital to our success. There is substantial competition for qualified technical personnel, and qualified personnel are currently, and for the foreseeable future are likely to remain, a limited resource. Locating candidates with the appropriate qualifications can be costly, time-consuming and difficult. There can be no assurance that we will be able to attract new, or retain existing, technical personnel. We may need to provide higher compensation or increased training to our personnel. If we are unable to attract and retain qualified personnel, or are required to change the terms on which our personnel are employed, our financial condition, results of operations, business and/or prospects may be materially adversely affected.

We may be unable to protect our intellectual property adequately and may face litigation to enforce our intellectual property rights.

Our ability to compete effectively against our competitors in the PV, polysilicon and sapphire markets will depend, in part, on our ability to protect our current and future proprietary technologies, product designs, product uses and manufacturing processes under relevant intellectual property laws including, but not limited to, laws relating to patents and trade secrets.

We own various patents and patent applications in the United States and other countries relating to our products, product uses and manufacturing processes. To the extent that we rely on patent protection, our patents may provide only limited protection for our technology and may not be sufficient to provide competitive advantages to us. For example, competitors could develop similar or more advantageous technologies or design around our patents or otherwise employ alternative products, equipment or processes that may successfully compete with our products and technology. In addition, patents are of limited duration. Any issued patents may also be challenged, invalidated or declared unenforceable. If our patents are challenged, invalidated or declared unenforceable, other companies will be better able to develop products that compete with ours, which could adversely affect our competitive business position, business prospects and financial condition. Further, we may not have, or be able to obtain, effective patent protection in all of our key sales territories. Our patent applications may not result in issued patents and, even if they do result in issued patents, the patents may not include rights of the scope that we seek. The patent position of technology-oriented companies, including ours, is uncertain and involves complex legal and factual considerations. Accordingly, we do not know what degree of protection we will obtain from our proprietary rights or

the breadth of the claims allowed in patents issued to us or to others. Further, given the costs of obtaining patent protection, we may choose not to protect certain innovations that later turn out to be important to our business.

Third parties may infringe, misappropriate or otherwise violate our proprietary technologies, product designs, manufacturing processes and our intellectual property rights therein, which could have a material adverse effect on our financial condition, results of operations, business and/or prospects. For example, we have filed a lawsuit in the Hillsborough County Superior Court (Southern District) in New Hampshire against Advanced Renewable Energy Company, LLC (“ARC”), Kedar Gupta, its Chief Executive Officer and Chandra Khattak, an ARC employee, for the misappropriation of trade secrets relating to sapphire crystallization processes and equipment. Because the laws and enforcement mechanisms of various countries that we seek protection in may not allow us to adequately protect our intellectual property rights, the strength of our intellectual property rights will vary from country to country. Litigation to prevent, or seek compensation for such infringement, misappropriation or other violation, such as that described above may be costly and may divert management attention and other resources away from our business without any guarantee of success.

We also rely upon proprietary manufacturing expertise, continuing technological innovation and other know-how or trade secrets to develop and maintain our competitive position. While we generally enter into confidentiality and non-disclosure agreements with our employees and third parties to protect our intellectual property, such confidentiality and non-disclosure agreements could be breached and are limited, in some instances, in duration and may not provide meaningful protection for the trade secrets or proprietary manufacturing expertise that we hold. We have had in the past and may continue to have certain of our employees terminate their employment with us to work for one of our customers or competitors. Adequate or timely remedies may not be available in the event of misappropriation, unauthorized use or disclosure of our manufacturing expertise, technological innovations and trade secrets. In addition, others may obtain knowledge of our manufacturing expertise, technological innovations and trade secrets through independent development or other legal means and, in such cases, we may not be able to assert any trade secret rights against such a party.

We may face claims in relation to the infringement or misappropriation of third-party intellectual property rights.

Notwithstanding our intellectual property rights, we may be subject to claims that our products, processes or product uses infringe the intellectual property rights of others. These claims, even if meritless, could be expensive and time consuming to defend. In addition, if we are not successful in our defense of such claims, we could be subject to injunctions and/or damages, or be required to enter into licensing arrangements requiring royalty payments and/or use restrictions. In some instances, licensing arrangements may not be available to us or, if available, may not be available on acceptable terms.

We face potential claims by third parties of infringement, misappropriation or other violation of such third parties’ intellectual property rights. From time to time we have received and may in the future receive notices or inquiries from other companies regarding our services or products suggesting that we may be infringing their patents or misappropriating their intellectual property rights. Such notices or inquiries may, among other things, threaten litigation against us. Furthermore, the issuance of a patent does not guarantee that we have the right to practice the patented invention. Third parties may have blocking patents that could be used to prevent us from marketing our own patented product and practicing our own patented technology. In addition, third parties could allege that our products and processes make use of their unpatented proprietary manufacturing expertise and/or trade secrets, whether in breach of confidentiality and non-disclosure agreements or otherwise. If an action for infringement, misappropriation, or other violation of third party rights were successfully brought against us, we may be required to cease our activities on an interim or permanent basis and could be ordered to pay compensation, which could have a material adverse effect on our financial condition, results of

operations, business and/or prospects. Additionally, if we are found to have willfully infringed certain intellectual property rights of another party, we may be subject to treble damages and/or be required to pay the other party's attorney's fees. Alternatively, we may need to seek to obtain a license of the third party's intellectual property rights or trade secrets, which may not be available, whether on reasonable terms or at all. In addition, any litigation required to defend such claims brought by third parties may be costly and may divert management attention and other resources away from our business, without any guarantee of success. Moreover, we may also not have adequate resources to devote to our business in the event of a successful claim against us.

From time to time, we hire personnel who may have obligations to preserve the secrecy of confidential information and/or trade secrets of their former employers. Some former employers monitor compliance with these obligations. For example, a former employer of three of our current employees, one of whom is one of our executive officers, contacted us seeking assurance that its ex-employees were honoring their confidentiality obligations to the former employer. We also received a similar inquiry from the former employers of two other employees. In both instances, we believe that we have provided such former employers with such assurance. While we have policies and procedures in place to guard against the risk of breach by our employees of confidentiality obligations to their former employers, there can be no assurance that a former employer of one or more of our employees will not allege a breach and seek compensation for alleged damages. If such a former employer were to successfully bring such a claim, our know-how and/or skills base could be restricted and our ability to produce certain products and/or to continue certain business activities could be affected, to the detriment of our financial condition, results of operations, business and/or prospects.

The international nature of our business subjects us to a number of risks, including unfavorable political, regulatory, labor and tax conditions in foreign countries.

A substantial majority of our marketing and distribution takes place outside the United States, primarily in China, and substantially all of our sales are to customers outside the United States. We also have contracts with customers in Europe and expect to recognize revenue from sales to customers in Asia and Europe in the future. In addition, we have transitioned our global operations center to Hong Kong, further increasing our exposure to the risks of operating in Asia. As a result, we are subject to the legal, political, social and regulatory requirements and economic conditions of many jurisdictions other than the United States. Risks inherent to maintaining international operations, include, but are not limited to, the following:

- trade disputes between countries, particularly China, in which our customers sell end-products, including their sales of solar wafers, cells and modules, and sapphire materials produced with our furnaces or reactors, which could result in government or trade organization actions that have the effect of increasing the price for our and our customers' products which would have a corresponding decrease in the demand for our products;
- withholding taxes or other taxes on our foreign income, tariffs or other restrictions on foreign trade and investment, including currency exchange controls imposed by or in other countries;
- the inability to obtain, maintain or enforce intellectual property rights in other jurisdictions, at a reasonable cost or at all;
- difficulty with staffing and managing widespread and growing operations;
- trade barriers such as export requirements, tariffs, taxes and other restrictions and expenses, which could increase the prices of our products and make our product offering less competitive in some countries; and
- establishing ourselves and becoming tax resident in foreign jurisdictions.

Our business in foreign markets requires us to respond to rapid changes in market conditions in these countries. Our overall success as a global business depends, in part, on our ability to succeed under differing legal, regulatory, economic, social and political conditions. There can be no assurance that we will be able to develop, implement and maintain policies and strategies that will be effective in each location where we do business. As a result of any of the foregoing factors, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

We are a global corporation with significant operations in Asia, and challenges by various tax authorities to our global operations could, if successful, increase our effective tax rate and adversely affect our earnings.

We are a Delaware corporation that operates through various affiliates and subsidiaries in a number of countries throughout the world, primarily in Asia. In October 2010, we established our global operations center in Hong Kong. Our income taxes are based upon the applicable tax laws, treaties, and regulations in the many countries in which we operate and earn income as well as upon our operating structures in these countries. While we carefully analyze and account for the tax risks and uncertainties under the applicable rules, multiple tax authorities could contend that a greater portion of the income of the Company and its affiliates should be subject to income or other tax in their respective jurisdictions. If successful, these challenges could result in an increase to our effective tax rate.

We continue to monitor the impact of various international tax proposals and interpretations of the tax laws and treaties in the countries where we operate, including those in the United States, China, Hong Kong, and other countries. If enacted, certain changes in tax laws, treaties, regulations, or their interpretation could result in a higher tax rate on our earnings, which could result in a significant negative impact on our earnings and cash flow from operations.

We are subject to the legal systems of the countries in which we offer and sell our products.

We offer and sell our products internationally, including in some emerging markets. As a result, we are and/or may become subject to the laws, regulations and legal systems of the various jurisdictions in which we carry on business and/or in which our customers or suppliers are located. Among the laws and regulations applicable to our business are health and safety and environmental regulations, which vary from country to country and from time to time. We must therefore design our products and ensure their manufacture so as to comply with all applicable standards. Compliance with legal and regulatory requirements, including any change in existing legal and regulatory requirements, may cause us to incur costs and may be difficult, impractical or impossible. Accordingly, foreign laws and regulations which are applicable to us may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

As a result of the procedural requirements or laws of the foreign jurisdictions in which we carry on business and/or in which our customers or suppliers are located, we may experience difficulty in enforcing supplier or customer agreements or certain provisions thereof, including, for example, the limitations on the product warranty we typically provide to our customers. In some jurisdictions, enforcement of our rights may not be commercially practical in light of the duration, cost and unpredictability of such jurisdiction's legal system. Any inability by us to enforce, or any difficulties experienced by us in enforcing, our contractual rights in foreign jurisdictions may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

We may be subject to export restrictions and laws affecting trade and investments, and the future sale of our products, including our sapphire materials and furnaces, may be limited or prohibited in the future by a government agency or authority.

As a global company headquartered in the United States, our products and services are subject to U.S. laws and regulations that may limit and/or restrict the export of some of our products, services

and related product information, as well as laws of those foreign jurisdictions in which we sell or re-export our products. Compliance with these laws and regulations could significantly limit our operations and our sales in the future and failure to comply could result in a range of penalties, including restrictions on all of our exports for a specified time period, or forever, and severe monetary penalties. In certain circumstances, these restrictions may affect our ability to interact with our foreign subsidiaries and otherwise limit our trade and investments with third parties operating outside the U.S. In addition, certain customers of our sapphire materials business operate in the defense sector or are subcontractors of companies in the defense industry, and our products are incorporated in, among other things, missiles, military aircraft and aerospace systems. In addition, Crystal Systems has received funding from the U.S. government in connection with certain research work for certain U.S. government agencies. The work performed pursuant to certain of these contracts is not commercially available, but we may make it available commercially in the future. The State Department, the Commerce Department or other government agency may, however, determine that our sapphire material or other products, including our ASF furnaces, PV furnaces and/or polysilicon reactors, are important to the military potential of the U.S. If so, we may be subject to more stringent export licensing requirements or prohibited from selling certain of our sapphire materials for certain applications, ASF furnaces, PV furnaces and/or polysilicon reactors to any customer outside the U.S. The government has, and will likely continue to, vigorously enforce these laws in light of continuing security concerns. If the export or sale of any of our current or future products outside the U.S. are limited or restricted by the U.S. government or any foreign government, our operations and results of operations would be negatively impacted.

We face particular market, commercial, jurisdictional and legal risks associated with our business in China.

We have had significant sales in China, accounting for 71% of our revenue in the fiscal year ended April 2, 2011, 63% of our revenue in the fiscal year ended April 3, 2010, and 62% of our revenue in the fiscal year ended March 28, 2009. Further, we have significant facilities in China. Accordingly, our financial condition, results of operations, business and/or prospects could be materially adversely affected by economic, political and legal conditions or developments in China.

Examples of economic and political developments that could adversely affect us include government control over capital investments or changes in tax regulations that are applicable to us. In addition, a substantial portion of the productive assets in China remain government owned. The Chinese government also exercises significant control over Chinese economic growth through the allocation of resources, controlling payment of foreign currency denominated obligations, setting monetary policy and providing preferential treatment to particular industries or companies. Efforts by the Chinese government to slow the pace of growth of the Chinese economy could result in decreased capital expenditures by solar and sapphire product manufacturers, which in turn could reduce demand for our products. Additionally, China has historically adopted laws, regulations and policies which impose additional restrictions on the ability of foreign companies to conduct business in China or otherwise place them at a competitive disadvantage in relation to domestic companies. Any adverse change in economic conditions or government policies in China could have a material adverse effect on our overall economic growth and therefore have an adverse effect on our financial condition, results of operations, business or prospects.

We also face risks associated with Chinese laws and the Chinese legal system. China's legal system is rapidly evolving and, as a result, the interpretation and enforcement of many laws, regulations and rules are not always uniform and legal proceedings in China often involve uncertainties. The legal protections available to us may therefore be uncertain and may be limited. Enforcement of Chinese intellectual property related laws has historically been weak, primarily because of ambiguities in Chinese laws and difficulties in enforcement. Accordingly, the intellectual property rights and confidentiality protections available to us in China may not be as effective as in the United States or other countries. In addition, any litigation brought by or against us in China may be protracted and

may result in substantial costs and diversion of resources and management attention and the anticipated outcome would be highly uncertain. As a result of the foregoing factors, our financial condition, results of operations, business and/or prospects may be materially adversely affected.

We are in the process of expanding our presence in China, including in the areas of customer service, certain manufacturing services, sales and research and development. As we expand our presence in China, we are increasingly exposed to the economic, political and legal conditions and developments in China, which could further exacerbate these risks.

We have entered into and may enter into or seek to enter into business combinations and acquisitions that may be difficult to integrate, disrupt our business, expose us to litigation or unknown liabilities, dilute stockholder value and divert management attention.

If acquisition opportunities arise in the future, we may seek to enter into business combinations or purchases. For example, in July 2010, we completed the acquisition of all of the outstanding stock of Crystal Systems. Acquisitions and combinations, including the acquisition of Crystal Systems, are accompanied by a number of risks, including the difficulty of integrating the operations and personnel of the acquired companies, the potential disruption of our ongoing business, the potential distraction of management, expenses related to the acquisition and potential unknown liabilities and claims associated with acquired businesses. We may be subject to (i) liability for activities of the acquired company prior to the acquisition, including violations of laws, commercial disputes, environmental and tax and other known and unknown liabilities and (ii) litigation or other claims in connection with the acquired company, including claims brought by terminated employees, customers, former stockholders or other third parties. In addition, there may, in particular, be risks and uncertainties in connection with the intellectual property rights of an acquired company, including (i) the nature, extent and value of the intellectual property assets of an acquired company, (ii) the rights that an acquired company has to utilize intellectual property that it claims to have developed or to have licensed, (iii) the validity of intellectual property transfers to or from third parties, (iv) the enforceability of registered and other intellectual property rights, and (v) actions by third parties against the acquired company for intellectual property infringement and the extent of the potential loss relating thereto. Third parties may also be more likely to assert claims against the acquired company, including claims for breach of intellectual property rights, once the company has been acquired by us.

Any inability to integrate completed acquisitions or combinations in an efficient and timely manner or the inability to properly assess and utilize the intellectual property portfolio without infringing the rights of a third party could have an adverse impact on our results of operations. In addition, we may not be able to recognize any expected synergies or benefits in connection with a future acquisition or combination or we may be unable to effectively implement the business plan for the acquired company, which would prevent us from achieving our financial and business goals for the business. If we are not successful in completing acquisitions or combinations that we may pursue in the future, we may incur substantial expenses and devote significant management time and resources without a successful result. In addition, future acquisitions could require use of substantial portions of our available cash or result in the incurrence of debt or dilutive issuances of securities. Acquisitions and combinations also frequently require the acquiring company to recognize significant amounts of intangible assets, such as goodwill, patents and trademarks and customer lists, in an acquisition, which amounts may be subject to a future impairment if we are unable to successfully implement the operating strategy for the acquired company.

Our ability to supply a sufficient number of products to meet demand could be severely hampered by natural disasters or other catastrophes.

Currently, a portion of our operations are located in Asia and we have recently increased our presence in Asia by opening our global operations center in Hong Kong. Additionally, a significant portion of our revenue is generated from customers that install our equipment in Asia. These areas are subject to natural disasters such as earthquakes and floods. A significant catastrophic event such as war, acts of terrorism or global threats, including, but not limited to, the outbreak of epidemic disease, could disrupt our operations and impair distribution of our products, damage inventory, interrupt critical functions, cause our suppliers to be unable to meet our demand for parts and equipment, reduce demand for our products, prevent our customers from honoring their contractual obligations to us or otherwise affect our business negatively. To the extent that such disruptions or uncertainties result in delays or our inability to fill orders, causes cancellations of customer orders, or the manufacture or shipment of our products, our business, operating results and financial condition could be materially and adversely affected.

We may potentially be subject to concentration of credit risk related to our cash equivalents and short-term investments.

We may potentially be exposed to losses in the event of nonperformance by the financial counterparties to our cash equivalent investments and short term investments. This risk may be heightened as a result of the financial crisis and volatility in the markets. We manage the concentration risk by making investments that comply with our investment policy. Currently, our cash equivalents are invested in money market mutual funds. Although we do not currently believe the principal amounts of these investments are subject to any material risk of loss, the recent volatility in the financial markets is likely to significantly impact the investment income we receive from these investments. In general, increases of credit risk related to our cash equivalents and short-term investments could have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Our credit facilities contain covenants that impose significant restrictions on us.

In 2010, we entered into a credit agreement, or Credit Agreement, which consists of a term loan facility and a revolving credit facility with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and the lenders from time to time party thereto. The credit agreement contains covenants and conditions that restrict our ability to incur certain additional debt, pay dividends and make distributions, enter into specified transactions with affiliates, acquire businesses, among others, and resulted in liens being placed on certain of our properties and assets. The terms of the Credit Agreement also impose several financial covenants on us and our subsidiaries, including, but not limited to (i) maximum capital expenditures of \$50 million during the two quarters ended April 2, 2011 and \$40 million in any fiscal year thereafter, (ii) minimum ratio of consolidated adjusted EBITDA (as defined in the Credit Agreement) to consolidated fixed charges (as defined in the Credit Agreement) ranging from 1.0 to 1 to 2.0 to 1 at various times during the term of the Credit Agreement and (iii) maximum leverage ratio (as defined in the Credit Agreement) of 0.6 to 1.0 throughout the term of the Credit Agreement.

In addition, we have agreed to maintain all of our cash and permitted investments (as defined in the Credit Agreement) (which we collectively refer to as the Pledged Cash) in deposit or securities accounts in the United States that are subject to a lien in favor of the collateral agent for the benefit of the secured parties and perfected by control, provided that we shall be required to maintain Pledged Cash greater than 110% of the aggregate amount of the outstanding principal amount of the Term Facility and the revolving credit exposure. We are also obligated to make certain prepayments of the Term Facility and the revolving credit facility.

The foregoing restrictions may limit our ability to operate our business and our failure to comply with any of these covenants could result in the acceleration of our outstanding indebtedness under the Credit Agreement. If such acceleration occurs, we would be required to repay our indebtedness, and we may not have the ability to do so or the ability to refinance our indebtedness, which would prevent us from investing in our business in an effort to grow our operations. Even if new financing is made available to us, it may not be available on acceptable or reasonable terms. An acceleration of our indebtedness could impair our ability to operate as a going concern.

We may face significant warranty claims.

Our DSS products and ASF furnace are generally sold with a standard warranty for technical defects for a period equal to the shorter of: (i) twelve months from the date of acceptance by the customer; or (ii) fifteen months from the date of shipment. We provide longer warranty coverage in our polysilicon business, typically covering a period not exceeding twenty-four months from delivery. The warranty is typically provided on a repair or replace basis, and is not limited to products or parts manufactured by us. Our sapphire products are sold with a standard warranty for a period not greater than thirty days, but the warranty period may be longer in certain cases. As a result, we bear the risk of warranty claims on all products we supply, including equipment and component parts manufactured by third parties. There can be no assurance that we will be successful in claiming under any warranty or indemnity provided to us by our suppliers in the event of a successful warranty claim against us by a customer or that any recovery from such supplier would be adequate. There is a risk that warranty claims made against us will exceed our warranty reserve and could have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Exchange rate fluctuations may make our products less attractive to non-U.S. customers and otherwise have a negative impact on our operating results.

Our reporting currency is the U.S. dollar and almost all of our contracts are denominated in U.S. dollars. However, greater than 99% of our revenue was generated from sales to customers located outside the United States in each of the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, and we expect that a large percentage of our future revenue will continue to be derived from sales to customers located outside the United States. Changes in exchange rates between foreign currencies and the U.S. dollar could make our products less attractive to non-U.S. customers and therefore decrease our sales and gross margins. In addition, we incur costs in the local currency of the countries outside the United States in which we operate and as a result are subject to currency translation risk. Exchange rates between a number of foreign currencies and the U.S. dollar have fluctuated significantly over the last few years and future exchange rate fluctuations may occur. Our largest foreign currency exposure is the euro. In an attempt to mitigate foreign currency fluctuations, we have entered into, from time to time, forward foreign exchange contracts to hedge portions of equipment purchases from vendors located primarily in Europe. Our hedging activities may not be successful in reducing our exposure to foreign exchange rate fluctuations and in fiscal 2010 we were required to take a charge of \$2.1 million as a result of certain forward foreign exchange contracts no longer qualifying as cash flow hedges, which may occur again if we delay, cancel or otherwise modify the terms of the equipment purchases that affect the forecasted cash flow transaction being hedged. Future exchange rate fluctuations may have a material adverse effect on our financial condition, results of operations, business and/or prospects.

An increase in interest rates or the reduced availability of financing could reduce the demand for our products.

Our customers may use debt or equity financing to purchase our products and otherwise run their businesses. As a result, an increase in interest rates or the reduced availability of financing in any of the markets in which our customers operate, including Europe, Asia and the United States, could make

it difficult for existing and potential customers to secure the financing necessary to purchase our products. In addition, end users of PV products may depend on debt financing to fund the capital expenditures required to purchase and install PV applications. As a result, an increase in interest rates or the reduced availability of financing could make it difficult for end-users to secure necessary financing on favorable terms, or at all, and therefore could reduce demand for PV products. Any such decrease in demand for PV products could, in turn, result in decreased demand for our products, which are used in the manufacture of PV products, as well as of polysilicon and sapphire equipment. Thus, an increase in interest rates or the reduced availability of financing could lower demand for all of our products, reduce our revenues and have a material adverse effect on our financial condition, results of operations, business and/or prospects.

We are subject to securities class action lawsuits that could adversely affect our business. This litigation, and potential similar or related litigation, could result in substantial damages and may divert management's time and attention from our business.

Beginning on August 1, 2008, seven putative securities class action lawsuits were commenced in the United States District Court for the District of New Hampshire, or the Court, against us, certain of our officers and directors, certain underwriters of our July 24, 2008 initial public offering and others, including certain of our investors, together called the "federal class actions". On October 3, 2008, the Court entered an order consolidating the federal class actions into a single action captioned *Braun et al. v. GT Solar International, Inc., et al.* The Court selected the lead plaintiff and lead plaintiff's counsel in the consolidated matter on October 29, 2008. The lead plaintiff filed an amended consolidated complaint on December 22, 2008. The lead plaintiff asserts claims under various sections of the Securities Act of 1933, as amended. The amended consolidated complaint alleges, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement and Prospectus for our July 24, 2008 initial public offering, and other public statements, regarding our business relationship with LDK Solar, Ltd., one of our customers, JYT Corporation, one of our competitors, and certain of our products, including the DSS furnaces. Among other relief, the amended consolidated complaint seeks class certification, unspecified compensatory damages, rescission, interest, attorneys' fees, costs and such other relief as the Court should deem just and proper.

The defendants moved to dismiss the amended consolidated complaint on February 5, 2009. On September 22, 2009, the Court denied the defendant's motion. Following the Court's denial of the motion, the parties submitted a proposed joint case management order, which the Court approved on November 6, 2009. The case management order provides for discovery to close on May 25, 2011.

In addition, on September 18, 2008 a putative securities class action was filed in New Hampshire state court in the Superior Court for Hillsborough County, Southern District, or the "State Court", under the caption *Hamel v. GT Solar International, Inc., et al.*, against us, certain of our officers and directors and certain underwriters of our July 24, 2008 initial public offering, called the "state class action". The state class action plaintiffs assert claims under various sections of the Securities Act of 1933, as amended. The state class action complaint alleges, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement for our July 24, 2008 initial public offering, and other public statements, regarding the status of our business relationship with LDK Solar. Among other relief, the state class action complaint seeks class certification, unspecified compensatory damages, rescission, interest, attorneys' fees, costs and such other relief as the State Court should deem just and proper.

We removed the state class action to the United States District Court for the District of New Hampshire on October 22, 2008. The state class action was consolidated with the federal class action on November 25, 2008. On February 2, 2009, the federal Court granted the plaintiff's motion to

remand the state class action to New Hampshire State Court. On May 4, 2009, the parties agreed to a stay of the state class action, pending resolution of the motion to dismiss in the consolidated federal case. At a case structuring conference on June 3, 2009, the State Court endorsed the proposed joint case management order filed by the parties which requires coordination of any discovery to be taken in the state class action with that taken in the federal class action. With the denial of the motion to dismiss the federal action, the parties submitted a proposed joint case management order to the State Court on November 6, 2009. On January 12, 2010, the State Court granted a joint motion of the parties to transfer the state class action to the State Court's Business and Commercial Dispute Docket.

In March 2011, the Company reached an agreement in principle to settle these two putative securities class-action lawsuits related to the Company's initial public offering. The terms of the proposed settlement, which includes no admission of liability or wrongdoing by the Company or by any other defendants, provides for a full and complete release of all claims that were or could have been brought against all defendants in both the federal and state securities actions. The Company will pay \$10.5 million into a settlement fund. Of this amount, the Company will contribute \$1.0 million and the Company's liability insurers will contribute the remaining \$9.5 million. The Company's contribution represents its contractual indemnification obligation to its underwriters.

On May 4, 2011, the parties to the federal class action filed a stipulation of settlement and a motion for preliminary approval of the settlement with the federal court. On May 5, 2011, the parties to the state class action filed a stipulation of settlement and motion for dismissal with prejudice in the state action. The stipulations in both the federal and the state courts provide that the putative class in the state class action will participate in the settlement as members of the settlement class in the federal class action. The stipulation filed in the state court provides that the state class action will be dismissed with prejudice upon entry of an order of final approval by the federal court.

On May 13, 2011, the Federal Court gave preliminary approval of the settlement, and ordered that notice be provided to the proposed settlement class (as defined in the stipulation). The Federal Court also scheduled a hearing for September 27, 2011, to determine whether the settlement will receive final approval. While we believe that the proposed settlement is fair and adequate to all members of the proposed settlement class, there can be no assurance that the federal court will grant final approval of the settlement.

A derivative suit, captioned *Fan v. GT Solar Int'l, Inc., et al.*, was filed in New Hampshire State Court on January 14, 2009, called the "derivative action". The derivative complaint is asserted nominally on our behalf against certain of our directors and officers and alleges various claims for breach of fiduciary duty, unjust enrichment, abuse of control and gross mismanagement and is premised on the same purported misconduct alleged in the federal action. On April 10, 2009, the State Court granted our motion to stay the derivative action, pending resolution of the motion to dismiss in the federal action. In accordance with the terms of the stay the parties have conferred regarding a case management schedule for the derivative action. The derivative action is not included in the settlement of the federal and state class actions.

We intend to defend these actions vigorously. We are currently unable to estimate a range of payments if any, we may be required to pay, or may agree to pay, with respect to the derivative action. We believe, however, that the resolution of these suits will not result in a material adverse effect to our consolidated financial statements. However, due to the inherent uncertainties that accompany litigation of this nature, there can be no assurance that we will be successful, and an adverse resolution of any of the lawsuits could have a material adverse effect on our consolidated financial statements.

New interpretations of existing accounting standards or the application of new standards could affect our revenue recognition and other accounting policies, which could have an adverse effect on the way we report our operating results.

Generally accepted accounting principles in the United States are subject to interpretations by the Financial Accounting Standards Board (“FASB”), the American Institute of Certified Public Accountants, the SEC and various other organizations formed to promulgate and interpret accounting principles. A change in these accounting principles or their interpretations could affect the reporting of transactions that were completed before the announcement of a change in principles or interpretations.

In October 2009, the FASB issued authoritative guidance that provides amendments to the revenue recognition criteria for separating consideration in multiple-deliverable revenue arrangements

This guidance is effective prospectively for revenue recognition arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, which for us means April 3, 2011 (the beginning of our fiscal year).

The new guidance prescribes a methodology for determining the fair value, or best estimated selling price, of deliverables on an individual element basis, including elements for which objective reliable evidence of fair value previously did not exist.

As noted in Note 2 to our Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K, under the current revenue guidance, for arrangements containing products considered to be “established”, the majority of our revenue is recognized upon delivery of the product. For arrangements containing products considered to be “new”, or containing customer acceptance provisions that are deemed more than perfunctory, revenue is recorded upon customer acceptance.

If we make incorrect estimates or judgments in applying our revenue recognition policies, for example, if we incorrectly classify a product as “established” when it should have been “new”, it may impact the timing of recognizing that revenue and may further result in failing to meet guidance provided by us or require that we restate our prior financial statements. Additional errors in applying estimates or judgments in accounting policies may also adversely impact our operating results and may, in certain cases, require us to restate prior financial statements.

Risks Relating to Our Polysilicon Business

We license and do not own certain components of the technology underlying our CVD reactor and STC converter products.

Certain components of the technology underlying our CVD reactor and STC converter products is not owned by us, but is licensed under a ninety-nine year license agreement that could be terminated in the event of a material breach by us of such agreement that remains uncured for more than thirty days, or upon our bankruptcy or insolvency. To the extent such components are deemed to be incorporated into our current or future products, any termination of our rights to use such technology could have a material adverse effect on our ability to offer our polysilicon products and therefore on our financial condition, results of operations, business and/or prospects if our company was unable to secure these rights in a different manner or from an alternative arrangement.

Revenue recognition on sales of our CVD reactor and STC converter products may be affected by a number of factors, some of which are outside our control.

Revenue from sales of our CVD reactors and STC converters is recognized by us only upon customer acceptance in accordance with our revenue recognition policy. The timing of customer acceptance depends on many factors, some of which are outside our control. Acceptance of our polysilicon products does not occur until after they have been received by the customer, are operational and have performed satisfactorily in agreed upon tests. Due to the complexity of integrating the reactors into the customers’ plants, it is possible that there may be significant delays between our

shipping the reactors and the reactors becoming operational and capable of being tested. There is therefore a risk that we may be unable to recognize revenue on our existing orders in our backlog for polysilicon products in a timely manner or at all, even if we fully perform our obligations in respect of such orders in a timely manner. Delays in customer acceptance of such orders could adversely affect further demand for our reactors and STC converters, and may adversely affect our financial condition, results of operations, business and/or prospects.

Additionally, due to the nature of our CVD contracts, there continues to be a risk that if we fail to perform our obligations in respect of an order, such order may be terminated and/or we may be required to pay damages or refund all or a portion of the purchase price.

Our quarterly operating results may fluctuate significantly in the future as a result of our revenue recognition policy relating to our polysilicon products and the significant size of our individual contracts for polysilicon products.

The market for polysilicon has been cyclical, resulting in periods of insufficient or excess production capacity and could result in variation in demand for our products.

The market for polysilicon has been cyclical. Demand for polysilicon increased and prices that manufacturers charged for polysilicon was stable in 2010. This, however followed a period in which polysilicon supply had increased due to an increase in polysilicon production capacity as a result of new entrants to the polysilicon production industry during 2008 and 2009. Polysilicon supply had also increased due to a slowdown in the solar panel market. These factors, among others, resulted in excess polysilicon manufacturing capacity and declining prices in polysilicon. An excess in production capacity for polysilicon could adversely affect demand for our CVD reactors. There can be no certainty that the increased demand in 2010 will persist for an extended period of time, or at all. A lack of demand for our CVD reactors could have a material adverse effect on our financial condition, results of operations, business and/or prospects. Conversely, if there are shortages of polysilicon in the future, the PV industry may be unable to continue to grow and/or may decline, and, as a result, demand for our PV products may decrease or may be eliminated.

Risks Relating to the Photovoltaic Industry

Government subsidies and economic incentives for on-grid solar electricity applications could be reduced or eliminated.

Demand for PV equipment, including on-grid applications, has historically been dependant in part on the availability and size of government subsidies and economic incentives. Currently, the cost of solar electricity exceeds the retail price of electricity in most major markets in the world. As a result, federal, state and local governmental bodies in many countries, most notably Germany, Italy, Spain, South Korea, Japan, China and the United States, have provided subsidies in the form of feed-in tariffs, rebates, tax write-offs and other incentives to end-users, distributors, systems integrators and/or manufacturers of PV products to promote the use of solar energy in on-grid applications and to reduce dependency on other forms of energy. Many of these government incentives have expired or are due to expire in time, phase out over time, cease upon exhaustion of the allocated funding and/or are subject to cancellation or non-renewal by the applicable authority. For example, in March, 2010 Germany announced a 16% reduction in their solar feed-in tariff rate for roof-top solar systems and the elimination of subsidies of ground-based solar systems on agricultural land, both of which became effective in July 2010. Spain, which has also been a major market for PV products, reduced subsidies in 2009 from 2,400 MW per year to 500 MW of solar projects. The reduction, expiration or elimination of relevant government subsidies or other economic incentives may result in the diminished competitiveness of solar energy relative to conventional and other renewable sources of energy, and adversely affect demand for PV equipment or result in increased price competition, all of which could

cause our sales and revenue to decline and have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Further, any government subsidies and economic incentives could be reduced or eliminated altogether at any time and for any reason. Relevant statutes or regulations may be found to be anti-competitive, unconstitutional or may be amended or discontinued for other reasons. Some government subsidies and incentives have been subject to challenge in courts in certain foreign jurisdictions. New proceedings challenging minimum price regulations or other government incentives in other countries in which we conduct our business may be initiated, and if successful, could cause a decrease in demand for our products.

The reduction, expiration or elimination of relevant government subsidies or other economic incentives may result in the diminished competitiveness of solar energy relative to conventional and other renewable sources of energy, and adversely affect demand for PV equipment or result in increased price competition, all of which could cause our sales and revenue to decline and have a material adverse effect on our financial condition, results of operations, business and/or prospects.

Existing regulations and policies and changes to these regulations and policies may present technical, regulatory and economic barriers to the purchase and use of photovoltaic products.

The market for electricity generation products is heavily influenced by government regulations and policies concerning the electric utility industry, as well as policies promulgated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of user-owned electricity generation. In the United States and in a number of other countries, these regulations and policies are currently being modified and may be modified again in the future. These regulations and policies could deter end-user purchases of PV products and investment in the research and development of PV technology. For example, without a mandated regulatory exception for PV systems, utility customers are often charged interconnection or standby fees for putting distributed power generation on the electric utility grid. These fees could increase the cost to end-users of PV systems and make such systems less attractive to potential customers, which may have a material adverse effect on demand for our products and our financial condition, results of operations, business and/or prospects.

The photovoltaic industry may not be able to compete successfully with conventional power generation or other sources of renewable energy.

Although the PV industry has experienced growth in recent years, it still comprises a relatively small component of the total power generation market and competes with other sources of renewable energy, as well as conventional power generation. Many factors may affect the viability of widespread adoption of PV technology and thus demand for solar wafer manufacturing equipment, including the following:

- cost-effectiveness of solar energy compared to conventional power generation and other renewable energy sources;
- performance and reliability of solar modules compared to conventional power generation and other renewable energy sources and products;
- availability and size of government subsidies and incentives to support the development of the solar energy industry;
- success of other renewable energy generation technologies such as hydroelectric, wind, geothermal and biomass; and
- fluctuations in economic and market conditions that affect the viability of conventional power generation and other renewable energy sources, such as increases or decreases in the prices of oil and other fossil fuels.

As a result of any of the foregoing factors, our financial condition, results of operations, business and/or prospects could be materially adversely affected.

Technological changes in the photovoltaic industry could render existing products and technologies uncompetitive or obsolete.

The PV industry is rapidly evolving and is highly competitive. Technological advances may result in lower manufacturing costs for PV products and/or PV product manufacturing equipment, and may render existing PV products and/or PV product manufacturing equipment obsolete. We will therefore need to keep pace with technological advances in the industry, including committing resources to ongoing research and development, acquiring new technologies, continually improving our existing products and continually expanding and/or updating our product offering, in order to compete effectively in the future. Our failure to further refine our technology and/or develop and introduce new solar power products could cause our PV products to become uncompetitive or obsolete, which could adversely affect demand for our products, and our financial condition, results of operations, business and/or prospects.

Risks Relating to the Sapphire Business

If our sapphire products do not achieve market acceptance, prospects for our sapphire business would be limited.

As a result of our acquisition of Crystal Systems, a portion of our business will consist of the manufacture and sale of sapphire materials, which are used in the LED industry and other specialty markets. Potential customers for sapphire and sapphire-based LED materials may be reluctant to adopt such products as an alternative to existing traditional sapphire materials or lighting technology. In addition, our potential customers may have substantial investments and know-how related to their existing sapphire and LED technologies, and may perceive risks relating to the complexity, reliability, quality, usefulness and cost-effectiveness of our sapphire material products compared to other sapphire and LED products available in the market. If acceptance of sapphire material and sapphire-based LEDs do not increase significantly, opportunities to increase this portion of our business and revenues would be limited. Any of these factors could have an adverse impact on the growth of that portion of our business and the recoverability of our investment in Crystal Systems. Historically, the sapphire industry has experienced volatility in product demand and pricing. Changes in average selling prices of the sapphire material products as a result of competitive pricing pressures, increased sales discounts and new product introductions by competitors could have an adverse impact on our results of operations.

In addition, the sapphire materials industry is characterized by rapid technological innovations, with improvements being made using several different crystal growth processes. If we are unable to improve our technology and equipment adequately, we will lose customers and our business would be adversely impacted.

The commercialization of our advanced crystal growth furnaces may not be successful.

We have recently entered into contracts to supply our ASF furnaces that incorporate advanced Heat Exchange Method, or HEM, technology. We shipped our first two ASF furnaces in May 2011 and expect to ship more furnaces pursuant to these contracts in the near future. We have no experience installing and operating the ASF furnace in any customer facility, and failure of these furnaces to operate properly for any reason will prevent us from recognizing revenue, would likely result in claims against us for the return of deposits, would harm our reputation and our results of operations. Since we are new to this business, we may not be able to execute on our strategy to ship and install such furnaces for various reasons, including if we are unable to obtain the necessary components from third parties.

In addition, we may not be able to enter into additional agreements to sell such ASF furnaces in a timely manner, or at all. Among the factors that may delay or prevent the realization of our business plan include: limited resources that we can utilize to manufacture such furnaces; developments by competitors and others in the sapphire market that make the ASF furnaces inefficient or obsolete; or power demands of these furnaces that limit broad market acceptance. We may not be able to execute on our strategy to sell advanced sapphire furnaces for reasons within or outside of our control, and even if we are able to sell these furnaces, we may be unable to recognize revenue on these furnaces in a timely manner, or at all.

While we believe that the ASF furnace provides advantages in sapphire growth there are other competitors in the market that also utilize this and other processes for sapphire growing that could compete with our technology and they may be able to more cost-effectively produce high quality, large diameter boules. These competitors include existing sapphire growing companies and new entrants to the industry attracted by the prospects of the LED market. In addition, other companies may also begin to offer furnaces to sapphire growers. If any current or potential competitor develops or purchases comparable or superior technology that enables the growing of higher quality, larger diameter sapphire material or that offers for sale a furnace that grows sapphire material more cost effectively than ours, our business, financial condition and results of operations could be materially adversely affected.

Crystal growth using the ASF furnace requires a consistent supply of power and any interruption in the supply of power may result in sapphire material that has reduced or no sales value.

The process by which we grow sapphire boules using the ASF furnace technology requires that the furnace be supplied with a consistent supply of power during the cycle required to grow a boule. If there are certain types of power interruptions, which we have experienced at our Salem facility, even for a brief period of time, the sapphire boule being generated by that furnace will be of inferior quality and we would likely be unable to sell that sapphire material to a customer. In addition, if potential customers of our ASF furnace do not have consistent power supplies, our furnace would not gain market acceptance because it will not create boules of the quality that may be expected by our customers and we would likely not meet the required contractual acceptance criteria necessary to receive the final installment payment and we further may not be able to recognize any revenue on that ASF furnace if such acceptance criteria is not met.

Risks Relating to Our Common Stock

Future sales of our common stock, or the perception in the public markets that these sales may occur, could depress our stock price.

Future sales of substantial amounts of our common stock in the public market or the perception that these sales could occur, could adversely affect the price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. In addition, future equity financings could also result in dilution to our stockholders and new securities could have rights, preferences and privileges that are senior to those of the shares offered hereby.

Our certificate of incorporation currently authorizes us to issue up to 500 million shares of common stock, and as of April 2, 2011, we had approximately 126 million shares of common stock outstanding. All of these shares, shares are freely tradable, in the public market under a registration statement or an exemption under the securities laws. Moreover, as of April 2, 2011, 7.6 million shares of our common stock were issuable upon the exercise of outstanding vested and unvested options and upon vesting of restricted stock units.

Our certificate of incorporation and by-laws contain provisions that could discourage another company from acquiring us and may prevent attempts by our stockholders to replace or remove our current management.

Some provisions of our certificate of incorporation and by-laws may have the effect of delaying, discouraging or preventing a merger or acquisition that our stockholders may consider favorable, including transactions in which stockholders may receive a premium for their shares. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace or remove our board of directors. These provisions include:

- the removal of directors only by the affirmative vote of the holders of two-thirds of the shares of our capital stock entitled to vote;
- any vacancy on our board of directors, however occurring, including a vacancy resulting from an enlargement of the board, may only be filled by vote of the directors then in office;
- inability of stockholders to call special meetings of stockholders or take action by written consent;
- advance notice requirements for board nominations and proposing matters to be acted on by stockholders at stockholder meetings; and
- authorization of the issuance of “blank check” preferred stock without the need for action by stockholders.

Our common stock has only been publicly traded since July 24, 2008, and we expect that the price of our common stock may fluctuate substantially.

There has been a public market for our common stock only since July 24, 2008. Broad market, industry and economic factors may adversely affect the market price of our common stock, regardless of our actual operating performance. Factors that could cause fluctuations in our stock price may include, among other things:

- actual or anticipated variations in quarterly operating results;
- changes in market prices for our products or for our raw materials;
- changes in our financial guidance or estimates made by us or by any securities analysts who may cover our stock or our failure to meet the estimates made by securities analysts;
- changes in the market valuations of other companies operating in our industry;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, divestitures or significant contracts;
- changes in governmental policies with respect to energy;
- additions or departures of key personnel; and
- sales of our common stock, including sales of our common stock by our directors and officers or by our larger stockholders.

Announcements of contract awards could have a significant impact on our stock price.

It is common in the PV sector for equipment manufacturers to enter into contracts for the sale and delivery of substantial amounts of equipment, involving highly competitive bidding situations. Public announcements of contract awards often cause a reaction in the stock market and affect, sometimes significantly, the trading price of the stock of the manufacturer that received a contract award. It could also have a negative effect on the trading price of stock of competitors that did not receive such contract. This reaction may be unrelated to the historical results of operations or financial condition of the affected companies or, in the case of unsuccessful competitors, any guidance they may have provided with respect to their future financial results. An announcement that a competitor of ours was awarded a significant customer contract could have a material adverse effect on the trading price of our stock.

Our quarterly operating results have fluctuated significantly in the past and we expect that our quarterly results will continue to fluctuate significantly in the future.

Our quarterly operating results have fluctuated significantly in the past and we expect that our quarterly results will continue to fluctuate significantly in the future. Future quarterly fluctuations may result from a number of factors, including:

- the size of new contracts and when we are able to recognize the related revenue, especially with respect to our polysilicon products;
- requests for delays in deliveries by our customers;
- delays in customer acceptances of our products;
- delays in deliveries from our vendors;
- our rate of progress in the fulfillment of our obligations under our contracts;
- the degree of market acceptance of our products and service offerings;
- the mix of products and services sold;
- budgeting cycles of our customers;
- product lifecycles;
- changes in demand for our products and services;
- the level and timing of expenses for product development and sales, general and administrative expenses;
- competition by existing and emerging competitors in the PV and sapphire industry;
- announcements by our competitors or customers of the awarding of a significant contract;
- termination of contracts in our backlog;
- our success in developing and selling new products and services, controlling costs, attracting and retaining qualified personnel and expanding our sales force;
- changes in government subsidies and economic incentives for on-grid solar electricity applications;
- announcements regarding litigation or claims against us;
- changes in export licensing or export restrictions with respect to our products;
- changes in our strategy;
- foreign exchange fluctuations; and
- general economic conditions.

Based on these factors, we believe our future operating results will vary significantly from quarter-to-quarter and year-to-year. As a result, quarter-to-quarter and year-to-year comparisons of operating results are not necessarily meaningful nor do they indicate what our future performance will be.

Hedging activity and sales of our common stock related to the Mandatorily Exchangeable Notes issued by UBS AG and/or the expectation of distribution of our common stock at maturity of the exchangeable notes could depress our stock price.

During September 2010, UBS AG sold its Mandatorily Exchangeable Notes due 2013, or the exchangeable notes, pursuant to which UBS AG will deliver to holders of the exchangeable notes at maturity up to 17,500,000 shares of our common stock or the value of such shares in cash, or a combination of cash and shares, based on a formula linked to the price of our common stock. In

connection with the issuance by UBS AG of its exchangeable notes, GT Solar Holdings, LLC sold an aggregate of 14,000,000 shares of our common stock to UBS Securities LLC, an affiliate of UBS AG. We understand that UBS AG and one or more of its affiliates have entered into and/or are expected to enter into hedging arrangements related to UBS AG's obligations under the exchangeable notes. This hedging activity will likely involve trading in our common stock or in other instruments, such as options or swaps, based upon our common stock, and may include sales of common stock acquired by an affiliate of UBS AG upon early exchange of exchangeable notes. This hedging activity could affect our stock price, including by depressing it. Also, the price of our common stock could be depressed by possible sales of our common stock by investors who view the exchangeable notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect to occur involving our common stock by investors in the exchangeable notes. Our stock price could become more volatile and could be depressed by investors' anticipation of the potential distribution into the market of substantial additional amounts of our common stock at the maturity of the exchangeable notes.

We currently do not intend to pay dividends on our common stock and as a result, the only opportunity to achieve a return on an investment in our common stock is if the price appreciates.

On August 1, 2008, we paid a dividend in the aggregate amount of \$90.0 million to our then existing stockholders, including GT Solar Holdings, LLC. We currently do not expect to declare or pay dividends on our common stock in the foreseeable future. In addition, our credit agreement with Credit Suisse AG, Cayman Islands, which we entered into in December 2010, restricts our right to declare or make any dividends, subject to certain exceptions. As a result, the only opportunity to achieve a return on an investment in our common stock will be if the market price of our common stock appreciates and the shares are sold at a profit. We cannot assure our investors that the market price for our common stock will ever exceed the price that was paid.

Our actual operating results may differ significantly from our guidance.

From time to time, we release guidance in our quarterly earnings releases, quarterly earnings conference call or otherwise, regarding our future performance that represent our management's estimates as of the date of release. This guidance, which includes forward-looking statements, is based on projections prepared by our management. These projections are not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections and, accordingly, no such person expresses any opinion or any other form of assurance with respect thereto.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We generally state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to represent that actual results could not fall outside of the suggested ranges. The principal reason that we release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such persons. Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results will vary from our guidance and the variations may be material. In light of the foregoing, investors are urged not to rely upon, or otherwise consider, our guidance in making an investment decision in respect of our common stock.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in our “Risk Factors” in this Annual Report on Form 10-K could result in the actual operating results being different from our guidance, and such differences may be adverse and material.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We own our headquarters and principal manufacturing facility, which is located in Merrimack, New Hampshire. The facility has approximately 106,000 square feet, and includes an advanced manufacturing center, as well as administrative, product development, sales, marketing and customer service facilities. Our manufacturing facility is equipped with advanced CAD software, computers and plotters for mechanical and electrical designs. We also own several additional acres of undeveloped land connected to our Merrimack facility, which could be used to accommodate future growth. In addition to increasing the size of our principal manufacturing facility, we believe we can expand our production capacity by way of additional shifts, further outsourcing agreements and the transfer of DSS and other product assembly and testing to the customer site. Our Merrimack, New Hampshire facility is subject to a lien pursuant to the Credit Agreement.

In order to better serve our customers in Asia, we have opened our facility in Hong Kong that now serves as our global operations center.

We recently entered into a lease for office space in Nashua, New Hampshire that is utilized by administration personnel to support all business segments.

In total, we conduct our operations through fourteen leased facilities. Certain information regarding our leased facilities is set forth below:

<u>Location</u>	<u>Approximate Size</u>	<u>Expiration Date</u>	<u>Principal Function</u>	<u>Business Segment Utilizing Facility</u>
Missoula, Montana	14,744 sq. ft.	January 2013	Office facility	Polysilicon
Missoula, Montana	6,180 sq. ft.	December 2012	Manufacturing, warehousing	Polysilicon
Missoula, Montana	3,090 sq. ft.	December 2012	Manufacturing, testing and research	Polysilicon
Missoula, Montana	3,090 sq. ft.	December 2012	Manufacturing and testing	Polysilicon
Merrimack, New Hampshire . .	19,500 sq. ft.	November 2011	Manufacturing, office facilities and warehousing	PV/Sapphire/General Corporate
Merrimack, New Hampshire . .	50,360 sq. ft.	August 2011	Warehousing	PV/Sapphire
Nashua, New Hampshire	24,080 sq. ft.	December 2013	Office facility	General Corporate
Salem, Massachusetts	77,547 sq. ft.	July 2023	Manufacturing, office facilities and warehousing	Sapphire
Shanghai, China	50,000 sq. ft.	September 2013	Light manufacturing, warehouse, offices	Polysilicon/PV/Sapphire/General Corporate
Shanghai, China	3,128 sq. ft.	November 2011	Office facility	PV
Shanghai, China	388 sq. ft.	August 2011	Office facility	Polysilicon/PV/Sapphire/General Corporate
Beijing, China	1,740 sq. ft.	September 2011	Office facility	PV/Sapphire
Chupei City, Taiwan	2,776 sq. ft.	July 2012	Office facility	Polysilicon/PV/Sapphire/General Corporate
Hong Kong	6,168 sq. ft.	August 2013	Office facility	Polysilicon/PV/Sapphire/General Corporate

Item 3. Legal Proceedings

General

Beginning on August 1, 2008, seven putative securities class action lawsuits were commenced in the United States District Court for the District of New Hampshire, or the Court, against us, certain of our officers and directors, certain underwriters of our July 24, 2008 initial public offering and others, including certain of our investors, together called the “federal class actions.” On October 3, 2008, the Court entered an order consolidating the federal class actions into a single action captioned *Braun et al. v. GT Solar International, Inc., et al.* The Court selected the lead plaintiff and lead plaintiff’s counsel in the consolidated matter on October 29, 2008. The lead plaintiff filed an amended consolidated complaint on December 22, 2008. The lead plaintiff asserts claims under various sections of the Securities Act of 1933, as amended. The amended consolidated complaint alleges, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement and Prospectus for our July 24, 2008 initial public offering, and other public statements, regarding our business relationship with LDK Solar, Ltd., one of our customers, JYT Corporation, one of our competitors, and certain of our products, including the DSS furnaces. Among other relief, the amended consolidated complaint seeks class certification, unspecified compensatory damages, rescission, interest, attorneys’ fees, costs and such other relief as the Court should deem just and proper.

The defendants moved to dismiss the amended consolidated complaint on February 5, 2009. On September 22, 2009, the Court denied the defendant’s motion. Following the Court’s denial of the motion, the parties submitted a proposed joint case management order, which the Court approved on November 6, 2009. The case management order provides for discovery to close on May 25, 2011.

In addition, on September 18, 2008 a putative securities class action was filed in New Hampshire state court in the Superior Court for Hillsborough County, Southern District, or the State Court, under the caption *Hamel v. GT Solar International, Inc., et al.*, against us, certain of our officers and directors and certain underwriters of our July 24, 2008 initial public offering, called the “state class action.” The state class action plaintiffs assert claims under various sections of the Securities Act of 1933, as amended. The state class action complaint alleges, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement for our July 24, 2008 initial public offering, and other public statements, regarding the status of our business relationship with LDK Solar. Among other relief, the state class action complaint seeks class certification, unspecified compensatory damages, rescission, interest, attorneys’ fees, costs and such other relief as the State Court should deem just and proper.

We removed the state class action to the United States District Court for the District of New Hampshire on October 22, 2008. The state class action was consolidated with the federal class action on November 25, 2008. On February 2, 2009, the federal Court granted the plaintiff’s motion to remand the state class action to New Hampshire State Court. On May 4, 2009, the parties agreed to a stay of the state class action, pending resolution of the motion to dismiss in the consolidated federal case. At a case structuring conference on June 3, 2009, the State Court endorsed the proposed joint case management order filed by the parties which requires coordination of any discovery to be taken in the state class action with that taken in the federal class action. With the denial of the motion to dismiss the federal action, the parties submitted a proposed joint case management order to the State Court on November 6, 2009. On January 12, 2010, the State Court granted a joint motion of the parties to transfer the state class action to the State Court’s Business and Commercial Dispute Docket.

In March 2011, the Company reached an agreement in principle to settle these two putative securities class-action lawsuits related to the Company’s initial public offering. The terms of the proposed settlement, which includes no admission of liability or wrongdoing by the Company or by any other defendants, provides for a full and complete release of all claims that were or could have been brought against all defendants in both the federal and state securities actions. The Company will pay

\$10.5 million into a settlement fund. Of this amount, the Company will contribute \$1.0 million and the Company's liability insurers will contribute the remaining \$9.5 million. The Company's contribution represents its contractual indemnification obligation to its underwriters.

On May 4, 2011, the parties to the federal class action filed a stipulation of settlement and a motion for preliminary approval of the settlement with the federal court. On May 5, 2011, the parties to the state class action filed a stipulation of settlement and motion for dismissal with prejudice in the state action. The stipulations in both the federal and the state courts provide that the putative class in the state class action will participate in the settlement as members of the settlement class in the federal class action. The stipulation filed in the state court provides that the state class action will be dismissed with prejudice upon entry of an order of final approval by the federal court.

On May 13, 2011, the Federal Court gave preliminary approval of the settlement, and ordered that notice be provided to the proposed settlement class (as defined in the stipulation). The Federal Court also scheduled a hearing for September 27, 2011, to determine whether the settlement will receive final approval. While we believe that the proposed settlement is fair and adequate to all members of the proposed settlement class, there can be no assurance that the federal court will grant final approval of the settlement.

A derivative suit, captioned *Fan v. GT Solar Int'l, Inc., et al.*, was filed in New Hampshire State Court on January 14, 2009, called the "derivative action." The derivative complaint is asserted nominally on our behalf against certain of our directors and officers and alleges various claims for breach of fiduciary duty, unjust enrichment, abuse of control and gross mismanagement and is premised on the same purported misconduct alleged in the federal action. On April 10, 2009, the State Court granted our motion to stay the derivative action, pending resolution of the motion to dismiss in the federal action. In accordance with the terms of the stay the parties have conferred regarding a case management schedule for the derivative action. The derivative action is not included in the settlement of the federal and state class actions.

We intend to defend these actions vigorously. We are currently unable to estimate a range of payments, if any, we may be required to pay, or may agree to pay, with respect to the derivative action. We, however, believe that the resolution of these suits will not result in a material adverse effect to our consolidated financial statements. However, due to the inherent uncertainties that accompany litigation of this nature, there can be no assurance that we will be successful, and an adverse resolution of any of the lawsuits could have a material adverse effect on our consolidated financial statements.

We are subject to various other routine legal proceedings and claims incidental to its business, which we believe will not have a material adverse effect on our financial position, results of operations or cash flows.

Item 4. (Removed and Reserved)

PART II

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

Price Range of Common Stock

Our common stock has been listed on The NASDAQ Global Select Market under the symbol "SOLR" since July 24, 2008. Prior to this time, there was no public market for our common stock. The following table sets forth the range of high and low sales prices per share as reported on The NASDAQ Global Select Market for the periods indicated.

	<u>High</u>	<u>Low</u>
Fiscal 2011		
Fourth Quarter	\$11.95	\$9.18
Third Quarter	\$ 9.57	\$6.65
Second Quarter	\$ 8.48	\$5.55
First Quarter	\$ 6.18	\$4.90
Fiscal 2010		
Fourth Quarter	\$ 6.40	\$5.06
Third Quarter	\$ 6.05	\$4.64
Second Quarter	\$ 6.98	\$4.77
First Quarter	\$ 8.27	\$5.14

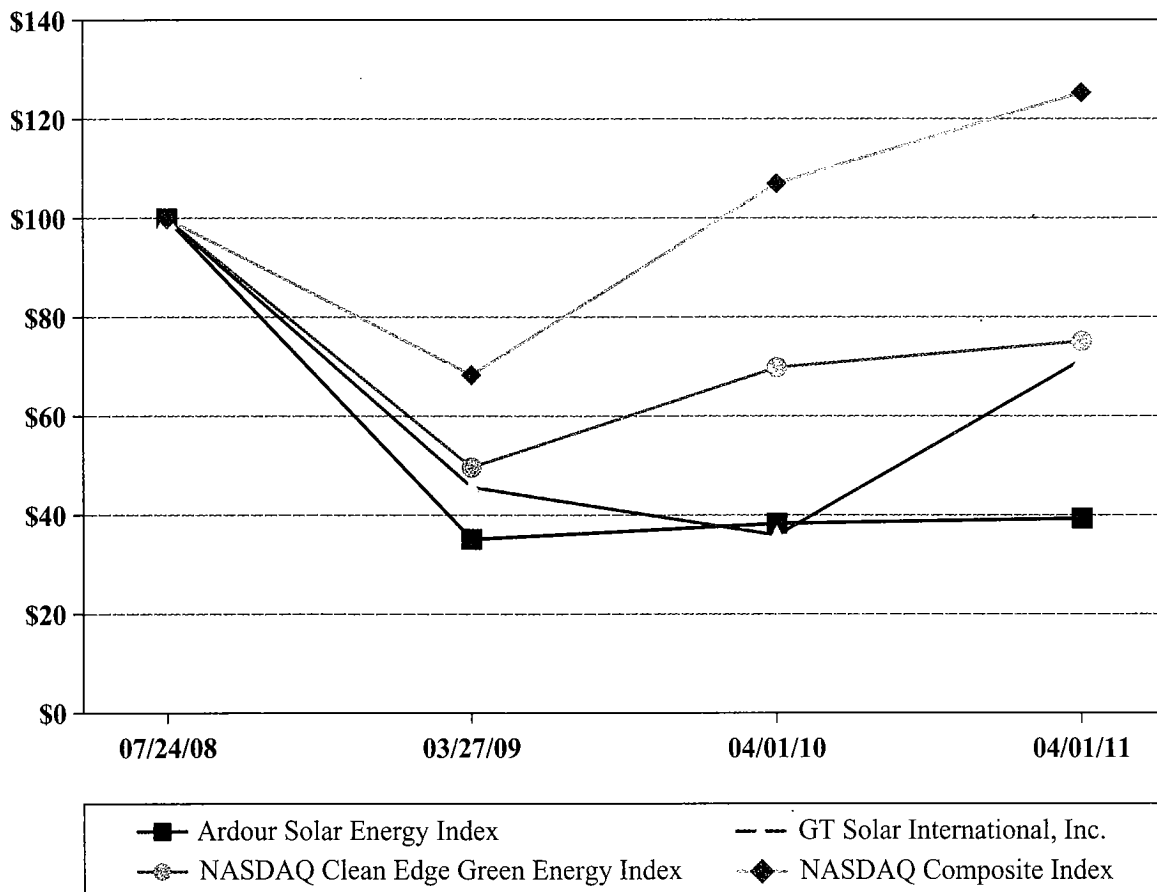
The closing sales price of our common stock on The NASDAQ Global Select Market was \$12.32 per share on May 20, 2011. As of May 20, 2011 there were approximately 23 record holders of our common stock. Because many of such shares are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

On June 30, 2008, we declared a cash dividend of \$90.0 million to our stockholders of record as of June 30, 2008, including GT Solar Holdings, LLC. That dividend was paid on August 1, 2008. We do not intend to pay any other dividends on our common stock for the foreseeable future. Our credit facility imposes restrictions on our ability, and the ability of our subsidiaries, to pay cash dividends, subject to certain limited exceptions.

Stock Price Performance Graph

The following graph compares the cumulative return attained by shareholders on GT Solar International, Inc.'s common stock since July 24, 2008 relative to the cumulative total returns of the NASDAQ Composite Index, the NASDAQ Clean Edge U.S. Index and the Ardour Solar Energy Index. An investment of \$100 (with reinvestment of all dividends) is assumed to have been made in our common stock and in each index on July 24, 2008 and its relative performance is tracked through April 2, 2011. No cash dividends have been declared on shares of our common stock since July 24, 2008, the date our shares commenced trading. This performance graph is not "soliciting material," is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing. The stock price performance shown on the graph represents past performance and should not be considered an indication of future price performance.



	07/24/08*	03/27/09	04/01/10	04/01/11
GT Solar International, Inc.(1)	100.00	45.51	35.71	71.35
Ardour Solar Energy Index(2)	100.00	34.93	38.12	39.15
NASDAQ Clean Edge Green Energy Index(3)	100.00	49.52	69.80	75.10
NASDAQ Composite	100.00	68.28	107.15	125.56

* \$100 invested on 7/24/08 in stock and in index, including, for purposes of each index, reinvestment of dividends.

Note:

- (1) GT Solar International, Inc. total return based upon \$14.59 per share price at close of first day trading. The IPO price was \$16.50 per share.
- (2) The Ardour Solar Energy Index is a rules-based, modified global-capitalization-weighted, float-adjusted index consisting of companies engaged in solar power and related products and services with market capitalization exceeding \$100 million and average three months trading volumes equal to or greater than \$1 million a day.
- (3) The NASDAQ® Clean Edge® Green Energy Index is a modified market capitalization-weighted index consisting of companies that are primarily manufacturers, developers, distributors, or installers of clean-energy technologies with market capitalization exceeding \$150 million and average daily trading volumes of at least 100,000 shares year-to-date.

Recent Sale of Unregistered Securities

On August 11, 2010, we issued a total of 20,254 restricted stock units to OCM FIE, L.P. in lieu of issuing 10,127 restricted stock units to Mr. J. Bradford Forth and 10,127 restricted stock units to Mr. R. Chad Van Sweden, both directors (who no longer serve as directors). The restricted stock units were issued in reliance upon applicable exemptions from registration under Section 4(2) of the Securities Act. Each restricted stock unit represented the right to receive one share of our common stock with vesting one year from the date of grant, subject to the continued service of Messrs. Forth and Van Sweden as directors. These restricted stock units were forfeited in their entirety in connection with the resignations of Messrs. Forth and Van Sweden from the Board of Directors of the Company effective November 12, 2010.

Purchases of Equity Securities by the Issuer and Affiliate Purchases

The following table sets forth information in connection with purchases made by, or on behalf of, us or any affiliated purchaser, of shares of our common stock during the three months ended April 2, 2011:

	(a) Total Number of Shares Purchased	(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares that May Yet Be Purchased Under the Plans or Programs
Month ended February 5, 2011 . .	11,047	\$10.90	—	—
Month ended March 5, 2011	12,698	\$10.82	—	—
Month ended April 2, 2011	1,747	\$10.66	—	—

We did not repurchase any of our common stock on the open market as part of a stock repurchase program during the fiscal year ended April 2, 2011; however, our employees surrendered, and we subsequently retired, 174,498 shares of our common stock during the fiscal year ended April 2, 2011 to satisfy the minimum tax withholding obligations on the vesting of restricted stock unit awards issued under our 2008 Equity Incentive Plan.

Item 6. Selected Consolidated Financial Data

The following selected consolidated financial data should be read together with “Item 7. Management’s Discussion and Analysis of Financial Conditions and Results of Operations” and our consolidated financial statements and the accompanying notes thereto included elsewhere in this Annual Report on Form 10-K.

Effective April 1, 2008 we changed our reporting period to be based on a 52-week year that ends on the Saturday closest to March 31, which in our fiscal year ended April 3, 2010 resulted in a 53-week fiscal year.

	GT Solar				
	Fiscal Year Ended April 2, 2011	Fiscal Year Ended April 3 2010	Fiscal Year Ended March 28, 2009	Fiscal Year Ended March 31, 2008	Fiscal Year Ended March 31, 2007
Statement of Operations Data:					
Revenue	\$ 898,984	\$544,245	\$541,027	\$244,052	\$ 60,119
Cost of Revenue	520,989	325,263	326,358	151,709	36,284
Gross Profit	377,995	218,982	214,669	92,343	23,835
Research and Development	23,753	21,410	18,323	10,517	3,810
Selling and Marketing	19,792	11,823	17,469	10,452	7,747
General and Administrative	56,648	38,623	32,228	21,435	10,562
Amortization of Intangible Assets	4,500	3,164	3,105	3,018	15,446
Income (Loss) from Operations	273,302	143,962	143,544	46,921	(13,730)
Interest Income	603	420	2,996	6,543	1,686
Interest Expense(1)	(2,922)	(758)	(483)	(816)	(2,346)
Interest component of forward foreign exchange contracts	(1)	(625)	2,135	(835)	(114)
Other Expense(2)	(384)	(3,125)	(6,012)	(1,244)	(5,667)
Income (Loss) before Income Taxes	270,598	139,874	142,180	50,569	(20,171)
Provision for (benefit from) Income Taxes	95,843	52,618	54,212	14,464	(1,816)
Net Income (Loss)	<u>\$ 174,755</u>	<u>\$ 87,256</u>	<u>\$ 87,968</u>	<u>\$ 36,105</u>	<u>\$ (18,355)</u>
Income (Loss) per Common Share:					
Basic	\$ 1.26	\$ 0.61	\$ 0.62	\$ 0.25	\$ (0.13)
Diluted	1.24	0.60	0.61	0.25	(0.13)
Shares used to compute Income (Loss) per Common Share:					
Basic	138,673	143,409	142,582	142,290	142,290
Diluted	140,902	145,390	144,471	144,059	142,290
Dividends paid per Common Share(3)	—	—	\$ 0.632	—	—
Balance Sheet Data (at end of period):					
Cash and Cash Equivalents	\$ 362,749	\$230,748	\$107,148	\$ 54,839	\$ 74,059
Short-term Investments	—	19,967	—	—	—
Restricted Cash(4)	—	—	—	164,028	9,322
Deferred Revenue	445,517	334,347	348,127	164,190	64,667
Working Capital(5)	282,824	177,150	57,672	33,039	(11,234)
Total Assets	1,126,292	732,081	737,423	600,611	241,429
Total Debt(6)	120,313	—	—	—	15,934
Stockholders' Equity	201,940	178,986	81,905	91,641	47,098
Cash Flow Data:					
Cash provided by (used in):					
Operating Activities	\$ 251,774	\$147,276	\$152,872	\$ 1,532	\$ 70,659
Investing Activities	(34,033)	(24,540)	(10,959)	(4,841)	(2,324)
Financing Activities	(85,948)	863	(89,614)	(15,934)	(305)
Other	208	1	10	23	3
Increase (Decrease) in Cash and Cash Equivalents	<u>\$ 132,001</u>	<u>\$123,600</u>	<u>\$ 52,309</u>	<u>\$ (19,220)</u>	<u>\$ 68,033</u>
Other Financial Data:					
Depreciation and Amortization	\$ 9,667	\$ 6,870	\$ 5,111	\$ 4,052	\$ 16,067
Capital Expenditures paid in cash	31,263	4,573	10,509	4,483	1,801

(1) For the fiscal year ended April 2, 2011, we incurred interest expense in connection with our credit facility that we entered into on December 13, 2010, as well as the amortization of deferred financing costs in connection with this facility.

- (2) For the fiscal year ended March 31, 2007, other expense includes \$5.8 million of costs related to a proposed equity offering that was abandoned in November 2006 and our initial public offering. For the fiscal year ended March 31, 2008, other expense includes \$1.6 million of costs related to our initial public offering. For the fiscal year ended March 28, 2009, other expense includes \$2.6 million of costs related to our initial public offering and \$3.0 million attributed to the ineffective portion of certain forward foreign exchange contracts. For the fiscal year ended April 3, 2010, other expense includes \$2.1 million attributed to the ineffective portion of certain forward foreign exchange contracts and \$0.8 million of costs related to a secondary public offering of our common stock.
- (3) On June 30, 2008, we declared a dividend in the aggregate amount of \$90.0 million to our then existing stockholders, including GT Solar Holdings, LLC, which was paid on August 1, 2008.
- (4) Restricted cash includes cash held in escrow as collateral in respect of outstanding standby letters of credit related to customer deposits and as security for bank fees.
- (5) Working capital represents current assets minus current liabilities.
- (6) On December 13, 2010, we entered into a Credit Agreement with Credit Suisse AG which consists of a term facility in an aggregate maximum amount of \$125.0 million with a final maturity date on December 13, 2013, and a revolving credit facility, in an aggregate principal amount of \$75.0 million with a final maturity date on December 13, 2013. The full amount of the term facility was drawn by us on December 13, 2010 and no amounts have been drawn on the revolving facility as of April 2, 2011. We made a principal payment of \$4.7 million on the term facility in March 2011.

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

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

Company Overview

GT Solar International, Inc., through its subsidiaries (referred to collectively as "we," "us" and "our") is a global provider of polysilicon production technology and multicrystalline ingot growth systems and related photovoltaic manufacturing services for the solar industry, and sapphire growth systems and material for the LED and other specialty markets. Our customers include several of the world's largest solar companies as well as companies in the chemical industry.

On July 29, 2010, we acquired privately-held Crystal Systems, Inc., which we refer to as Crystal Systems, a crystal growth technology company that produces sapphire material used for LED applications, as well as other specialty markets, such as medical, research, aerospace and defense industries.

On November 12, 2010, we repurchased 26.5 million shares of our common stock from GT Solar Holdings LLC at a per share price of \$7.66, or an aggregate of approximately \$203.5 million. The source of funds for the repurchase of these shares of common stock was our available cash.

We operate through three business segments: our polysilicon business, our photovoltaic, or PV, business and our sapphire business.

Polysilicon Business

Our polysilicon business manufactures and sells chemical vapor deposition, or CVD, reactors, used to react gases at high temperatures to produce polysilicon, the key raw material used in silicon-based solar wafers and cells, as well as engineering services and related equipment.

Photovoltaic Business

Our PV business manufactures and sells directional solidification, or DSS, crystallization furnaces and ancillary equipment used to cast multicrystalline silicon ingots by melting and cooling polysilicon in a precisely controlled process. These ingots are used to make photovoltaic wafers which are, in turn, used to make solar cells. Our PV business provided services related to the production of PV wafers, cells and modules, referred to as our turnkey business. During the three months ended July 3, 2010, we completed a review of our PV turnkey business and decided to no longer offer these services. This decision was based on our assessment of reduced market opportunities, as well as low gross margins compared to our other product lines. Our decision did not impact the recoverability of any tangible or intangible assets, and we did not incur any significant costs to eliminate this product offering.

Sapphire Business

Our sapphire business manufactures and sells sapphire materials and equipment. Our sapphire material is manufactured using our advanced sapphire crystal growth furnaces that incorporate the Heat Exchanger Method, or HEM, technology. We have begun to commercialize advanced sapphire crystal growth furnaces and delivered the first furnace in May 2011 and expect to deliver additional furnaces in the first-half of the fiscal year ending March 31, 2012. We have no experience installing and operating the ASF furnaces in customer facilities. If the ASF furnace does not operate properly in our customers' facilities, we will not be able to recognize revenue from the sale of furnaces in a timely manner, or at all. In addition, our sapphire business, and our overall business, would be materially and adversely impacted. In addition to selling advanced sapphire crystal growth furnaces, we intend to continue production and sale of sapphire materials in selected markets such as the LED industry.

Factors Affecting the Results of Our Operations

Demand for our polysilicon and PV products and services are driven by end-user demand for solar power. Key drivers of the demand for solar power include: volatile prices of conventional energy sources; the desire for energy independence to counter perceived geopolitical supply risks surrounding fossil fuels; environmental pollution from fossil fuels and the resulting tightening of emission controls; the competitive cost of energy from alternative renewable energy sources; and government incentive programs that make solar energy more cost competitive and changing consumer preferences towards renewable energy sources.

In addition, our results of operations are affected by a number of other factors including the availability and market price of polysilicon and sapphire materials, availability of raw materials, foreign exchange rates, interest rates, commodity prices (particularly molybdenum, steel and graphite prices) and macroeconomic factors, including the availability of capital that may be needed by our customers, and political, regulatory and legal conditions in the international markets in which we conduct business, including China.

Our results of operations are affected by a number of other factors including, among other things, when we are able to recognize revenue under our PV, polysilicon and ASF furnace contracts. Our revenue recognition policies require us to defer revenue recognition from shipped equipment and recognize revenue at a later date as more fully described under the caption "Note—2 Significant Accounting Policies—Revenue Recognition" in the notes to consolidated financial statements included in Item 8 below of this Annual Report on Form 10-K. Other factors affecting operations include delays in customer acceptances of our products, delays of deliveries of ordered products and our rate of progress in the fulfillment of our obligations under our contracts. A delay in deliveries or cancellations of orders would cause us to have inventories in excess of our short-term needs, and may delay our ability to recognize, or prevent us from recognizing, revenue on contracts in our order backlog.

Changes in the global capital markets have resulted in a more stringent lending environment which in turn has, at times, caused decreased spending within the industries we serve. While we have experienced increased revenue in our PV business during the fiscal year ended April 2, 2011 as compared to the prior fiscal year, the international commercial lending environment has not stabilized and if the availability of capital or credit were to become even more limited than we are currently experiencing, we expect that the results of operations attributable to our PV business, and our other business segments, would be negatively impacted.

We are required to make significant upfront investment in order to fill orders for our PV, polysilicon and sapphire production equipment. In the past we have had customers for our DSS furnaces and CVD reactors place orders and fail to make any payments (and while we did not complete these orders, we incurred certain expenses). In an attempt to mitigate such risks, we generally require customers to make non-refundable deposits and/or provide letters of credit on most polysilicon, PV and sapphire equipment orders. These advances, however, may not cover all of the expenses we incur in preparing to fill the applicable order. In addition, we have negotiated extensions of the delivery schedules and other modifications under some of our existing contracts and we expect similar negotiations to occur in the future. In addition, when customers fail to make a deposit when due under their contracts, we may terminate, and have terminated, those contracts. When we renegotiate terms of existing contracts with our customers, such negotiations may result in a change in the timing of deliveries and other terms, which may have an impact on our results of operations as more fully described under the heading “—Order Backlog.”

During 2008 and 2009, worldwide manufacturing capacity of polysilicon grew due to an increase in entrants and expansion by existing manufacturers which resulted in excess polysilicon manufacturing capacity and significant declines in the price of polysilicon. Based on information available to us, the demand in the market for polysilicon increased in 2010 from the levels in the preceding two years and the prices that manufacturers were able to charge for polysilicon material remained consistent throughout 2010 at levels above those that were charged in the marketplace in 2008 and 2009. While we believe increased polysilicon prices will likely be detrimental to the PV industry and will lead to decreased demand for solar energy, higher polysilicon prices, we expect, will have a positive impact on the profitability of some existing polysilicon manufacturers and cause polysilicon manufacturers to undertake expansion plans. While it is too early to determine whether these trends will be sustained, we have experienced an increase in the demand for CVD reactors and there may be further demand as a result of polysilicon manufacturers seeking more economically viable capacity that is available due to improvements in polysilicon manufacturing technology. However, because of the long lead-times required to install capacity, it is difficult to predict if this trend will be sustainable. In addition, we believe we are well positioned to capture a significant portion of the additional demand for polysilicon equipment due to the higher throughput and lower power consumption of our reactor equipment.

Much like our other business segments, our PV business is subject to cyclical demand for our PV products, particularly our DSS furnace. Revenues from our PV segment grew in fiscal year 2011 as compared to the prior year in large part due to the increased demand among solar manufacturers for our DSS products. We do not, however, expect that solar manufacturers will continue to purchase PV furnaces at the same rate in calendar 2012, and such decreased demand may continue for a longer period. We believe that some of our PV customers are starting to reduce operating rates and delaying expansion projects as they respond to weaker near term end market demand. This pattern of expansion and contraction of end-user demand for solar modules is not uncommon in this business and this industry. It is not possible to determine when end market demand for solar products will return with any certainty, but initial indications are that the market will exhibit increased demand in late fiscal year 2013 or the first half of fiscal year 2014 compared to the period in 2012.

Demand for PV on-grid applications, which in turn impacts the demand for PV manufacturing equipment, has historically been dependent in part on the availability and size of government subsidies

and economic incentives. The ability of governments to provide economic incentives may be adversely impacted by the recent economic downturn. For example, Germany, which has among the world's largest PV installed base, has implemented reductions in solar feed-in tariff rates for certain solar systems and further reductions in solar feed-in tariff rates may be made in the future. Spain, which has also been a major market for PV products, reduced availability of subsidies in 2009 from 2,400 MW per year to 500 MW per year for solar projects. It is difficult to determine the impact that a changing incentive program has on solar module demand and our customers' ability to sell solar modules in a particular geographic market. We believe decreasing module costs will reduce the effect of tariffs on the investment returns for solar projects. In contrast to decreasing incentives in Europe, China continues to maintain policies designed to stimulate its renewable energy sector, including solar power. The changing environment for such government incentive programs creates uncertainty for the solar industry.

We are a new entrant into the sapphire materials and sapphire equipment business. We expect that the results of our sapphire business will depend on the demand for sapphire-based materials and products, and that the majority of our revenue from the sapphire business in fiscal 2012 will be attributable to the sale of ASF furnaces, and that the revenue from the sale of sapphire material will be comparatively smaller. However, we may not be able to recognize revenue pursuant to existing (or future) contracts to sell ASF furnaces in the expected time frame, in which case, a greater percentage of revenue from our sapphire business will be attributable to our materials business. We have no experience installing and operating the ASF furnaces in customer facilities. If the ASF furnace does not operate properly in our customers' facilities, we will not be able to recognize revenue from the sale of furnaces in a timely manner, or at all. In addition, our sapphire business, and our overall business, would be materially and adversely impacted. While sapphire-based LED material has been incorporated into many products, including consumer electronics, it will need to be more broadly utilized in other products, such as lighting, for our sapphire business to grow significantly, and that has yet to occur. If sapphire-based LED materials are not used more broadly, we would not expect to see significant demand for our ASF furnaces.

Acquisition of Crystal Systems, Inc.

On July 29, 2010, we acquired 100% of the outstanding shares of common stock of privately-held Crystal Systems, a crystalline growth technology company that manufactures sapphire materials used in LED applications, and other specialty markets, such as the defense, medical, research and aerospace industries. The purchase consideration consisted of \$24.8 million in cash, approximately 5.4 million shares of our common stock valued at \$30.9 million (based on the closing market price of our common stock on the date of the acquisition) and a potential additional \$18.7 million of contingent consideration based on the attainment of certain financial and technical targets through the period ending March 31, 2012. The fair value of the contingent consideration was \$12.5 million at the date of acquisition. A component of the purchase price remains subject to working capital adjustments that have not been finalized through the date of this filing.

The transaction has been accounted for as a business combination and is included in our results of operations beginning on July 29, 2010, the date of acquisition. The acquired business contributed revenues of \$15.3 million for the period from July 29, 2010 to April 2, 2011. The results of the acquired business are included in our sapphire business segment.

We incurred transaction costs of \$0.8 million, which consisted primarily of legal and accounting fees, in connection with the Crystal Systems acquisition. These costs have been recorded as general and administrative expense for the year ended April 2, 2011.

In connection with our acquisition of Crystal Systems, we agreed to make capital expenditures of at least \$22 million through March 31, 2012 to develop the sapphire material business and, in part, to support the achievement of the financial and technical targets associated with the contingent consideration. Through April 2, 2011, we have spent \$25.1 million in connection with sapphire material business.

Order Backlog

Our order backlog consists of signed purchase orders or other written contractual commitments. The table below sets forth our order backlog as of April 2, 2011 and April 3, 2010 by business segment:

<u>Product Category</u>	<u>April 2, 2011</u>		<u>April 3, 2010</u>	
	<u>Amount</u>	<u>% of Backlog</u> (dollars in millions)	<u>Amount</u>	<u>% of Backlog</u>
Photovoltaic business	\$ 468	39%	\$441	49%
Polysilicon business	537	45%	465	51%
Sapphire business	184	16%	—	—
Total	<u>\$1,189</u>	<u>100%</u>	<u>\$906</u>	<u>100%</u>

Our order backlog as of April 2, 2011, included deferred revenue of \$154.6 million related to our PV business and \$290.9 million related to our polysilicon business. There were no amounts in deferred revenue as of April 2, 2011 related to the sapphire business. Deferred revenue represents equipment that had been shipped to customers but not yet recognized as revenue. Cash received in deposits related to our order backlog were \$144.4 million as of April 2, 2011, and substantially all of the contracts in our order backlog require the customer to either post a standby letter of credit in our favor or make advance payment prior to shipment of equipment. From the date of a written commitment, we generally would expect to deliver PV products over a period ranging from three to nine months and polysilicon products over a period ranging from twelve to eighteen months, although portions of the related revenue are expected to be recognized over longer periods in many cases.

As of April 2, 2011, our order backlog for our sapphire business was comprised primarily of contracts related to our sapphire crystal growth furnaces that were received during the year ended April 2, 2011. In addition, our backlog includes short-term contracts or sales orders for sapphire materials. From the date of a written commitment, we generally would expect to deliver sapphire material products over a period ranging from three to nine months. We are in the process of commercializing our sapphire crystal growth furnaces and delivered the first two furnaces in May 2011 and expect to deliver additional furnaces throughout the first half of the fiscal year ending March 31, 2012. From the date of a written commitment, we would generally expect to deliver ASF furnaces over a period ranging from approximately 12 to 18 months. However, we have only shipped two ASF furnaces and delivery may actually take us a longer period of time.

Disregarding the effect of any contract terminations or modifications, we would expect to convert approximately 72% of our April 2, 2011 order backlog into revenue during fiscal year 2012, and approximately 28% during fiscal 2013 and 2014. Although, most of our orders require substantial

non-refundable deposits, our order backlog as of any particular date should not be relied upon as indicative of our revenues for any future period. We began tracking our backlog as a performance measure on a consistent basis during 2007.

If a customer fails to perform on a timely basis, and such failure continues after notice of breach and a cure period, we may terminate the contract. Our contracts do not contain cancellation provisions and in the event of a customer breach, the customer may be liable for contractual damages. During the fiscal year ended April 2, 2011, we terminated or modified contracts resulting in a \$10.7 million reduction in our order backlog (82% of the reduction was from 3 contracts) as compared to the fiscal year ended April 3, 2010, where we terminated or modified contracts resulting in a \$105.0 million reduction in our order backlog (95% of the reduction was from 9 contracts). During the fiscal year ended April 2, 2011 and April 3, 2010 we recorded revenues of \$44.4 million and \$21.1 million, respectively, from terminated contracts.

As of April 2, 2011, our order backlog consisted of contracts with 35 PV customers, 18 of which have orders of \$3 million or greater, and contracts with 10 polysilicon customers, all of which have orders of \$3 million or greater. As of April 2, 2011, our sapphire business backlog consisted of several customers, five of which had orders of greater than \$3 million. Our April 2, 2011 backlog for the sapphire segment included new orders totaling \$184.2 million, of which \$174.2 million was related to sapphire equipment and \$10.0 million was related to sapphire material contracts.

Our order backlog as of April 2, 2011, included \$346.6 million attributed to one customer representing 10% or more our order backlog.

Critical Accounting Policies and Estimates

In preparing our financial statements in conformity with generally accepted accounting principles in the United States (GAAP), we make estimates and assumptions about future events that affect the amounts of reported assets, liabilities, revenues and expenses, as well as the disclosure of contingent liabilities in our financial statements and the related notes thereto. On a periodic basis, we evaluate our estimates, including those related to revenue, inventory, income taxes and business combinations. We operate in competitive industries that are influenced by a variety of diverse factors including, but not limited to, technological advances, product life cycles, long customer and supplier lead times, and geographic and macroeconomic trends. Estimating product demand beyond a relatively short forecasting horizon is difficult and prone to forecasting error due to the inherent lack of visibility in the industry. Some of our accounting policies require the application of significant judgment by management in the selection of appropriate assumptions for determining these estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. As a result, we cannot assure you that actual results will not differ significantly from estimated results. We base our judgments and estimates on our historical experience, on our forecasts and on other available information, as we deem appropriate. Our significant accounting policies are described in Note 2 to our consolidated financial statements for the fiscal year ended April 2, 2011 included elsewhere in this Annual Report on Form 10-K.

We believe that the following are the critical accounting policies which are the most important to the portrayal of our financial condition and that require the most subjective judgment used by us in the preparation of our consolidated financial statements.

Revenue Recognition

We recognize revenue when title and risk of loss have passed to the customer, evidence of an arrangement exists, fees are contractually fixed or determinable, collectability is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. The application of our revenue recognition policies for established

products differ from our newer products. Our revenue recognition policies are described in further detail below.

Multiple contracts with a single customer or amendments to existing contracts with the same customer are evaluated as to whether they should be recognized as separate accounting arrangements from other contracts with the customer based on an evaluation of several factors including but not limited to the timing of when contracts were negotiated and executed, whether the equipment is interdependent in terms of design, technology or function and whether payment terms coincide. If contracts are considered linked for accounting purposes they are accounted for as one arrangement.

For arrangements containing products that we consider to be "established," we recognize upon delivery revenue equal to the lesser of the amount allocated to the equipment or the contractual amount due (typically 90%) with the remainder recognized upon completion of installation. For arrangements containing products considered to be "new," or containing customer acceptance provisions that are deemed to be more than perfunctory, revenue is recorded upon customer acceptance or at the time the product is determined to be "established". For the standard DSS contract, a portion of the total sales price (typically 10%) is not due until installation and customer acceptance occurs. For other arrangements, a portion of the total sales price is due upon reaching certain performance metrics and customer acceptance of such specifications.

Products are classified as "established" products if post-delivery acceptance provisions and the installation process have been determined to be routine, due to the fact that the acceptance provisions are generally a replication of pre-shipment procedures. The majority of our products and subcomponents are manufactured to a standard specification. To ensure contractual performance levels are satisfied, the products or subcomponents are often tested at either our manufacturing facility or that of our third party manufacturer prior to shipment. To the extent that customers' conditions cannot be replicated in our facilities, or if there is not a demonstrated history of meeting newer customer specifications, then the product is treated as "new" for revenue recognition purposes, as customer acceptance would be considered an element in these transactions.

In determining when a "new" product is considered "established," we consider several factors, including the stability of the product's technology, the ability to test the product prior to shipment, successful installations at customers' sites and the performance results once installed. We generally believe that satisfaction of these factors, coupled with a minimum of three to five successful customer installations and acceptances, is necessary to support the conclusion that there are no uncertainties regarding customer acceptances and that the installation process can be considered perfunctory. These factors, as well as the consideration of the ease of installation in different customer environments, are all taken into consideration in determining whether a product should be classified as "established."

The majority of our contracts involve the sale of equipment and services under multiple element arrangements. Revenue under multiple element arrangements is allocated to all elements based upon their relative fair values. To be considered a separate element, the product or service in question must represent a separate unit of accounting, and fulfill the following criteria: "(a) the delivered item(s) has value to the customer on a standalone basis; (b) there is objective and reliable evidence of the fair value of the undelivered item(s); and (c) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item(s) is considered probable and substantially in the control of the Company." Our sales arrangements do not include a general right of return.

As a part of our revenue arrangements, we sell certain equipment for which we have not been able to obtain objective evidence of fair value. If objective evidence does not exist for the undelivered elements of an arrangement, all revenue is deferred until such evidence does exist, or until all elements for which we do not have objective evidence of fair value are delivered, whichever is earlier assuming all other revenue recognition criteria are met. Once there is objective evidence of the fair value of

undelivered elements, the amount allocated to equipment and parts is based on the residual method. Under this method, the total arrangement value is allocated first to undelivered elements, based on their fair values, with the remainder being allocated to the delivered elements.

We have determined that installation and training services are not integral to the stand-alone value of certain products. We typically perform training at the same time as the installation process. The value of the undelivered installation and training services is deferred at an amount that is equal to the greater of the fair value of the installation or any portion of the sales price that will not be received until the installation is completed. The amount allocated to installation and training is based upon the estimated time to complete the installation and training at the established fair value hourly rates. Objective evidence of fair value for these services is based on what we charge for similar professional services on a stand-alone basis and what third-party contractors would charge when performing similar services.

When a customer fails to perform its contractual obligations and such failure continues after notice of breach and a cure period, we may terminate the contract. Our contracts do not contain cancellation provisions and in the event of a customer breach, the customer may be liable for contractual damages. At the time of termination, we record as revenues any non-refundable deposits or deferred revenue amounts and record as cost of revenue any previously deferred cost as well as any related costs to terminate the contract including excess or obsolete inventory or unrecoverable vendor advances or other purchase commitment costs as a result of the termination.

If we make incorrect estimates or judgments in applying our revenue recognition policies, for example, if we incorrectly classify a product as “established” where it should have been “new”, it may impact the timing of recognizing that revenue and may further result in failing to meet guidance provided by us or require that we restate our prior financial statements.

Inventories

We value our inventory at the lower of cost or market. The determination of the lower of cost or market requires that we make significant assumptions about future demand for products and the transition to new product offerings from legacy products. These assumptions include, but are not limited to, future manufacturing schedules, customer demand, supplier lead time and technological and market obsolescence. We estimate the excess and obsolescence of inventory based on factors such as inventory on hand, historical usage and forecasted demand based on backlog and other factors.

Business Combinations

Business combinations are accounted for at fair value. Acquisition costs are expensed as incurred and recorded in general and administrative expenses; in-process research and development is recorded at fair value as an indefinite-lived intangible asset at the acquisition date; restructuring costs associated with a business combination are expensed subsequent to the acquisition date; contingent consideration obligations are recorded at fair value on the date of acquisition, with increases or decreases in the fair value arising from changes in assumptions or discount periods recorded as contingent consideration expenses in the statement of operations in subsequent periods; and changes in deferred tax asset valuation allowances and income tax uncertainties after the acquisition date generally affect income tax expense. All changes that do not qualify as measurement period adjustments are included in current period earnings. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management’s estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. Significant judgment is required in estimating the fair value of intangible assets acquired in a business combination and in assigning their respective useful lives. The

fair value estimates are based on available historical information and on future expectations and assumptions deemed reasonable by management.

If the actual results differ from the estimates and judgments we utilized, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill, or require acceleration of the amortization expense of finite-lived intangible assets.

Significant judgment is required in estimating the fair value of the contingent consideration obligations. Increases or decreases in the fair value of the contingent consideration obligations can result from changes in assumed discount periods and rates, changes in the assumed timing and amount of revenue and expense estimates and changes in assumed probability adjustments with respect to the attainment of certain financial and operational metrics. Accordingly, future business and economic conditions, as well as changes in any of the assumptions described above, can materially impact the amount of contingent consideration expense recorded in any given period.

Income Taxes

Our business is global and as such we are subject to taxes in both the US and foreign jurisdictions. Tax laws and tax rates vary substantially in these jurisdictions and are, along with the interpretation of the tax laws, subject to change based on the political and economic climate in those countries.

Significant judgment is required in determining our worldwide income tax provision and recording the related tax assets and liabilities. In the ordinary course of our business, there are operational decisions, transactions, facts and circumstances, and calculations which make the ultimate tax determination uncertain. Furthermore, our tax positions are periodically subject to challenge by taxing authorities. We have recorded reserves for taxes and the associated interest that may become payable in future years as a result of audits by tax authorities. Certain of these reserves are for uncertain income tax positions taken on income tax returns.

We recognize tax benefits for uncertain tax positions based on an assessment of whether the position is more likely than not to be sustained by the taxing authorities. If this threshold is not met, the full amount of the uncertain tax position is recorded as a liability. If the threshold is met, the tax benefit that is recognized is the largest amount that is greater than 50% likely of being realized upon ultimate settlement. This analysis presumes the taxing authorities' full knowledge of the positions taken and all relevant facts, but does not consider the time value of money. We also accrue for interest and penalties on these uncertain tax positions and include such charges in the income tax expense in the consolidated statements of operations.

Results of Operations

The following tables set forth the results of our operations as a percentage of revenue for the fiscal years ended April 2, 2011, April 3, 2010, and March 28, 2009.

	Fiscal Year Ended		
	April 2, 2011	April 3, 2010	March 28, 2009
Statement of Operations Data:*			
Revenue	100%	100%	100%
Cost of revenue	58	60	60
Gross profit	42	40	40
Research and development	3	4	3
Selling and marketing	2	2	3
General and administrative	6	7	6
Amortization of intangible assets	1	1	1
Income from operations	30	26	27
Interest income	—	—	—
Interest expense	—	—	—
Interest component of forward foreign exchange contracts	—	—	—
Other income (expense)	—	—	(1)
Income before income taxes	30	26	26
Provision for income taxes	11	10	10
Net income	19%	16%	16%

* percentages subject to rounding

Fiscal Year Ended April 2, 2011 Compared to Fiscal Year Ended April 3, 2010

Revenue. The following table sets forth revenue for the fiscal years ended April 2, 2011 and April 3, 2010.

Business Category	Fiscal Year Ended April 2, 2011	Fiscal Year Ended April 3, 2010	2011 versus 2010	
			Change	Percentage
(dollars in thousands)				
Photovoltaic equipment	\$716,400	\$180,692	\$ 535,708	
Photovoltaic services, parts and other	23,688	6,034	17,654	
Total photovoltaic business	740,088	186,726	553,362	296%
Polysilicon business	143,591	357,519	(213,928)	
Sapphire business	15,305	—	15,305	
Total revenue	\$898,984	\$544,245	\$ 354,739	65%

Our total revenue increased 65% to \$899.0 million for the fiscal year ended April 2, 2011, as compared to \$544.2 million for the fiscal year ended April 3, 2010, primarily due to increased demand in our PV business, offset in part by a reduction in revenue from our polysilicon products and services.

Revenue from our PV business increased 296% to \$740.1 for the fiscal year ended April 2, 2011 as compared to \$186.7 million for the fiscal year ended April 3, 2010.

The increase is primarily due to increased demand for our DSS products from solar manufacturers that began in fiscal year 2010 and continued into fiscal year 2011. In addition, we began shipping our updated DSS furnace, the DSS 450HP in fiscal 2011.

PV equipment revenue increased 296% to \$716.4 million for the fiscal year ended April 2, 2011 as compared to \$180.7 million for the fiscal year ended April 3, 2010. Our PV equipment revenue includes sales of DSS units as well as other PV equipment. During the fiscal year ended April 2, 2011, revenue from DSS sales increased 371% to \$657.8 million as compared to \$139.6 million for the fiscal year ended April 3, 2010, which prior year period included \$2.6 million of revenue from a non-refundable deposit from a contract termination. We believe that the increased sales of DSS units is primarily attributed to near-term demand for ingot manufacturing capacity by our Asian customers and the initial orders for our recently introduced DSS 450HP unit. During the fiscal year ended April 2, 2011 we began shipping these units and during the first fiscal quarter of 2011 we began to recognize revenue on these DSS 450HP units when we were able to obtain sufficient evidence of customer acceptance in accordance with our revenue recognition policy.

Sales of other PV equipment, included in total PV equipment revenue, accounted for \$58.6 million of our revenue for the fiscal year ended April 2, 2011 and \$41.1 million of our revenue for the fiscal year ended April 3, 2010, which prior period included \$7.4 million from a terminated turnkey contract. Other PV equipment revenue is primarily attributed to ancillary equipment under our DSS contracts, which can vary based upon specific customer requirements, as well as revenue from PV turnkey integration contracts. During the fiscal year ended April 2, 2011, we recognized turnkey revenue of \$41.2 million, including \$5.7 million from the sale of DSS units and \$35.5 million from the sale of other PV equipment. Included in this turnkey revenue for fiscal 2011 was \$40.3 million related to a turnkey contract that was substantially delivered but was terminated due to non-payment of an outstanding receivable. During the fiscal year ended April 3, 2010, we recognized turnkey revenue totaling \$33.4 million, including \$5.8 million from the sale of DSS units and \$27.6 million from the sale of other PV equipment, which included \$7.4 million from a turnkey contract termination.

During the fiscal year ended April 2, 2011, we completed a review of our PV turnkey business and decided to no longer offer these services. This decision was based on our assessment of reduced market opportunities, as well as low gross margins compared to our other product lines. Our decision did not impact the recoverability of any tangible or intangible assets, and we did not incur any significant costs to eliminate this product offering.

Revenue from PV services, parts and other was \$23.7 million for the fiscal year ended April 2, 2011 and \$6.0 million for the fiscal year ended April 3, 2010. This increase is due in part to the sale of upgrade kits that convert our standard DSS 450 unit to a DSS 450HP unit, which we introduced during the fiscal year ended April 3, 2010.

Revenue from our polysilicon business decreased by 60% to \$143.6 million for the fiscal year ended April 2, 2011 as compared to \$357.5 million for the fiscal year ended April 3, 2010, which prior period included \$11.1 million of a non-refundable deposit from contract termination. Polysilicon revenue may fluctuate significantly from period to period due to the cyclical nature of this business and the variability inherent in meeting post-delivery customer acceptance provisions related to reactor performance. Revenue in our polysilicon business is recognized only upon customer acceptance of the product, whether existing or new, unless acceptance becomes perfunctory. As a result our polysilicon business tends to have a higher level of deferred revenue than our PV business. Approximately 65% and 75% of our deferred revenue balance at April 2, 2011 and April 3, 2010, respectively, relates to our polysilicon business. Polysilicon revenue for the fiscal year ended April 2, 2011 substantially relates to contracts that were in our order backlog as of April 3, 2010.

Included in our backlog are certain polysilicon contracts that grant contractual rights which require revenue to be recognized ratably over the contract period. Revenue recognition from these contracts

commences when all other elements have been delivered and other contract criteria have been met. During the fiscal year ended April 2, 2011 and April 3, 2010, we recognized revenue on a ratable basis from one of these contracts of \$83.5 million and \$48.3 million, respectively. As of April 2, 2011, our deferred revenue balance included \$72.9 million related to this contract, which is expected to be recognized as revenue ratably through fiscal year 2012.

Revenue from our sapphire business was \$15.3 million for the fiscal year ended April 2, 2011. Our sapphire business revenue is attributable to the sale of material used in sapphire-based LED applications and other specialty markets such as the defense, medical, research and aerospace industries. Our sapphire business was acquired on July 29, 2010 and therefore, there is no prior year comparison.

In both the fiscal years ended April 2, 2011 and April 3, 2010, a substantial percentage of our revenue resulted from sales to a small number of customers. One of our customers accounted for 19% of our revenue for the fiscal year ended April 2, 2011 and one customer accounted for 34% of our revenue for the fiscal year ended April 3, 2010. No other customer accounted for more than 10% of our revenue during the respective periods.

Based on our results through April 2, 2011 and our order backlog as of that date, we believe our PV business will account for a majority of our revenue for fiscal year 2012. For the fiscal year ending March 31, 2012, we believe that no one customer will account for more than 25% of our total annual revenue.

Cost of Revenue, Gross Profit and Gross Margins. The following table sets forth total cost of revenue and gross profit for the fiscal year ended April 2, 2011 and April 3, 2010:

	Fiscal Year Ended		Change	% Change
	April 2, 2011	April 3, 2010		
	(dollars in thousands)			
Cost of revenue				
Photovoltaic business	\$425,479	\$123,955	\$ 301,524	
Polysilicon business	83,718	201,308	(117,590)	
Sapphire business	11,792	—	11,792	
Total	<u>\$520,989</u>	<u>\$325,263</u>	<u>\$ 195,726</u>	60%
Gross profit				
Photovoltaic business	\$314,609	\$ 62,771	\$ 251,838	
Polysilicon business	59,873	156,211	(96,338)	
Sapphire business	3,513	—	3,513	
Total	<u>\$377,995</u>	<u>\$218,982</u>	<u>\$ 159,013</u>	73%

Cost of revenue consists primarily of the costs and expenses we incur to manufacture and deliver our products to our customers, including the costs for the components incorporated into our furnaces and reactors. Our PV cost of revenue and gross profit increased \$301.5 million, or 243%, and \$251.8 million, or 401%, for the fiscal year ended April 2, 2011 as compared to the fiscal year ended April 3, 2010, respectively, primarily due to an overall increase in PV revenue and the increased expenses associated with meeting the increased demand in our PV business. Our polysilicon cost of revenue and gross profit decreased by \$117.6 million, or 58%, and \$96.3 million, or 62%, for the fiscal year ended April 2, 2011 as compared to the fiscal year ended April 3, 2010, respectively, primarily due to an overall decrease in polysilicon revenue. During the fiscal year ended April 3, 2010, our PV cost of revenue included costs of \$12.8 million related to excess overhead and increases in our inventory reserves reflecting the overall decrease in manufacturing activities as a result of delays in deliveries requested by our customers. Our sapphire business was acquired on July 29, 2010 and therefore, there is no prior year comparison.

The following table sets forth gross margins for our overall business and each segment for the fiscal year ended April 2, 2011 and April 3, 2010:

	<u>Fiscal Year Ended</u>	
	<u>April 2, 2011</u>	<u>April 3, 2010</u>
Gross margins		
Photovoltaic business	43%	34%
Polysilicon business	42%	44%
Sapphire business	23%	—
Overall	42%	40%

Overall gross profit as a percentage of revenue, or gross margin, increased to 42% for the fiscal year ended April 2, 2011 from 40% for the fiscal year ended April 3, 2010.

Our PV gross margins for the fiscal year ended April 2, 2011 were 43% as compared to 34% for the fiscal year ended April 3, 2010. The increase was primarily due to improved factory utilization and lower material costs, offset in part by an increase in other variable costs including warranty, packing and shipping costs, as a result of an increase in sales and order volume in the fiscal year ended April 2, 2011. Gross margins for the PV business during the fiscal year ended April 3, 2010, were adversely impacted by the overall reduction in our sales volumes that resulted in excess manufacturing costs and increased inventory reserves and by turnkey projects which generated gross margins of 21%.

Our polysilicon gross margins for the fiscal year ended April 2, 2011 were 42%, slightly less than the gross margin for the fiscal year ended April 3, 2010 of 44%.

Our gross margins in our PV and polysilicon businesses tend to vary depending on the volume, pricing and timing of revenue recognition.

Our sapphire business gross margins were 23% for the fiscal year ended April 2, 2011 from the sale of sapphire materials. Our sapphire business margins tend to vary depending on the demand for LED materials, as well as volume and customer and product mix. Our sapphire business was acquired on July 29, 2010 and, therefore, there is no prior year comparison. The gross margins for fiscal year ended April 2, 2011 did not include amounts attributable to our ASF furnaces, only amounts related to sapphire material, but we do expect amounts for the ASF furnaces to be included in gross margins for fiscal year 2012.

Research and Development. The following table sets forth total research and development expenses for the fiscal year ended April 2, 2011 and April 3, 2010:

	<u>Fiscal Year Ended</u>		<u>Change</u>	<u>% Change</u>
	<u>April 2, 2011</u>	<u>April 3, 2010</u>		
	(dollars in thousands)			
Research and development				
Photovoltaic business	\$17,946	\$14,419	\$ 3,527	
Polysilicon business	3,449	6,991	(3,542)	
Sapphire business	2,358	—	2,358	
Total	<u>\$23,753</u>	<u>\$21,410</u>	<u>\$ 2,343</u>	11%

Research and development expenses consist primarily of payroll and related costs, including stock-based compensation expense, for research and development personnel who design, develop, test and deploy our PV, polysilicon and sapphire equipment, sapphire materials and our services. Research and development expenses increased 11% to \$23.8 million for the fiscal year ended April 2, 2011, as compared to \$21.4 million for the fiscal year ended April 3, 2010. The increase was primarily related to

an increase in payroll and payroll related costs of \$2.0 million and an increase in the use of non-production materials of \$1.5 million as we continued to incur labor and material costs associated with our next generation DSS products. These increases were offset in part by a decrease in consulting, contract labor and outside services costs of \$1.7 million, primarily in our polysilicon business. Our spending on research and development activities is directly related to projects under development and the timing of the spending associated with each of the projects may vary from quarter to quarter. We expect our rate of spending in research and development to continue to increase in fiscal 2012, as we expect to continue to invest in new product development and attempt to expand our product base in each of our businesses. We acquired Crystal Systems on July 29, 2010, and, therefore, there is no prior year comparison for our sapphire business.

Selling and Marketing. The following table sets forth total selling and marketing expenses for the fiscal year ended April 2, 2011 and April 3, 2010:

	<u>Fiscal Year Ended</u>		<u>Change</u>	<u>% Change</u>
	<u>April 2, 2011</u>	<u>April 3, 2010</u>		
	(dollars in thousands)			
Selling and marketing				
Photovoltaic business	\$12,609	\$ 6,327	\$6,282	
Polysilicon business	6,549	5,496	1,053	
Sapphire business	634	—	634	
Total	<u>\$19,792</u>	<u>\$11,823</u>	<u>\$7,969</u>	67%

Sales and marketing expenses consist primarily of payroll and related costs, stock-based compensation expense and commissions for personnel engaged in marketing, sales and support functions, as well as advertising and promotional expenses. Selling and marketing expenses increased 67% to \$19.8 million for the fiscal year ended April 2, 2011 from \$11.8 million for the fiscal year ended April 3, 2010. Selling and marketing expenses for our PV business increased by approximately \$6.3 million, primarily due to an increase in commissions of \$3.8 million and payroll and payroll-related costs of \$1.7 million. Selling and marketing expenses for our polysilicon business increased by approximately \$1.1 million primarily due to an increase in third party commissions of \$0.6 million. During fiscal year ended April 3, 2010, we had reduced the number of employee and non-employee sales representatives eligible to receive commissions. Sales commissions are accrued based on operational factors such as deposits, shipments and final acceptances received from customers rather than when revenue is recognized and thus may vary from quarter to quarter. We acquired Crystal Systems on July 29, 2010, and, therefore, there is no prior year comparison for our sapphire business.

General and Administrative. General and administrative expenses consist primarily of the following components:

- payroll, stock-based compensation expense and other related costs, including expenses for executive, finance, business applications, human resources and other administrative personnel;
- depreciation and amortization of property and equipment we use internally;
- fees for professional services;
- rent and other facility-related expenditures for leased properties;
- the provision for doubtful accounts;
- insurance costs; and
- non-income related taxes.

General and administrative expenses increased 47% to \$56.6 million for the fiscal year ended April 2, 2011 from \$38.6 million for the fiscal year ended April 3, 2010. The increase was primarily related to increases in payroll and related costs of \$7.8 million which includes a \$3.6 million increase in cash incentive compensation as a result of exceeding management incentive compensation targets; increases in tax consulting, legal fees and outside service costs of \$1.9 million, primarily related to the transition of our base of operations to Hong Kong, the acquisition of Crystal Systems and a \$1.0 million charge related to settlement of our securities class action lawsuit; increased facilities and office expenses of \$3.5 million; increases in depreciation of \$1.1 million driven primarily by our expansion of the sapphire business and \$2.3 million in earn-out accretion in connection with the acquisition of Crystal Systems.

Amortization of Intangible Assets. Amortization of intangible assets consists of the amortization of intangible assets obtained in business or technology acquisitions. Amortization expense attributed to intangible assets increased 42% to \$4.5 million for the fiscal year ended April 2, 2011 from \$3.2 million for the fiscal year ended April 3, 2010. The increase is due to the amortization of intangible assets related to the Crystal Systems acquisition of \$2.1 million, offset in part by a decrease of \$0.8 million related to certain intangibles in our PV business that became fully amortized during the fiscal year ended April 2, 2011.

Interest Income. Interest income includes interest earned on invested cash and marketable securities. During the fiscal year ended April 2, 2011, we earned \$0.6 million in interest income as compared to \$0.4 million in interest income for the fiscal year ended April 3, 2010. We invest our excess cash primarily in money market funds. Interest income increased due to higher overall balances of our cash and cash equivalents in the fiscal year ended April 2, 2011 as compared to fiscal year ended April 3, 2010.

Interest Expense. Interest expense includes interest paid on our debt obligations as well as amortization of deferred financing costs. During the fiscal year ended April 2, 2011, interest expense increased to \$2.9 million, as compared to \$0.8 million for the fiscal year ended April 3, 2010. The increase is due primarily to interest expense and the amortization of deferred financing costs in connection with entering into our new credit facility during the fiscal year ended April 2, 2011.

Interest Component of Forward Foreign Exchange Contracts. The interest component of forward foreign exchange contracts represents the interest rate differential between the two currencies involved in our forward foreign exchange contracts for the specified period of time and can be either a premium or discount at the beginning of the contract and are adjusted to reflect interest rate market condition changes. Such changes can result in interest income or interest expense over the life of the contract. These amounts were not significant for the fiscal years ended April 2, 2011 and April 3, 2010.

Other Expense, net. Other expense, net, was \$0.4 for the fiscal year ended April 2, 2011 as compared to other expense, net of \$3.1 million for the fiscal year ended April 3, 2010. Other expense for the fiscal year ended April 2, 2011 was comprised primarily of net costs incurred in connection with our secondary offering in September 2010 of \$0.5 million and gains recorded on foreign currency transactions. During the fiscal year ended April 3, 2010, other expense, net included costs associated with a secondary public offering of our common stock of \$0.8 million and losses on foreign exchange of \$0.4 million. In addition, in fiscal 2010 we incurred a loss of \$2.1 million due to fair value adjustments on certain forward foreign exchange contracts that no longer qualified as a cash flow hedge because the hedging relationship was no longer deemed to be highly effective due to changes in the forecasted deliveries for certain Euro denominated purchase commitments.

Provision for Income Taxes. Our effective tax rate was 35.4% and 37.6% for the fiscal years ended April 2, 2011 and April 3, 2010, respectively. Our tax rate is affected by recurring items, such as tax rates in foreign jurisdictions and the relative amount of income we earn in foreign jurisdictions, which we expect will continue to increase as a result of our continued transition of our global operations

center to Hong Kong. The change in our reported tax rate for the fiscal year ended April 2, 2011, as compared to the same period in the prior year, primarily relates to proportionally higher levels of income in lower tax jurisdictions.

Net Income. As a result of the foregoing factors, for the fiscal year ended April 2, 2011, we recorded net income of \$174.8 million, compared to a net income of \$87.3 million for the fiscal year ended April 3, 2010.

Fiscal Year Ended April 3, 2010 Compared to Fiscal Year Ended March 28, 2009

Revenue. The following table sets forth revenue for the fiscal years ended April 3, 2010 and March 28, 2009.

<u>Business Category</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>	<u>2010 versus 2009</u>	
			<u>Change</u>	<u>Percentage</u>
	(dollars in thousands)			
Photovoltaic Business				
Photovoltaic equipment	\$180,692	\$424,404	\$(243,712)	
Photovoltaic services, parts and other	6,034	19,543	(13,509)	
Total photovoltaic business	186,726	443,947	(257,221)	(58)%
Polysilicon Business				
Polysilicon equipment	353,368	93,264	260,104	
Polysilicon services, parts and other	4,151	3,816	335	
Total polysilicon business	357,519	97,080	260,439	268%
Total revenue	<u>\$544,245</u>	<u>\$541,027</u>	<u>\$ 3,218</u>	*%

* not meaningful

Revenue from our PV business decreased 58% for the fiscal year ended April 3, 2010 as compared to the fiscal year ended March 28, 2009. This decrease is substantially related to delays in deliveries requested by our customers on existing contracts as a result of the economic downturn. Revenue from our polysilicon business increased 268% for the fiscal year ended April 3, 2010 as compared to the fiscal year ended March 28, 2009. We typically experience a longer period of time between delivery and revenue recognition with our polysilicon contracts than with our PV contracts. Polysilicon revenue for the year ended April 3, 2010 substantially relates to contracts that were in our order backlog as of March 28, 2009.

Our PV equipment revenue includes sales of DSS units as well as other PV equipment. During the fiscal year ended April 3, 2010, DSS sales decreased 64% to \$139.6 million (which included \$2.6 million of a non-refundable deposit from a contract termination) from \$386.9 million for the fiscal year ended March 28, 2009. Sales of other PV equipment increased 10% to \$41.1 million (which included \$7.4 million from a terminated turnkey contract) for the fiscal year ended April 3, 2010 from \$37.5 million for the fiscal year ended March 28, 2009. Revenue from other PV equipment can fluctuate based upon specific customer requirements.

Sales of other PV equipment accounted for \$41.1 million of our revenue for the fiscal year ended April 3, 2010 and \$37.5 million of our revenue for the fiscal year ended March 28, 2009, representing an increase of 10%. Other PV equipment revenue is primarily attributed to turnkey contracts and ancillary equipment under our DSS contracts, which can vary based upon specific customer requirements. Ancillary equipment is primarily purchased from third parties.

Revenue from turnkey solutions for the fiscal year ended April 3, 2010 was \$33.4 million, consisting of \$5.8 million from sales of DSS units and \$27.6 million from sales of other PV equipment.

Revenue from turnkey contracts for the fiscal year ended March 28, 2009, amounted to \$19.1 million consisting of \$4.0 million of DSS units and \$15.1 million of other PV equipment. Turnkey revenue was recorded only after final production line acceptance and therefore is periodic in nature. During the three months ended July 3, 2010, we completed a review of our PV turnkey business and decided to no longer offer these services. This decision was based on our assessment of reduced market opportunities, as well as low gross margins compared to our other product lines. Our decision did not impact the recoverability of any tangible or intangible assets, and we did not incur any significant costs to eliminate this product offering.

Revenue from PV services, parts and other was \$6.0 million for the fiscal year ended April 3, 2010 and \$19.5 million for the fiscal year ended March 28, 2009. This decrease was consistent with the overall decrease in our PV business.

During the fiscal year ended April 3, 2010, we recognized polysilicon revenue of \$357.5 million (which included \$11.1 million of a non-refundable deposit from a contract termination). During the fiscal year ended March 28, 2009, we recognized polysilicon revenue of \$97.1 million (which included \$4.0 million of a non-refundable deposit from a contract termination). Revenue related to our CVD reactors is typically deferred until pre-established reactor output performance criteria and final acceptance is achieved.

Included in our backlog are polysilicon contracts that grant contractual rights which are considered a separate element under the contract and requires revenue to be recognized ratably over the period commencing when all other elements have been delivered and other contract criteria have been met and through the period such rights exist. During the fiscal year ended April 3, 2010, we recognized revenue of \$48.3 million on a ratably basis from one of these customers with a remaining deferred revenue balance for this customer of \$155.7 million at April 3, 2010, which is expected to be recognized as revenue ratably through fiscal year 2012.

In both the fiscal years ended April 3, 2010, and March 28, 2009, a substantial percentage of our revenue resulted from sales to a small number of customers. One of our customers accounted for 34% of our revenue for the fiscal year ended April 3, 2010 and four customers accounted for 62% of our revenue for the fiscal year ended March 28, 2009. No other customer accounted for more than 10% of our revenue during the respective periods.

Cost of Revenue, Gross Profit and Gross Margin. The following table sets forth total cost of revenue, gross profit and gross margin for the fiscal years ended April 3, 2010 and March 28, 2009.

	Fiscal Year Ended April 3, 2010	Fiscal Year Ended March 28, 2009	2010 versus 2009	
			Change	Percentage
(dollars in thousands)				
Cost of revenue				
Photovoltaic business	\$123,955	\$265,813	\$(141,858)	(53)%
Polysilicon business	201,308	60,545	140,763	232%
Total	<u>\$325,263</u>	<u>\$326,358</u>	<u>\$ (1,095)</u>	<u>*%</u>
Gross profit				
Photovoltaic business	\$ 62,771	\$178,134	\$(115,363)	(65)%
Polysilicon business	156,211	36,535	119,676	328%
Total	<u>\$218,982</u>	<u>\$214,669</u>	<u>\$ 4,313</u>	<u>2%</u>
Gross margins				
Photovoltaic business	34%	40%		
Polysilicon business	44%	38%		
Total	40%	40%		

* not meaningful

Our PV cost of revenue decreased \$141.9 million, or 53%, and our PV gross profit decreased \$115.4 million, or 65% for the fiscal year ended April 3, 2010 compared to the fiscal year ended March 28, 2009. During the fiscal year ended April 3, 2010 and March 28, 2009, our PV cost of revenue included costs of \$12.8 million and \$8.7 million, respectively, related to excess overhead and increases in our inventory reserves reflecting the overall decrease in manufacturing activities as a result of delays in deliveries requested by our customers. Our gross margins tend to vary depending on our manufacturing volume, as well as the mix and pricing of our contracts.

Gross margins for the PV business during the fiscal year ended April 3, 2010, were adversely impacted by the overall reduction in our sales volumes that resulted in excess manufacturing costs and increased inventory reserves and by turnkey projects which generated revenue of \$33.4 million with gross margins of 21%.

Gross margins for the PV business during the fiscal year ended March 28, 2009, were 40% which were favorably impacted by the higher gross margins on our newly introduced DSS units which represented a significant portion of the total PV revenue during the period and were negatively impacted by a fourth quarter charge of \$11.3 million resulting from reserves against advances with vendors that had become financially distressed as well as expected forfeitures of vendor advances as a result of commitment terminations due to our reduced production plan for fiscal year ended April 3, 2010 as compared to fiscal year ended March 31, 2008.

Our polysilicon cost of revenue increased by \$140.8 million, or 232%, and our polysilicon gross profit increased by \$119.7 million, or 328%, for the fiscal year ended April 3, 2010 compared to the fiscal year ended March 28, 2009. This increase relates to increases in polysilicon revenue that was recognized during the fiscal year ended April 3, 2010.

Gross margins within our polysilicon business during the fiscal year ended April 3, 2010 were 44% and were impacted by the favorable pricing in the contracts that were recognized in the period as compared to gross margins of 38% realized during the fiscal year ended March 28, 2009, which were adversely impacted as a result of higher initial costs related to the first installation of our SDR 200 CVD reactors. During the year ended April 3, 2010, we agreed to a customer requested delay under an

ongoing polysilicon contract. The customer reimbursed us \$20.5 million for the costs incurred to terminate certain impacted vendor commitments. These costs did not impact gross margins as they were reimbursed by the customer and have been recorded as both deferred revenue and deferred cost of goods sold under the arrangement.

Research and Development. The following table sets forth total research and development expenses for the fiscal years ended April 3, 2010 and March 28, 2009.

	Fiscal Year Ended April 3, 2010	Fiscal Year Ended March 28, 2009	2010 versus 2009	
			Change	Percentage
(dollars in thousands)				
Research and development				
Photovoltaic business	\$14,419	\$ 9,420	\$ 4,999	53%
Polysilicon business	6,991	8,903	(1,912)	(21)%
Total	<u>\$21,410</u>	<u>\$18,323</u>	<u>\$ 3,087</u>	17%

During the fiscal year ended April 3, 2010 compared to the fiscal year ended March 28, 2009, research and development expense increased by 17%, or \$3.1 million. Research and development expense consists primarily of labor and material spending associated with our next-generation DSS products and CVD reactors, as well as other technologies currently in development. Our spending on research and development activities is directly related to projects under development and the timing of the spending associated with each of the projects, therefore, the spending in each business segment may vary from year to year.

Selling and Marketing. The following table sets forth total selling and marketing expenses for the fiscal years ended April 3, 2010 and March 28, 2009.

	Fiscal Year Ended April 3, 2010	Fiscal Year Ended March 28, 2009	2010 versus 2009	
			Change	Percentage
(dollars in thousands)				
Selling and marketing				
Photovoltaic business	\$ 6,327	\$ 9,578	\$(3,251)	(34)%
Polysilicon business	5,496	7,891	(2,395)	(30)%
Total	<u>\$11,823</u>	<u>\$17,469</u>	<u>\$(5,646)</u>	(32)%

During the fiscal year ended April 3, 2010 compared to the fiscal year ended March 28, 2009, selling and marketing expenses decreased 32%, or \$5.6 million primarily related to lower commission costs. During fiscal year 2010, we reduced the number of employee and non-employee sales representatives eligible to receive commissions. Sales commissions are accrued based on operational factors such as deposits, shipments and final acceptances received from customers rather than when revenue is recognized.

General and Administrative. During fiscal year ended April 3, 2010 as compared to the fiscal year ended March 28, 2009, general and administrative expenses increased by 20%, or \$6.4 million. The increase was primarily related to increased payroll and related costs of \$7.1 million which includes \$2.3 million increased incentive compensation for fiscal year ended April 3, 2010 as a result of exceeding incentive targets. This increase is offset in part by lower legal and other professional service costs of \$0.7 million.

Amortization of Intangible Assets. Amortization expense attributed to intangible assets has remained essentially unchanged for the fiscal year ended April 3, 2010 as compared to March 28, 2009.

Interest Income. During the fiscal year ended April 3, 2010, we earned \$0.4 million in interest income, and during the fiscal year ended March 28, 2009, we earned \$3.0 million in interest income. We invested our excess cash in money market funds and short term commercial paper. Interest income decreased due to lower interest rates earned on the balances in cash and cash equivalents in the fiscal year ended April 3, 2010 as compared to fiscal year ended March 28, 2009.

Interest Expense. During the fiscal year ended April 3, 2010, we recorded interest expense of \$0.8 million, and during the fiscal year ended March 28, 2009, we recorded interest expense of \$0.5 million. Interest expense is substantially attributed to the expensing of deferred debt costs in connection with our credit facility and other related credit facility fees.

Interest Component of Forward Foreign Exchange Contracts. During the fiscal year ended April 3, 2010 the recorded interest component of our forward foreign exchange contracts was an expense of \$0.6 million. During the fiscal year ended March 28, 2009 we recorded interest income of \$2.1 million on our forward foreign exchange contracts. These amounts represent the difference between interest rates in the two countries involved in our forward foreign exchange contracts for the specified period of time and can be either a premium or discount at the beginning of the contract and are adjusted to reflect interest rate market condition changes. Such changes can result in interest income or interest expense over the life of the contract.

Other Income (Expense). During the fiscal year ended April 3, 2010, other expense, net was \$3.1 million, which included costs associated with a secondary public offering of our common stock of \$0.8 million, losses on foreign exchange of \$0.4 million, and losses of \$2.1 million recognized due to fair value adjustments on certain forward foreign exchange contracts that no longer qualified as a cash flow hedge because the hedging relationship was no longer deemed to be highly effective due to changes in the forecasted deliveries for certain Euro denominated purchase commitments. During the fiscal year ended March 28, 2009, other expense, net was \$6.0 million, which included costs of \$2.6 million associated with our initial public offering and a loss of \$3.0 million recognized due to fair value adjustments on certain forward foreign exchange contracts that no longer qualified as cash flow hedges.

Provision for Income Taxes. Our effective tax rate was approximately 38% for the both the fiscal year ended April 3, 2010 and March 28, 2009. The effective rate for both years differed from the statutory rate due primarily to a federal tax deduction based on manufacturing activities undertaken in the United States.

Net Income. As a result of the foregoing factors, for the fiscal year ended April 3, 2010, we recorded net income of \$87.3 million, compared to a net income of \$88.0 million for the fiscal year ended March 28, 2009.

Liquidity and Capital Resources

Overview

We fund our operations generally through cash generated by operations, proceeds from our credit facilities and proceeds from exercises of stock awards.

Our combined cash and cash equivalents increased by \$132.0 million during the fiscal year ended April 2, 2011, from \$230.7 million as of April 3, 2010 to \$362.7 million as of April 2, 2011. Our liquidity is affected by many factors, some based on the normal operations of the business and others related to the uncertainties of the industry and global economies.

On December 13, 2010, we entered into a credit agreement (the "Credit Agreement"), with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent ("Credit Suisse") and the lenders from time to time party thereto. The Credit Agreement consists of a term loan facility (the

“Term Facility”) in an aggregate principal amount of \$125.0 million with a final maturity date of December 13, 2013 and a revolving credit facility (the “Revolving Facility”) in an aggregate principal amount of \$75.0 million with a final maturity date of December 13, 2013. The Term Facility will be repaid in equal quarterly installments in an aggregate annual amount equal to 15% of the original principal amount of the Term Facility, with the balance payable on December 13, 2013. The full amount of the Term Facility was drawn by us on December 13, 2010 and no amounts have been drawn on the Revolving Facility. We are currently using the Revolving Facility in connection with the issuance of letters of credit. As of April 2, 2011, we had \$21.8 million of outstanding letters of credit collateralized by the Revolving Facility resulting in \$53.2 million of available credit under the Revolving Facility.

Our cash and cash equivalents balances increased by \$132.0 million during the fiscal year ended April 2, 2011, from \$230.7 million as of April 3, 2010 to \$362.7 million as of April 2, 2011 primarily related to increases in cash flow from operating activities, borrowings pursuant to the Credit Agreement, offset in part by approximately \$203.5 million in cash which was used to repurchase 26.5 million shares of our common stock from GT Solar Holdings, LLC (“Holdings”), and cash paid for the acquisition of Crystal Systems of \$22.8 million and capital expenditures related to the expansion of our sapphire materials business of \$25.1 million. During the fiscal year ended April 3, 2010, our cash and cash equivalents balance increased \$123.6 million, from \$107.1 million as of March 28, 2009 to \$230.7 million as of April 3, 2010, a portion of which related to a tax refund of \$35.3 million.

Net cash provided by operating activities in each of the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009 has allowed us to fund our working capital requirements. We manage our cash inflows through the use of customer deposits and milestone billings that are intended to allow us in turn to meet our cash outflow requirements, which consist primarily of vendor payments and prepayments for contract related costs (raw material and components costs) and payroll and overhead costs. Customer deposits are initially classified as deposits, and then reclassified to revenue or to deferred revenue when equipment has been shipped or services have been provided, but revenue has not yet been recognized. We generally make advances to suppliers after the corresponding deposit is received from our customers.

Our principal uses of cash are for raw materials and components, wages, salaries and investment activities, such as the purchase of property, plant and equipment. We outsource a significant portion of our manufacturing and therefore we require minimal capital expenditures to meet our production demands. Capital expenditures have represented less than 5% of revenue in each of the fiscal years ended April 2, 2011, April 3, 2010, and March 28, 2009. Our capital expenditures for our fiscal year ended April 2, 2011, April 3, 2010 and March 28, 2009, were \$31.3 million, \$4.6 million, and \$10.5 million respectively, which were used primarily for improving our business systems and our facilities. Our total capital expenditures in our fiscal year ending March 31, 2012 are expected to range from approximately \$25 million to approximately \$30 million, consisting primarily of improvements to our business information systems, manufacturing equipment and expected expansion of our facilities in Asia.

We believe that cash generated from operations together with our existing cash and customer deposits and any borrowings under the Credit Agreement, including the Revolving Facility, will be sufficient to satisfy working capital requirements, commitments for capital expenditures and other cash requirements for the foreseeable future, including at least the next twelve months.

Cash Flows

The following discussion of the changes in our cash balance refers to the various sections of our consolidated statements of cash flows, which appears in Item 8 of this Annual Report on Form 10-K. The following table summarizes our primary sources of cash in the periods presented:

	Fiscal Year Ended April 2, 2011	Fiscal Year Ended April 3, 2010	Fiscal Year Ended March 28, 2009
	(dollars in thousands)		
Cash provided by (used in):			
Operating activities	\$251,774	\$147,276	\$152,872
Investing activities	(34,033)	(24,540)	(10,959)
Financing activities	(85,948)	863	(89,614)
Effect of foreign exchange rates on cash	208	1	10
Net increase in cash and cash equivalents	<u>\$132,001</u>	<u>\$123,600</u>	<u>\$ 52,309</u>

Cash Flows From Operating Activities

For the fiscal year ended April 2, 2011, our cash provided by operations was \$251.8 million. Our cash flow from operations was driven by net income of \$174.8 million, an increase in customer deposits of \$23.8 million in our PV, polysilicon and sapphire businesses, an increase in deferred revenue less deferred costs of \$54.3 million, as well as an increase in accounts payable and accrued expenses of \$60.5 million. These items were partially offset by an increase in inventories and vendor advances of \$60.3 million and an increase in accounts receivable of \$33.0 million.

For the fiscal year ended April 3, 2010 our cash provided by operations was \$147.3 million. Our cash flow from operations was driven by net income of \$87.3 million, reductions in inventory and vendor advances of \$130.8 million reflecting an increase in shipments during the latter half of the fiscal year resulting in a favorable impact to cash flow, a decrease in accounts receivable of \$4.8 million and an income tax refund of \$35.3 million due to an election of a change in accounting method for tax purposes. As a result of this change in methodology, we were in an overpayment position regarding our estimated income taxes for the year ended March 28, 2009. We filed for a refund of Federal income taxes in May 2009 in the amount of \$35.3 million, which was received in June 2009. These items were partially offset by a decrease in customer deposits of \$103.0 million and a decrease in accounts payable and accrued expenses of \$22.4 million.

For the fiscal year ended March 28, 2009 our cash provided by operations was \$152.9 million which was favorably impacted by the release of restrictions on our cash of \$164.0 million. Other significant sources of cash included \$88.0 million of net income, \$77.5 million of a net increase in deferred revenue less deferred costs primarily related to the shipment of our polysilicon reactors and depreciation and amortization of \$5.1 million. The significant uses of cash were an increase in inventory and advance payments on inventory purchases of \$108.5 million as we continued to ramp up production to fulfill our backlog, an increase in accounts receivable of \$4.4 million, a decrease in customer deposits of \$41.0 million and an increase in deferred taxes of \$25.0 million. In addition, we used cash for income taxes of \$90.9 million of which \$35.3 million was refunded in fiscal year ending April 3, 2010 due to an election of a change in accounting method for tax purposes as discussed above.

Cash Flows From Investing Activities

For the fiscal year ended April 2, 2011, our cash used in investing activities was \$34.0 million. The acquisition of Crystal Systems, net of cash acquired, used approximately \$22.8 million of cash. Capital expenditures were approximately \$31.3 million and were primarily used for expanding our sapphire

business facility and improving our business information systems. These items were partially offset by the proceeds from sale of \$20.0 million of short-term investments.

During the fiscal year ended April 3, 2010, cash used in investing activities was \$24.5 million, consisting of \$4.6 million for the purchase of property, plant and equipment, and \$20.0 million for the purchase of short-term investments. Short-term investments consist of commercial paper that matures within one year from the date of purchase.

During the fiscal year ended March 28, 2009 cash used in investing activities was \$11.0 million, consisting primarily of capital expenditures of \$10.5 million as we completed the expansion of our New Hampshire headquarters and manufacturing facility as well as installation of our ERP system.

Cash Flows From Financing Activities

For the fiscal year ended April 2, 2011, cash used by financing activities was \$85.9 million, driven primarily by the repurchase of our common stock from Holdings, which was offset in part by proceeds received pursuant to the Credit Agreement.

On November 12, 2010, we repurchased 26.5 million shares of our common stock from Holdings at a per share price of \$7.66, or an aggregate of approximately \$203.5 million. The source of funds for the repurchase of these shares of common stock was our available cash.

On December 13, 2010, we entered into the Credit Agreement, which consists of the Term Facility in an aggregate principal amount of \$125.0 million with a final maturity date of December 13, 2013 and the Revolving Facility in an aggregate principal amount of \$75.0 million with a final maturity date of December 13, 2013. The full amount of the Term Facility was drawn by us on December 13, 2010 and no amounts have been drawn on the Revolving Facility. After payment of fees related to the Credit Agreement we received approximately \$115.0 million in connection with the Term Facility. In March 2011, we made a principal payment of \$4.7 million in connection with the Term Facility.

In March 2011, we paid \$3.5 million in connection with the achievement of certain targets of our contingent consideration obligation to the former shareholders of Crystal Systems. A portion of this payment has been classified as an operating cash outflow pursuant to the accounting guidance for business combinations.

In connection with entering into the Credit Agreement, we terminated our agreement with Bank of America, N.A. pursuant to which we had cash collateralized our outstanding letters of credit. In connection with entering into the Credit Agreement, the outstanding letters of credit under the previous agreement were deemed to be letters of credit under the Credit Agreement and are subject to the terms and provisions of the Credit Agreement.

During the fiscal year ended April 3, 2010, cash generated from financing activities was \$0.9 million representing the net cash from the exercise of stock options.

During the fiscal year ended March 28, 2009 cash used in financing activities was \$89.6 million of which \$90.0 million was for the payment of a dividend to stockholders of record at June 30, 2008.

Long Term Debt and Revolving Credit Facility

On December 13, 2010, we entered into the Credit Agreement, with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and the lenders from time to time party to the Credit Agreement. The Credit Agreement consists of the Term Facility, in an aggregate maximum principal amount of \$125.0 million with a final maturity date of December 13, 2013 and the Revolving Facility, in an aggregate maximum principal amount of \$75.0 million with a final maturity date of December 13, 2013. The Term Facility will be repaid in equal quarterly installments in an aggregate annual amount equal to 15% of the original principal amount of the Term Facility, with the balance payable on December 13, 2013. The proceeds of the Credit Agreement are available for general corporate purposes. The full amount of the Term Facility was drawn by us on December 13, 2010 and no amounts have been drawn on the Revolving Facility as of April 2, 2011. We use the Revolving Facility in connection with the issuance of letters of credit.

On December 13, 2010, we and the other parties to the Credit Agreement also entered into a Guarantee and Collateral Agreement, which we refer to as the Guarantee and Collateral Agreement. Pursuant to the Guarantee and Collateral Agreement, our obligations under the Credit Agreement are guaranteed by each of our wholly-owned domestic subsidiaries and secured by, among other things, a lien on substantially all of our and our wholly-owned domestic subsidiaries' tangible and intangible personal property (including but not limited to accounts receivable, inventory, equipment, general intangibles, certain investment property, certain deposit and securities accounts, certain owned real property and intellectual property), a pledge of the capital stock of each of our wholly-owned restricted domestic subsidiaries (limited in the case of pledges of capital stock of any foreign subsidiaries, to 65% of the capital stock of any first-tier foreign subsidiary), subject to certain exceptions and thresholds.

Borrowings under the Credit Agreement bear interest, at our option, at either (i) an alternate base rate or an adjusted London Interbank Offered Rate, or LIBOR, rate plus, in each case, an applicable margin. Such applicable margin will be 3.25% in the case of alternate base rate loans and 4.25% in the case of LIBOR rate loans. Interest is payable (a) in the case of alternate base rate loans, quarterly in arrears, and (b) in the case of LIBOR rate loans, at the end of each interest period, but in no event less often than every three months. A commitment fee is payable quarterly in arrears at a rate per annum equal to 0.50% of the daily unused amount of the commitments in respect of the Revolving Facility. The Term Facility borrowing rate in effect at April 2, 2011 was 4.51%.

Over the next three fiscal years, we will be required to repay the following principal amounts under the Term Facility (amounts in millions):

<u>Fiscal Year Ending</u>	<u>Principal Payments</u>
2012	\$ 18.8
2013	18.8
2014	<u>82.7</u>
Total	<u>\$120.3</u>

In March 2011, we made a required principal payment in the amount of \$4.7 million pursuant to the Term Facility in accordance with the payment schedule in the Credit Agreement. We may, at our option, prepay borrowings under the Credit Facility (in whole or in part), at anytime without penalty

subject to conditions set forth in the Credit Facility. We are required to make mandatory prepayments with:

- 50% of excess cash flow (as defined in the Credit Agreement) in any fiscal year commencing with the fiscal year ending March 31, 2012 (as reduced by voluntary repayments of the Term Facility); and
- 100% of the net cash proceeds (as defined in the Credit Agreement) of all asset sales or other dispositions of property by us and our subsidiaries, subject to certain exceptions.

In addition, if the amount of all then outstanding letters of credit exceeds \$75 million of the borrowing base, we will be obligated to pay the excess, subject to certain exceptions. The borrowing base will be determined from time to time as the sum of: (a) consolidated adjusted EBITDA (as defined in the Credit Agreement) for the four preceding fiscal quarters multiplied by 3; plus (b) the balance of unrestricted cash and cash equivalents as of the determination date. These mandatory prepayments are required to be applied pro rata to the remaining amortization payments under the Term Facility.

The Credit Agreement imposes several financial covenants on us and our subsidiaries, including, but not limited to (i) maximum capital expenditures of \$50 million during the two quarters ended April 2, 2011 and \$40 million in any fiscal year thereafter, (ii) minimum ratio of consolidated adjusted EBITDA (as defined in the Credit Agreement) to consolidated fixed charges (as defined in the Credit Agreement) ranging from 1.0 to 1 to 2.0 to 1 at various times during the term of the Credit Agreement and (iii) maximum leverage ratio (as defined in the Credit Agreement) of 0.6 to 1.0 throughout the term of the Credit Agreement. As of April 2, 2011, we were in compliance with all covenants in the Credit Agreement.

In addition, we have agreed to maintain all of our cash and permitted investments (as defined in the Credit Agreement) (which we collectively refer to as the Pledged Cash) in deposit or securities accounts in the United States that are subject to a lien in favor of the collateral agent for the benefit of the secured parties and perfected by control, provided that we shall be required to maintain Pledged Cash greater than 110% of the aggregate amount of the outstanding principal amount of the Term Facility and the revolving credit exposure (as defined in the Credit Agreement) on the last day of each fiscal quarter. The pledged cash is available to fund operations and is not restricted.

The Credit Agreement requires that we and our subsidiaries comply with covenants relating to customary matters (in addition to the financial covenants described above), including with respect to incurring indebtedness and liens, using the proceeds received under the Credit Agreement, transactions with affiliates, making investments and acquisitions, effecting mergers and asset sales, prepaying indebtedness, and restrictions on paying dividends.

The Credit Agreement includes events of default relating to customary matters, including, among other things, nonpayment of principal, interest or other amounts; violation of covenants; inaccuracies in the representations and warranties in any material respect; cross default and cross acceleration with respect to indebtedness in an aggregate principal amount of \$10.0 million or more; bankruptcy or similar proceedings or events; judgments involving liability of \$10.0 million or more that are not paid; ERISA events; actual or asserted invalidity of guarantees or security documents; and change of control.

We use amounts available under the \$75 million Revolving Facility in connection with standby letters of credit related to customer deposits. As of April 2, 2011, we had \$21.8 million of outstanding letters of credit pursuant to the Revolving Facility resulting in \$53.2 million of available credit under the Revolving Facility.

Share Repurchase

On November 12, 2010, we purchased from Holdings 26.5 million shares of our common stock at a per share price of \$7.66, or an aggregate of approximately \$203.5 million. We funded the repurchase of these shares of common stock with our available cash.

Derivatives and Hedging Activities

We enter into forward foreign exchange contracts to hedge certain cash flow exposures from the impact of changes on foreign currency exchange rates. These forward foreign exchange contracts are entered into in connection with certain foreign currency denominated inventory purchases made in the normal course of business and accordingly are not speculative in nature.

As of April 2, 2011 we had Euro denominated forward foreign exchange contracts with notional amounts of €12.7 million and Swiss Franc of 0.7 million that qualified as cash flow hedges. These contracts had a combined fair value asset of \$0.4 million as of April 2, 2011. These contracts typically expire within 12 months of the date on which they are entered into.

The notional amount of our Euro-denominated cash flow hedges was €19.9 million at April 3, 2010. These contracts had a combined net fair value liability of \$0.2 million at April 3, 2010 due primarily to changes in the Euro to U.S. dollar exchange rates.

Changes in the fair value of our cash flow hedges are recognized in stockholders' equity as a component of accumulated other comprehensive loss as these financial instruments qualify for hedge accounting.

Off-Balance Sheet Arrangements

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As such, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships.

As of April 2, 2011, we had \$21.8 million of standby letters of credit outstanding issued under the Credit Agreement representing performance guarantees issued against customer deposits. These standby letters of credit are scheduled to expire within the next twelve months and have not been included in the consolidated financial statements included herein.

Contractual Obligations and Commercial Commitments

Under generally accepted accounting principles as used in the United States, some obligations and commitments are not required to be included in the consolidated balance sheets and statements of income. These obligations and commitments, while entered into in the normal course of business, may have a material impact on liquidity.

The following table reflects our contractual obligations and commercial commitments as of April 2, 2011:

	Payments due by period				
	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
	(dollars in thousands)				
Operating lease obligations(a)	\$ 16,108	\$ 2,841	\$ 4,472	\$ 1,654	\$7,141
Purchase commitments under agreements(b) . .	293,251	288,278	4,973	—	—
Contingent Consideration Obligations(c)	15,665	5,529	10,136	—	—
Long Term Debt Obligations(d)	120,313	18,750	101,563	—	—
Interest Obligations(d)	11,789	5,074	6,715	—	—
Other long-term liabilities(e)(f)	600	—	600	—	—
Total	<u>\$457,726</u>	<u>\$320,472</u>	<u>\$128,459</u>	<u>\$ 1,654</u>	<u>\$7,141</u>

- (a) These amounts represent our minimum operating lease payments due under noncancelable operating leases. For additional information about our operating leases, refer to Note 13 of the Notes to Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.
- (b) Purchase commitments under agreements relate to arrangements entered into with suppliers of polysilicon, PV and sapphire raw materials and ancillary equipment. These agreements specify future quantities and pricing of products to be supplied by the vendors and we may be subject to a financial penalty, including forfeiting any deposits in the event that we terminate the arrangements. Certain portions of the purchase commitments are satisfied in advance of the delivery of goods in the form of prepayments, which are then offset against future orders upon delivery. As of April 2, 2011, our outstanding prepayments under certain of these purchase commitments amounted to \$20.0 million.
- (c) Consists of contingent payments, which have not been risk adjusted or discounted, that we may be obligated to pay to the former shareholders of Crystal Systems based on the full achievement of certain financial targets and technical targets.
- (d) Amounts relate to principal and interest obligations under our Credit Agreement. For additional information about our long-term debt, refer to Note 9 of the Notes to the Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K.
- (e) Other long-term liabilities reflected on our balance sheet relate to a liability related to long-term employee incentive payments.
- (f) Liabilities for unrecognized income tax benefits of \$17.7 million as of April 2, 2011 are not included in the table above as we are uncertain as to if or when such amounts may be settled.

Recent Accounting Pronouncements

Accounting Pronouncements Not Yet Adopted

In October 2009, the Financial Accounting Standards Board, or FASB, issued authoritative guidance that provides amendments to the revenue recognition criteria for separating consideration in multiple-deliverable revenue arrangements.

This guidance is effective prospectively for revenue recognition arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, which for us means April 3, 2011 (the beginning of our fiscal year 2012).

The new guidance prescribes a methodology for determining the fair value, or best estimated selling price, of deliverables on an individual element basis, including elements for which objective reliable evidence of fair value previously did not exist.

As noted in Note 2 to our Consolidated Financial Statements included elsewhere in this Annual Report on Form 10-K, under the current revenue guidance, for arrangements containing products considered to be “established”, the majority of our revenue is recognized upon delivery of the product. For arrangements containing products considered to be “new”, or containing customer acceptance provisions that are deemed more than perfunctory, revenue is recorded upon customer acceptance.

Upon adoption of the new revenue guidance we can no longer apply the residual method, but will instead utilize a relative selling price allocation. The difference between these two revenue attribution and recognition models is not expected to create significant differences in the timing of revenue recognition by the Company.

The adoption of the new guidance is not expected to have a material impact on our financial position or results of operations in fiscal year 2012.

Item 7A. *Quantitative and Qualitative Disclosures about Market Risk*

We are exposed to a variety of market risks, including changes in interest rates affecting the return on our investments and foreign currency fluctuations.

Investment Risks

We maintain an investment portfolio which, at April 2, 2011, consisted of \$196.1 million of money market funds. At any time a sharp rise in market interest rates could have an adverse impact on the fair value of our investment portfolio. Conversely, declines in market interest rates could have a material impact on the interest earnings of our investment portfolio. We do not currently hedge these interest rate exposures. We place our investments with high quality issuers and have investment policies limiting, among other things, the amount of credit exposure to any one issuer. We seek to limit default risk by purchasing only investment grade securities. Based on investment positions as of April 2, 2011 and April 3, 2010, hypothetical movement of plus or minus 50 basis points based on current market interest rates, at that time, would not have a material impact to the value of our investment portfolio or the income earned in an annual period. We also have the ability to hold our investments until maturity, and therefore do not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our investment portfolio.

Foreign Currency Risk

Although our reporting currency is the U.S. dollar and substantially all of our sales contracts are currently denominated in U.S. dollars, we incur costs denominated in other currencies. In addition, although we maintain our cash balances primarily in the U.S. dollar, from time to time, we maintain cash balances in currencies other than the U.S. dollar. As a result, we are subject to currency translation risk.

Our primary foreign currency exposure relates to fluctuations in foreign currency exchange rates, primarily the Euro for inventory purchases from vendors located in Europe. Fluctuations in exchange rates could affect our gross and net profit margins and could result in foreign exchange and operating losses. Changes in the customer’s delivery schedules can affect related payments to our vendors which could cause fluctuations in the cash flows and when we expect to make payments when these cash flows are realized or settled.

Exchange rates between a number of currencies and U.S. dollars have fluctuated significantly over the last few years and future exchange rate fluctuations may occur.

We enter into forward foreign exchange contracts that qualify as cash flow hedges to hedge portions of certain of our anticipated foreign currency denominated inventory purchases. These contracts typically expire within 12 months. Consistent with the nature of the economic hedges provided by these forward foreign exchange contracts, increases or decreases in their fair values would be effectively offset by corresponding decreases or increases in the U.S. dollar value of our future foreign currency denominated inventory purchases (i.e., "hedged items"). The information provided below relates only to the hedging instruments and does not represent the corresponding changes in the underlying hedged items.

As of April 2, 2011, we had forward foreign exchange contracts with notional amounts of €12.7 million and Swiss Franc 0.7 million, all of which expire within twelve months. As of April 2, 2011, the fair value and carrying amount of our forward foreign exchange contracts was a net asset of \$0.4 million. The notional amount of our Euro-denominated cash flow hedges was €19.9 million at April 3, 2010. These contracts had a combined net fair value liability of \$0.2 million at April 3, 2010 due primarily to changes in the Euro to U.S. dollar exchange rates.

Relative to our foreign currency exposures existing at April 2, 2011 and April 3, 2010, a 10% appreciation (depreciation) of the Euro against the U.S. dollar would result in an increase (decrease) in the fair value of these derivative instruments of approximately \$1.8 million and \$2.7 million, respectively. At April 2, 2011, a 10% appreciation (depreciation) of the Swiss Franc against the U.S. dollar would be less than \$0.1 million. We had no foreign exchange contracts denominated in Swiss Franc at April 3, 2010.

Interest Rate Risk

On December 13, 2010, we entered into the Credit Agreement which consists of the Term Facility, in an aggregate principal amount of \$125.0 million with a final maturity date of December 13, 2013 and the Revolving Facility in an aggregate maximum principal amount of \$75.0 million with a final maturity date of December 13, 2013. The Term Facility will be repaid in equal quarterly installments in an aggregate annual amount equal to 15% of the original principal amount of the Term Facility, with the balance payable on December 13, 2013. The full amount of the Term Facility was drawn on December 13, 2010 and no amounts have been drawn on the Revolving Facility.

Borrowings under the Credit Agreement bear interest, at our option, at either (i) an alternate base rate (as defined in the Credit Agreement) or (ii) an adjusted London Interbank Offered Rate, or LIBOR, rate plus, in each case, an applicable margin. Such applicable margin will be 3.25% in the case of alternate base rate loans and 4.25% in the case of LIBOR rate loans. Interest is payable (a) in the case of alternate base rate loans, quarterly in arrears, and (b) in the case of LIBOR rate loans, at the end of each interest period, but in no event less often than every three months. A commitment fee is payable quarterly in arrears at a rate per annum equal to 0.50% of the daily unused amount of the commitments in respect of the Revolving Facility. The Term Facility borrowing rate in effect at April 2, 2011, based on the LIBOR rate, was 4.51% (which amount includes the applicable margin in accordance with the Credit Agreement). If the LIBOR rate changes by 100 basis points from that in effect at April 2, 2011, our annual interest expense would change by approximately \$1.1 million. We had no comparable debt for the fiscal year ended April 3, 2010.

Item 8. *Financial Statements and Supplementary Data*

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GT Solar International, Inc. and Subsidiaries
Consolidated Balance Sheets
(In thousands)

	<u>April 2,</u> <u>2011</u>	<u>April 3,</u> <u>2010</u>
Assets		
Current assets:		
Cash and cash equivalents	\$ 362,749	\$230,748
Short-term investments	—	19,967
Accounts receivable, net of allowance for doubtful accounts of \$2,536 and \$2,620, respectively	87,134	52,620
Inventories	127,572	68,858
Deferred costs	125,805	131,986
Vendor advances	20,044	17,110
Deferred income taxes	62,539	72,868
Refundable income taxes	21,780	1,516
Prepaid expenses and other current assets	17,114	4,340
Total current assets	824,737	600,013
Non-current assets:		
Property, plant and equipment, net	54,441	19,359
Other assets	9,930	639
Intangible assets, net	22,705	3,205
Deferred cost	129,301	66,265
Goodwill	85,178	42,600
Total assets	\$1,126,292	\$732,081
Liabilities and stockholders' equity		
Current liabilities:		
Current portion of long-term debt	\$ 18,750	\$ —
Accounts payable	63,401	22,132
Accrued expenses	39,987	17,543
Contingent consideration	4,837	—
Customer deposits	144,429	119,616
Deferred revenue	247,495	229,951
Accrued income taxes	23,014	33,621
Total current liabilities	541,913	422,863
Non-current liabilities:		
Long-term debt	101,563	—
Deferred income taxes	59,080	25,661
Deferred revenue	198,022	104,396
Contingent consideration	6,391	—
Other non-current liabilities	817	175
Accrued income taxes	16,566	—
Total liabilities	924,352	553,095
Commitments and contingencies (<i>Note 13</i>)		
Stockholders' equity:		
Preferred stock, 10,000 shares authorized, none issued and outstanding	—	—
Common stock, \$0.01 par value; 500,000 shares authorized, 125,683 and 143,815 shares issued and outstanding as of April 2, 2011 and April 3, 2010 respectively	1,257	1,438
Additional paid-in capital	123,338	86,644
Accumulated other comprehensive loss	(2,852)	(5,145)
Retained earnings	80,197	96,049
Total stockholders' equity	201,940	178,986
Total liabilities and stockholders' equity	\$1,126,292	\$732,081

The accompanying notes are an integral part of these consolidated financial statements.

GT Solar International, Inc. and Subsidiaries
Consolidated Statements of Operations
(In thousands, except per share data)

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Revenue	\$898,984	\$544,245	\$541,027
Cost of revenue	<u>520,989</u>	<u>325,263</u>	<u>326,358</u>
Gross profit	377,995	218,982	214,669
Operating expenses:			
Research and development	23,753	21,410	18,323
Selling and marketing	19,792	11,823	17,469
General and administrative	56,648	38,623	32,228
Amortization of intangible assets	<u>4,500</u>	<u>3,164</u>	<u>3,105</u>
Total operating expenses	<u>104,693</u>	<u>75,020</u>	<u>71,125</u>
Income from operations	273,302	143,962	143,544
Other income (expense):			
Interest income	603	420	2,996
Interest expense	(2,922)	(758)	(483)
Interest component of forward foreign exchange contracts	(1)	(625)	2,135
Other expense, net	<u>(384)</u>	<u>(3,125)</u>	<u>(6,012)</u>
Income before income taxes	270,598	139,874	142,180
Provision for income taxes	<u>95,843</u>	<u>52,618</u>	<u>54,212</u>
Net income	<u>\$174,755</u>	<u>\$ 87,256</u>	<u>\$ 87,968</u>
Net income per share			
Basic	\$ 1.26	\$ 0.61	\$ 0.62
Diluted	\$ 1.24	\$ 0.60	\$ 0.61
Dividends paid per common share	—	—	\$ 0.632
Weighted average number of shares used in per share calculations:			
Basic	138,673	143,409	142,582
Diluted	140,902	145,390	144,471

The accompanying notes are an integral part of these consolidated financial statements.

GT Solar International, Inc. and Subsidiaries
Consolidated Statements of Changes in Stockholders' Equity
(In thousands)

	Common Stock		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity	Total Comprehensive Income
	Shares	Par Value					
Balance at March 31, 2008	142,375	\$1,424	\$ 73,817	\$ 10,816	\$ 5,584	\$ 91,641	
Share-based compensation			4,806			4,806	
Option exercises	673	7	1,170			1,177	
Common stock dividend				(89,991)		(89,991)	
Excess tax benefits from stock activity			277			277	
Net income				87,968		87,968	\$ 87,968
Other comprehensive income (loss):							
Cash flow hedge of foreign exchange (net of taxes of \$8,517)					(14,060)	(14,060)	(14,060)
Foreign currency translation adjustment					87	87	87
Balance at March 28, 2009	<u>143,048</u>	<u>1,431</u>	<u>80,070</u>	<u>8,793</u>	<u>(8,389)</u>	<u>81,905</u>	<u>\$ 73,995</u>
Share-based compensation			5,682			5,682	
Option exercises and vesting of restricted stock units	941	9	1,057			1,066	
Forfeiture of unvested restricted stock and dividend	(56)	(1)	36			35	
Excess tax benefits from share-based award activity			485			485	
Minimum tax withholdings payments for employee share-based awards	(118)	(1)	(686)			(687)	
Net income				87,256		87,256	\$ 87,256
Other comprehensive income (loss):							
Cash flow hedge of foreign exchange (net of taxes of \$1,189)					3,239	3,239	3,239
Foreign currency translation and other adjustments (net of taxes of \$2)					5	5	5
Balance at April 3, 2010	<u>143,815</u>	<u>1,438</u>	<u>86,644</u>	<u>96,049</u>	<u>(5,145)</u>	<u>178,986</u>	<u>\$ 90,500</u>
Share-based compensation			8,200			8,200	
Option exercises and vesting of restricted stock units	3,097	31	9,200			9,231	
Excess tax benefits from share-based award activity			2,546			2,546	
Minimum tax withholdings payments for employee share-based awards	(174)	(1)	(1,532)			(1,533)	
Net income				174,755		174,755	\$174,755
Other comprehensive income (loss):							
Cash flow hedge of foreign exchange (net of taxes of \$1,234)					1,742	1,742	1,742
Foreign currency translation and other adjustments					551	551	551
Common stock issued for Crystal Systems acquisition	5,445	54	30,884			30,938	\$177,048
Repurchase of common stock	(26,500)	(265)	(12,604)	(190,607)		(203,476)	
Balance at April 2, 2011	<u>125,683</u>	<u>\$1,257</u>	<u>\$123,338</u>	<u>\$ 80,197</u>	<u>\$ (2,852)</u>	<u>\$201,940</u>	

The accompanying notes are an integral part of these consolidated financial statements.

GT Solar International, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(In thousands)

	Fiscal Year Ended April 2, 2011	Fiscal Year Ended April 3, 2010	Fiscal Year Ended March 28, 2009
Cash flow from operating activities			
Net income	\$ 174,755	\$ 87,256	\$ 87,968
<i>Adjustments to reconcile net income to net cash provided by operating activities:</i>			
Amortization expense	4,500	3,164	3,105
Depreciation expense	5,167	3,706	2,006
Contingent consideration expense	1,834	—	—
Deferred income tax expense (benefit)	33,549	(39,192)	24,971
Provision for excess and obsolete inventory	2,081	6,899	2,585
Share based compensation expense	8,224	5,682	4,806
Other adjustments, net	1,307	817	777
<i>Changes in operating assets and liabilities (excluding impact of acquired assets and assumed liabilities):</i>			
Restricted cash	—	—	164,028
Accounts receivable	(32,976)	4,838	4,416
Inventories	(57,787)	27,722	(68,470)
Deferred costs	(56,855)	13,353	(106,450)
Vendor advances	(2,472)	103,119	(42,592)
Prepaid expenses and other assets	(12,404)	(2,429)	(961)
Accounts payable and accrued expenses	60,474	(22,406)	7,130
Customer deposits	23,809	(103,038)	(40,979)
Deferred revenue	111,170	(13,780)	183,937
Accrued income taxes	5,949	36,968	(22,168)
Refundable income taxes	(20,264)	35,307	(40,329)
Other, net	1,713	(710)	(10,908)
<i>Net cash provided by operating activities</i>	<u>251,774</u>	<u>147,276</u>	<u>152,872</u>
Cash flows from investing activities			
Purchases and maturities of short-term investments	20,000	(19,967)	—
Purchases and sales of property, plant and equipment	(31,263)	(4,573)	(10,509)
Acquisition of Crystal Systems, net of acquired cash	(22,770)	—	—
Other investing activities, net	—	—	(450)
<i>Net cash used in investing activities</i>	<u>(34,033)</u>	<u>(24,540)</u>	<u>(10,959)</u>
Cash flows from financing activities			
Borrowings under credit facility	125,000	—	—
Principal payments under credit facility	(4,687)	—	—
Payment of dividends to stockholders	—	—	(89,991)
Payment of contingent consideration from business combinations	(3,107)	—	—
Proceeds and excess tax benefit from exercise of stock options	11,777	1,550	1,454
Payments related to share repurchases to satisfy statutory minimum tax withholdings	(1,533)	(687)	—
Repurchase of common stock	(203,476)	—	—
Deferred financing costs	(9,922)	—	(1,077)
<i>Net cash provided by (used in) financing activities</i>	<u>(85,948)</u>	<u>863</u>	<u>(89,614)</u>
Effect of foreign exchange rates on cash	208	1	10
<i>Increase in cash and cash equivalents</i>	<u>132,001</u>	<u>123,600</u>	<u>52,309</u>
Cash and cash equivalents at beginning of year	230,748	107,148	54,839
Cash and cash equivalents at end of year	<u>\$ 362,749</u>	<u>\$ 230,748</u>	<u>\$ 107,148</u>
Non-cash transactions:			
Change in goodwill relating to adjustments to acquired net assets	\$ —	—	\$ 590
Supplemental disclosures of cash flow information and non-cash transactions:			
Cash paid for interest (net of amounts capitalized)	\$ 1,548	\$ 407	\$ 597
Cash paid for income taxes, net of refunds	\$ 75,332	\$ 18,196	\$ 90,866
Increase in accounts payable and accrued expenses for property, plant & equipment	\$ 1,738	—	—

The accompanying notes are an integral part of these consolidated financial statements.

GT Solar International, Inc. and Subsidiaries

Notes to Consolidated Financial Statements

April 2, 2011

(In thousands, except per share data)

1. Organization

GT Solar International, Inc., through its subsidiaries (the "Company") is a global provider of polysilicon production technology and multicrystalline ingot growth systems and related photovoltaic manufacturing services for the solar industry, and sapphire growth systems and material for the LED and other specialty markets. The Company's customers include several of the world's largest solar companies as well as companies in the chemical industry.

The Company's principal products are:

- Chemical vapor deposition (CVD) reactors and related equipment used to produce polysilicon, the key raw material used in silicon-based solar wafers and cells;
- Directional solidification (DSS) furnaces and related equipment used to cast multicrystalline silicon ingots by melting and cooling polysilicon in a precisely controlled process. These ingots are used to make photovoltaic (PV) wafers which are, in turn, used to make solar cells;
- Advanced sapphire furnaces (ASF) used to crystallize sapphire boules by melting and cooling aluminum oxide in a precisely controlled process. These sapphire boules are used to make sapphire wafers, the preferred substrate for manufacturing light emitting diode (LED) devices and for use in other specialty markets; and
- Sapphire material produced in our sapphire production facility and sold directly to customers. These materials are primarily used to make a variety of products such as epitaxial-ready wafers for the LED industry and other specialty markets.

GT Solar International, Inc. was originally incorporated in Delaware in September 2006. On September 27, 2006, it completed an internal reorganization through which GT Solar International, Inc. became the parent company of GT Solar Incorporated, its principal operating subsidiary.

In July 2008, the Company completed an initial public offering of 30,300,000 shares of common stock by GT Solar Holdings, LLC. In March 2010, the Company completed a secondary public offering of 28,750,000 shares of common stock by GT Solar Holdings, LLC.

On July 29, 2010, we acquired privately-held Crystal Systems, Inc., ("Crystal Systems"), a crystal growth technology company that produces sapphire material used for LED applications, as well as other specialty markets, such as medical, research, aerospace industries and defense.

In September 2010, the Company completed a secondary offering of 11,000,000 shares of common stock by GT Solar Holdings, LLC. At the same time the Company completed an additional secondary offering of 14,000,000 shares of common stock by GT Solar Holdings, LLC, such sale was made to UBS AG and UBS Securities LLC in connection with an offering by UBS AG of its Mandatorily Exchangeable Notes due 2013.

On November 12, 2010, GT Solar International, Inc. repurchased 26,500,000 shares of the Company's common stock from GT Solar Holdings, LLC using cash.

The Company is headquartered in Merrimack, NH and sells its products worldwide. The Company also has locations in Nashua, New Hampshire, Salem, Massachusetts, Missoula, Montana; Shanghai and

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

1. Organization (Continued)

Beijing, China; Hong Kong; and Chupei City, Taiwan. We operate through three business segments: our polysilicon business, our photovoltaic, or PV, business and our sapphire business.

2. Significant Accounting Policies

The accompanying consolidated financial statements reflect the application of certain significant accounting policies, as described in this note and elsewhere in these notes.

Principles of Consolidation. The accompanying consolidated financial statements include the accounts of the Company and all of its wholly-owned subsidiaries. All material intercompany accounts and transactions have been eliminated.

Foreign Currency Translation. For foreign subsidiaries where the functional currency is the local currency, assets and liabilities are translated into U.S. dollars at the current exchange rate on the balance sheet date. Revenue and expenses are translated at average rates of exchange prevailing during each period. Translation adjustments for these subsidiaries are included in accumulated other comprehensive loss.

For foreign subsidiaries where the functional currency is the U.S. dollar, monetary assets and liabilities are translated into U.S. dollars at the current exchange rate on the balance sheet date. Nonmonetary assets and liabilities are remeasured into U.S. dollars at historical exchange rates. Revenue and expense items are translated at average rates of exchange prevailing during each period.

Realized and unrealized foreign currency gains and losses arising from transactions denominated in currencies other than the subsidiary's functional currency are reflected in earnings with the exception of intercompany transactions considered to be of a long-term investment nature.

In the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, net foreign currency transaction losses of \$85, \$2,411 and \$3,290, respectively, are included in other expense, net.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the related disclosure of contingent assets and liabilities. Management evaluates estimates on an ongoing basis, including those related to revenue recognition, allowance for doubtful accounts, inventory valuation, deferred tax assets and liabilities, property and equipment, goodwill and other intangible assets, warranty obligations, contingent consideration, other contingencies and share-based compensation. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the then current circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. The intent is to accurately state assets and liabilities given facts known at the time. These assumptions may prove incorrect as facts change in the future. Actual results may differ materially from these estimates under different assumptions or conditions.

Fiscal Year End. The Company's reporting period is based on a 52-week year that ends on the Saturday closest to March 31, which in certain years results in a 53-week fiscal year. The Company's

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

quarterly reporting includes 13 week periods, unless otherwise noted. The fiscal year ended April 3, 2010 had 53 weeks, with the extra week occurring in the fourth quarter. The Company uses the terms quarterly, monthly, and annual in describing its financial results.

Cash Equivalents. The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Short-Term Investments. Marketable securities with maturities greater than 90 days, but less than one year at purchase, are recorded as short-term investments. The Company has classified its marketable securities as "available-for-sale." These marketable securities are recorded at fair value and unrealized gains and losses are recorded to accumulated other comprehensive loss until realized. Realized gains and losses on sales of all these securities are reported in earnings, computed using the specific identification cost method. Declines in value determined to be other-than-temporary on available-for-sale securities are recorded within other expense, net. At April 2, 2011, the Company did not hold any short-term investments.

Accounts Receivable and Allowance for Doubtful Accounts. The Company carries its accounts receivable at their face amounts less an allowance for doubtful accounts. On a periodic basis, the Company evaluates its accounts receivable and establishes the allowance for doubtful accounts based on a combination of specific customer circumstances and credit conditions and based on a history of write-offs and collections. Where the Company is aware of a customer's inability to meet its financial obligations, it specifically reserves for the potential bad debt to reduce the net recognized receivable to the amount it reasonably believes will be collected. The Company's policy is generally not to charge interest on trade receivables after the invoice becomes past due. A receivable is considered past due if payments have not been received within agreed-upon invoice terms. Accounts are reviewed regularly for collectability and those deemed uncollectible are written off.

Fair Value of Financial Instruments. The fair value of a financial instrument is the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. The carrying values of cash and cash equivalents, accounts receivable, accounts payable, accrued liabilities and long-term debt approximate their respective fair values due to their short-term maturities or market interest rates. Marketable securities and foreign currency derivatives are carried at fair value based on quoted market prices for financial instruments with similar characteristics.

Concentration of Credit Risk. Financial instruments that potentially subject the Company to significant concentration of credit risk include its money market fund investments (categorized as cash and cash equivalents) and its investment in commercial paper (categorized as short-term investments). The Company's policy is to invest only with high quality issuers and has policies limiting, among other things, the amount of credit exposure to any one issuer.

In addition, the Company has credit risk from derivative financial instruments used in hedging activities and accounts receivable. The Company invests in a variety of financial instruments and limits the amount of financial exposure to any one financial institution. The Company has a comprehensive credit policy in place and exposure to credit risk is monitored on an ongoing basis. Credit evaluations

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

are performed on all customers requiring credit over a certain amount. Credit risk is mitigated through collateral such as letter of credit, bank guarantees or payment terms like cash in advance. The credit risk from derivative financial instrument is described further under the following caption—*Derivative Financial Instruments and Hedging Instruments*.

Inventories. Inventories are stated at the lower of cost or market. The cost of inventory is determined using the first-in, first-out (FIFO) method. The Company records excess and obsolete inventory charges for both inventories on site as well as inventory at contract manufacturers and suppliers.

Purchase Commitments. The Company enters into commitments to purchase material from various suppliers in the ordinary course of business. These commitments are entered into to satisfy the material requirements of a specific contract or the overall production plan and often require the Company to make payments in advance. The Company evaluates these advances for recoverability on a periodic basis and more frequently if indicators of asset impairment arise.

In the event the Company reschedules and/or cancels a portion of these commitments due to customer delivery delays, customer contract terminations or changes to its production plans, the Company may be liable for cancellation penalties or be required to purchase material in excess of its current expected demand. In such instances, the Company reviews the contractual terms of its purchase commitments and seeks to negotiate with the vendor to minimize any potential loss. In cases where the cancellation is the result of a customer contract termination or delay in customer delivery, the Company may seek to recover the costs incurred.

The Company accrues as cost of revenue losses estimated on advances which are not considered recoverable because of a deterioration in the financial condition of the vendor or because the advances are expected to be forfeited as part of a planned order termination and any termination fees which may be paid to vendors when the Company terminates the contract in accordance with the contract terms.

Property, Plant and Equipment. Land, land improvements, buildings and manufacturing and equipment are stated at cost. Depreciation is provided, primarily using the straight-line method, over estimated useful lives, ranging from 3 to 15 years for manufacturing equipment and furniture and fixtures, and up to 40 years for buildings. Leasehold improvements are capitalized and depreciated over the lesser of the useful life or the initial lease term. The Company capitalizes certain computer software and software development costs incurred in connection with developing our computer software for internal use. Capitalized software costs are included in property, plant and equipment, net, on the Company's consolidated balance sheet and depreciated on a straight-line basis over the estimated useful lives of the software. Expenditures for repairs and maintenance are charged to expenses as incurred.

Intangibles and other Long-Lived Assets. The Company periodically assesses its intangible and other long-lived assets for impairment, at least annually, and whenever events or changes in circumstances suggest that the carrying value of an asset may not be recoverable. The Company recognizes an impairment loss for intangibles and other long-lived assets if the carrying amount of a long-lived asset

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

is not recoverable based on its undiscounted future cash flows. Any such impairment loss is measured as the difference between the carrying amount and the fair value of the asset.

Goodwill. Goodwill represents the excess of the cost of acquired businesses over the fair value of identifiable net assets acquired. The Company performs an annual assessment of its goodwill as of the beginning of the fourth fiscal quarter for impairment or whenever events or changes in circumstances indicate there might be impairment.

Goodwill is evaluated at the reporting unit level and is attributable to the Company's PV and Sapphire businesses. To test for impairment, the Company compares the carrying value of the reporting unit to its fair value. If the reporting unit's carrying value exceeds its fair value, the Company would record an impairment loss to the extent that the carrying value of goodwill exceeds its implied fair value.

Warranty. The Company's polysilicon products are sold with a standard warranty typically for a period not exceeding twenty-four months from delivery. The Company's PV and sapphire equipment are generally sold with a standard warranty for a period equal to the shorter of: (i) twelve months from the date of acceptance by the customer; or (ii) fifteen months from the date of shipment. The warranty is typically provided on a repair or replacement basis and is not limited to products or parts manufactured by the Company. The Company's sapphire material products are generally sold with a standard warranty for a period not greater than thirty days, but may be for longer periods in certain circumstances. The Company accrues an estimate of the future costs of meeting warranty obligations when products are shipped. The Company makes and revises this estimate based on the number of units under warranty and our historical experience with warranty claims.

Derivative Financial Instruments and Hedging Agreements. The Company enters into forward foreign exchange contracts to hedge cash flow exposures from the impact of changes in foreign exchange rates. Such exposures result primarily from purchase orders for inventory and equipment that are denominated in currencies other than the U.S. dollar, primarily the Euro. These foreign exchange forward contracts are entered into to support purchases made in the normal course of business and to hedge operational rights, and accordingly, are not speculative in nature. The Company does not enter into any hedging arrangements for speculative purposes. The Company's hedges relate to anticipated transactions, are designated and documented at the inception of the respective hedges as cash flow hedges and are evaluated for effectiveness quarterly.

The Company records all derivative financial instruments in the consolidated financial statements in other current assets or accrued liabilities, depending on their net position, at fair value. Changes in the fair value of the derivative financial instruments are either recognized periodically in earnings or in stockholders' equity as a component of accumulated other comprehensive income ("AOCI") or loss depending on whether the derivative financial instrument qualifies for hedge accounting. The effective portion of any changes in the fair value of forward contracts that have been designated and qualify as cash flow hedges is recorded in AOCI until the hedged transaction occurs or the recognized currency transaction affects earnings. Once the hedged transaction occurs or the recognized currency transaction affects earnings, the effective portion of any related gains or losses on the cash flow hedge is

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

reclassified from AOCI to earnings. Changes in fair values of derivatives not qualifying for hedge accounting are reported in earnings as they occur. The Company classifies the cash flows from hedging transactions in the same categories as the cash flows from the respective hedged items.

Hedge accounting is discontinued when it is determined that a derivative instrument is no longer an effective hedge. Any gains or losses that were accumulated in other comprehensive income from hedging a forecasted transaction will be recognized immediately in current period earnings due to changes in expectations on the original forecasted transaction.

Derivative financial instruments involve, to a varying degree, elements of market and credit risk not recognized in consolidated financial statements. The market risk associated with these instruments resulting from currency exchange rate or interest rate movements is expected to offset the market risk of the underlying transactions, assets and liabilities being hedged. The counterparties to the agreements relating to the Company's foreign exchange instruments are major international financial institutions with high credit ratings. The Company does not believe that there is significant risk of nonperformance by the counterparties because the Company monitors the credit rating of such counterparties. While the contract or notional amounts of derivative financial instruments provide one measure of the volume of these transactions, they do not represent the amount of the Company's exposure to credit risk. The amounts potentially subject to credit risk (arising from the possible inability of the counterparty to meet the terms of the contracts) are generally limited to the amounts, if any, by which the counterparty's obligations under the contracts exceed the obligations of the Company to the counterparty.

Income Taxes. The Company provides for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined based on the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company records net deferred tax assets to the extent it believes these assets will more likely than not be realized. All available positive and negative evidence is reviewed in making a determination. The evidence includes future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies and recent financial operations. In the event the Company determines that it would be able to realize deferred income tax assets in the future in excess of their net recorded amount, an adjustment to the valuation allowance would be recorded which would reduce the provision for income taxes.

The Company assesses its income tax positions and records tax benefits based upon management's evaluation of the facts, circumstances, and information available at the reporting date. For those tax positions where it is more-likely-than-not that a tax benefit will be sustained, the Company records the largest amount of tax benefit with a greater than 50 percent likelihood of being realized upon ultimate settlement with a taxing authority having full knowledge of all relevant information. For those income tax positions where it is not more-likely-than-not that a tax benefit will be sustained, no tax benefit is recognized in the financial statements. The Company classifies liabilities for uncertain tax positions as

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

non-current liabilities unless the uncertainty is expected to be resolved within one year. The Company classifies charges for interest and penalties on uncertain tax positions as income tax expense.

The Company classifies tax benefits realized upon the exercise of stock options in excess of that which is associated with the expense recognized for financial reporting purposes, along with any deficiencies to the extent of prior period gains, within additional paid-in capital. The excess tax benefits are presented as a financing cash inflow rather than as a reduction of income taxes paid in the consolidated statement of cash flows.

Share-Based Compensation. The Company grants stock options, restricted stock and restricted stock units at the discretion of the Board of Directors or a committee thereof, to certain employees and members of the Board of Directors.

The Company's stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as expense over the requisite service period, which generally represents the vesting period, and includes an estimate of the awards that will be forfeited. The Company uses the Black-Scholes valuation model for estimating the fair value on the date of grant of stock options. The fair value of stock option awards is affected by the Company's stock price as well as valuation assumptions, including the volatility of the Company's stock price, expected term of the option, risk-free interest rate and expected dividends.

Customer Deposits and Payment Terms. The Company's payment terms with customers typically include a deposit which is recorded as customer deposits until such time as the products are shipped. The Company sometimes is requested by its customers to issue letters of credit, or LOC's, in order to secure customer deposits. Generally, such a letter of credit expires upon shipment to the customer. In addition to cash deposits, customers are also generally required to either post a letter of credit or make advance payments at least equal to 90% of the value of the equipment prior to shipment. Upon shipment, the Company will invoice all but a final portion (typically 10%) for each product shipped with the remainder due upon customer acceptance. The Company's contracts with customers do not provide for any refunds for services or products and therefore no specific reserve for such is maintained. In instances where customers raise concerns over delivered products or services, the Company has endeavored to remedy the concern and all costs related to such matters have been insignificant in all periods presented.

At April 2, 2011 and April 3, 2010, the Company had \$21,763 and \$33,094, respectively, of standby letters of credit outstanding representing primarily performance guarantees issued against customer deposits. These standby letters of credit have not been included in the consolidated financial statements and have been issued under the Company's Revolving Credit Facility.

Revenue Recognition. The Company recognizes revenue provided title and risk of loss have passed to the customer, evidence of an arrangement exists, fees are contractually fixed or determinable, collectability is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. The application of Company's revenue recognition policies for established products differ from its newer products.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

Multiple contracts with a single customer or amendments to existing contracts with the same customer are evaluated as to whether they should be recognized as separate accounting arrangements from other contracts with the customer based on an evaluation of several factors including but not limited to the timing of when contracts were negotiated and executed, whether the equipment is interdependent in terms of design, technology or function and whether payment terms coincide. If contracts are considered linked for accounting purposes they are accounted for as one arrangement.

For arrangements containing products that the Company considers to be “established,” the Company recognizes upon delivery revenue equal to the lesser of the amount allocated to the equipment or the contractual amount due (typically 90%) with the remainder recognized upon completion of installation. For arrangements containing products considered to be “new,” or containing customer acceptance provisions that are deemed to be more than perfunctory, revenue is recorded upon customer acceptance or at the time the product is determined to be “established”. For the standard DSS and ASF furnace contracts, a portion of the total sales price (typically 10%) is not due until installation and customer acceptance occurs. For other arrangements, a portion of the total sales price is due upon reaching certain performance metrics and customer acceptance of such specifications.

Products are classified as “established” products if post-delivery acceptance provisions and the installation process have been determined to be routine, due to the fact that the acceptance provisions are generally a replication of pre-shipment procedures. The majority of products and subcomponents are manufactured to a standard specification. To ensure contractual performance levels are satisfied, the products and subcomponents are often tested at either the Company’s manufacturing facility or that of the Company’s third party manufacturer prior to shipment. To the extent that customers’ conditions cannot be replicated in the Company’s facilities or if there is not a demonstrated history of meeting newer customer specifications, then the product is treated as “new” for revenue recognition purposes, as customer acceptance would be considered an element in these transactions.

In determining when a “new” product is considered “established”, the Company considers several factors including: the stability of the product’s technology, the ability to test the product prior to shipment, successful installations at customers’ sites, and the performance results once installed. The Company generally believes that the above coupled with a minimum of 3 to 5 successful customer installations and acceptances is necessary to support the conclusion that there are no uncertainties regarding customer acceptances and that the installation process can be considered perfunctory. These factors as well as the consideration of the ease of installation in different customer environments are all taken into consideration in determining whether a product should be classified as “established”.

The majority of the Company’s contracts involve the sale of equipment and services under multiple element arrangements. Revenue under multiple element arrangements is allocated to all elements based upon their relative fair values. To be considered a separate element, the product or service in question must represent a separate unit of accounting, and fulfill the following criteria: “(a) the delivered item(s) has value to the customer on a standalone basis; (b) there is objective and reliable evidence of the fair value of the undelivered item(s); and (c) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item(s) is

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

considered probable and substantially in the control of the Company.” The Company’s sales arrangements do not include a general right of return.

In certain circumstances the Company enters into contracts that grant contractual rights which are considered a separate element and require revenue to be recognized ratably over the period commencing when all other elements have been delivered and other contract criteria have been met and through the period when such rights expire.

As a part of its revenue arrangements, the Company sells certain equipment for which the Company has not been able to obtain objective evidence of fair value. If objective evidence does not exist for the undelivered elements of the arrangement, all revenue is deferred until such evidence does exist, or until all elements for which the Company does not have objective evidence of fair value are delivered, whichever is earlier assuming all other revenue recognition criteria are met. Once there is objective evidence of the fair value of undelivered elements, the amount allocated to equipment and parts is based on the residual method. Under this method, the total arrangement value is allocated first to undelivered elements, based on their fair values, with the remainder being allocated to the delivered elements.

The Company has determined that installation and training services are not integral to the stand-alone value of certain products. Typically the Company performs training at the same time as the installation process. The value of the undelivered installation and training services is deferred at an amount equal to the greater of the estimated fair value of the installation or any portion of the sales price that will not be received until the installation is complete. The amount allocated to installation and training is based upon the estimated time to complete the installation and training at the established fair value hourly rates. Objective evidence of fair value for these services is based on what the Company charges for similar professional services on a stand-alone basis and what third-party contractors would charge when performing similar services.

Spare parts revenue is generally recognized upon shipment and services revenue is generally recognized as the services are provided.

The Company records reimbursable out-of-pocket expenses and shipping as both revenue and as a direct cost of revenue, as applicable. The Company records revenue net of applicable sales and value added taxes collected. Taxes collected from customers are recorded as part of accrued expenses on the balance sheet and are remitted to state and local taxing jurisdictions based on the filing requirements of each jurisdiction.

When a customer fails to perform its contractual obligations and such failure continues after notice of breach and a cure period, the Company may terminate the contract. The Company’s contracts do not contain cancellation provisions and in the event of a customer breach, the customer may be liable for contractual damages. At the time of termination, the Company records as revenues any non-refundable deposits or deferred revenue amounts and records as cost of revenue any previously deferred cost as well as any related costs to terminate the contract including excess or obsolete inventory or unrecoverable vendor advances or other purchase commitment costs as a result of the termination.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

2. Significant Accounting Policies (Continued)

Deferred Revenue and Deferred Costs. Deferred revenue includes amounts that have been billed per the contractual terms but have not been recognized as revenue. Deferred costs represent costs related to deferred revenues and include the cost of manufactured or acquired inventory items, capitalized labor and related overhead for engineering services and turnkey contracts, and in certain cases shipping costs. The Company classifies as long-term the portion of deferred revenue and deferred costs that are expected to be recognized beyond the next fiscal year.

Research and Development Costs. Research and development costs are expensed as incurred.

Accounting Pronouncements Not Yet Adopted. In October 2009, the FASB issued authoritative guidance that provides amendments to the revenue recognition criteria for separating consideration in multiple-deliverable revenue arrangements.

This guidance is effective prospectively for revenue recognition arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010, which for the Company means April 3, 2011 (the beginning of the Company's fiscal year).

The new guidance prescribes a methodology for determining the fair value, or best estimated selling price, of deliverables on an individual element basis, including elements for which objective reliable evidence of fair value previously did not exist.

As noted in the Company's revenue recognition footnote, under the current revenue guidance, for arrangements containing products considered to be "established", the majority of our revenue is recognized upon delivery of the product. For arrangements containing products considered to be "new", or containing customer acceptance provisions that are deemed more than perfunctory, revenue is recorded upon customer acceptance.

Upon adoption of this new revenue guidance, the Company can no longer apply the residual method, but will instead utilize a relative selling price allocation. The difference between these two revenue attribution and recognition models is not expected to create significant differences in the timing of revenue recognition by the Company.

The adoption of this new guidance is not expected to have a material impact on the Company's financial position or results of operations in fiscal year 2012, although material modifications to existing agreements may impact the amount of currently deferred revenue.

3. Acquisition of Crystal Systems, Inc.

On July 29, 2010, the Company acquired 100% of the outstanding shares of common stock of Crystal Systems, a crystalline growth technology company that manufactures sapphire materials used in LED applications, and other sapphire components used in other specialty markets. The acquisition of Crystal Systems provides the Company access to certain technologies and an expanded product portfolio. The purchase consideration consisted of \$24,798 in cash, 5,445 shares of the Company's common stock valued at \$30,938 (on the date of acquisition) and potential additional \$18,650 contingent consideration based on the attainment of certain financial and technical targets through the period ending March 31, 2012. The fair value of the contingent consideration was estimated at \$12,500

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

3. Acquisition of Crystal Systems, Inc. (Continued)

at the date of acquisition. A component of the purchase price remains subject to working capital adjustments that have not been finalized.

The transaction has been accounted for as a business combination and is included in the Company's results of operations from July 29, 2010, the date of acquisition. The acquired business contributed revenues of \$15,305 to the Company for the period from acquisition to April 2, 2011. The results of the acquired business are included in the Company's sapphire business segment.

Significant judgment is required in estimating the fair value of intangible assets acquired in a business combination and in assigning their respective useful lives. The Company employed the income method to estimate the fair value of intangible assets, which was based on forecasts of the expected future cash flows attributable to the respective assets. Significant estimates and assumptions inherent in the valuations reflect a consideration of marketplace participants assumptions, and include the amount and timing of future cash flows (including expected growth rates and profitability), the underlying product life cycles, economic barriers to entry, a brand's relative market position and the discount rate applied to the cash flows, among others.

As of April 2, 2011, the purchase price (including the estimated contingent consideration) and related allocations for the acquisition are subject to a final working capital adjustment, that the Company expects will not be material. Prior to the resolution of the working capital adjustment, the Company recognized approximately \$42,578 of goodwill which is primarily due to the expected future cash flows from yet undeveloped intangible assets such as future technology and the assembled workforce. The goodwill created by the transaction is nondeductible for tax purposes. A summary of the purchase price allocation for the acquisition of Crystal Systems is as follows:

Fair value of consideration transferred:

Cash	\$24,798
Common stock	30,938
Contingent consideration obligations	<u>12,500</u>
Total fair value of consideration	<u>\$68,236</u>

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

3. Acquisition of Crystal Systems, Inc. (Continued)

Fair value of assets acquired and liabilities assumed:

Cash	\$ 2,028
Accounts receivable	1,405
Inventories	2,841
Prepaid expenses and other assets	589
Property, plant and equipment	7,467
Intangible assets	24,000
Deferred tax assets	726
Goodwill	42,578
Customer deposits	(974)
Accounts payable, accrued expenses and other non-current liabilities	(1,510)
Deferred tax liabilities	<u>(10,914)</u>
Total net assets acquired	<u>\$ 68,236</u>

The purchase consideration included contingent consideration payable by the Company upon the achievement of a revenue target for calendar year 2010 and revenue and gross margin targets for the fiscal year ending March 31, 2012, as well as technical targets relating to the commissioning of a predetermined number of crystal-growth furnaces and development of ingot growth processes. The Company determined the fair value of the contingent consideration obligations based on a probability-weighted income approach derived from financial performance estimates and probability assessments of the attainment of certain technical targets. Each period the Company revalues the contingent consideration obligations associated with the acquisition to fair value and records changes in the fair value as contingent consideration expense. Increases or decreases in the fair value of the contingent consideration obligations can result from changes in assumed discount periods and rates, changes in the assumed timing and amount of revenue and expense estimates and changes in assumed probability with respect to the attainment of certain financial and operational metrics. Significant judgment is employed in determining these assumptions as of the acquisition date and for each subsequent period. Accordingly, future business and economic conditions, as well as changes in any of the assumptions described above, can materially impact the amount of contingent consideration expense recorded in any given period. During the fiscal year ended April 2, 2011, the Company recorded contingent consideration expense of \$2,262 as general and administrative expenses. The fair value of the Company's contingent consideration obligations is \$11,228 at April 2, 2011. The undiscounted range of probable outcomes that the Company initially used to value the contingent consideration arrangement was between \$16,000 and \$18,650.

During March 2011, the Company paid \$3,534 to the shareholders of Crystal Systems in connection with the attainment of a revenue target for the calendar year 2010 portion of the contingent consideration obligation.

The Company incurred transaction costs of \$837 in connection with the acquisition, which consisted primarily of legal and accounting fees. These costs have been recorded as general and administrative expense within the fiscal year ended April 2, 2011.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

3. Acquisition of Crystal Systems, Inc. (Continued)

The acquisition of Crystal Systems did not have a material effect on the Company's results of operations. Pro forma results of operations have not been presented due to the immaterial nature of these amounts.

4. Goodwill and Other Intangible Assets

The following table contains the change in the Company's goodwill during fiscal year ended April 2, 2011:

	<u>Photovoltaic Business</u>	<u>Sapphire Business</u>	<u>Total</u>
Balance as of April 3, 2010	\$42,600	\$ —	\$42,600
Acquisition of Crystal Systems	—	42,578	42,578
Balance as of April 2, 2011	<u>\$42,600</u>	<u>\$42,578</u>	<u>\$85,178</u>

Acquired intangible assets subject to amortization at April 2, 2011 and April 3, 2010 consisted of the following:

	<u>Weighted Average Amortization Period</u>	<u>April 2, 2011</u>			<u>April 3, 2010</u>		
		<u>Gross Amount</u>	<u>Accumulated Amortization</u>	<u>Net</u>	<u>Gross Amount</u>	<u>Accumulated Amortization</u>	<u>Net</u>
Photovoltaic & Polysilicon:							
Customer relationships	6.0 years	\$ 4,200	\$ 3,675	\$ 525	\$ 4,200	\$ 2,975	\$1,225
Technology	4.5 years	8,000	8,000	—	8,000	6,885	1,115
Trade names	6.0 years	2,400	2,100	300	2,400	1,700	700
Supplier relationships	5.0 years	1,100	1,100	—	1,100	935	165
Subtotal:		<u>15,700</u>	<u>14,875</u>	<u>825</u>	<u>15,700</u>	<u>12,495</u>	<u>3,205</u>
Sapphire:							
Customer relationships	6.0 years	\$ 4,100	\$ 456	\$ 3,644	—	—	—
Technology	10.0 years	17,300	1,153	16,147	—	—	—
Order backlog	1.5 years	500	300	200	—	—	—
Trade names	8.0 years	1,100	92	1,008	—	—	—
Non-compete agreements	5.8 years	1,000	119	881	—	—	—
Subtotal:		<u>24,000</u>	<u>2,120</u>	<u>21,880</u>	<u>—</u>	<u>—</u>	<u>—</u>
		<u>\$39,700</u>	<u>\$16,995</u>	<u>\$22,705</u>	<u>\$15,700</u>	<u>\$12,495</u>	<u>\$3,205</u>

Amortization expense for intangible assets was \$4,500, \$3,164, and \$3,105 for the fiscal years ended April 2, 2011, April 3, 2010, and March 28, 2009 respectively.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

4. Goodwill and Other Intangible Assets (Continued)

The weighted average remaining amortization periods for the (i) Photovoltaic & Polysilicon and (ii) Sapphire intangibles were .75 years and 8.2 years, respectively, as of April 2, 2011. As of April 2, 2011, the estimated future amortization expense for the Company's intangible assets is as follows:

<u>Fiscal Year Ending</u>	<u>Amortization Expense</u>
2012	\$3,738
2013	2,747
2014	2,730
2015	2,697
2016	2,680
Thereafter	8,113

5. Customer Concentrations

The following customers comprised 10% or more of the Company's total net revenues or total accounts receivable for the periods indicated:

	<u>Fiscal Year Ended April 2, 2011</u>		<u>Fiscal Year Ended April 3, 2010</u>		<u>Fiscal Year Ended March 28, 2009</u>		<u>April 2, 2011 Accounts Receivable</u>		<u>April 3, 2010 Accounts Receivable</u>	
	<u>Revenue</u>	<u>% of Total</u>	<u>Revenue</u>	<u>% of Total</u>	<u>Revenue</u>	<u>% of Total</u>	<u>Amount</u>	<u>% of Total</u>	<u>Amount</u>	<u>% of Total</u>
Photovoltaic Customers										
Customer #1	\$172,627	19%	*	%	*	%	*	%	*	%
Customer #2	*	%	*	%	\$ 74,533	14%	*	%	*	%
Customer #3	*	%	*	%	57,896	11%	*	%	*	%
Customer #4	*	%	*	%	*	%	\$11,821	14%	*	%
Customer #5	*	%	*	%	*	%	11,100	13%	*	%
Customer #6	*	%	*	%	*	%	9,743	11%	*	%
Customer #7	*	%	*	%	*	%	*	%	\$ 8,391	16%
Customer #8	*	%	*	%	*	%	*	%	7,570	14%
Polysilicon Customers										
Customer #9	*	%	\$185,249	34%	108,781	20%	*	%	12,127	23%
Customer #10	*	%	*	%	92,544	17%	*	%	*	%

* amounts from these customers were either zero or less than 10% of the total during this period.

The Company requires most of its PV and polysilicon customers to either post letters of credit or make advance payments of a portion of the selling price prior to delivery. Approximately \$76,548 (or 88%) and \$41,583 (or 79%) of total accounts receivable as of April 2, 2011 and April 3, 2010, respectively, were secured by letters of credit.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)
April 2, 2011
(In thousands, except per share data)

6. Inventories

Inventories consist of the following:

	<u>April 2, 2011</u>	<u>April 3, 2010</u>
Raw materials	\$ 97,607	\$42,846
Work-in-process	4,130	12,260
Finished goods	25,835	13,752
	<u>\$127,572</u>	<u>\$68,858</u>

Inventory related excess and obsolescence charges of \$2,081, \$6,899 and \$2,585 were recorded in cost of revenue in fiscal years ended April 2, 2011, April 3, 2010, and March 28, 2009, respectively.

7. Property, Plant and Equipment

Property, plant and equipment consist of the following:

	<u>Estimated Useful Life</u>	<u>April 2, 2011</u>	<u>April 3, 2010</u>
Leasehold improvements	Lesser of useful life or initial lease term	\$ 11,769	\$ 2,922
Land	—	1,074	1,074
Land improvements	15 years	326	326
Building	40 years	10,424	9,470
Manufacturing equipment	5 to 7 years	31,992	4,119
Computer equipment and software	3 to 5 years	8,713	7,191
Furniture and fixtures	5 to 7 years	2,018	1,427
		66,316	26,529
Less accumulated depreciation		<u>(11,875)</u>	<u>(7,170)</u>
		<u>\$ 54,441</u>	<u>\$19,359</u>

Software costs incurred as part of an enterprise resource systems project of \$510 and \$747 were capitalized during the fiscal years ended April 2, 2011 and April 3, 2010, respectively. Depreciation expense for the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, was \$5,167, \$3,706, and \$2,006 respectively. Amounts recorded for capitalized interest for the fiscal year ended April 2, 2011 were not material.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

8. Valuation and Qualifying Accounts

Warranty

The following table presents warranty activities:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Product warranty liability, beginning of year	\$ 1,280	\$ 2,231	\$ 1,957
Accruals for new warranties issued	10,982	1,067	2,270
Payments under warranty	<u>(5,319)</u>	<u>(2,018)</u>	<u>(1,996)</u>
Product warranty liability, end of year	<u>\$ 6,943</u>	<u>\$ 1,280</u>	<u>\$ 2,231</u>

Allowance for Doubtful Accounts

The following table presents allowance for doubtful account activities:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Allowance for doubtful accounts, beginning of year	\$ 2,620	\$ 401	\$ 31
Charges to expense	205	93	457
Reclassification from deferred revenue	932	2,554	—
Write offs	<u>(1,221)</u>	<u>(428)</u>	<u>(87)</u>
Allowance for doubtful accounts, end of year	<u>\$ 2,536</u>	<u>\$2,620</u>	<u>\$401</u>

9. Long Term Debt and Revolving Credit Facility

Credit Suisse Credit Agreement

On December 13, 2010, the Company entered into the Credit Agreement (the “Credit Agreement”), with Credit Suisse AG, Cayman Islands Branch, as administrative agent and collateral agent, and the lenders from time to time party to the Credit Agreement. The Credit Agreement consists of the term facility (the “Term Facility”), in an aggregate maximum principal amount of \$125,000 with a final maturity date of December 13, 2013 and the revolving facility (the “Revolving Facility”), in an aggregate maximum principal amount of \$75,000 with a final maturity date of December 13, 2013. The Term Facility will be repaid in equal quarterly installments in an aggregate annual amount equal to 15% of the original principal amount of the Term Facility, with the balance payable on December 13, 2013. The proceeds of the Credit Agreement are available for general corporate purposes. The full amount of the Term Facility was drawn by the Company on December 13, 2010 and no amounts have been drawn on the Revolving Facility as of April 2, 2011. The Company uses the Revolving Facility in connection with the issuance of letters of credit.

On December 13, 2010, the Company and the other parties to the Credit Agreement also entered into a Guarantee and Collateral Agreement (the “Guarantee and Collateral Agreement”). Pursuant to the Guarantee and Collateral Agreement, the Company’s obligations under the Credit Agreement are guaranteed by each of its wholly-owned domestic subsidiaries and secured by, among other things, a lien on substantially all of its and the Company’s wholly-owned domestic subsidiaries’ tangible and

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

9. Long Term Debt and Revolving Credit Facility (Continued)

intangible personal property (including but not limited to accounts receivable, inventory, equipment, general intangibles, certain investment property, certain deposit and securities accounts, certain owned real property and intellectual property), a pledge of the capital stock of each of the Company's wholly-owned restricted domestic subsidiaries (limited in the case of pledges of capital stock of any foreign subsidiaries, to 65% of the capital stock of any first-tier foreign subsidiary), subject to certain exceptions and thresholds.

Borrowings under the Credit Agreement bear interest, at the Company's option, at either (i) an alternate base rate or an adjusted London Interbank Offered Rate, or LIBOR, rate plus, in each case, an applicable margin. Such applicable margin will be 3.25% in the case of alternate base rate loans and 4.25% in the case of LIBOR rate loans. Interest is payable (a) in the case of alternate base rate loans, quarterly in arrears, and (b) in the case of LIBOR rate loans, at the end of each interest period, but in no event less often than every three months. A commitment fee is payable quarterly in arrears at a rate per annum equal to 0.50% of the daily unused amount of the commitments in respect of the Revolving Facility. The Term Facility borrowing rate in effect at April 2, 2011 was 4.51%.

Over the next three fiscal years, the Company will be required to repay the following principal amounts under the Term Facility (amounts in millions):

<u>Fiscal Year Ending</u>	<u>Principal Payments</u>
2012	\$ 18.8
2013	18.8
2014	<u>82.7</u>
Total	<u>\$120.3</u>

In March 2011, the Company made a required principal payment in the amount of \$4.7 million pursuant to the Term Facility in accordance with the payment schedule in the Credit Agreement. The Company may, at its option, prepay borrowings under the Credit Facility (in whole or in part), at anytime without penalty subject to conditions set forth in the Credit Facility. The Company is required to make mandatory prepayments with:

- 50% of excess cash flow (as defined in the Credit Agreement) in any fiscal year commencing with the fiscal year ending March 31, 2012 (as reduced by voluntary repayments of the Term Facility); and
- 100% of the net cash proceeds (as defined in the Credit Agreement) of all asset sales or other dispositions of property by the Company and its subsidiaries, subject to certain exceptions.

In addition, if the amount of all then outstanding letters of credit exceeds \$75,000 of the borrowing base, the Company will be obligated to pay the excess, subject to certain exceptions. The borrowing base will be determined from time to time as the sum of: (a) consolidated adjusted EBITDA (as defined in the Credit Agreement) for the four preceding fiscal quarters multiplied by 3; plus (b) the balance of unrestricted cash and cash equivalents as of the determination date. These mandatory prepayments are required to be applied pro rata to the remaining amortization payments under the Term Facility.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

9. Long Term Debt and Revolving Credit Facility (Continued)

The Credit Agreement imposes several financial covenants on the Company and its subsidiaries, including, but not limited to (i) maximum capital expenditures of \$50,000 during the two quarters ended April 2, 2011 and \$40,000 in any fiscal year thereafter, (ii) minimum ratio of consolidated adjusted EBITDA (as defined in the Credit Agreement) to consolidated fixed charges (as defined in the Credit Agreement) ranging from 1.0 to 1 to 2.0 to 1 at various times during the term of the Credit Agreement and (iii) maximum leverage ratio (as defined in the Credit Agreement) of 0.6 to 1.0 throughout the term of the Credit Agreement.

In addition, the Company has agreed to maintain all of our cash and permitted investments (as defined in the Credit Agreement) (the "Pledged Cash") in deposit or securities accounts in the United States that are subject to a lien in favor of the collateral agent for the benefit of the secured parties and perfected by control, provided that the Company shall be required to maintain Pledged Cash greater than 110% of the aggregate amount of the outstanding principal amount of the Term Facility and the revolving credit exposure (as defined in the Credit Agreement) on the last day of each fiscal quarter. The pledged cash is available to fund operations and is not restricted.

The Credit Agreement requires that the Company and its subsidiaries comply with covenants relating to customary matters (in addition to the financial covenants described above), including with respect to incurring indebtedness and liens, using the proceeds received under the Credit Agreement, transactions with affiliates, making investments and acquisitions, effecting mergers and asset sales, prepaying indebtedness, and restrictions on paying dividends.

The Credit Agreement includes events of default relating to customary matters, including, among other things, nonpayment of principal, interest or other amounts; violation of covenants; inaccuracies in the representations and warranties in any material respect; cross default and cross acceleration with respect to indebtedness in an aggregate principal amount of \$10.0 million or more; bankruptcy or similar proceedings or events; judgments involving liability of \$10.0 million or more that are not paid; ERISA events; actual or asserted invalidity of guarantees or security documents; and change of control.

The Company uses amounts available under the Revolving Facility in connection with standby letters of credit related to customer deposits. As of April 2, 2011, we had \$21,763 of outstanding letters of credit pursuant to the Revolving Facility resulting in \$53,237 of available credit under the Revolving Facility.

Interest expense related to Term Facility and Revolver Facility was \$2,334 for the fiscal year ended April 2, 2011, which includes amortization of debt fees related to both facilities, as well as the commitment fee associated with the Revolver Facility. The carrying value of the amounts drawn under the Term Facility and the associated accrued interest total \$120,599 as of April 2, 2011. Interest capitalized on construction-in-process contracts for the fiscal year ended April 2, 2011 was not material. The balance of deferred financing costs at April 2, 2011 was \$9,416 and is included in other assets on the consolidated balance sheet.

10. Employee Benefit Plan

The Company has a 401(k) employee savings plan for its eligible employees. Eligible employees may elect to contribute a percentage of their salaries up to the annual Internal Revenue Code maximum limitations. The 401(k) employee savings plan allows the Company to make discretionary matching contributions for its participating employees. For the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009 the Company made discretionary contributions of \$1,004, \$711, and \$588 respectively.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)
April 2, 2011
(In thousands, except per share data)

11. Income Taxes

The provision for income taxes is comprised of:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Current:			
Federal	\$38,895	\$ 74,571	\$21,914
State	537	17,038	6,485
Foreign	<u>22,862</u>	<u>201</u>	<u>842</u>
Total current	<u>62,294</u>	<u>91,810</u>	<u>29,241</u>
Deferred:			
Federal	26,417	(31,066)	20,222
State	6,834	(7,683)	4,744
Foreign	<u>298</u>	<u>(443)</u>	<u>5</u>
Total deferred	<u>33,549</u>	<u>(39,192)</u>	<u>24,971</u>
Total provision for income taxes	<u>\$95,843</u>	<u>\$ 52,618</u>	<u>\$54,212</u>

A component of the current tax provision for the fiscal year ended April 2, 2011 includes an accrual for noncurrent tax related to uncertain tax benefits of \$16,287.

Income before provision for income taxes is as follows:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Domestic	\$135,002	\$139,553	\$137,764
Foreign	<u>135,596</u>	<u>321</u>	<u>4,416</u>
Total	<u>\$270,598</u>	<u>\$139,874</u>	<u>\$142,180</u>

The U.S. federal income tax rate is reconciled to the Company's effective tax rate as follows:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Tax at federal statutory rate	\$ 94,709	\$48,956	\$49,763
State income tax, net of U.S. federal benefit	4,791	6,081	7,299
IRC Section 199 deduction	(1,346)	(1,345)	(1,191)
Foreign income taxes at rates different than domestic rates	(24,552)	(318)	(683)
Effect of foreign operations included in U.S. federal provision	3,802	(26)	—
Reserves for uncertain tax benefits	17,564	137	442
Research credits	(1,585)	(805)	(1,562)
Other	<u>2,460</u>	<u>(62)</u>	<u>144</u>
	<u>\$ 95,843</u>	<u>\$52,618</u>	<u>\$54,212</u>

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

11. Income Taxes (Continued)

Significant components of the Company's deferred tax assets and liabilities are as follows:

	<u>April 2, 2011</u>	<u>April 3, 2010</u>
Deferred tax assets:		
Deferred profit	\$ 4,773	\$ 38,980
Reserves not currently deductible	5,642	6,064
Equity compensation	2,697	3,437
Allowance for doubtful accounts	1,003	1,054
Other	1,255	—
Total deferred tax assets	<u>\$ 15,370</u>	<u>49,535</u>
Deferred tax liabilities:		
Fixed assets	3,622	1,890
Intangibles	8,289	366
Other	—	72
	<u>11,911</u>	<u>2,328</u>
Net deferred tax assets	<u>\$ 3,459</u>	<u>\$ 47,207</u>
Reported as:		
Deferred income taxes—current	\$ 62,539	\$ 72,868
Deferred income taxes—long-term	(59,080)	(25,661)
	<u>\$ 3,459</u>	<u>\$ 47,207</u>

It is the practice and intention of the Company to reinvest the earnings of its non-US subsidiaries in those operations. As of April 2, 2011, the Company has not made a provision for US or additional foreign withholding taxes on its undistributed earnings of approximately \$103,000, as these are considered permanently reinvested. Such earnings could become subject to US taxation if they were either remitted as dividends and under certain other circumstances. It is not practicable to estimate the amount of deferred tax liability related to investments in these foreign subsidiaries.

The Company's effective tax rate for fiscal 2011 has changed from that of fiscal 2010 owing principally to proportionally higher expected levels of income in lower tax jurisdictions as a result of the Company's continued transition of its global operations center to Hong Kong. These decreases were partially offset by management's reassessment of certain tax issues currently under examination by taxing authorities.

As of April 2, 2011, the Company had \$17,653 of unrecognized tax benefits, all of which, if recognized, would affect the effective tax. A reconciliation of the beginning and ending amount of the

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

11. Income Taxes (Continued)

consolidated liability for unrecognized income tax benefits during the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009 are as follows:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Balance at beginning of period	\$ 579	\$442	\$ —
Additions for tax positions of prior years	863	—	300
Additions for tax positions related to current year . .	<u>16,211</u>	<u>137</u>	<u>142</u>
Balance at end of period	<u>\$17,653</u>	<u>\$579</u>	<u>\$442</u>

The Company also recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense. The Company has recorded accruals for interest and penalties of \$541 as of April 2, 2011, and these amounts were insignificant as of April 3, 2010.

The Company files income tax returns in the U.S. federal jurisdiction and various state jurisdictions. The Company is subject to examination by federal, state, and foreign tax authorities. The Company's U.S. tax returns are currently in Appeals for fiscal years ending March 31, 2007 and 2008 and the Company plans to vigorously defend all tax positions taken. The Company is also under examination by the Internal Revenue Service, or IRS for its fiscal years ending March 28, 2009 and April 3, 2010.

12. Comprehensive Income

Comprehensive income is defined as the change in equity during a period from non-owner sources. The Company's comprehensive income for each period presented is comprised of (i) the Company's net income; (ii) foreign currency translation adjustment of the Company's wholly-owned foreign subsidiaries whose assets and liabilities are translated from their respective functional currencies at exchange rates in effect at the balance sheet date, and revenues and expenses are translated at average exchange rates prevailing during the applicable period; (iii) changes in unrealized gains or losses, net of tax, on available-for-sale securities; and (iv) changes in unrealized gains or losses, net of tax, for derivatives designated as cash flow hedges. Comprehensive income is presented in the Consolidated Statements of Changes in Stockholders' Equity.

The components of the Company's accumulated other comprehensive loss as of April 2, 2011 and April 3, 2010, net of taxes were as follows:

	<u>April 2, 2011</u>	<u>April 3, 2010</u>
Cash flow hedges of foreign exchange, net of tax	\$(3,522)	\$(5,264)
Unrealized gain on available for sale securities, net of tax .	—	3
Foreign currency translation adjustment	<u>670</u>	<u>116</u>
Total accumulated other comprehensive loss	<u>\$(2,852)</u>	<u>\$(5,145)</u>

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)
April 2, 2011
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13. Commitments and Contingencies

Lease commitments

The Company has entered into operating leases for office and warehouse facilities in the United States, China and Taiwan. The terms of these leases range from 12 months to 13 years. Rent expense for the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, was \$3,740, \$2,075, and \$1,500 respectively. Minimum annual payments under these agreements are as follows:

<u>Fiscal Year</u>	<u>Minimum Annual Payments</u>
2012	\$2,841
2013	2,649
2014	1,823
2015	810
2016	844
Thereafter	7,141

Purchase Commitments

The Company's commitments to purchase raw materials from various suppliers are estimated to be \$293,251 as of April 2, 2011. Some of these purchase commitments are due within a few months and others continue throughout the remainder of the fiscal year ended March 31, 2012 and into the fiscal year ended March 30, 2013.

During the year ended April 3, 2010, the Company agreed to a customer requested delay under an ongoing polysilicon contract. The customer reimbursed the Company \$20,500 for the costs incurred to terminate certain impacted vendor commitments. The reimbursement and related costs have been recorded as both deferred revenue and deferred cost of goods sold under the arrangement.

During the fiscal year ended March 28, 2009, the Company rescheduled and/or cancelled a portion of its commitments to its vendors to procure materials to reflect a reduced rate of production and requests by some of its customers to delay shipment. In the fiscal year ended March 28, 2009, the Company recognized losses of \$11,250 resulting from expected forfeitures of vendor advances and reserves against advances on inventory purchases for vendors that have become financially distressed. These charges have been included in cost of revenue for the period.

Contingencies

Beginning on August 1, 2008, seven putative securities class action lawsuits were commenced in the United States District Court for the District of New Hampshire (the "Court"), against the Company, certain of its officers and directors, certain underwriters of its July 24, 2008 initial public offering and others, including certain investors. On October 3, 2008, the Court entered an order consolidating these actions under the caption Braun et al. v. GT Solar International, Inc., et al (the "federal class action"). The Court selected the lead plaintiff and lead plaintiff's counsel in the federal class action on October 29, 2008. The lead plaintiff filed an amended consolidated complaint on December 22, 2008. The lead plaintiff asserts claims under various sections of the Securities Act. The amended consolidated

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

13. Commitments and Contingencies (Continued)

complaint alleges, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement and Prospectus for the Company's July 24, 2008 initial public offering, and other public statements, regarding the status of the Company's business relationship with LDK Solar, Ltd. Among other relief, the amended consolidated complaint seeks class certification, unspecified compensatory damages, rescission, interest, attorneys' fees, costs and such other relief as the Court should deem just and proper.

The defendants moved to dismiss the amended consolidated complaint on February 5, 2009. On September 22, 2009, the Court denied the defendants' motion. Following the Court's denial of the motion, the parties submitted a proposed joint case management order, which the Court approved on November 16, 2009. The case management order provides for discovery to close on May 25, 2011.

In addition, on September 18, 2008 a putative securities class action was filed in New Hampshire state court in the Superior Court for Hillsborough County, Southern District (the "State Court"), under the caption *Hamel v. GT Solar International, Inc., et al.*, against the Company, certain of the Company's officers and directors and certain underwriters of its July 24, 2008 initial public offering (the "state class action"). The state class action plaintiff asserts claims under various sections of the Securities Act of 1933, as amended. The state class action complaint alleges, among other things, that the defendants made false and materially misleading statements and failed to disclose material information in certain SEC filings, including the registration statement for the Company's July 24, 2008 initial public offering, and other public statements, regarding the status of the Company's business relationship with LDK Solar. Among other relief, the state class action complaint seeks class certification, unspecified compensatory damages, rescission, interest, attorneys' fees, costs and such other relief as the State Court should deem just and proper.

The Company removed the state class action to the United States District Court for the District of New Hampshire on October 22, 2008. The state class action was consolidated with the federal class action on November 25, 2008. On February 2, 2009, the federal Court granted the plaintiff's motion to remand the state class action to New Hampshire State Court. On May 4, 2009, the parties agreed to a stay of the state class action, pending resolution of the motion to dismiss in the consolidated federal case. At a case structuring conference on June 3, 2009, the state court endorsed the proposed joint case management order filed by the parties which requires coordination of any discovery to be taken in the state class action with that taken in the federal class action. With the denial of the motion to dismiss the federal action, the parties submitted a proposed joint case management order to the State Court on November 6, 2009. On January 12, 2010, the State Court granted a joint motion of the parties to transfer the state class action to the State Court's Business and Commercial Dispute Docket.

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13. Commitments and Contingencies (Continued)

In March 2011, the Company reached an agreement in principle to settle these two putative securities class-action lawsuits related to the Company's initial public offering. The terms of the proposed settlement, which includes no admission of liability or wrongdoing by the Company or by any other defendants, provides for a full and complete release of all claims that were or could have been brought against all defendants in both the federal and state securities actions. The Company will pay \$10,500 into a settlement fund. Of this amount, the Company will contribute \$1,000 and the Company's liability insurers will contribute the remaining \$9,500. The Company's contribution represents its contractual indemnification obligation to its underwriters. The Company's \$1,000 proposed contribution to the settlement fund has been recorded as a general and administrative expense.

On May 4, 2011, the parties to the federal class action filed a stipulation of settlement and a motion for preliminary approval of the settlement with the federal court. On May 5, 2011, the parties to the state class action filed a stipulation of settlement and motion for dismissal with prejudice in the state action. The stipulations in both the federal and the state courts provide that the putative class in the state class action will participate in the settlement as members of the settlement class in the federal class action. The stipulation filed in the state court provides that the state class action will be dismissed with prejudice upon entry of an order of final approval by the federal court.

On May 13, 2011, the Federal Court gave preliminary approval of the settlement, and ordered that notice be provided to the proposed settlement class (as defined in the stipulation). The Federal Court also scheduled a hearing for September 27, 2011, to determine whether the settlement will receive final approval. While the Company believes that the proposed settlement is fair and adequate to all members of the proposed settlement class, there can be no assurance that the federal court will grant final approval of the settlement.

A derivative suit, captioned *Fan v. GT Solar Int'l, Inc., et al.*, was filed in New Hampshire State Court on January 14, 2009 (the "derivative action"). The derivative complaint is asserted nominally on behalf of the Company against certain of its directors and officers and alleges various claims for breach of fiduciary duty, unjust enrichment, abuse of control, and gross mismanagement. The derivative complaint is premised on the same allegations asserted in the federal class action. On April 10, 2009, the State Court granted the Company's motion to stay the derivative action, pending resolution of the motion to dismiss in the federal action. In accordance with the terms of the stay the parties have conferred regarding a case management schedule for the derivative action. The derivative action remains stayed. The derivative shareholder action is not included in the settlement of the federal and state class actions discussed above.

The Company intends to defend these actions vigorously. The Company is currently unable to estimate a range of payments, if any, it may be required to pay, or may agree to pay, with respect to the derivative action. The Company, however, believes that the resolution of these suits will not result in a material adverse effect to its consolidated financial statements. However, due to the inherent uncertainties that accompany litigation of this nature, there can be no assurance that the Company will be successful, and an adverse resolution of any of the lawsuits could have a material adverse effect on its consolidated financial statements.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

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13. Commitments and Contingencies (Continued)

The Company is subject to various other routine legal proceedings and claims incidental to its business, which management believes will not have a material adverse effect on the Company's financial position, results of operations or cash flows.

Customer Indemnifications

In the normal course of business, the Company indemnifies, under pre-determined conditions and limitations, its customers for infringement of third-party intellectual property rights by the Company's products or services. The Company seeks to limit its liability for such indemnity to an amount not to exceed the sales price of the products or services subject to its indemnification obligations. The Company does not believe, based on information available, that it is probable that any material amounts will be paid under these indemnification provisions.

14. Stockholders' Equity

Common Stock

We have authorized 500,000 shares of common stock, \$0.01 par value, of which 125,683 shares were issued and outstanding at April 2, 2011. On June 30, 2008, the Company declared a cash dividend of \$90,000 to the stockholders of record as of June 30, 2008 that was subsequently paid on August 1, 2008.

On November 12, 2010, the Company repurchased 26,500 shares of the Company's common stock from GT Solar Holdings, LLC ("Holdings") at a per share price of \$7.66, or an aggregate of approximately \$203,476. The shares were retired and the cost of the repurchase has been allocated to retained earnings and additional paid-in capital based on the additional paid-in capital related to the issue of common stock with the excess charged to retained earnings.

Preferred Stock

The Company has authorized 10,000 shares of undesignated preferred stock, \$0.01 par value, none of which was issued and outstanding at April 2, 2011. The Company's board of directors is authorized to determine the rights, preferences and restrictions on any series of preferred stock to be issued.

15. Share-Based Compensation

The Company has established equity compensation plans that provide share-based compensation to eligible employees, directors, officers, as well as independent contractors performing services for the Company. The terms of awards made under the Company's equity compensation plans are generally determined by the Compensation Committee. On January 1, 2006, the Company adopted the 2006 Stock Option Plan (the "2006 Plan"). Under the 2006 Plan, options were granted to persons who were, at the time of grant, employees, officers or directors of, or consultants or advisors to, the Company. All of the options granted under the 2006 Plan were awarded prior to the Company's IPO and therefore the option price at the date of grant was determined based upon contemporaneous valuations. The Company does not intend to issue any further equity awards under the 2006 Plan. On June 30, 2008, in connection with the Company's initial public offering, the Company adopted the 2008 Equity Incentive Plan (the "2008 Plan"). The 2008 Plan reserves up to 15,000 shares of common stock for grants of

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Notes to Consolidated Financial Statements (Continued)
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15. Share-Based Compensation (Continued)

stock options, restricted stock, restricted stock units and other share-based awards. The principal awards outstanding under these equity plans consist of grants of restricted stock units and stock options. As of April 2, 2011, an aggregate of 7,719 shares were authorized for future grant under our 2008 Plan.

Restricted stock units deliver the recipient a right to receive a specified number of shares of the Company's common stock upon vesting. Unlike stock options, there is no cost to the employee at share issuance. The Company values the restricted stock units at the fair value of the Company's common stock on the grant date, which is the closing price of the Company's common stock on the grant date.

The stock options issued under the plans were issued with an exercise price equal to 100% of the market price of the Company's common stock on the date of grant and typically vest 25% on the first anniversary of the award of the remaining vesting 1/48th per month during the subsequent three years and expire ten years after grant. None of the Company's stock options were granted outside of either the 2006 Plan or the 2008 Plan. The Company grants options that allow for the settlement of vested stock options on a net share basis ("net settled stock options"), instead of settlement with a cash payment ("cash settled stock options"). With net settled stock options, the employee does not surrender any cash or shares upon exercise. Rather, the Company withholds the number of shares to cover the option exercise price and the minimum statutory tax withholding obligations from the shares that would otherwise be issued upon exercise.

Shares of common stock are issued to the holders of restricted stock units on the date the restricted stock units vest. The majority of shares issued are net of the statutory withholding requirements, which the Company pays on behalf of our participants. Prior to vesting, restricted stock units do not have dividend equivalents rights and do not have voting rights, and the shares underlying the restricted stock units are not considered issued and outstanding. Restricted stock units awarded typically vest 25% on each anniversary of the award over a 4 year period and expire ten years after grant.

The following table presents stock-based compensation expenses and related income tax benefits included in the Company's consolidated statement of operations:

	<u>April 2, 2011</u>	<u>April 3, 2010</u>	<u>March 28, 2009</u>
General administrative expenses	\$5,816	\$3,637	\$3,455
Selling and administrative expenses	504	412	154
Research and development expenses	762	722	633
Cost of sales	1,142	911	564
Stock-based compensation expense	<u>\$8,224</u>	<u>\$5,682</u>	<u>\$4,806</u>
Income tax benefit of stock-based compensation expense	<u>\$3,218</u>	<u>\$1,972</u>	<u>\$1,513</u>

As of April 2, 2011, the Company had unamortized share-based compensation expense related to stock options and restricted stock unit awards of \$5,904 and \$15,693, respectively, after estimated forfeitures, which will be recognized over an estimated weighted-average remaining requisite service period of 2.7 years and 2.8 years, respectively. Share-based compensation cost capitalized as part of inventory was not significant and therefore, not separately disclosed for all periods presented.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

15. Share-Based Compensation (Continued)

Stock Option Activity

The following table summarizes stock option activity for the fiscal year ended April 2, 2011:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value
Outstanding at April 3, 2010	6,379	\$4.39		
Granted	1,040	\$5.86		
Exercised	(2,397)	\$3.85		
Forfeited	(737)	\$5.30		
Outstanding at April 2, 2011	<u>4,285</u>	\$4.89	7.84	\$23,663
Vested or expected to vest at April 2, 2011	4,045	\$4.85	7.77	\$22,507
Exercisable at April 2, 2011	1,723	\$4.01	6.63	\$11,020
	<u>April 2, 2011</u>	<u>April 3, 2010</u>	<u>March 28, 2009</u>	
Total intrinsic value of stock options exercised	\$10,588	\$2,014	\$4,306	

The aggregate intrinsic value in the table above represents the total pre-tax intrinsic value, based on the Company's closing common stock price of \$10.41 on April 2, 2011, which would have been received by the option holders had all option holders exercised their options and immediately sold their shares on that date. The Company settles employee stock options exercises with newly issued common shares.

No stock options were granted during the fiscal year ended March 28, 2009. The weighted-average estimated fair value per share of stock options granted during the fiscal years ended April 2, 2011 and April 3, 2010, was determined to be \$2.90 and \$2.61, respectively, using the Black-Scholes option-pricing model with the following underlying assumptions:

	Fiscal Year Ended	
	April 2, 2011	April 3, 2010
Weighted average expected volatility	49.5%	51%
Weighted average risk-free interest rate	2.4%	2.8%
Expected dividend yield	0.0%	0.0%
Weighted average expected life (in years)	6.0	6.1

The Company estimates the expected volatility of its future stock price on that of similar publicly-traded companies, and expects to continue to estimate its expected stock price volatility in this manner until such time as there is adequate historical data to refer to from its own traded share prices. The weighted-average risk free interest rate reflects the rates of U.S. government securities appropriate for the term of the Company's stock options at the time of grant.

The Company estimated the expected life, which represents the best estimate of the period of time from the grant date that the stock option will remain outstanding, using the simplified method (the

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

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15. Share-Based Compensation (Continued)

mid-point between the time to vest and the contractual terms). The Company applies the simplified method because of insufficient historical exercise data to provide a reasonable basis upon which to estimate expected life due to the limited period of time the equity shares have been publicly traded. For options granted to non-employees the remaining contractual term is used for measurement purposes.

Restricted Stock Unit Activity

The following table summarizes restricted stock unit activity for the fiscal year ended April 2, 2011:

	Restricted Stock Units	
	Restricted Stock Units	Weighted Average Grant Date Fair Value
Outstanding at April 3, 2010	2,380	\$4.15
Granted	2,013	\$7.93
Vested	(700)	\$5.17
Forfeited	(361)	\$4.18
Outstanding at April 2, 2011	<u>3,332</u>	<u>\$6.65</u>
Vested and expected to vest at April 2, 2011	2,878	

The total fair value of restricted stock units vested for the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009 were \$6,011, \$2,466 and \$89, respectively. The estimated weighted-average grant date fair values of restricted stock units granted during fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009 were \$7.93, \$5.19 and \$4.08, respectively.

Cash received and income tax benefits from stock option exercises and restricted stock unit vesting were \$9,223 and \$5,489, respectively, for fiscal years ended April 2, 2011, \$1,066 and \$218 for the fiscal year ended April 3, 2010 and \$1,177 and \$658 for the fiscal year ended March 28, 2009.

16. Earnings Per Share

Basic earnings per share is computed by dividing the Company's earnings by only the weighted average number of common shares outstanding during the period. Diluted earnings per share is computed by dividing the Company's earnings by the weighted average number of common shares and, when dilutive, the weighted average number of potential common shares outstanding during the period, as determined using the treasury stock method. Potential common shares consist of common stock issuable upon the exercise of outstanding stock options and the vesting of restricted stock units.

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Notes to Consolidated Financial Statements (Continued)

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16. Earnings Per Share (Continued)

The following table sets forth the computation of the weighted average shares used in computing basic and diluted earnings per share:

	<u>Fiscal Year Ended April 2, 2011</u>	<u>Fiscal Year Ended April 3, 2010</u>	<u>Fiscal Year Ended March 28, 2009</u>
Weighted average common shares—basic	138,673	143,409	142,582
Dilutive common stock options and awards	<u>2,229</u>	<u>1,981</u>	<u>1,889</u>
Weighted average common and common equivalent shares—diluted	<u>140,902</u>	<u>145,390</u>	<u>144,471</u>

Potential common stock equivalents excluded from the calculation of dilutive earnings per share because the effect would have been anti-dilutive are as follows:

	<u>April 2, 2011</u>	<u>April 3, 2010</u>	<u>March 28, 2009</u>
Outstanding stock options	100	3,182	3,832
Restricted stock units	473	80	191

17. Segment and Geographical Information

Segment Information

The Company reports its results in three segments: the PV business, the polysilicon business and the sapphire business. The Company presents segment information in a manner consistent with the method used to report this information to management.

The PV business manufactures and sells directional solidification, or DSS, crystallization furnaces and ancillary equipment used to cast multicrystalline silicon ingots by melting and cooling polysilicon in a precisely controlled process. These ingots are used to make photovoltaic wafers which are, in turn, used to make solar cells. The Company's PV business provided services related to the production of photovoltaic wafers, cells and modules, referred to as our turnkey business. During fiscal 2011, the Company completed a review of its PV turnkey business and decided to no longer offer these services. This decision was based on the Company's assessment of reduced market opportunities, as well as low gross margins compared to its other product lines. The Company's decision did not impact the recoverability of any tangible or intangible assets, and it did not incur any significant costs to eliminate this product offering.

The polysilicon business manufactures and sells chemical vapor deposition, or CVD, reactors, used to react gases at high temperatures to produce polysilicon, the key raw material used in solar wafers and cells, as well as engineering services and related equipment.

On July 29, 2010, the Company acquired 100% of the outstanding shares of common stock of privately-held Crystal Systems. The sapphire business manufactures and sells advanced sapphire crystal growth furnaces that incorporate the Heat Exchanger Method technology, as well as sapphire materials used in LED applications, and other specialty markets.

The Company evaluates performance and allocates resources based on revenues and operating income (loss). Operating income (loss) for each segment includes selling, general and administrative

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17. Segment and Geographical Information (Continued)

expenses directly attributable to the segment including the amortization of acquired intangible assets. Corporate services include non-allocated overhead costs, including human resources, legal, finance, information technology, general and administrative, certain corporate integration expenses and corporate marketing expenses. Corporate services assets include deferred tax assets, cash and cash equivalents and other non-allocated assets.

Financial information for the Company's business segments is as follows (in thousands):

	<u>PV Business</u>	<u>Polysilicon Business</u>	<u>Sapphire Business</u>	<u>Corporate Services</u>	<u>Total</u>
Fiscal year ended April 2, 2011					
Revenue	\$740,088	\$143,591	\$ 15,305	\$ —	\$ 898,984
Gross profit	314,609	59,873	3,513	—	377,995
Depreciation and amortization	3,090	841	2,889	2,847	9,667
Income (loss) from operations	279,555	46,962	(4,533)	(48,682)	273,302
Fiscal year ended April 3, 2010					
Revenue	\$186,726	\$357,519	\$ —	\$ —	\$ 544,245
Gross profit	62,771	156,211	—	—	218,982
Depreciation and amortization	3,091	1,629	—	2,150	6,870
Income (loss) from operations	36,569	141,046	\$ —	(33,653)	143,962
Fiscal year ended March 28, 2009					
Revenue	\$443,947	\$ 97,080	\$ —	\$ —	\$ 541,027
Gross profit	178,134	36,535	—	—	214,669
Depreciation and amortization	3,068	564	—	1,479	5,111
Income (loss) from operations	155,085	16,418	\$ —	(27,959)	143,544
Assets					
April 2, 2011	\$315,433	\$236,781	\$111,847	\$462,231	\$1,126,292
April 3, 2010	\$198,451	\$195,134	\$ —	\$338,496	\$ 732,081

Geographic Information

The following table presents net revenue by geographic region, which is based on the destination of the shipments:

<i>Geographic Region</i>	<u>Fiscal Year Ended</u>		
	<u>April 2, 2011</u>	<u>April 3, 2010</u>	<u>March 28, 2009</u>
China	\$635,789	\$340,478	\$333,688
Korea	119,346	68,961	109,498
Other Asia	80,150	30,008	28,340
Europe	51,356	95,855	53,881
United States	9,364	8,926	8,156
Other	2,979	17	7,464
Total	<u>\$898,984</u>	<u>\$544,245</u>	<u>\$541,027</u>

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17. Segment and Geographical Information (Continued)

A summary of long-lived assets by geographical region is as follows:

	<u>April 2, 2011(1)</u>	<u>April 3, 2010(1)</u>	<u>March 28, 2009(1)</u>
United States	\$160,005	\$64,020	\$67,752
China	1,953	1,019	72
Taiwan	74	125	—
Hong Kong	292	—	—
Total	<u>\$162,324</u>	<u>\$65,164</u>	<u>\$67,824</u>

(1) Long-lived assets for the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009 include intangible assets and goodwill of \$107,883, \$45,805 and \$48,968, respectively, all located in the United States.

18. Other Expense

The components of other expense, net are as follows:

	<u>Fiscal Year Ended</u>		
	<u>April 2, 2011</u>	<u>April 3, 2010</u>	<u>March 28, 2009</u>
Offering costs	\$(539)	\$ (790)	\$(2,648)
Foreign currency loss	(85)	(357)	(251)
Loss on derivatives—ineffective portion	—	(2,054)	(3,039)
Other	240	76	(74)
Total other expense, net	<u>\$(384)</u>	<u>\$(3,125)</u>	<u>\$(6,012)</u>

During the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, the Company incurred costs related to public offerings of its common stock. As the Company did not receive proceeds from these offerings, these costs are expensed in the periods incurred.

In March 2010, the Company completed a secondary public offering of 28,750 shares of common stock held by GT Solar Holdings, LLC. In September 2010, GT Solar Holdings, LLC sold 25,650 shares of the Company's common stock in two concurrent secondary offerings. During the fiscal year ending April 2, 2011, the Company and GT Solar Holdings, LLC agreed that GT Solar Holdings, LLC would reimburse the Company for certain of the expenses incurred in connection with the September 2010 secondary offering. During fiscal 2011 the Company was reimbursed approximately \$390. The Company does not expect to receive any additional reimbursements for costs incurred for this offering. As the Company did not receive proceeds from these offerings, costs are expensed in the periods incurred.

In July 2008, the Company completed an initial public offering of 30,300,000 shares of common stock held by GT Solar Holdings, LLC. As the Company did not receive proceeds from the IPO, these costs are included in other expense, net, in the periods incurred.

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19. Fair Value Measurements

Fair value is an exit price, representing the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants based on assumptions that market participants would use in pricing an asset or liability. As a basis for classifying such assumptions, a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value, was established as follows: (Level 1) observable inputs such as quoted prices in active markets for identical assets or liabilities; (Level 2) inputs other than the quoted prices in active markets that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions. This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value. There were no transfers of our instruments between Level 1, Level 2 or Level 3 in the fiscal year ended April 2, 2011.

The following table provides the assets and liabilities carried at fair value measured on a recurring basis at April 2, 2011 and April 3, 2010:

	Total Carrying Value	April 2, 2011		
		Fair Value Measurements Using		
		(Level 1)	(Level 2)	(Level 3)
<i>Assets:</i>				
Money market mutual funds	\$196,118	\$196,118	—	—
Forward foreign exchange contracts—assets	\$ 374	—	\$ 374	—
<i>Liabilities:</i>				
Contingent consideration	\$ 11,228	—	—	\$ 11,228
April 3, 2010				
	Total Carrying Value	Fair Value Measurements Using		
		(Level 1)	(Level 2)	(Level 3)
<i>Assets:</i>				
Money market mutual funds	\$226,052	\$226,052	—	—
Short-term Investments: Commercial paper	\$ 19,967	—	\$19,967	—
<i>Liabilities:</i>				
Forward foreign exchange contracts—liabilities	\$ (229)	—	\$ (229)	—

The Company's money market mutual funds are valued using readily available market prices.

The Company's commercial paper is valued using quoted prices for securities with similar characteristics and other observable inputs (such as interest rates that are observable at commonly quoted intervals).

The Company's counterparties to its forward foreign exchange transactions are financial institutions. These forward foreign exchange contracts are measured at fair value using a valuation which represents a good faith estimate of the midmarket value of the position, based on estimated bids and offers for the positions, which are updated each reporting period. The Company considers the

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Notes to Consolidated Financial Statements (Continued)

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19. Fair Value Measurements (Continued)

effect of credit standings in these fair value measurements. There have been no changes in the valuation techniques used to measure the fair value of the Company's forward foreign exchange contracts.

Changes in the fair value of the Company's Level 3 contingent consideration obligations during the period from July 29, 2010 to April 2, 2011 were as follows:

Acquisition date fair value of contingent consideration obligations	\$12,500
Changes in the fair value of contingent consideration obligations	2,262
Payment of contingent consideration obligations	<u>(3,534)</u>
Fair value at the end of the period	<u>\$11,228</u>

The Company determined the fair value of its contingent consideration obligations based on a probability-weighted income approach derived from financial performance estimates and probability assessments of the attainment of certain technical targets. The key assumptions used in the model include: (i) discount rates of 2.1% for the purpose of discounting the expected cash flows for one of the technical targets and 17.5% for the financial and remaining technical targets; (ii) probability adjusted levels of revenue for the year ending December 31, 2010 and probability adjusted revenue and gross margin levels for the period ending March 31, 2012; and (iii) probability factors related to the attainment of certain technical targets. During the fiscal year ended April 2, 2011, the Company, on a quarterly basis reassessed the probability factors associated with the financial and technical targets for its contingent consideration obligations. The impact of changes in these probability factors are recorded in the statement of operations as contingent consideration expense. The undiscounted range of outcomes that the Company initially used to value the contingent consideration arrangement was between \$16,000 and \$18,650. There have been no changes in the valuation techniques used to measure the fair value of the Company's contingent consideration.

The following table summarizes the amortized costs and estimated fair value of the Company's investments:

	<u>Original Maturity</u>	<u>Amortized Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
<i>April 3, 2010:</i>					
Commercial paper—short-term investments	<u>Less than 1 year</u>	<u>\$19,962</u>	<u>\$6</u>	<u>\$(1)</u>	<u>\$19,967</u>

The carrying amounts reflected in the Company's consolidated balance sheets for cash, accounts receivable, prepaid expenses and other current assets, accounts payable, accrued expenses and customer deposits approximate fair value due to their short-term maturities. We did not hold any short-term investments at April 2, 2011. The carrying amount of the Company's long-term debt approximates its fair value due to market related interest rates.

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19. Fair Value Measurements (Continued)

Assets not recorded at fair value on a recurring basis, such as property and equipment, and intangible assets are recognized at fair value when they are impaired. During the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, the Company did not recognize any nonrecurring fair value measurements from impairments. The Company recorded assets acquired and liabilities assumed related to its acquisition of Crystal Systems at fair value.

20. Derivative and Hedging Activities

The Company enters into forward foreign exchange contracts that qualify as cash flow hedges to hedge portions of anticipated foreign currency denominated inventory purchases. These contracts typically expire within 12 months. As of April 2, 2011 the Company had Euro denominated forward foreign exchange contracts with notional amounts of €12,698 and Swiss Franc of 702 that qualified as cash flow hedges.

The following table summarizes activity in accumulated other comprehensive income (loss) related to derivatives classified as cash flow hedges held by the Company during the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009:

	Fiscal Year Ended April 2, 2011	Fiscal Year Ended April 3, 2010	Fiscal Year Ended March 28, 2009
Balance at beginning of period	\$(5,264)	\$(8,503)	\$ 5,557
Net gain (loss) on changes in fair value of derivatives, net of tax effect of \$(1,234), \$(1,189), and \$8,517, respectively	1,742	3,239	(14,060)
Balance at end of period	\$(3,522)	\$(5,264)	\$ (8,503)

During the fiscal years ended April 2, 2011, April 3, 2010 and March 28, 2009, the Company recognized (losses) gains of \$(2,992), \$236 and \$1,112, respectively, against cost of revenue with respect to cash flow hedges where the underlying hedged transaction had affected earnings. Approximately \$1,653 of accumulated loss is expected to be reclassified into earnings over the next twelve months.

During the fiscal years ended April 3, 2010 and March 28, 2009, \$2,054 and \$3,039, respectively, was recognized on certain forward foreign exchange contracts that no longer qualified as a cash flow hedge.

During the year ended April 3, 2010, the Company determined that certain forward foreign exchange contracts to purchase €26,000 that were scheduled to mature by the end of the fiscal year no longer qualified as an effective hedge due to changes in delivery schedules requested by a customer. At the time the determination was made, the Company entered into forward foreign exchange contracts to sell €26,000 scheduled to mature at the same time as the original purchase contracts to offset any further financial exposure for these contracts.

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

20. Derivative and Hedging Activities (Continued)

The following table sets forth the balance sheet location and fair value of the Company's forward foreign exchange contracts at April 2, 2011 and April 3, 2010:

	<u>Balance Sheet Location</u>	<u>April 2, 2011 Fair Value</u>	<u>April 3, 2010 Fair Value</u>
<i>Cash Flow Hedges</i>			
Forward foreign exchange contracts—assets	Other current assets	\$374	\$ —
Forward foreign exchange contracts—liabilities	Accrued expenses	—	\$(229)

<u>Fiscal Year Ended</u>	<u>Amount of (Gain) or Loss Recognized in OCI on Derivative (Effective Portion)</u>	<u>Location of Gain or (Loss) Reclassified from AOCI into Income (Effective Portion)</u>	<u>Amount of Gain or (Loss) Reclassified from AOCI into Income (Effective Portion)</u>	<u>Location of Gain or (Loss) Recognized in Income on Derivative (Ineffective Portion)</u>	<u>Amount of Gain or (Loss) Recognized in Income on Derivative (Ineffective Portion)</u>
April 2, 2011 . .	\$ 16	Cost of revenue	\$(2,992)	Other, net	—
April 3, 2010 . .	\$(2,610)	Cost of revenue	\$ 236	Other, net	\$(2,054)
March 28, 2009	\$24,504	Cost of revenue	\$ 1,112	Other, net	\$(3,039)

The interest component of forward foreign exchange contracts that does not qualify for hedge accounting treatment has been expensed and is not significant.

21. Quarterly Financial Information (unaudited)

Unaudited financial results by quarter for the fiscal years ended April 2, 2011 and April 3, 2010 are summarized below. The Company's quarterly reporting includes 13 week periods, unless otherwise

GT Solar International, Inc. and Subsidiaries
Notes to Consolidated Financial Statements (Continued)

April 2, 2011

(In thousands, except per share data)

21. Quarterly Financial Information (unaudited) (Continued)

noted. The fiscal year ended April 3, 2010 had 53 weeks, with the extra week occurring in the fourth quarter.

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>	<u>Total</u>
Year ended April 2, 2011					
Revenue	\$135,166(2)	\$229,293	\$262,898(2)	\$271,627	\$898,984
Gross profit	45,923	93,125	122,083	116,864	377,995
Net income	16,498	42,779	63,584	51,894	174,755
Income per common share (basic)(1)	0.11	0.29	0.47	0.41	1.26
Income per common share (diluted)(1) . .	0.11	0.28	0.46	0.41	1.24
Year ended April 3, 2010					
Revenue	\$ 71,819	\$104,193(2)	\$173,557(2)	\$194,676	\$544,245
Gross profit	34,965	34,259	76,687	73,071	218,982
Net income	7,779	9,435	36,771	33,271	87,256
Income per common share (basic)	0.05	0.07	0.26	0.23	0.61
Income per common share (diluted)	0.05	0.06	0.25	0.23	0.60

From time to time, operating results are significantly affected by unusual or infrequent transactions or events. The following significant and unusual items have affected the comparison of operating results during the periods presented:

- (1) On November 12, 2010, the Company purchased from Holdings 26,500 shares of its common stock at a per share price of \$7.66, or \$203,476. The Company funded the repurchase of these shares with its available cash. In addition, the Company issued 5,445 shares of the Company's common stock in connection with the acquisition of Crystal Systems on July 29, 2010.
- (2) During the year ended April 3, 2010, the Company recorded revenue from terminated contracts as follows: second quarter—\$1,753; third quarter—\$19,358. During the fiscal year ended April 2, 2011, the Company recorded revenue from terminated contracts as follows: first quarter—\$41,714, of which \$40,377 related to a turnkey contract that was substantially delivered but was terminated due to non-payment of an outstanding receivable; third quarter—\$2,638.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of GT Solar International, Inc.
Merrimack, New Hampshire

We have audited the accompanying consolidated balance sheet of GT Solar International, Inc. and subsidiaries (the "Company") as of April 2, 2011, and the related consolidated statements of operations, changes in stockholders' equity, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of GT Solar International, Inc. and subsidiaries at April 2, 2011, and the results of their operations and their cash flows for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of April 2, 2011, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated May 25, 2011 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
May 25, 2011

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of GT Solar International, Inc. and Subsidiaries

We have audited the accompanying consolidated balance sheet of GT Solar International, Inc. and subsidiaries as of April 3, 2010, and the related consolidated statements of operations, changes in stockholders' equity, and cash flows for each of the two fiscal years in the period ended April 3, 2010. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of GT Solar International, Inc. and subsidiaries at April 3, 2010, and the consolidated results of their operations and their cash flows for each of the two fiscal years in the period ended April 3, 2010, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts
June 4, 2010

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

None.

Item 9A. Controls and Procedures

The certifications of our principal executive officer and principal financial officer required in accordance with Rule 13a-14(a) under the Exchange Act and Section 302 of the Sarbanes-Oxley Act of 2002 are attached as exhibits to this Annual Report on Form 10-K. The disclosures set forth in this Item 9A contain information concerning the evaluation of our disclosure controls and procedures, and changes in internal control over financial reporting, referred to in paragraph 4 of the certifications. Those certifications should be read in conjunction with this Item 9A for a more complete understanding of the matters covered by the certifications.

Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, as of April 2, 2011.

Disclosure controls and procedures are designed to ensure that information required to be disclosed by a company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and that such information is accumulated and communicated to the company's management, including the principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on this evaluation, as of April 2, 2011, our Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures are effective at the reasonable assurance level and designed to ensure that the information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the requisite time periods.

Management's Report on Internal Control over Financial Reporting

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, 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 Exchange Act. A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel, 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 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.

Our management assessed the effectiveness of our internal control over financial reporting as of April 2, 2011. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control—Integrated Framework*.

Based on this assessment, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has concluded that, as of April 2, 2011, our internal control over financial reporting was effective.

Our registered public accounting firm has issued an attestation report on our internal control over financial reporting. This report appears below.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the fourth quarter of our fiscal year ended April 2, 2011 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
GT Solar International, Inc.
Merrimack, New Hampshire

We have audited the internal control over financial reporting of GT Solar International, Inc. and subsidiaries (the "Company") as of April 2, 2011, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible 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 the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel 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 the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the 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 Company maintained, in all material respects, effective internal control over financial reporting as of April 2, 2011, based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended

April 2, 2011 of the Company and our report dated May 25, 2011 expressed an unqualified opinion on those financial statements.

/s/ Deloitte & Touche LLP

Boston, Massachusetts

May 25, 2011

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information required by this Item relating to our directors and nominees is contained in our definitive proxy statement for our 2011 Annual Meeting of Stockholders scheduled to be held August 24, 2011, which will be filed within 120 days of the end of our fiscal year ended April 2, 2011, or the 2011 Proxy Statement, under the caption “Proposal 1—Election of Directors—Certain Information Regarding Directors” and is incorporated herein by reference. Information required by this item relating to our executive officers is contained in our 2011 Proxy Statement under the caption “Executive Officers” and is incorporated herein by reference. Information required by this item relating to compliance with Section 16(a) of the Securities Exchange Act of 1934 is contained in our 2011 Proxy Statement under the caption “Other Information—Section 16(a) Beneficial Ownership Reporting Compliance” and is incorporated herein by reference. The remaining information called for by this item is contained in our 2011 Proxy Statement under the caption “Corporate Governance” and is incorporated herein by reference.

We have adopted a code of ethics that applies to our principal executive, financial and accounting officers and all persons performing similar functions. The code of ethics is published on the Company’s website (www.gtsolar.com) under the Corporate Governance section of the Investor Relations page. A printed copy of this Code may be obtained, without charge, by writing to the Secretary, GT Solar International, Inc., 243 Daniel Webster Highway, Merrimack, New Hampshire 03054. If we waive any material provisions of our code of ethics or substantively change the code, we will disclose that fact on our website.

Item 11. Executive Compensation

Information required by this Item is contained in our 2011 Proxy Statement under the captions “Executive Compensation,” and “Corporate Governance—Committees of the Board of Directors” and “Corporate Governance—Compensation Committee Interlocks and Inside Participation” and is incorporated herein by reference.

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

Equity Compensation Plans

The following table sets forth certain information, as of April 2, 2011, concerning securities authorized for issuance under all equity compensation plans of our Company (amounts in thousands, except per share data):

<u>Plan Category</u>	<u>Number of Securities to be Issued Upon Exercise of Outstanding Options and Rights(a)</u>	<u>Weighted-Average Exercise Price of Outstanding Options and Rights(b)(3)</u>	<u>Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column(a))(c)</u>
Equity compensation plans approved by our stockholders:			
2008 Equity Incentive Plan	6,245(1)	\$5.40	7,719
Equity compensation plans not approved by our stockholders:			
2006 Stock Option Plan(2)	<u>1,372</u>	\$3.80	<u>—</u>
Total	<u><u>7,617</u></u>	\$4.89	<u><u>7,719</u></u>

(1) Includes 3,332 restricted stock units under our 2008 Equity Incentive Plan.

(2) Includes options granted under the Second Amended and Restated GT Solar International, Inc. 2006 Stock Option Plan (the "2006 Plan"). In connection with the reorganization of our holding company structure in September 2006, options to purchase GT Solar Incorporated's common stock were converted into options to purchase shares of our common stock. In July 2006, we granted options to executives, employees, directors and consultants under the 2006 Plan. Following the reorganization of our holding company structure in September 2006, these options were for an aggregate of approximately 3,329 shares of our common stock. Of these option grants, options with respect to approximately 2,913 shares vest as follows: one quarter of the options vested on the first anniversary of the grant date, and 1/48 of the options vest at the end of each month during the subsequent three years; and options with respect to 416,160 shares vest as follows: one third of the options vested on the first anniversary of the grant date, and 1/36 of the options vest at the end of each month during the subsequent two years. In December 2007 and January 2008, we granted options to purchase an aggregate of approximately 3,609 shares of our common stock to executives, employees, directors and consultants. One quarter of the options vested on the first anniversary of the grant date, and 1/48 of the options vest at the end of each month during the subsequent three years. Any unexercised option under the 2006 Plan shall immediately expire upon the first to occur of: (i) the tenth anniversary of the grant date; or (ii) subject to the provisions of the relevant option agreement and except as otherwise determined by the compensation committee, termination of the option holder's service to us or one of our subsidiaries. See Note 14 to our consolidated financial statements in Item 8 in this Annual Report on Form 10-K for additional information on the 2006 Plan. In June 2008, our Board of Directors terminated the ability to grant future stock option awards under the 2006 Plan.

(3) The weighted average exercise price does not take into account the shares issuable upon vesting of outstanding restricted stock units which have no exercise price.

Information required by this item relating to security ownership of certain beneficial owners and management is contained in our 2011 Proxy Statement under the caption “Beneficial Stock Ownership of Directors, Executive Officers and Persons Owning More Than Five Percent of Common Stock.”

Item 13. *Certain Relationships and Related Transactions, and Director Independence*

Information required by this item relating to transactions with related persons is contained in our 2011 Proxy Statement under the caption “Related Party Transactions” and is incorporated herein by reference. Information required by this item relating to director independence is contained in our 2011 Proxy Statement under the caption “Corporate Governance—Board Composition” and is incorporated herein by reference.

Item 14. *Principal Accountant Fees and Services*

Information required by this item is contained in our 2011 Proxy Statement under the caption “Audit Committee Matters” and is incorporated herein by reference.

PART IV

Item 15. *Exhibits and Financial Statement Schedules*

- (a)(1) *Financial Statements.* See “Index to Financial Statements” under Item 8 on page 78 of this Form 10-K.
- (a)(2) *Financial Statement Schedules.* Financial statement schedules have been omitted since they are either not required, not applicable or the information is otherwise included.
- (a)(3) *Exhibits.* The exhibit filed as part of this Annual Report on form 10-K are listed in the Exhibit Index immediately preceding such exhibits and are incorporated by reference or are filled with this report as indicated below (numbered in accordance with Item 601 of Regulation S-K).

SIGNATURES

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

GT SOLAR INTERNATIONAL, INC.

BY: /s/ THOMAS GUTIERREZ

Thomas Gutierrez
President and Chief Executive Officer

Date: May 25, 2011

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

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
/s/ THOMAS GUTIERREZ Thomas Gutierrez	Director, President and Chief Executive Officer (Principal Executive Officer)	May 25, 2011
/s/ RICHARD J. GAYNOR Richard J. Gaynor	Vice President and Chief Financial Officer (Principal Financial Officer)	May 25, 2011
/s/ RICHARD E. JOHNSON Richard E. Johnson	Vice President Finance and Chief Accounting Officer (Principal Accounting Officer)	May 25, 2011
/s/ FUSEN E. CHEN Fusen E. Chen	Director	May 25, 2011
/s/ J. MICHAL CONAWAY J. Michal Conaway	Director	May 25, 2011
/s/ ERNEST L. GODSHALK Ernest L. Godshalk	Director	May 25, 2011
/s/ MATTHEW E. MASSENGILL Matthew E. Massengill	Director	May 25, 2011
/s/ NOEL G. WATSON Noel G. Watson	Director	May 25, 2011

Exhibit Index

Exhibit Number	Description of Document	Incorporated by Reference			Filed Herewith
		Form	Date Filed	Exhibit #	
2.1	Agreement and Plan of Merger, dated December 8, 2005, by and among GT Solar Incorporated (formerly known as GT Equipment Technologies, Inc.), GT Solar Holdings, LLC, Glow Merger Corporation, OCM/GFI Power Opportunities Fund II, L.P. and OCM/GFI Power Opportunities Fund II (Cayman), L.P., and the stockholders party thereto.	S-1/A	6/6/08	2.1	
2.2	Agreement and Plan of Merger, dated as of September 28, 2006, by and among, GT Solar Incorporated, GT Solar International, Inc. and GT Solar Merger Corp	S-1/A	6/6/08	2.2	
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	10-Q	8/27/08	3.1	
3.2	Amended and Restated By-laws of the Registrant.	10-Q	8/27/08	3.2	
4.1	Specimen Common Stock certificate.	S-1/A	7/18/08	4.1	
4.2	Amended and Restated GT Solar International, Inc. Employee Stockholders Agreement, dated as of July 1, 2008, by and among GT Solar International, Inc., GT Solar Holdings, LLC and each individual who executes a counterpart to the agreement as well as any other person who acquires shares of GT Solar International, Inc.'s common stock pursuant to the Second Amended and Restated GT Solar International, Inc. 2006 Stock Option Plan.	S-1/A	7/7/08	4.4	
10.1*	Employment Agreement, dated as of December 30, 2005, by and between GT Solar Incorporated and Thomas M. Zarrella.	S-1	4/26/07	10.3	
10.2*	Employment Agreement, dated as of April 12, 2006, and as amended on January 16, 2007, by and between GT Solar Incorporated and David W. Keck.	S-1	4/26/07	10.6	
10.3*	Employment Agreement, dated as of June 1, 2006, by and between GT Solar Incorporated and Jeffrey J. Ford.	S-1	4/26/07	10.7	
10.4	Confidentiality and Non-Competition Agreement, dated as of December 30, 2005, by and between GT Solar Incorporated and Thomas M. Zarrella.	S-1	4/26/07	10.10	
10.5*	Second Amended and Restated GT Solar International, Inc. 2006 Stock Option Plan, dated December 30, 2005, and amended July 7, 2006 and January 15, 2008.	S-1/A	4/18/08	10.9	

Exhibit Number	Description of Document	Incorporated by Reference			Filed Herewith
		Form	Date Filed	Exhibit #	
10.6	Confidentiality and Non-Competition Agreement, dated as of April 17, 2006, by and between GT Solar Incorporated and David W. Keck.	S-1/A	4/18/08	10.13	
10.7	Confidentiality and Non-Competition Agreement, dated as of June 1, 2006, by and between GT Solar Incorporated and Jeffrey J. Ford.	S-1/A	4/18/08	10.14	
10.8	Form of Director Confidentiality Agreement.	S-1/A	7/18/08	10.17	
10.9+	Engineering Agreement, dated as of March 14, 2006, by and between GT Solar Incorporated and Poly Engineering, S.r.l.	S-1/A	4/18/08	10.18	
10.10*	Amendment to Employment Agreement, dated January 16, 2007, by and between GT Solar Incorporated and David W. Keck.	S-1/A	4/18/08	10.19	
10.11*	Employment Agreement, dated as of January 2, 2008, by and between the Registrant and Robert W. Woodbury, Jr.	S-1/A	4/18/08	10.21	
10.12*	Employment Agreement, dated as of August 6, 2007, by and between the Registrant and John (Rick) Tattersfield.	S-1/A	4/18/08	10.23	
10.13*	GT Solar Incorporated Management Incentive Program for Fiscal Year 2008.	S-1/A	4/18/08	10.24	
10.14*	Form of Stock Option Agreement under the GT Solar International, Inc. 2006 Stock Option Plan, as amended.	S-1/A	4/18/08	10.25	
10.15*	Restricted Stock Agreement, dated as of March 17, 2008, by and between the Registrant and Robert W. Woodbury.	S-1/A	4/18/08	10.26	
10.16*	Letter Agreement, dated March 5, 2008 by and between the Registrant and John (Rick) Tattersfield.	S-1/A	4/18/08	10.27	
10.17*	Letter Agreement, dated August 8, 2006, by and between the Registrant and Ernest L. Godshalk.	S-1/A	6/6/08	10.28	
10.18*	Letter Agreement, dated April 4, 2007, by and between the Registrant and Ernest L. Godshalk.	S-1/A	6/6/08	10.29	
10.19*	Letter Agreement, dated May 9, 2008, by and between the Registrant and J. Michal Conaway.	S-1/A	6/6/08	10.30	
10.20*	Letter Agreement, dated May 9, 2008 by and between the Registrant and Fusen E. Chen.	S-1/A	6/6/08	10.31	
10.21	GT Solar Holdings, LLC Limited Liability Company Agreement, dated as of December 30, 2005.	S-1/A	6/6/08	10.33	

Exhibit Number	Description of Document	Incorporated by Reference			Filed Herewith
		Form	Date Filed	Exhibit #	
10.22*	Form of July 2006 Stock Option Agreement under the GT Solar International, Inc. 2006 Stock Option Plan, as amended.	S-1/A	7/7/08	10.36	
10.23	Amended and Restated Registration Rights Agreement, dated as of July 1, 2008, among the Registrant and the persons on the signature page thereto.	S-1/A	7/7/08	10.40	
10.24*	Form of Director Restricted Stock Unit Agreement.	S-1/A	7/18/08	10.41	
10.25*	Form of Director Proprietary Rights and Confidentiality Agreement.	S-1/A	7/18/08	10.42	
10.26	Employee, Non-Competition, Non-Disclosure, Proprietary Information and Patent and Invention Assignment Agreement, dated as of January 7, 2008, by and between GT Solar Incorporated and Robert W. Woodbury, Jr.	S-1/A	7/18/08	10.43	
10.27*	Letter agreement, dated as of July 29, 2008, among the registrant, Thomas M. Zarrella, GT Solar Holdings, LLC and certain members of GT Solar Holdings, LLC.	8-K	7/31/08	10.3	
10.28*	Letter Agreement, dated September 11, 2008, by and between the Company and Matthew E. Massengill	8-K	9/18/08	10.1	
10.29*	Fiscal Year 2009 Executive Incentive Program	8-K	10/30/08	10.1	
10.30*	2008 Equity Incentive Plan.	10-Q	11/07/08	10.1	
10.31*	Fiscal Year 2009 Management Incentive Program	10-Q	11/07/08	10.6	
10.32*	Letter Agreement, dated November 10, 2008, by and between the Registrant and Noel G. Watson.	8-K	11/12/08	10.1	
10.33	Confidentiality Agreement, dated as of November 11, 2008, by and between the Registrant and Noel G. Watson	8-K	12/03/08	10.1	
10.34*	Restricted Stock Unit Agreement, dated as of September 12, 2008, by and between the Registrant and Matthew E. Massengill.	10-Q	2/06/09	10.4	
10.35*	Restricted Stock Unit Agreement, dated as of November 11, 2008, by and between the Registrant and Noel G. Watson.	10-Q	2/06/09	10.5	
10.36*	Form of Restricted Stock Unit Agreement for employees.	10-Q	2/06/09	10.6	
10.37*	Form of Restricted Stock Unit Agreement for executive officers.	10-Q	2/06/09	10.7	

Exhibit Number	Description of Document	Incorporated by Reference			Filed Herewith
		Form	Date Filed	Exhibit #	
10.38*	Employment Agreement, dated as of January 27, 2009, by and between the Registrant and Hoil Kim.	10-Q	2/06/09	10.8	
10.39*	Offer Letter, dated as of November 24, 2008, by and between the Registrant and Hoil Kim.	10-Q	2/06/09	10.9	
10.40*	Employment Agreement Amendment for Code Section 409A, by and between the Registrant and Robert W. Woodbury Jr.	10-K	6/09/09	10.50	
10.41*	Employment Agreement Amendment for Code Section 409A, by and between the Registrant and John (Rick) Tattersfield.	10-K	6/09/09	10.51	
10.42*	Employment Agreement Amendment for Code Section 409A, by and between the Registrant and David W. Keck.	10-K	6/09/09	10.52	
10.43*	Employment Agreement Amendment for Code Section 409A, by and between the Registrant and Jeffrey J. Ford.	10-K	6/09/09	10.53	
10.44*	Employment Agreement Amendment for Code Section 409A, by and between the Registrant and Thomas M. Zarrella.	10-K	6/09/09	10.54	
10.45*	Amendment to Employment Agreement, dated as of June 4, 2009, by and between the Registrant and David W. Keck.	10-K	6/09/09	10.55	
10.46*	Employment Agreement, dated as of January 19, 2009, by and between the Registrant and David Gray.	10-K	6/09/09	10.56	
10.47*	Fiscal Year 2010 Executive Incentive Program.	8-K	8/12/09	10.1	
10.48*	Section 162(m) Performance Incentive Plan.	8-K	8/12/09	10.2	
10.49*	Form of restricted stock unit agreement for G3W Ventures, LLC and Oaktree Capital Management, L.P.	8-K	8/12/09	10.3	
10.50*	Employment Agreement with Thomas Gutierrez dated October 28, 2009.	8-K	11/02/09	10.1	
10.51*	Restricted Stock Unit Agreement with Thomas Gutierrez dated October 29, 2009.	8-K	11/02/09	10.2	
10.52*	Stock Option Grant Agreement with Thomas Gutierrez dated October 29, 2009.	8-K	11/02/09	10.3	
10.53*	Form of restricted stock unit agreement for executive officers.	10-Q	11/10/09	10.4	
10.54*	Form of stock option agreement for executive officers.	10-Q	11/10/09	10.5	
10.55*	Form of restricted stock unit agreement for directors.	10-Q	11/10/09	10.6	

Exhibit Number	Description of Document	Incorporated by Reference			Filed Herewith
		Form	Date Filed	Exhibit #	
10.56*	Separation and General Release Agreement between the company and Thomas M. Zarrella dated November 13, 2009.	8-K	11/17/09	10.1	
10.57*	Employment Agreement, dated as of February 23, 2010, by and between the Company and Richard Gaynor.	8-K	3/01/10	10.1	
10.58*	Offer Letter, dated as of February 1, 2010, by and between the Registrant and Richard Gaynor.	8-K	3/01/10	10.2	
10.59*	Fiscal Year 2010 Management Incentive Program	8-K	12/11/09	10.1	
10.60*	Resignation letter of Richard K. Landers dated December 18, 2009	8-K	12/21/09	10.1	
10.61*	Offer Letter, dated as of January 28, 2008, by and between the Registrant and Richard E. Johnson.	10-K	6/04/10	10.71	
10.62*	Form of Indemnification Agreement for non-employee directors	8-K	4/20/10	10.1	
10.63*	Form of Indemnification Agreement for executive officers	8-K	6/8/10	10.1	
10.64*	GT Solar International, Inc. fiscal year 2011 Executive Incentive Plan	8-K	8/17/10	10.1	
10.65*	GT Solar International, Inc. Fiscal Year 2011 Management Incentive Plan	8-K	11/3/10	10.1	
10.66*	Amendment to Letter Agreement between Richard E Johnson and GT Solar Incorporated dated October 28, 2010	8-K	11/3/10	10.2	
10.67	Share Repurchase Agreement, dated as of November 5, 2010, by and among GT Solar International, Inc. and GT Solar Holdings, LLC	8-K	11/9/10	10.1	
10.68	Credit Agreement, dated as of December 13, 2010, among GT Solar International, Inc., the Lenders, and Credit Suisse AG, as administrative agent and as collateral agent for the Lenders	8-K	12/17/10	10.1	
10.69	Guarantee and Collateral Agreement dated as of December 13, 2010, among GT Solar International, Inc., the Lenders, and Credit Suisse AG, as administrative agent and as collateral agent for the Lenders	8-K	12/17/10	10.2	
10.70	Amendment No. 1 to Credit Agreement, dated as of February 9, 2011, among GT Solar International, Inc., the Lenders, and Credit Suisse, AG, as administrative agent and as collateral agent	8-K	02/10/11		
21.1	Subsidiaries of the Registrant.				X

Exhibit Number	Description of Document	Incorporated by Reference			Filed Herewith
		Form	Date Filed	Exhibit #	
23.1	Consent of Deloitte & Touche LLP				
23.2	Consent of Ernst & Young LLP.				X
31.1	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, Rule 13a-14(a)/15d-14(a), by Chief Executive Officer.				X
31.2	Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, Rule 13a-14(a)/15d-14(a), by Chief Financial Officer.				X
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, by Chief Executive Officer and Chief Financial Officer.				X

+ Certain confidential portions have been omitted pursuant to a confidential treatment request filed separately with the Securities and Exchange Commission.

* Indicates management contract or compensatory plan or arrangement.

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO 15 U.S.C. SECTION 7241, AS
ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Thomas Gutierrez, certify that:

1. I have reviewed this annual report on Form 10-K of GT Solar International, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 25, 2011

/s/ THOMAS GUTIERREZ

Thomas Gutierrez
President and Chief Executive Officer
(Principal Executive Officer)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER
PURSUANT TO 15 U.S.C. SECTION 7241, AS
ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Richard J. Gaynor certify that:

1. I have reviewed this annual report on Form 10-K of GT Solar International, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 25, 2011

/s/ RICHARD J. GAYNOR

Richard J. Gaynor
Vice President and Chief Financial Officer
(Principal Financial Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of GT Solar International, Inc. (the "Company") for the year ended April 2, 2011, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned officers of the Company, certify pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to their knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 25, 2011

/s/ THOMAS GUTIERREZ

Thomas Gutierrez
President and Chief Executive Officer
(Principal Executive Officer)

Date: May 25, 2011

/s/ RICHARD J. GAYNOR

Richard J. Gaynor
Vice President and Chief Financial Officer
(Principal Financial Officer)

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DIRECTORS

Matthew E. Massengill

Chairman of GT Solar, Former Chairman, President and Chief Executive Officer, Western Digital Corporation

Fusen E. Chen

Executive Vice President, Semiconductor Systems Products, Novellus Systems, Inc.

J. Michal Conaway

Founder and Chief Executive Officer, Peregrine Group, LLC

Ernest L. Godshalk

Managing Director, Elgin Management Group

Thomas Gutierrez

President and Chief Executive Officer, GT Solar

Mary Petrovich

Former General Manager, Chairman and Chief Executive Officer, AxleTech International LLC

Robert E. Switz

Former Director, President, Chief Executive Officer, and Chairman, ADC Telecommunications, Inc.

Noel G. Watson

Chairman, Jacobs Engineering Group, Inc.

SHAREHOLDER INFORMATION

GT Solar International, Inc.

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Independent Registered Public Accounting Firm

Deloitte & Touche LLP
200 Berkeley Street
Boston, MA 02116 USA

EXECUTIVE OFFICERS

Thomas Gutierrez

President and Chief Executive Officer

Richard Gaynor

Vice President and Chief Financial Officer

Cheryl Diuguid

Vice President and General Manager, Sapphire Materials and Equipment

Jeffrey J. Ford

Vice President and General Manager, Asia Photovoltaic and Sapphire Equipment

David C. Gray

Vice President, Strategic Development

David W. Keck

Vice President and General Manager, Polysilicon

Hoil Kim

Vice President, Chief Administrative Officer, General Counsel and Secretary

Vikram Singh

Vice President and General Manager, Photovoltaic

Transfer Agent

BNY Mellon Shareowner Services
480 Washington Boulevard, Jersey City, NJ 07310
Toll Free Dedicated Number: 877.289.0116
TDD for hearing Impaired: 800.231.5469
TDD Foreign Shareowners: 201.680.6610
Foreign Shareowners: 201.680.6578
www.bnymellon.com/shareowner/equityaccess

Exchange: NASDAQ Global Select Market
Ticker Symbol SOLR



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