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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2014

or

o TRANSITION REPORT UNDER SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Transition Period from to

Commission File No. 001-32919

Ascent Solar Technologies, Inc.
(Exact name of registrant as specified in its charter)

Delaware	20-3672603
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
12300 Grant Street, Thornton, CO	80241
(Address of principal executive offices)	(Zip Code)

Registrant’s telephone number including area code: 720-872-5000

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, $0.0001 par value per share	The NASDAQ Global 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 o No x

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

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

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

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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 definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act:

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

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

As of June 30, 2014, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the registrant's common stock held by non-affiliates was approximately $29.8 million based upon the last reported sale price of the registrant's common stock on that date as reported by NASDAQ.

As of March 13, 2015, there were 25,172,388 shares of our common stock issued and outstanding.

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ASCENT SOLAR TECHNOLOGIES, INC.
Form 10-K Annual Report
for the Fiscal Year ended December 31, 2014
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FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K includes “forward-looking statements” that involve risks and uncertainties. Forward-looking statements include statements concerning our plans, objectives, goals, strategies, future events, future net sales or performance, capital expenditures, financing needs, plans or intentions relating to acquisitions, business trends and other information that is not historical information and, in particular, appear under headings including “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” When used in this Annual Report, the words “estimates,” “expects,” “anticipates,” “projects,” “plans,” “intends,” “believes,” “forecasts,” “foresees,” “likely,” “may,” “should,” “goal,” “target,” and variations of such words or similar expressions are inte to identify forward-looking statements. All forward-looking statements are based upon information available to us on the date of this Annual Report.

These forward-looking statements are subject to risks, uncertainties and other factors, many of which are outside of our control, that could cause actual results to differ materially from the results discussed in the forward-looking statements, including, among other things, the matters discussed in this Annual Report in the sections captioned “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Factors you should consider that could cause these differences are:

- Our limited operating history and lack of profitability;
- Our ability to successfully design, manufacture and sell our EnerPlex™ line of consumer products;
- Our ability to develop demand for, and sales of, our products;
- Our ability to attract and retain qualified personnel to implement our business plan and corporate growth strategies;
- Our ability to develop sales, marketing and distribution capabilities;
- Our strategic alliance with TFG Radiant results in the design, manufacture and sale of sufficient products to achieve profitability;
- Our ability to successfully develop and maintain strategic relationships with key partners, including OEMs, system integrators, distributors, retailers and e-commerce companies, who deal directly with end users in our target markets;
- The accuracy of our estimates and projections;
- Our ability to secure additional financing to fund our short-term and long-term financial needs;
- Our ability to maintain the listing of our common stock on the NASDAQ Capital Market;
- The commencement, or outcome, of legal proceedings against us, or by us, including ongoing ligation proceedings;
- Changes in our business plan or corporate strategies;
- The extent to which we are able to manage the growth of our operations effectively, both domestically and abroad, whether directly owned or indirectly through licenses;
- The supply, availability and price of equipment, components and raw materials, including the elements needed to produce our photovoltaic modules;
- Our ability to expand and protect the intellectual property portfolio that relates to our consumer electronics, photovoltaic modules and processes;
- General economic and business conditions, and in particular, conditions specific to consumer electronics and the solar power industry; and
- Other risks and uncertainties discussed in greater detail in the section captioned "Risk Factors."

There may be other factors that could cause our actual results to differ materially from the results referred to in the forward-looking statements. We undertake no obligation to publicly update or revise forward-looking statements to reflect subsequent events or circumstances after the date made, or to reflect the occurrence of unanticipated events, except as required by law.

References to “we,” “us,” “our,” “Ascent,” “Ascent Solar” or the “Company” in this Annual Report mean Ascent Solar Technologies, Inc.

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PART I

Item 1. Business

Business Overview

We are a development stage company formed in October 2005 to commercialize flexible photovoltaic ("PV") modules using our proprietary thin film technology. The technology was initially developed at ITN Energy Systems, Inc. ("ITN") beginning in 1994 and subsequently assigned and licensed to us. Our proprietary manufacturing process deposits multiple layers of materials, including a thin film of highly efficient copper-indium-gallium-diselenide ("CIGS") semiconductor material, on a flexible, lightweight, high tech plastic substrate using a roll-to-roll manufacturing process and then laser patterns the layers to create interconnected PV cells, or PV modules, in a process known as monolithic integration. We believe that our technology and manufacturing process, which results in a lighter, flexible module package, provides us with unique market opportunities relative to both the crystalline silicon ("c-Si") based PV manufacturers that currently lead the PV market, as well as other thin film PV manufacturers that use substrate materials such as glass, stainless steel or other metals that can be heavier and more rigid than plastics.

We believe that the use of CIGS on a flexible, durable, lightweight, high tech plastic substrate will allow for unique and seamless integration of our PV modules into a variety of electronic products, defense, transportation and aerospace applications, as well as other products and applications that may emerge. For markets that place a high premium on weight, such as consumer electronics, defense, space, near space, and aeronautic markets, we believe our materials provide attractive increases in power-to-weight ratio, and that our materials have higher power-to-area ratios and voltage-to-area ratios than competing flexible PV thin film technologies. These metrics will be critical as we position ourselves to compete in challenging high value markets such as satellites and near earth orbiting vehicles. Currently, we are producing consumer oriented products with a focus on charging devices powered by or enhanced by our solar modules. Products in these markets are priced based on the overall product value proposition rather than a commodity-style price per watt basis. We continue to develop new consumer products and we have adjusted our utilization of our equipment to meet our near term forecast sales.

Product History

In March 2008, we demonstrated initial operating capacity of our first production line by beginning production trials as an end to end integrated process. Initial operating capacity production trials resulted in average thin film device efficiencies of 9.5% and small area monolithically integrated module efficiencies of over 7.0%. During 2008, optimization trials resulted in thin film device efficiencies in the 9.5% to 11.5% range and corresponding module efficiencies in the 7.0% to 9.0% range. The test modules measured approximately 15 centimeters wide by 30 centimeters long. During the first quarter of 2009, we began limited production of monolithically integrated flexible CIGS modules in our initial production line. Our primary business model, at that time, was based upon mass production of solar modules of varying lengths, sizes and configurations. We provided sample modules to potential customers and development partners in various industries to explore integration of our products into new applications. In July 2009, we obtained independent verification by the U.S. Department of Energy's National Renewable Energy Laboratory ("NREL") that our modules measured 10.4% in conversion efficiency. The modules tested at NREL were approximately 15 centimeters wide by 30 centimeters long. In October 2009, NREL further verified our achievement of a manufacturing milestone of 14.0% cell efficiency as well as a peak efficiency of 11.4% for CIGS modules. Later, in December 2010, we achieved 12.1% module efficiency on the same form factor. In October 2010, we completed internal qualification testing of a flexible packaging solution which successfully passed the rigorous standard of one thousand (1,000) hours of damp heat testing (85% relative humidity and 85° C temperature) guideline set forth by International Electrotechnical Commission ("IEC") 61646 standards for performance and long term reliability of thin film solar modules.

In February 2010, three of our product configurations were certified by an independent laboratory on a variety of U.S. Department of Defense ("DOD") rugged standards known as MIL-STD-810G. In October 2010, we completed full external certification under IEC 61646 at an independent laboratory of a two meter module. Achieving this certification is required for BIPV and BAPV applications used in commercial, industrial and residential rooftop markets. Certification activities will continue as required as we introduce new products and make changes or improvements to our already certified products.

In 2010, we received an award from R&D Magazine and were included in their list of the 100 Most Innovative Technologies based on our process of monolithic integration on polyimide substrate. In 2011, Time Magazine selected us as one of the 50 Best Inventions of the year.

In 2012, we evolved our business model to add B2C, solution based, PV integrated consumer electronics to our off grid high value solar power generation strategy. In June of 2012, we launched our new line of consumer products under the EnerPlex™ brand, and introduced our first product, the Surfr™, a battery and solar case for the Apple® iPhone® 4/4S smart phone, featuring

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our ultra-light CIGS thin film technology integrated directly into the case. The case incorporates our ultra-light and thin PV module into a sleek, protective iPhone 4/4S case, along with a thin, life extending, lithium-polymer battery. The case adds minimal weight and size to an iPhone smartphone, yet provides supplemental charging when needed. In August of 2012, we announced the launch of the second version of the Surfr for the Samsung® Galaxy S® III, which provides 85% additional battery life.

In December 2012, we launched the EnerPlex Kickr™ and EnerPlex Jumpr™ product series. The Kickr IV is an extremely portable, compact and durable solar charging device, approximately seven inches by seven inches when folded, and weighs less than half a pound. The Kickr IV provides 6.5 watts of regulated power that can help charge phones, digital cameras, and other small USB enabled devices. The Kickr IV is ideal for outdoor activities such as camping, hiking and mountain climbing as well as daily city use. To complement the Kickr IV, we also released the Jumpr series of portable power banks in December of 2012. The Jumpr series provides a compact power storage solution for those who need to recharge their portable electronics while on the go.

During 2013, the EnerPlex brand rapidly expanded with the addition of two new product series as well as over fifteen new products. In 2013, we introduced further additions to the Jumpr line of portable power banks; releasing the Jumpr Mini and Jumpr Stack in August and the Jumpr Max in September. The latest additions to the Kickr line of portable solar chargers, the Kickr I and Kickr II, were introduced in August at the Outdoor Retailer show. Furthermore, in October 2013, we released our first series of solar integrated backpacks, the EnerPlex Packr™. The Packr is a functional backpack ideal for charging mobile electronic devices while on the go. Also in October of 2013, we introduced the Surfr battery and solar case for the Samsung Galaxy S® 4, and in December, we introduced the Surfr battery and solar case for Apple's iPhone® 5. To compliment our flagship product lines, we added an assortment of accessories, all of which can be integrated into the EnerPlex ecosystem of products; such as the LED wand which can be easily plugged into a Jumpr power bank to provide hours of light, or the Travel Adaptor, which enables consumers to charge up their Jumpr power banks from a traditional outlet anywhere in the world.

In 2013, we aggressively pursued new distribution channels for the EnerPlex brand; these activities have led to placement in a variety of high-traffic ecommerce venues such as www.walmart.com, www.brookstone.com, www.newegg.com as well as many others including our own e-commerce platform at www.goenerplex.com. The April 2013 placement of EnerPlex products at Fry's Electronics, a US West Coast consumer electronics retailer, represented the company's first domestic retail presence. EnerPlex products are carried in all of Fry's 34 superstores across 9 states. Each store is provided with EnerPlex branded merchandising assets to highlight the uniqueness of our product lines.

Throughout 2014, EnerPlex released multiple additions to the Jumpr line of products: including the Jumpr Stack 3, 6 & 9, innovative batteries equipped with tethered micro-USB and Apple Lightning cables and revolutionary Stack & Charge design, enabling batteries to be charged simultaneously when they are placed on top of one another. Also released in 2014 were the Jumpr Slate series, products which push the boundaries of how thin batteries can be, the Jumpr Slate 10k, at less than 7mm thick was the thinnest lithium polymer battery available when it was released. The Jumpr Slate 5k and 5k Lightning each come with a tethered micro-USB and Lightning cable respectively; freeing consumers from worrying about toting extra cables with them while on the move.

At Outdoor Retailer 2014, EnerPlex debuted the Generatr Series. The Generatr 1200 and Generatr 100 are lithium-ion based large format batteries; lighter and smaller than competitors the Generatr Series are targeted for consumers who require high-capacity, high-output batteries which remain ultra-portable when compared to the competition. Also debuted at Outdoor Retailer was the Commandr XII, a high output solar charger designed specifically to integrate with and charge the Generatr series, allowing consumers to stay out longer without needing to charge their Generatr batteries from a traditional power source. In August, the Kickr II+ and IV+ were also announced, these products represent another evolution in EnerPlex's line of solar products; integrated with a 500mAh battery the Kickr II+ and IV+ are able to provide a constant flow of power even when there are intermittent disruptions in sunlight.

In 2014 EnerPlex products were launched with multiple online and brick-and-mortar partners; including BestBuy.com, 300 premium Verizon Wireless stores via partner The Cellular Connection (TCC) and 25 Micro Center stores across 16 states. This expansion of retail partners represents a nearly nine-fold increase in the number of stores in which EnerPlex products are sold.

We continue to design and manufacture PV integrated consumer electronics as well as portable power applications for commercial and military users. Due to the high durability enabled by the monolithic integration employed by our technology, the capability to customize modules into different form factors and the industry leading light weight and flexibility provided by our modules, we believe that the potential applications for our products are numerous.

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Commercialization and Manufacturing Strategy

We manufacture our products by affixing a thin CIGS layer to a flexible, plastic substrate using a large format, roll-to-roll process that permits us to fabricate our flexible PV modules in an integrated sequential operation. We use proprietary monolithic integration techniques which enable us to form complete PV modules with less or no costly back end assembly of inter cell connections. Traditional PV manufacturers assemble PV modules by bonding or soldering discrete PV cells together. This manufacturing step typically increases manufacturing costs and at times proves detrimental to the overall yield and reliability of the finished product. By reducing or eliminating this added step using our proprietary monolithic integration techniques, we believe we can achieve cost savings in, and increase the reliability of, our PV modules. All tooling necessary for us to meet our near term production requirements is installed in our Thornton, Colorado plant. In 2012, we further revised our strategy to focus on applications for emerging and high-value specialty PV markets, including off grid, aerospace, military and defense and consumer oriented products.

On February 1, 2012, we announced the appointment of Victor Lee as President and Chief Executive Officer. Mr. Lee has served on our Board since November 2011. Mr. Lee is the Managing Director of Tertius Financial Group Pte Ltd, the joint venture partner with Radiant Group in TFG Radiant.

The addition of TFG Radiant as a major shareholder in August 2011 has significantly improved our capabilities on a number of fronts. TFG Radiant's domicile in Shenzhen, China provides us access to high quality, low cost contract manufacturing in Asia through the expansion of TFG Radiant's existing relationships developed through many years of successful operation in China. Integrating these suppliers into our supply chain enables us to bring our products to market faster. TFG Radiant also provides a global product perspective that significantly improves the product design activities of our Thornton, Colorado designers as they collaborate with designers in Asia. We continue to integrate and improve the design-to-manufacture process where we manufacture modules in our US plant, ship them to Asia for completion into finished goods at low cost and then ship products to all markets we will serve.

On July 2, 2013, we entered into a framework agreement for the establishment of a joint venture with the Government of the Municipal City of Suqian in Jiangsu Province, China ("Suqian"). On December 28, 2013 we signed the definitive agreement with Suquian which further specified the terms and time frame of the joint venture.

Under this definitive agreement, Suqian will provide cash of approximately $32.5 million, as well as the five year rent-free use of approximately 331,000 square feet of factory & office space in the Suqian Economic and Industrial Development Science Park. The JV will build a 100MW factory over six years to manufacture Ascent's proprietary thin-film Copper-Indium-Gallium-Selenium (CIGS) photovoltaic modules on flexible polyimide in addition to related consumer products.

Ascent shall purchase the factory within the first 5 years at the initial construction cost plus 10%, and will also purchase Suqian's ownership interest in the JV within 5 years at 1.5 times of Suqian's cash cost.

On September 16, 2014, the JV officially received the Certificate of Approval for Establishment of Enterprises with Foreign Investment in the People's Republic of China. Subsequent to that on September 24, 2014, the JV obtained the Business Operating License which marks the official establishment of the entity. By the end of 2014, Suqian has injected $960k in cash while Ascent injected $320k in cash to commence operation. In 2015, Suqian will further inject the balance of the committed $32.5 million in cash while Ascent will contribute its proprietary technology and intellectual property, certain equipment from its Colorado facility, as well as a modest amount of additional cash thereby increasing Ascent's ownership progressively up to 80%. The JV is expected to commence pilot run manufacturing operation during the second half of 2015. By the end of 2017, the JV is expected to operate an end-to-end manufacturing plant with 25 megawatts capacity.

Suqian will also provide a package of additional incentives including:

1. A 5-year corporate tax holiday and a further 50% tax rebate over the following 5 years,
2. Full rebate of value-added tax for the first 2 years and 50% rebate for the subsequent 3 years,
3. Free accommodations for up to 3 years for key scientists, engineers and management personnel of the JV.

As phase two of this program is implemented, Ascent will have the option to purchase approximately 215,000 square feet of land zoned for commercial usage at a favorable price at 10% above the government's prevailing cost.

We plan to continue the development of our PV technology in order to increase module efficiency, improve our manufacturing tooling and process capabilities and reduce manufacturing costs. We also plan to continue to take advantage of research and development contracts to fund a portion of this development.

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Advantages of CIGS on a Flexible Plastic Substrate

Thin film PV solutions differ based on the type of semiconductor material chosen to act as a sunlight absorbing layer, and also on the type of substrate on which the sunlight absorbing layer is affixed. To the best of our knowledge, we believe we are the only company in the world currently focused on commercial scale production of PV modules using CIGS on a flexible, plastic substrate with monolithic integration. We utilize CIGS as a semiconductor material because, at the laboratory level, it has a higher demonstrated cell conversion efficiency than amorphous silicon ("a-Si") and cadmium telluride ("CdTe"). We also believe CIGS offers other compelling advantages over both a-Si and CdTe, including:

- CIGS versus a-Si: Although a-Si, like CIGS, can be deposited on a flexible substrate, its conversion efficiency, which already is generally much lower than that of CIGS, measurably degrades when it is exposed to ultraviolet light, including natural sunlight. To mitigate such degradation, manufacturers of a-Si solar cells are required to implement measures that add cost and complexity to their manufacturing processes.
- CIGS versus CdTe: Although CdTe modules have achieved conversion efficiencies that are generally comparable to CIGS in production, we believe CdTe has never been successfully applied to a flexible substrate on a commercial scale. We believe the use of CdTe on a rigid, transparent substrate, such as glass, makes CdTe unsuitable for a number of the applications. We also believe CIGS can achieve higher conversion efficiencies than CdTe in production.

Our choice of substrate material further differentiates us from other thin film PV manufacturers. We believe the use of a flexible, lightweight, insulating substrate that is easier to install provides clear advantages for our target markets, especially where rigid substrates are unsuitable. We also believe our use of a flexible, plastic substrate provides us significant cost advantages because it enables us to employ monolithic integration techniques on larger components, which we believe are unavailable to manufacturers who use flexible, metal substrates. Accordingly, we are able to significantly reduce part count, thereby reducing the need for costly back end assembly of inter cell connections. As the only company, to our knowledge, focused on the commercial production of PV modules using CIGS on a flexible, plastic substrate with monolithic integration, we believe we have the opportunity to address the consumer electronics, defense, aerospace, transportation, off grid, portable power and other weight-sensitive markets with transformational high quality, value added product applications. It is these same unique features and our overall manufacturing process that enables us to produce consumer products that enables our consumer products to be extremely robust, light and flexible.

Competitive Strengths

We believe we possess a number of competitive strengths that provide us with an advantage over our competitors.

- We are a pioneer in CIGS technology with a proprietary, flexible, lightweight, high efficiency PV thin film product that positions us to penetrate a wide range of attractive high value added markets such as consumer products, off grid, portable power, transportation, defense, aerial, and other markets. By applying CIGS to a flexible plastic substrate, we have developed a PV module that is efficient, lightweight and flexible. The market for electronic components, such as electronic packages, casings and accessories, as well as defense portable power systems, transportation integrated applications and space and near-space solar power application solutions represent a significant premium market for the company. Relative to our thin film competitors, we believe our advantage in thin film CIGS on plastic technology provides us with a superior product offering for these strategic market segments.
- We have the ability to manufacture PV modules for different markets and for customized applications without altering our production processes. Our ability to produce PV modules in customized shapes and sizes, or in a variety of shapes and sizes simultaneously, without interrupting our production flow, provides us with flexibility in addressing target markets and product applications, and allows us to respond quickly to changing market conditions. Many of our competitors are limited by their technology and/or their manufacturing processes to a more restricted set of product opportunities.
- Our integrated, roll-to-roll manufacturing process and proprietary monolithic integration techniques provide us a potential cost advantage over our competitors. Historically, manufacturers have formed PV modules by manufacturing individual solar cells and then interconnecting them. Our large format, roll-to-roll manufacturing process allows for integrated continuous production. In addition, our proprietary monolithic integration techniques allow us to utilize laser patterning to create interconnects, thereby creating PV modules at the same time we create PV

cells. In so doing, we are able to reduce or eliminate an entire back end processing step, saving time as well as labor and manufacturing costs relative to our competitors.

- Our lightweight, powerful, and durable solar panels provide a performance advantage over our competitors. For consumer applications where a premium is placed on the weight and profile of the product such as phone cases, our ability

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to integrate our PV modules into portable packages and cases that offer the customer a lightweight and durable solution for all their portable electronics.

- Our strategic relationship with TFG Radiant provides us with direct access to a potentially large customer base in the East Asia market, sophisticated low cost contract manufacturing suppliers and consumer product design capability. TFG Radiant is a joint venture between Radiant Group, a Chinese conglomerate in construction and real estate, and Tertius Financial Group, a private investment firm based in Singapore. The combined entity, with more than 3,000 personnel, operates various businesses across China, Indonesia, Singapore and Malaysia, including metal roofing and facades, import/export trading, real estate investment, project management and consultation, new energy development, manufacturing and distribution and gold mining.
- Our proven research and development capabilities position us to continue the development of next generation PV modules and technologies. Our ability to produce CIGS based PV modules on a flexible plastic substrate is the result of a concerted research and development effort that began more than twenty years ago. We continue to pursue research and development in an effort to drive efficiency improvements in our current PV modules and to work toward next generation technologies and additional applications.
- Our manufacturing process can be differentiated into two distinct functions; a front end module manufacturing process and a back end packaging process. Our ability to produce finished unpackaged rolls of CIGS material for shipment worldwide to customers for encapsulation and integration into various products enhances our ability to work with partners internationally.

Markets and Marketing Strategy

In 2012, we modified our strategic focus away from large scale utility projects and rooftop applications to consumer and high-value specialty solar markets. This new strategy enables us to fully leverage the unique advantages of our technology including flexibility, durability and attractive power to weight and power to area performance. It furthermore enables us to offer unique, differentiated solutions in large markets with less competition, and more attractive pricing. In the second half of 2012, we launched our EnerPlex line of personal power, portable solar solutions and accessories. This represented a significant paradigm shift for us and moved us into the realm of supplying complete consumer product solutions as opposed to strictly commercial solar modules. We also remain focused on specialty solar applications which can fully leverage the unique properties of our award winning CIGS technology. These include aerospace, military and transportation applications. Our marketing efforts in 2015 will be primarily focused on expanding consumer awareness of our EnerPlex brand. The EnerPlex™ brand presently includes solar and battery integrated smartphone cases (EnerPlex Surfr™), portable outdoor foldable solar chargers (EnerPlex Kickr™), ruggedized heavy-duty solar charges (EnerPlex Commandr™), solar integrated backpacks (EnerPlex Packr™), portable rechargeable power banks (EnerPlex Jumpr™), portable heavy-duty batteries (EnerPlex Generatr™), and complimentary accessories such as travel adapters, bluetooth speakers and USB charging cables. These products serve a variety of consumers requiring clean and practical, range extending power solutions for electronic devices either indoors or outdoors. Target consumers include frequent travelers, students, business professionals and those spending extended time outdoors away from the power grid (hunters, campers, park rangers, miners, construction workers, etc.). We will continue to expand the EnerPlex™ product line significantly in 2015, bringing an even wider set of portable power solutions to the market.

Our EnerPlex™ sales strategy includes sales directly to large retailers as well as through distributors who serve retailers. We are establishing key distributor relationships throughout the world, by territory, typically on a nonexclusive basis. In 2015, we plan to continue our expansion of distribution channels both in the U.S. and internationally. In early 2013, we established our e-commerce presence through www.goenerplex.com, where our retail customers can purchase our EnerPlex™ products and have them delivered directly from our warehouse. Our products are also available on a variety of third party e-commerce sites including www.amazon.com, www.bestbuy.com, www.walmart.com, www.newegg.com, www.frys.com, www.sears.com and several others.

In the high value specialty PV markets segment, our modules can provide lightweight, high performance, durable power solutions for commercial transportation, automotive, aerospace, military and light-weight off grid structures. In 2013, we were chosen to partner with Volvo for their Pure Tension Pavilion project where our revolutionary, flexible and lightweight CIGS solar modules were selected for integration into the Pavilion's tensioned mesh membrane

structure. The Volvo's Solar Pavilion was ultimately awarded the 25 Best Inventions of the Year 2013 by http://techland.time.com.

The integration of space, near space, and aeronautic applications with ultra-lightweight and flexible solar modules is an additional large market opportunity for the Company. Customers in this market have historically required a high level of durability and conversion efficiency from solar module suppliers, and we believe our products are well suited to compete in this premium market. In May 2014, together with our partners, Silent Falcon UAS Technologies (SFUAS) and Bye Aerospace, we

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announced the successful first flight of a production version of the Silent Falcon™ Unmanned Aircraft Systems (UAS) powered by Ascent's ultra-lightweight, flexible PV modules. In July 2014, our ultra-lightweight, flexible PV modules were selected by Vanguard Space Technologies (Vanguard) for their NASA Small Business Innovative Research (SBIR) program. The NASA program is intended to develop an economical, lightweight alternative to existing and emerging high-cost solar arrays for high-power space applications. We expect opportunities in this segment to develop rapidly due to customers' extensive development, testing and evaluation processes.

The military market has a unique set of requirements we believe are well suited to our products. When integrated with fabric to form re-deployable arrays, our highly efficient, rugged, lightweight modules may allow soldiers to minimize battery loads, reduce the use of conventional fuels, and increase safety through the streamlining of fuel transport operations. We are also working to expand our foldable line of outdoor solar chargers which are well suited for the individual soldier or for the bigger power needs of a platoon with the ability of several chargers to be strung together. Our modules can also provide a reliable source of renewable power in remote areas, regardless of local infrastructure. We will continue to reach the military market primarily through partnerships with top systems providers and the completion of our product listing on the Government Services Administration (GSA) price schedule. Transportation integrated PV, or integration of our flexible solar modules with vehicles such as commercial trucks, buses, trains and passenger cars, is another market segment that represents a significant opportunity. Due to their flexible form and durable, lightweight properties, our modules can be fitted to the exterior of various vehicles to provide supplemental power without significantly affecting the aerodynamics, weight or aesthetics of the vehicle. We are currently working with multiple integrators and OEMs to develop effective value added solutions for this market.

We continue to supply our strategic partners with PV modules to support their development, testing and certification of new integrated PV products, including product testing by several branches of the U.S. military. We believe that our high power density, high quality flexible solar modules enable new applications for solar power. By creating mutually beneficial partnerships and strategically penetrating the markets discussed above, we plan to transform the landscape of solar power generation with truly innovative end products.

Competition

We have shifted our strategic focus away from large scale utility projects of the traditional solar markets. We believe our thin film, monolithically integrated CIGS technology enables us to deliver sleek, lightweight, rugged, high performance solutions to serve these markets as competitors from other thin film and c-Si companies emerge. The landscape of thin film manufacturers encompasses a broad mix of technology platforms at various stages of development, and consists of a number of medium and small companies. From 2011 to 2013, the PV industry landscape changed significantly. According to NPD Solarbuzz, Yingli Green Energy maintained leading module supplier ranking in 2013, with Trina Solar competing strongly for the second position. Seven of the top ten producers, and four of the top five, were crystalline silicon manufacturers based in China. Companies currently developing or selling CIGS-based PV modules include Avancis GmbH & Co. KG, Flisom AG, Nuvosun, Inc., Solibro GmbH, Solarion AG, Solar Frontier and Hanergy Holding Group. A number of manufacturers that traditionally have manufactured and sold c-Si-based modules have entered, or in the future may enter, the market for thin film PV modules, and potentially, CIGS-based PV modules. These efforts have been initiated both through internal development and through acquisition of companies, or the purchase of turnkey solutions offered by PV equipment providers.

The market for traditional, grid connected PV products is dominated by large manufacturers of c-Si technology, although thin film technology on glass has begun to emerge among the major players. We anticipate that while these large manufacturers may continue to dominate the market with their silicon based products, thin film manufacturers will likely capture an increasingly larger share of the market, as is evident from the success of First Solar (CdTe) and Solar Frontier (CIGS), both among the top 20 producers worldwide. In 2012, the five largest PV manufacturers included: Yingli Green Energy Holding Co. Ltd. (China), First Solar (US), Suntech Power Holdings Co., Ltd. (China), Trina Solar (China) and Canadian Solar (Canada). In 2012, crystalline silicon PV technology represented approximately 90% of global market share, a slight increase over 2011 at 88%, with the balance captured by thin film.

In 2013, the five largest PV module suppliers included: Yingli Green Energy Holding Co. Ltd. (China), Trina Solar (China), Sharp Solar (Japan), Canadian Solar (Canada), and Jinko Solar (China). According to the Fraunhofer Institute Photovoltaics Report, Si-wafer based PV technology accounted for about 90 % of the total production in 2013. The remainder of the production is captured by thin film, with CdTe production accounting for 54% of the thin film production and CIGS and a-Si splitting the remainder with 23% each.

We believe that our modules offer unique advantages. Their flexibility and high power density enable use on weight-sensitive applications, such as portable power, conformal aircraft surfaces, and space applications that are unsuitable for glass-based modules. Innovative product design and customer focused development both yield modules that could be integrated into virtually any product to create a source of renewable energy. Whether compared to glass based or other flexible modules, our products offer competitive advantages making them unique in comparison to competing products.

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We define the consumer and portable power space as comprising solar powered solutions in the sub-single watt range (i.e. smartphone solar chargers) all the way up to the several hundred watts of power range (i.e., outdoor solar chargers for camping, military or outdoor work). Competitors in the consumer products space include companies that design and distribute solar charging solutions but outsource manufacturing. These include Goal Zero, Voltaic, A-Solar, Solio, PowerTraveller, Solar Components and RDK Products. Mono or polycrystalline silicon solar technologies are common in these products. Other competitors in this segment include thin-film solar manufacturers who provide a complete product under their company name or brand. These companies include Global Solar Energy (Sunlinq brand), PowerFilm, Trony and more recently Alta Devices. Competitors in the phone case with supplemental charging market include Mophie, Tylt, MyCharge and Powerskin. Competitors in the power bank market include Mophie, Energizer, MyCharge and Tenergy. We believe our differentiated technology lends itself to delivering competitive solutions in the emerging market for personal and portable solar and non-solar charging solutions. The overall market for such products is large and growing rapidly. Pike Research estimates the portable power market will reach $30.5B in worldwide sales by 2015. Digitimes estimates smartphone sales reached 865 million units in 2013.

Research and Development and Intellectual Property

We intend to continue to invest in research and development in order to provide near term improvements to our manufacturing process and products, as well as to identify next generation technologies relevant to both our existing and potential new markets. During 2014 and 2013 we incurred approximately $24.5 million and $21.3 million respectively, in research and development costs, which include research and development incurred in relation to our government contracts, as well as manufacturing costs incurred while developing our product lines and manufacturing process.

Our technology was initially developed at ITN beginning in 1994. In early 2006, ITN assigned to us certain CIGS PV-specific technologies, and granted to us a perpetual, exclusive, royalty free, worldwide license to use these technologies in connection with the manufacture, development, marketing and commercialization of CIGS PV to produce solar power. In addition, certain of ITN’s existing and future proprietary process and control technologies, although nonspecific to CIGS PV, were assigned to us. ITN retained the right to conduct research and development activities in connection with PV materials, and we agreed to grant a license back to ITN for improvements to the licensed technologies and intellectual property outside of the CIGS PV field.

We protect our intellectual property through a combination of trade secrets and patent protections. We own the following patents and published patent applications:

Issued Patents and Registrations

1. US Patent No. 7,271,333 entitled “Apparatus and Method of Production of Thin-Film Photovoltaic Modules” (issued September 18, 2007)
2. US Patent No. 7,812,247 entitled “Flexible Photovoltaic Array With Integrated Wiring And Control Circuitry, And Associated Methods” (issued October 12, 2010; (co-owned with PermaCity Corporation)
3. US Patent No. 8,021,905 entitled “Machine and Process for Sequential Multi-Sublayer Deposition of Copper Indium Gallium Diselenide Compound Semiconductors” (issued September 20, 2011)
4. US Patent No. 8,124,870 entitled “Systems and Processes for Bifacial Collection and Tandem Junctions Using a Thin film Photovoltaic Device” (issued February 28, 2012)
5. US Patent No. 8,207,442 entitled “Reinforcing Structures for Thin film Photovoltaic Device Substrates, and Associated Methods” (issued June 26, 2012)
6. ECD No. 002180353-0001 entitled “Mobile Electronic Device Case” (issued February 12, 2013)
7. ECD No. 002180353-0002 entitled “Mobile Electronic Device Case” (issued February 12, 2013)
8. ECD No. 002180353-0003 entitled “Mobile Electronic Device Case” (issued February 12, 2013)
9. US Patent No. 8,426,725 entitled “Apparatus and Method for Hybrid Photovoltaic Device Having Multiple, Stacked, Heterogeneous, Semiconductor Junctions” (issued April 23, 2013)
10. US Patent No. 8,465,589 entitled “Machine and Process for Sequential Multi-Sublayer Deposition of Copper Indium Gallium Diselenide Compound Semiconductors” (issued June 18, 2013)
11.

CN Patent ZL201330040305.1 entitled “Mobile Electronic Device Case” (issued January 1, 2014)

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12. US Patent No. D697,502 entitled "Mobile Electronic Device Case" (issued January 14, 2014)
13. KR Patent No. 30-0727960 entitled "Mobile Electronic Device Case" (issued January 28, 2014)
14. US Patent No. 8,648,253 entitled "Machine and Process for Continuous, Sequential, Deposition of Semiconductor Solar Absorbers Having Variable Semiconductor Composition Deposited in Multiple Sublayers" (issued February 11, 2014)
15. US Patent No. 8,716,591 entitled "Array of Monolithically Integrated Thin Film PhotoVoltaic Cells and Associated Methods" (issued May 6, 2014)

Published Patent Applications

1. "Flexible Photovoltaic Array with Integrated Wiring and Control Circuitry, and Associated Methods" (US 12/901,963) (filed October 11, 2010) (co-owned with PermaCity Corporation)
2. "Cd-Free, Oxide Buffer Layers for Thin Film CIGS Solar Cells By Chemical Solution Deposition Methods" (US 13/227,935) (filed September 8, 2011)
3. "Systems and Processes for Bifacial Collection and Tandem Junctions Using a Thin film Photovoltaic Device" (US 13/406,376) (filed February 27, 2012)
4. "Multilayer Thin Film Back Contact System for Flexible Photovoltaic Devices on Polymer Substrates" (US 13/572,387) (filed August 10, 2012)
5. "Multilayer Thin Film Back Contact System for Flexible Photovoltaic Devices on Polymer Substrates" (PCT/US2012/050398) (filed August 10, 2012)
6. "Apparatus and Method for Hybrid Photovoltaic Device Having Multiple, Stacked, Heterogeneous, Semiconductor Junctions" (US 13/770,693) (filed February 19, 2013)
7. "Apparatus and Method for Hybrid Photovoltaic Device Having Multiple, Stacked, Heterogeneous, Semiconductor Junctions" (EP 11804861.0) (filed December 13, 2011)
8. "Subtractive Hinge and Associated Methods (US 13/783,336) (filed March 3, 2013)
9. "Subtractive Hinge and Associated Methods (PCT/US 2013/28,929) (filed March 4, 2013)
10. "System For Housing And Powering A Battery-Operated Device And Associated Methods" (US 13/802,713) (filed March 14, 2013)
11. "System For Housing And Powering A Battery-Operated Device And Associated Methods" (US 13/802,719) (filed March 14, 2013)
12. "System For Housing And Powering A Battery-Operated Device And Associated Methods" (PCT/US2013/34988) (filed April 2, 2013)
13. "Photovoltaic Assembly and Associated Methods" (US 14/038,096) (filed September 26, 2013)
14. "Photovoltaic Assembly and Associated Methods" (PCT/US2013/62355) (filed September 27, 2013)
15. "Flexible High-Voltage Adaptable Current Photovoltaic Modules and Associated Methods" (US 14/041,886) (filed September 30, 2013)
16. "Hybrid Multi-Junction Photovoltaic Cells And Associated Methods" (US 14/100,960) (filed December 9, 2013)
17. "System For Housing And Powering A Battery-Operated Device And Associated Methods" (PCT/US2013/74936) (filed December 13, 2013)
18. "Systems And Methods For Thermally Managing High-Temperature Processes On Temperature Sensitive Substrates" (US 14/150,376) (filed January 8, 2014)
19. "Systems And Methods For Thermally Managing High-Temperature Processes On Temperature Sensitive Substrates" (PCT/US2014/10867) (filed January 8, 2014)

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20. "Multilayer Thin-Film Back Contact System For Flexible Photovoltaic Devices On Polymer Substrates" (US 14/198,209) (filed March 5, 2014)
21. "Multilayer Thin-Film Back Contact System For Flexible Photovoltaic Devices On Polymer Substrates" (US 14/210,209) (filed March 13, 2014)
22. "Array Of Monolithically Integrated Thin Film Photovoltaic Cells And Associated Methods" (14/252,485) (filed April 14, 2014)

In addition, we have ten (10) unpublished pending patent applications in related areas, five (5) of which were filed in 2014.

In order to protect our branding of the EnerPlex™ mark and design, as well as various slogans and product family names, we have filed for and been awarded the following trademark registrations (in the countries designated):

1. EnerPlex (mark and design w/ grid detail) - US 4,401,807 China 11804551; EU 011355369; Japan 5600832; Korea 40-1020248; Australia 1,527,553; OAPI 73451; South Africa 2012/31627; Hong Kong 302442717; Macau N/71132; Singapore T1217709F; Taiwan 01624384; Vietnam 223879; Mexico 1,405,366)
2. EnerPlex (mark and design without grid detail) - US 4,441,523; EU 11853876; Japan 5610319; Korea 40-1048532; Australia 1,559,524; OAPI 75285; Hong Kong 302622898; Singapore T1308445H; Taiwan 01648553; Mexico 1403410
3. EnerPlex Generatr - EU13147574; Australia 1637511
4. EnerPlex Jumpr - US 4,441,347; EU 11790177; Japan 5646129; Korea 40-1033457; Australia 1,554,970; OAPI 75085; Hong Kong 302595952; Macau N/75202; SingaporeT1307002C; Taiwan 01627192; Mexico 1,392,564
5. EnerPlex Kickr - US 4,433,827; EU 11801206; Japan 5640120; Korea 40-1033491; Australia 1,554,971; OAPI 75102; Hong Kong 302603150; Macau N/75398; Malaysia 2013054491; Singapore T1307338C; Taiwan 01627197; Mexico 1,392,566
6. EnerPlex Packr (85/973,369) - EU12467304; Japan 5695212; Australia 1,597,385; Hong Kong 302847916; Mexico 1451103; Mexico 1457619; Macau N/81856
7. EnerPlex Surfr - US4,441,391; EU11853471; Japan 5623478; Korea 40-1033488; Australia 1,559,525; OAPI 75286; Hong Kong 302622825; Macau N/75728; Singapore T1308608F; Taiwan 01627233; Mexico 1,403,409
8. Wavesol - US 3,971,627
9. "Always in Charge" - EUROPE 12092094; Singapore T1402602H
10. "Transforming Everyday Life" - US 4,401,811; EU 011557394; Japan 5606585; Korea 40-1040564; Australia 1,539,874; OAPI 74176; South Africa 2013/03984; Hong Kong 302521115; Mexico 1383539

Depending on country laws, the marks listed above may include the ™ or ® symbols.

In addition, we have U.S. trademark applications that have been filed:

1. EnerPlex Commandr™ (US 86/337,119)
2. EnerPlex Generatr™ (CA 1688220, CN 15105857, TW 103045133)
3. "Life is Limitless"™ (85,803,789)

Suppliers

We rely on several unaffiliated companies to supply certain raw materials used during the fabrication of our PV modules and PV integrated electronics. We acquire these materials on a purchase order basis and do not have long term purchase quantity commitments with the suppliers, although we may enter into such contracts in the future. We currently acquire all of our high temperature plastic from one supplier, although alternative suppliers of similar materials exist. We purchase component molybdenum, copper, indium, gallium, selenium and indium tin oxides from a variety of suppliers. We also currently are in the process of identifying and negotiating arrangements with alternative suppliers of materials in the United States and Asia.

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The manufacturing equipment and tools used in our production process have been purchased from various suppliers in Europe, the United States and Asia. Although we have had good relations with our existing equipment and tools suppliers, we monitor and explore opportunities for developing alternative sources to drive our manufacturing costs down.

Our consumer products are delivered to us as finished goods from a variety of contract manufacturers in Asia. For those products that include PV modules we provide the modules to the contract manufacturers who then return the modules integrated into the finished product.

Employees

As of December 31, 2014, we had 119 full time employees.

Company History

We were formed in October 2005 from the separation by ITN of its Advanced Photovoltaic Division and all of that division's key personnel and core technologies. ITN, a private company incorporated in 1994, is an incubator dedicated to the development of thin film, PV, battery, fuel cell and nano technologies. Through its work on research and development contracts for private and government entities, ITN developed proprietary processing and manufacturing know-how applicable to PV products generally, and to CIGS PV products in particular. Our company was established by ITN to commercialize its investment in CIGS PV technologies. In January 2006, ITN assigned to us all its CIGS PV technologies and trade secrets and granted to us a perpetual, exclusive, royalty free worldwide license to use certain of ITN's proprietary process, control and design technologies in the production of CIGS PV modules. Upon receipt of the necessary government approvals in January 2007, ITN assigned government funded research and development contracts to us and also transferred the key personnel working on the contracts to us.

Corporate Information

We were incorporated under the laws of Delaware in October 2005. Our principal business office is located at 12300 Grant Street, Thornton, Colorado 80241, and our telephone number is (720) 872-5000. Our e-commerce website address is www.goenerplex.com. Our website address is www.ascentsolar.com. Information contained on our website or any other website does not constitute, and should not be considered, part of this Annual Report.

Available Information

We file with the Securities and Exchange Commission ("SEC") our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports, proxy statements and registration statements. You may read and copy any material we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. You may also obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site at http://www.sec.gov that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically. We make available free of charge on, or through, our website at www.ascentsolar.com our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended ("Exchange Act") as soon as reasonably practicable after we file these materials with the SEC.

Item 1A. Risk Factors

The risks included here are not exhaustive or exclusive. Other sections of this Annual Report may include additional factors which could adversely affect our business, results of operations and financial performance. We operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for management to predict all such risk factors, nor can it assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements as a prediction of actual results.

Risks Relating to Our Business

We have a limited history of operations, have not generated significant revenue from operations and have had limited production of our products.

We have a limited operating history and have generated limited revenue from operations. Currently we are producing consumer oriented products in quantities necessary to meet current demand. Under our current business plan, we

expect losses to continue until annual revenues and gross margins reach a high enough level to cover operating expenses. We plan to continue manufacturing at our current facilities and to expand our production capacity as part of our Joint Venture with Suqian. We are utilizing contract

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manufacturers in Asia for components and for final assembly of finished goods. Our ability to achieve our business, commercialization and expansion objectives will depend on a number of factors, including whether:

- we can generate customer acceptance of and demand for our products;
- our products are successfully and timely certified for use in our target markets;
- we successfully operate production tools to achieve the efficiencies, throughput and yield necessary to reach our cost targets;
- the products we design are saleable at a price sufficient to generate profits;
- our ability to complete installation of manufacturing equipment and ramp up production at our Suqian JV;
- we raise sufficient capital to enable us to reach a level of sales sufficient to achieve profitability on terms favorable to us;
- we are able to design, manufacture, market, distribute and sell our newly introduced line of consumer oriented products;
- we successfully develop and maintain strategic relationships with key partners, including OEMs, system integrators and distributors, retailers and e-commerce companies, who deal directly with end users in our target markets;
- our ability to maintain the listing of our common stock on the NASDAQ Global Market;
- our ability to achieve projected operational performance and cost metrics;
- our ability to enter into commercially viable licensing, joint venture, or other commercial arrangements; and
- availability of raw materials.

Each of these factors is critical to our success, and accomplishing each of these tasks may take longer or cost more than expected, or may never be accomplished. It also is likely that problems we cannot now anticipate will arise. If we cannot overcome these problems, our business, results of operations and financial condition could be materially and adversely affected.

We have to date incurred net losses and may be unable to generate sufficient sales in the future to become profitable.

We incurred a net loss applicable to common stockholders of $51.4 million for the year ended December 31, 2014 and reported an accumulated deficit of $299.3 million as of December 31, 2014. We expect to incur net losses in the near term. Our ability to achieve profitability depends on a number of factors, including market acceptance of our consumer oriented products at competitive prices. If we are unable to raise additional capital and generate sufficient revenue to achieve profitability and positive cash flows, we may be unable to satisfy our commitments and may have to discontinue operations.

Our EnerPlex line of consumer oriented products exposes us to many new risks and uncertainties.

Following the appointment of our new President and CEO in February 2012, we repositioned our business model with an immediate focus into developing consumer products. In 2012 we launched our EnerPlex brand line of consumer products, and introduced the first product under the EnerPlex brand with a solar assisted mobile phone charger incorporating our CIGS PV thin film technology. This new line of consumer oriented products exposes us to many risks and uncertainties that are new to our business.

We have limited experience in the design, manufacture, marketing, distribution and sale of consumer oriented products. Our ability to be successful with our line of consumer oriented products will depend on a number of factors, including whether:

- we can achieve and maintain customer acceptance of our new consumer oriented products;
- we can rapidly develop and successfully introduce large numbers of new consumer oriented products in response to changing consumer preferences, the introduction of new consumer electronics products (such as new mobile phone models) that our EnerPlex™ products are designed to extend their battery life, and the introduction of new products by competing manufacturers;
- we can maintain an adequate level of product quality over multiple consumer oriented products which must be designed, manufactured and introduced rapidly to keep pace with changing consumer preferences and competitive factors;
- we can successfully manage our third party contract manufacturers located outside the U.S. on whom we are heavily dependent for the production of our consumer oriented products;

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- we can successfully distribute our consumer oriented products through distributors, wholesalers, internet retailers and traditional retailers (many of whom distribute products from competing manufacturers) on whom we are heavily dependent; and
- we can successfully manage the inventory and other asset risks associated with the manufacture and sale of consumer electronic products, given the rapid and unpredictable pace of product obsolescence in such consumer markets.

Our business is based on a new technology, and if our PV modules or processes fail to achieve the performance and cost metrics that we expect, then we may be unable to develop demand for our PV modules and generate sufficient revenue to support our operations.

Our CIGS on flexible plastic substrate technology is a relatively new technology. Our business plan and strategies assume that we will be able to achieve certain milestones and metrics in terms of throughput, uniformity of cell efficiencies, yield, encapsulation, packaging, cost and other production parameters. We cannot assure you that our technology will prove to be commercially viable in accordance with our plan and strategies. Further, we or our strategic partners and licensees may experience operational problems with such technology after its commercial introduction that could delay or defeat the ability of such technology to generate revenue or operating profits. If we are unable to achieve our targets on time and within our planned budget, then we may not be able to develop adequate demand for our PV modules, and our business, results of operations and financial condition could be materially and adversely affected.

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

Our success requires us to invest significant financial resources in research and development to keep pace with technological advances in the solar energy industry. However, research and development activities are inherently uncertain, and we could encounter practical difficulties in commercializing our research results. Our expenditures on research and development may not be sufficient to produce the desired technological advances, or they may not produce corresponding benefits. Our PV modules may be rendered obsolete by the technological advances of our competitors, which could harm our results of operations and adversely impact our net sales and market share.

Failure to expand our manufacturing capability successfully at our facilities, through our strategic alliances, or our Suqian joint venture, would adversely impact our ability to sell our products into our target markets and would materially and adversely affect our business, results of operations and financial condition.

Our growth plan calls for production and operation at our facility, our new joint venture with Suqian and at contract manufacturers in Asia. Successful operations will require substantial engineering and manufacturing resources and is subject to significant risks, including risks of cost overruns, delays and other risks, such as geopolitical unrest that may cause us not to be able to successfully operate in other countries. Furthermore, we may never be able to operate our production processes in high volume or at the volumes projected, make planned process and equipment improvements, attain projected manufacturing yields or desired annual capacity, obtain timely delivery of components, or hire and train the additional employees and management needed to scale our operations. Failure to meet these objectives on time and within our planned budget could materially and adversely affect our business, results of operations and financial condition.

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

We will need to significantly expand our operations and form beneficial strategic alliances in order to reduce manufacturing costs through economies of scale and partnerships, secure contracts of commercially material amounts with reputable customers and capture a meaningful share of our target markets. To manage the expansion of our operations and alliances, we will be required to improve our operational and financial systems, oversight, procedures and controls and expand, train and manage our growing employee base. Our management team will also be required to maintain and cultivate our relationships with partners, customers, suppliers and other third parties and attract new partners, customers and suppliers. In addition, our current and planned operations, personnel, facility size and configuration, systems and internal procedures and controls, even when augmented through strategic alliances, might be inadequate or insufficient to support our future growth. If we cannot manage our growth effectively, we may be unable to take advantage of market opportunities, execute our business strategies or respond to competitive pressures, resulting in a material and adverse effect to our business, results of operations and financial condition.

We depend on a limited number of third party suppliers for key raw materials, and their failure to perform could cause manufacturing delays and impair our ability to deliver PV modules to customers in the required quality and quantity and at a price that is profitable to us.

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Our failure to obtain raw materials and components that meet our quality, quantity and cost requirements in a timely manner could interrupt or impair our ability to manufacture our products or increase our manufacturing cost. Most of our key raw materials are either sole sourced or sourced by a limited number of third party suppliers. As a result, the failure of any of our suppliers to perform could disrupt our supply chain and impair our operations. Many of our suppliers are small companies that may be unable to supply our increasing demand for raw materials as we implement our planned expansion. We may be unable to identify new suppliers in a timely manner or on commercially reasonable terms. Raw materials from new suppliers may also be less suited for our technology and yield PV modules with lower conversion efficiencies, higher failure rates and higher rates of degradation than PV modules manufactured with the raw materials from our current suppliers.

Our continuing operations will require additional capital which we may not be able to obtain on favorable terms, if at all or without dilution to our stockholders.

The Company will need to raise additional capital to continue the current level of operations into 2016. The Company has begun to explore opportunities to secure additional financing through strategic or financial investors, but there is no assurance the Company will be able to raise additional capital on acceptable terms or at all. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our existing stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we raise additional funds through debt financing, which may involve restrictive covenants, our ability to operate our business may be restricted. We cannot assure you that additional financing will be available on terms favorable to us, or at all. If adequate funds are not available or are not available on acceptable terms, if and when needed, our ability to fund our operations, take advantage of unanticipated opportunities, develop or enhance our products, expand capacity or otherwise respond to competitive pressures could be significantly limited, and our business, results of operations and financial condition could be materially and adversely affected. If our revenues do not increase rapidly, and/or additional financing is not obtained, we will be required to significantly curtail operations to reduce costs and/or sell assets. Such actions would likely have an adverse impact on our future operations.

In addition, the terms of a loan we obtained from the Colorado Housing and Finance Authority (“CHFA”) in connection with our purchase and improvement of our Thornton, Colorado facility contain covenants that limit our ability, without the consent of CHFA, to create or incur additional indebtedness (other than obligations created or incurred in the ordinary course of business such as working capital financing); merge or consolidate with any other entity; or make loans or advances to our officers, shareholders, directors or employees. The presence of these covenants gives CHFA the ability to bar us from engaging in certain transactions in the future that we may determine are necessary or advisable to meet our business objectives, including debt offerings and acquisitions of or by other companies. If CHFA were to withhold its written consent under these or other circumstances, we could be forced to prepay such loans at a premium, which could adversely affect our business, results of operations and financial condition.

Our products may never gain sufficient market acceptance, in which case we would be unable to sell our products or achieve profitability.

Demand for our products may never develop sufficiently, and our products may never gain market acceptance, if we fail to produce products that compare favorably against competing products on the basis of cost, quality, weight, efficiency and performance. Demand for our products also will depend on our ability to develop and maintain successful relationships with key partners, including distributors, retailers, OEMs, system integrators and value added resellers. If our products fail to gain market acceptance as quickly as we envision or at all, our business, results of operations and financial condition could be materially and adversely affected.

We are targeting emerging markets for a significant portion of our planned product sales. These markets are new and may not develop as rapidly as we expect, or may not develop at all.

Our target markets include consumer electronics, outdoor enthusiasts, portable power, defense, transportation, unmanned aerial vehicles (UAV's) space and near space. Although certain areas of these markets have started to develop, some of them are in their infancy. We believe these markets have significant long term potential, however, some or all of these markets may not develop and emerge as we expect. If the markets do develop as expected, there may be other products that could provide a superior product or a comparable product at lower prices than our

products. If these markets do not develop as we expect, or if competitors are better able to capitalize on these markets our revenues and product margins may be negatively affected.

Failure to consummate strategic relationships with key partners in our various target market segments, such as consumer electronics, defense and portable power, transportation, space and near space, and the respective implementations of the right strategic partnerships to enter these various specified markets, could adversely affect our projected sales, growth and revenues.

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We intend to sell thin-film PV modules for use in consumer electronics, portable power systems, defense and portable power systems, transportation, space and near space solar panel applications. Our marketing and distribution strategy is to form strategic relationships with distributors, retailers and value added resellers as well as direct to consumer kiosks and e-commerce to provide a foothold in these target markets. If we are unable to successfully establish working relationships with such market participants or if, due to cost, technical or other factors, our products prove unsuitable for use in such applications; our projected revenues and operating results could be adversely affected.
If sufficient demand for our products does not develop or takes longer to develop than we anticipate, we may be unable to grow our business, generate sufficient revenue to attain profitability or continue operations.
The solar energy industry is at a relatively early stage of development, and the extent to which PV modules, including our own, will be widely adopted is uncertain. While pure PV solutions is not our short term primary market, if PV technology proves unsuitable for widespread adoption or if demand for PV modules fails to develop sufficiently, long term we may be unable to grow our business, generate sufficient sales to attain profitability or continue operations. Many factors, of which several are outside of our control, may affect the viability of widespread adoption of PV technology and demand for PV modules.
We face intense competition from other manufacturers of thin-film PV modules and other companies in the solar energy industry.
The solar energy and renewable energy industries are both highly competitive and continually evolving as participants strive to distinguish themselves within their markets and compete with the larger electric power industry. We believe our main sources of competition are other thin film PV manufacturers and companies developing other solar solutions, such as solar thermal and concentrated PV technologies.
Many of our existing and potential competitors have substantially greater financial, technical, manufacturing and other resources than we do. A competitor’s greater size provides them with a competitive advantage because they often can realize economies of scale and purchase certain raw materials at lower prices. Many of our competitors also have greater brand name recognition, established distribution networks and large customer bases. In addition, many of our competitors have well-established relationships with our current and potential partners and distributors and have extensive knowledge of our target markets. As a result of their greater size, these competitors may be able to devote more resources to the research, development, promotion and sale of their products or respond more quickly to evolving industry standards and changes in market conditions than we can. Our failure to adapt to changing market conditions and to compete successfully with existing or future competitors could materially and adversely affect our business, results of operations and financial condition.
Problems with product quality or performance may cause us to incur warranty expenses, damage our market reputation and prevent us from maintaining or increasing our market share.
If our products fail to perform as expected while under warranty, or if we are unable to support the warranties, sales of our products may be adversely affected or our costs may increase, and our business, results of operations and financial condition could be materially and adversely affected.
We may also be subject to warranty or product liability claims against us that are not covered by insurance or are in excess of our available insurance limits. In addition, quality issues can have various other ramifications, including delays in the recognition of revenue, loss of revenue, loss of future sales opportunities, increased costs associated with repairing or replacing products, and a negative impact on our goodwill and reputation. The possibility of future product failures could cause us to incur substantial expenses to repair or replace defective products. Furthermore, widespread product failures may damage our market reputation and reduce our market share causing sales to decline.
The interests of our largest stockholder, TFG Radiant, may conflict with our interests or your interests now or in the future.
As of March 13, 2015, TFG Radiant owned approximately 15.4% of our common stock. As a result of its large holding of our shares, TFG Radiant may have the ability to prevent any transaction that requires the approval of stockholders regardless of whether other stockholders believe any such transaction is in their own best interests, with the exception of certain agreements TFG Radiant has made pursuant to the Amended and Restated Stockholders Agreement. TFG Radiant also has certain registration rights that could impact shareholders. Additionally, TFG Radiant currently holds two seats on our Board of Directors, which affords TFG Radiant greater control and influence

over matters affecting our business.

On February 1, 2012, Mr. Victor Lee was appointed by our Board as our President and Chief Executive Officer. Mr. Lee is the managing director of Tertius Financial Group Pte Ltd, the joint venture partner with Radiant Group in TFG Radiant.

TFG Radiant may from time to time acquire and hold interests in businesses that compete directly or indirectly with us. TFG Radiant also may pursue opportunities (including by acquisition) that may be adverse to, or be in direct or indirect competition

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with us. Additionally, our potential customers may be competitors of TFG Radiant and our interests in selling to those customers could be divergent from TFG Radiant's competitive interests. So long as TFG Radiant continues to own a significant amount of the outstanding shares of our common stock and Mr. Lee is President and Chief Executive Officer, TFG Radiant may be able to strongly influence or effectively control our decisions.

Currency translation risk may negatively affect our net sales, cost of equipment, cost of sales, gross margin or profitability and could result in exchange losses.

Although our reporting currency is the U.S. dollar, we may conduct business and incur costs in the local currencies of other countries in which we operate, make sales or buy equipment or materials. As a result, we are subject to currency translation risk. Our future contracts and obligations may be exposed to fluctuations in currency exchange rates, and, as a result, our capital expenditures or other costs may exceed what we have budgeted. Further, changes in exchange rates between foreign currencies and the U.S. dollar could affect our net sales and cost of sales and could result in exchange losses. We cannot accurately predict future exchange rates or the overall impact of future exchange rate fluctuations on our business, results of operations and financial condition.

A significant increase in the price of our raw materials could lead to higher overall costs of production, which would negatively affect our planned product margins, or make our products uncompetitive in the PV market.

Our raw materials include high temperature plastics and various metals. Significant increases in the costs of these raw materials may impact our ability to compete in our target markets at a price sufficient to produce a profit.

Our intellectual property rights or our means of enforcing those rights may be inadequate to protect our business, which may result in the unauthorized use of our products or reduced sales or otherwise reduce our ability to compete.

Our business and competitive position depends upon our ability to protect our intellectual property rights and proprietary technology, including any PV modules that we develop. We attempt to protect our intellectual property rights, primarily in the United States, through a combination of patent, trade secret and other intellectual property laws, as well as licensing agreements and third party nondisclosure and assignment agreements. Because of the differences in foreign patent and other laws concerning intellectual property rights, our intellectual property rights may not receive the same degree of protection in foreign countries as they would in the United States. Our failure to obtain or maintain adequate protection of our intellectual property rights, for any reason, could have a materially adverse effect on our business, results of operations and financial condition. Further, any patents issued in connection with our efforts to develop new technology for PV modules may not be broad enough to protect all of the potential uses of our technology.

We also rely on unpatented proprietary technology. It is possible others will independently develop the same or similar technology or otherwise obtain access to our unpatented technology. To protect our trade secrets and other proprietary information, we require our employees, consultants and advisors to execute proprietary information and invention assignment agreements when they begin working for us. We cannot assure these agreements will provide meaningful protection of our trade secrets, unauthorized use, misappropriation or disclosure of trade secrets, know how or other proprietary information. Despite our efforts to protect this information, unauthorized parties may attempt to obtain and use information that we regard as proprietary. If we are unable to maintain the proprietary nature of our technologies, we could be materially adversely affected.

In addition, when others control the prosecution, maintenance and enforcement of certain important intellectual property, such as technology licensed to us, the protection and enforcement of the intellectual property rights may be outside of our control. If the entity that controls intellectual property rights that are licensed to us does not adequately protect those rights, our rights may be impaired, which may impact our ability to develop, market and commercialize our products. Further, if we breach the terms of any license agreement pursuant to which a third party licenses us intellectual property rights, our rights under that license may be affected and we may not be able to continue to use the licensed intellectual property rights, which could adversely affect our ability to develop, market and commercialize our products.

If third parties claim we are infringing or misappropriating their intellectual property rights, we could be prohibited from selling our PV products, be required to obtain licenses from third parties or be forced to develop non-infringing alternatives, and we could be subject to substantial monetary damages and injunctive relief.

The PV industry is characterized by the existence of a large number of patents and frequent litigation based on allegations of patent infringement. We are aware of numerous issued patents and pending patent applications owned by third parties that may relate to current and future generations of solar energy. The owners of these patents may assert the manufacture, use or sale of any of our products infringes one or more claims of their patents. Moreover, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that materially and adversely affect our business. Third parties could also assert claims against us that we have infringed or misappropriated their intellectual property

rights. Whether or not such claims are valid, we cannot be certain we have not infringed the intellectual property rights of such third parties. Any infringement or misappropriation claim could result in significant costs or substantial damages to our business or an inability to manufacture, market or sell any of our PV modules found to infringe or misappropriate. Even if we were to prevail in any such action, the litigation could result in substantial cost and diversion of resources that could materially and adversely affect our business. The large number of patents, the rapid rate of new patent issuances, the complexities of the technology involved and uncertainty of litigation increase the risk of business assets and management's attention being diverted to patent litigation. Even if obtaining a license were feasible, it could be costly and time consuming. We might be forced to obtain additional licenses from our existing licensors in the event the scope of the intellectual property we have licensed is too narrow to cover our activities, or in the event the licensor did not have sufficient rights to grant us the license(s) purported granted. Also, some of our licenses may restrict or limit our ability to grant sub-licenses and/or assign rights under the licenses to third parties, which may limit our ability to pursue business opportunities.

Our future success depends on retaining our Chief Executive Officer and existing management team and hiring and assimilating new key employees and our inability to attract or retain key personnel would materially harm our business and results of operations.

Our success depends on the continuing efforts and abilities of our executive officers, including Mr. Victor Lee, our President and Chief Executive Officer, our other executive officers, and key technical personnel. Our future success also will depend on our ability to attract and retain highly skilled employees, including management, technical and sales personnel. The loss of any of our key personnel, the inability to attract, retain or assimilate key personnel in the future, or delays in hiring required personnel could materially harm our business, results of operations and financial condition.

Our PV modules contain limited amounts of cadmium sulfide, and claims of human exposure or future regulations could have a material adverse effect on our business, results of operations and financial condition.

Our PV modules contain limited amounts of cadmium sulfide, which is regulated as a hazardous material due to the adverse health effects that may arise from human exposure, and is banned in certain countries. We cannot assure you human or environmental exposure to cadmium sulfide used in our PV modules will not occur. Any such exposure could result in third party claims against us, damage to our reputation and heightened regulatory scrutiny of our PV modules. Future regulation relating to the use of cadmium in various products could force us to seek regulatory exemptions or impact the manufacture and sale of our PV modules and could require us to incur unforeseen environmental related costs. The occurrence of future events such as these could limit our ability to sell and distribute our PV modules, and could have a material adverse effect on our business, results of operations and financial condition.

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

We are subject to a variety of federal, state, local and foreign laws and regulations relating to the protection of the environment, including those governing the use, handling, generation, processing, storage, transportation and disposal of, or human exposure to, hazardous and toxic materials (such as the cadmium used in our products), the discharge of pollutants into the air and water, and occupational health and safety. We are also subject to environmental laws which allow regulatory authorities to compel, or seek reimbursement for, cleanup of environmental contamination at sites now or formerly owned or operated by us and at facilities where our waste is or has been disposed. We may incur significant costs and capital expenditures in complying with these laws and regulations. In addition, violations of, or liabilities under, environmental laws or permits may result in restrictions being imposed on our operating activities or in our being subjected to substantial fines, penalties, criminal proceedings, third party property damage or personal injury claims, cleanup costs or other costs. Also, future developments such as more aggressive enforcement policies, the implementation of new, more stringent laws and regulations, or the discovery of presently unknown environmental conditions or noncompliance may require expenditures that could have a material adverse effect on our business, results of operations and financial condition. Further, greenhouse gas emissions have increasingly become the subject of international, national, state and local attention. Although future regulations could potentially lead to an increased use of alternative energy, there can be no guarantee that such future regulations will encourage solar technology.

Given our limited history of operations, it is difficult to predict future environmental expenses.

We currently anticipate having substantial international operations that will subject us to a number of risks, including potential unfavorable political, regulatory, labor and tax conditions in foreign countries.

We expect to expand our operations abroad in the future and, as a result, we may be subject to the legal, political, social and regulatory requirements and economic conditions of foreign jurisdictions. Risks inherent to international operations, include, but are not limited to, the following:

- difficulty in procuring supplies and supply contracts abroad;

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- difficulty in enforcing agreements in foreign legal systems;
- foreign countries imposing additional withholding taxes or otherwise taxing our foreign income, imposing tariffs or adopting other restrictions on foreign trade and investment, including currency exchange controls;
- inability to obtain, maintain or enforce intellectual property rights;
- risk of nationalization;
- changes in general economic and political conditions in the countries in which we may operate, including changes in the government incentives we might rely on;
- unexpected adverse changes in foreign laws or regulatory requirements, including those with respect to environmental protection, export duties and quotas;
- difficulty with staffing and managing widespread operations;
- trade barriers such as export requirements, tariffs, taxes and other restrictions and expenses, which could increase the prices of our products and make us less competitive in some countries; and
- difficulty of, and costs relating, to compliance with the different commercial and legal requirements of the international markets in which we plan to offer and sell our PV products.

Our business in foreign markets will require us to respond to rapid changes in market conditions in these countries. Our overall success as an international business depends, in part, on our ability to succeed in differing legal, regulatory, economic, social and political conditions. If we are not able to develop and implement policies and strategies that are effective in each location where we will do business, then our business, results of operations and financial condition could be materially and adversely affected.

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

The market for electricity generation products is heavily influenced by foreign, U.S., state and local government regulations and policies concerning the electric utility industry, as well as policies promulgated by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of customer owned electricity generation. In the United States and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. These regulations and policies could deter end user purchases of PV products and investment in the research and development of PV technology. For example, without a mandated regulatory exception for PV systems, utility customers are often charged interconnection or standby fees for putting distributed power generation on the electric utility grid. These fees could increase the cost to our end users of using PV systems and make them less desirable, thereby harming our business, prospects, results of operations and financial condition. In addition, electricity generated by PV systems mostly competes with expensive peak hour electricity, rather than the less expensive average price of electricity. Modifications to the peak hour pricing policies of utilities, such as to a flat rate, would require PV systems to achieve lower prices in order to compete with the price of electricity from other sources.

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

Risks Relating to our $32 million Principal Amount of Senior Secured Convertible Notes

We could be required to make substantial cash payments upon an event of default, a failure to maintain sufficient registered shares, or a change of control under the Notes described below.

The Senior Secured Convertible Notes (the “Notes”) provide for events of default including, among others, payment defaults, cross defaults, material breaches of any representations or warranties, breaches of covenants that are not

cured within the applicable time period, failure to perform certain required activities in a timely manner, failure to comply with certain registration rights agreement obligations, suspension from trading or failure of our common stock to be listed on an eligible market for certain periods and certain bankruptcy-type events involving us or a subsidiary.

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Upon an event of default, a holder of the Notes may require us to redeem all or any portion of the Notes (including all accrued and unpaid interest and all interest that would have accrued), in cash, at a price equal to the greater of: (i) up to 125% of the amount being redeemed, depending on the nature of the default, and (ii) the product of (A) the conversion rate in effect at such time multiplied by (B) the product of (1) up to 125%, depending on the nature of the default, multiplied by (2) the highest closing sale price of the common stock on any trading day during the period beginning on the date immediately before the event of default and ending on the date of redemption.

In addition, under the terms of the Notes, in the event of transactions involving a change of control, the holder of a Note will have the right to require us to redeem all or any portion of the Note it holds in cash, at a price with a redemption premium of 125% calculated by the formula specified in the Notes.

If either an event of default or change of control occurs, our available cash could be seriously depleted and our ability to fund operations could be materially harmed.

If we are unable to maintain the effectiveness of our registration statement relating to the Notes with sufficient numbers of shares, we may not be able to make required payments on the Notes in the form of common stock (which we currently intend to do). If we are required to make payments on the Notes in cash rather than shares of common stock, our available cash could be seriously depleted and our ability to fund operations could be materially harmed.

The Notes contain various covenants and restrictions which may limit our ability to operate our business and raise capital.

The Notes impose certain restrictive covenants on us which may impede our ability to operate our business or raise further funds in the capital markets. For example, so long as the Notes are outstanding, we cannot, and cannot permit any of our subsidiaries to:

- incur, guarantee, assume or suffer to exist any indebtedness (other than permitted indebtedness under the Notes);
- declare or pay cash dividends;
- redeem or repurchase equity interests;
- permit liens on our properties or assets (other than permitted liens under the Notes); and
- repay certain indebtedness in cash if an event of default has occurred.

A breach of any of these covenants could result in a default under the Notes. If there is an event of default, a holder of the Notes may require us to redeem all or any portion of the Notes (including all accrued and unpaid interest and all interest that would have accrued through the maturity date) in cash, which could have a material adverse effect on our financial condition and cash flow.

Our stockholders may experience significant dilution as a result of shares of our common stock issued pursuant to the Notes and related warrants.

As of March 13, 2015, we had approximately 45.6 million shares of our common stock reserved or designated for future issuance pursuant to the Notes and the warrants related thereto. Under the Notes and such warrants, we are required to have reserved or have designated for future issuance at least 200% of the maximum potential number of shares of common stock necessary to effect the conversion of the Notes and the exercise of the warrants, subject to potential future anti-dilution adjustments. Although we have the option to settle the interest and principal payments on the Notes in cash and certain conversion and exercise restrictions are placed upon the holders of the Notes and such warrants, the issuance of material amounts of common stock by us would cause our existing stockholders to experience significant dilution in their investment in our Company. In addition, our existing stockholders could

experience significant dilution in their investment in our Company as a result of the issuance of shares related to our outstanding preferred stock, as described further below in these risk factors. Also, if we obtain additional financing involving the issuance of equity securities or securities convertible into equity securities, our existing stockholders' investment would be further diluted. Such dilution could cause the market price of our common stock to decline, which could impair our ability to raise additional financing.

Substantial leverage and debt service obligations may adversely affect our cash flows.

In connection with the sale of the Notes, we incurred indebtedness in the aggregate principal amount of $32 million. The degree to which we are leveraged could, among other things:

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- require us to dedicate a substantial portion of our future cash flows from operations and other capital resources to debt service;
- make it difficult for us to obtain necessary financing in the future for working capital, acquisitions or other purposes on favorable terms, if at all;
- make it more difficult for us to be acquired;
- make us more vulnerable to industry downturns and competitive pressures; and
- limit our flexibility in planning for, or reacting to, changes in our business.

Our ability to meet our debt service obligations (including interest or amortization payments on the Notes) will depend upon our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control. We currently intend to make interest and amortization payments on the Notes through the issuance of shares of our common stock, which requires us to be in compliance with certain equity conditions (including trading volume and stock price conditions), unless these conditions are waived by the holder. Such payments in shares will be limited to the extent that such payments would cause the holder to beneficially own in excess of 4.99% of the outstanding shares of our common stock at the time of such payment. If we are not permitted to deliver shares of common stock to repay the Notes due to a failure to satisfy any of the these conditions or the limitations on payment in our shares, we will be required to make such payments in cash which could adversely affect our ability to fund operations due to the diversion of necessary cash flow to fund operations to utilization for Note payments.

Sales of a significant number of shares of our common stock in the public markets or significant short sales of our stock, or the perception that such sales could occur, could depress the market price of our common stock and impair our ability to raise capital.

Sales of a substantial number of shares of our common stock or other equity-related securities in the public markets, including any shares issued upon conversion of the Notes, in payment of principal of and interest on the Notes, or upon exercise of the warrants related thereto, could depress the market price of our common stock. If there are significant short sales of our stock, the price decline that could result from this activity may cause the share price to decline more so, which, in turn, may cause long holders of the stock to sell their shares, thereby contributing to sales of stock in the market. Such sales also may impair our ability to raise capital through the sale of additional equity securities in the future at a time and price that our management deems acceptable, if at all. In addition, a large number of our outstanding shares are not registered under the Securities Act. If and when these shares are registered or become eligible for sale to the public market, the market price of our common stock could also decline.

The gross amount of funds realized from the issuance of the Notes, Series D Preferred Stock, and related warrants may be affected by the requirement that a portion of the purchase price be maintained in restricted control accounts.

Approximately $30.5 million of the purchase price of the Notes, Series D Preferred Stock, and related warrants was placed into restricted control accounts. Approximately $2.5 million thereof was released to us in December 2014. An additional $6 million from the control accounts is scheduled to be released to us in early 2015. Thereafter, additional funds from the control accounts shall be released to us (i) in connection with certain conversions of the Notes, and (ii) up to $6 million in any 90 day period, provided that we meet certain equity conditions.

These restrictions could limit the amount of proceeds we expect to realize from the issuance of the Notes and related warrants. If we realize less than the full purchase price of the Notes, it may have a material adverse effect on our financial position, cash flows and our ability to continue operating as a going concern.

Risks Relating to our Securities and an Investment in our Common Stock

As a public company we are subject to complex legal and accounting requirements that require us to incur substantial expenses, and our financial controls and procedures may not be sufficient to ensure timely and reliable reporting of financial information, which, as a public company, could materially harm our stock price and listing on the NASDAQ Capital Market.

As a public company, we are subject to numerous legal and accounting requirements that do not apply to private companies. The cost of compliance with many of these requirements is substantial, not only in absolute terms but, more importantly, in relation to the overall scope of the operations of a small company. Failure to comply with these requirements can have numerous adverse consequences including, but not limited to, our inability to file required periodic reports on a timely basis, loss of market confidence, delisting of our securities and/or governmental or private actions against us. We cannot assure you we will be able to comply with

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all of these requirements or the cost of such compliance will not prove to be a substantial competitive disadvantage vis-à-vis our privately held and larger public competitors.

The Sarbanes-Oxley Act of 2002 (“Sarbanes-Oxley”) requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of Sarbanes-Oxley. Our compliance with Section 404 of Sarbanes-Oxley will require we incur substantial accounting expense and expend significant management efforts. The effectiveness of our controls and procedures may, in the future, be limited by a variety of factors, including:

- faulty human judgment and simple errors, omissions or mistakes;
- fraudulent action of an individual or collusion of two or more people;
- inappropriate management override of procedures; and
- the possibility that any enhancements to controls and procedures may still not be adequate to assure timely and accurate financial information.

If we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm, identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, we may be subject to NASDAQ delisting, investigations by the SEC and civil or criminal sanctions.

Our ability to successfully implement our business plan and comply with Section 404 requires us to be able to prepare timely and accurate financial statements. We expect we will need to continue to improve existing, and implement new operational, financial and accounting systems, procedures and controls to manage our business effectively.

Any delay in the implementation of, or disruption in the transition to, new or enhanced systems, procedures or controls may cause our operations to suffer, and we may be unable to conclude that our internal control over financial reporting is effective as required under Section 404 of Sarbanes-Oxley. If we are unable to complete the required Section 404 assessment as to the adequacy of our internal control over financial reporting, if we fail to maintain or implement adequate controls, our ability to obtain additional financing could be impaired. In addition, investors could lose confidence in the reliability of our internal control over financial reporting and in the accuracy of our periodic reports filed under the Exchange Act. A lack of investor confidence in the reliability and accuracy of our public reporting could cause our stock price to decline.

The price of our common stock may continue to be volatile.

Our common stock is currently traded on the NASDAQ Capital Market. The trading price of our common stock from time to time has fluctuated significantly and may be subject to similar volatility in the future. For example, in the calendar year ended December 31, 2014, our common stock traded (as adjusted to reflect a 1-for-10 reverse stock split of our common stock that occurred on August 26, 2014 (the “Reverse Stock Split”)) as low as $1.03 and as high as $7.50, and in 2013, traded as low as $5.10 and as high as $11.60. The trading price of our common stock in the future may be affected by a number of factors, including events described in these “Risk Factors.” In recent years, broad stock market indices, in general, and smaller capitalization and PV companies, in particular, have experienced substantial price fluctuations. In a volatile market, we may experience wide fluctuations in the market price of our common stock. These fluctuations may have a negative effect on the market price of our common stock regardless of our operating performance. In the past, following periods of volatility in the market price of a company’s securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management’s attention and resources, and could have a material adverse effect on our financial condition.

Future sales, or the potential for future sales, of our securities may cause the trading price of our common stock to decline and could impair our ability to raise capital.

Sales of a substantial number of shares of our common stock or other securities in the public markets, or the perception these sales may occur, could cause the market price of our common stock or other securities to decline and could materially impair our ability to raise capital through the sale of additional securities. A large number of our outstanding shares are not registered under the Securities Act of 1933, as amended. If and when these shares are

registered or become eligible for sale to the public market, the market price of our common stock could decline.
You may experience dilution if we issue additional equity securities in future fundraising transactions.

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If we issue additional common stock, or securities convertible into or exchangeable or exercisable for common stock, our stockholders will experience dilution, and any such issuances may result in downward pressure on the price of our common stock.

Current stockholders will be diluted by the issuance of shares related our outstanding Series A preferred stock, Series D-1 preferred stock and our senior secured notes, including shares that would be issued if we elect to pay redemption amounts, interest, dividends and make-whole amounts in the form of common stock.

The conversion of our Series A preferred stock, Series D-1 preferred stock and the Notes would result in the future issuance of significant additional shares of common stock by the Company. In addition, an indeterminate number of additional common shares may be issued in the event the Company elects to pay dividends and interest due on the Series A preferred stock, Series D-1 preferred stock and the Notes in the form of shares rather than cash. To the extent we issue common stock in payment of the amounts due in connection with our Series A preferred stock, Series D-1 preferred stock and the Notes in the form of our common stock, rather than cash, such issuances will dilute the ownership interests of existing stockholders.

As of March 13, 2015, 212,390 shares of Series A preferred stock remained outstanding. If all remaining shares of Series A preferred stock were immediately converted as of the March 13, 2015, we estimate that we would issue 212,390 common shares upon conversion and 1,213,657 additional common shares for make-whole amounts paid in common shares in lieu of cash.

As of March 13, 2015, 683 shares of Series D-1 preferred stock remained outstanding. If all remaining shares of Series D-1 preferred stock were immediately converted as of March 13, 2015, we estimate that we would issue 669,149 common shares upon conversion.

Since November 2014, we have made payments on $1,759,033 of our outstanding Notes plus accrued interest, resulting in the issuance of 4,000,000 common shares upon conversion. If all of the remaining $30,419,212 principal amount of our outstanding Notes were immediately converted as of March 13, 2015, we estimate that we would issue 27,653,829 common shares upon conversion. If we elect to make the required installment payments on the Notes in the form of shares rather than cash (as we intend to do), the number of shares that we would issue in respect of the Notes may exceed the amounts referred to above.

Some provisions of our charter documents and Delaware law may have anti-takeover effects that could discourage an acquisition of us by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our Certificate of Incorporation and Bylaws, as well as provisions of Delaware law, could make it more difficult for a third party to acquire us, or for a change in the composition of our Board of Directors (our “Board”) or management to occur, even if doing so would benefit our stockholders. These provisions include:

- authorizing the issuance of “blank check” preferred stock, the terms of which may be established and shares of which may be issued without stockholder approval;
- dividing our Board into three classes;
- limiting the removal of directors by the stockholders; and
- limiting the ability of stockholders to call a special meeting of stockholders.

In addition, we are subject to Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with an interested stockholder for a period of three years following the date on which the stockholder became an interested stockholder, unless such transactions are approved by our Board. This provision could have the effect of delaying or preventing a change of control, whether or not it is desired by, or beneficial to, our stockholders.

TFG Radiant, our largest stockholder, is exempt from the general prohibitions of Section 203 because the transaction by which it became an interested stockholder was approved by our Board. Because TFG Radiant has two representatives on our Board, it is less likely that a third party could become an interested stockholder without the consent of TFG Radiant.

Item 1B. Unresolved Staff Comments

None.

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Item 2. Properties
We own an approximately 138,000 square foot manufacturing and office facility in Thornton, Colorado.

Item 3. Legal Proceedings

On October 21, 2011, we were notified that a complaint (the "Lawsuit") was filed by Jefferies & Company, Inc. ("Jefferies") against us in state court located in the County and State of New York.

In December 2010, we and Jefferies entered into an engagement agreement (the "Fee Agreement") pursuant to which Jefferies was hired to act as our financial advisor in relation to certain potential transactions. In the Lawsuit, Jefferies claims it is entitled to receive an investment banking fee of $3.0 million (plus expense reimbursement of approximately $49,000) under the Fee Agreement in connection with the August 2011 investment and strategic alliance transaction (the "Financing") between us and TFG Radiant. In addition, should it prevail at trial, Jefferies would be able to claim an award for attorney's fees and prejudgment interest in the approximate amount of $1.2 million.

On April 16, 2014, the parties settled the lawsuit where the Company agreed to pay Jefferies a total of $2.0 million in equal installments over 40 months. The Company has paid $450,000 through December 31, 2014.

The Company records a liability in its financial statements for costs related to claims, including settlements and judgments, where the Company has assessed that a loss is probable and an amount can be reasonably estimated. The Company accrued $1.7 million, the net present value of the $2.0 million settlement, as of December 31, 2013. As of December 31, 2014, $880,760 was accrued for the long-term portion of this settlement and $493,732 was recorded as Current portion of litigation settlement in the Balance Sheets.

Item 4. Mine Safety Disclosures
Not applicable.
PART II
Item 5. Market For Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities
Market Information
Our common stock was traded on the NASDAQ Global Market until March 27, 2014. Beginning March 28, 2014, our stock traded on the NASDAQ Capital Market. Our trading symbol is "ASTI." The following table sets forth the high and low sales price information per share for our common stock for the last two completed fiscal years, as adjusted for the Reverse Stock Split.
Price Range of Common Stock

	High	Low
Fiscal 2013		
First Quarter	$7.40	$5.10
Second Quarter	$9.40	$5.30
Third Quarter	$11.60	$7.30
Fourth Quarter	$10.70	$6.30
Fiscal 2014		
First Quarter	$7.50	$6.10
Second Quarter	$5.90	$3.50
Third Quarter	$4.70	$1.82
Fourth Quarter	$2.11	$1.03

Holders

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As of December 31, 2014, the number of record holders of our common stock was 26. Because many of our shares of common stock 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.

Dividends

The holders of common stock are entitled to receive such dividends as may be declared by our Board of Directors. During the years ended December 31, 2014 and 2013, we did not pay any common stock dividends, and we do not expect to declare or pay any dividends in the foreseeable future. Payment of future dividends will be within the discretion of our Board of Directors and will depend on, among other factors, our retained earnings, capital requirements, and operating and financial condition.

Item 6. Selected Financial Data

Smaller reporting companies are not required to provide the information required by this Item.

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

The following discussion of our financial condition and results of operations should be read in conjunction with our audited financial statements and the notes to those financial statements appearing elsewhere in this Form 10-K. This discussion and analysis contains statements of a forward-looking nature relating to future events or our future financial performance. As a result of many factors, our actual results may differ materially from those anticipated in these forward-looking statements. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

Overview

We are a development stage company formed to commercialize flexible PV modules using our proprietary technology. For the year ended December 31, 2014, we generated $5.3 million of revenue. Our revenue from product sales was $5.0 million and revenue from government research and development contracts was $0.3 million. As of December 31, 2014, we had an accumulated deficit of $299.3 million.

In 2012, we transitioned our business model adding a second business focused on developing PV integrated consumer electronics. In June of 2012, we launched our new line of consumer products under the EnerPlex™ brand, and introduced our first product, the Surfr™, a battery and a solar case for the Apple® iPhone® 4/4S smart phone featuring our ultra-light CIGS thin film technology integrated directly into the case. The case incorporates our ultra-light and thin PV module into a sleek, protective iPhone 4/4S case, along with a thin, life extending, battery. The charger adds minimal weight and size to an iPhone, yet provides supplemental charging when needed. In August of 2012, we announced the launch of the second version of Surfr for the Samsung® Galaxy S® III, which provides 85% additional battery life.

In December 2012, we launched the EnerPlex Kickr™ and EnerPlex Jumpr™ product series. The Kickr IV is an extremely portable, compact and durable solar charging device, approximately seven inches by seven inches when folded, and weighs less than half a pound. The Kickr IV provides 6.5 watts of regulated power that can help charge phones, digital cameras, and other small USB enabled devices. The Kickr IV is ideal for outdoor activities such as camping, hiking and mountain climbing as well as daily city use. To complement the Kickr IV, we also released the Jumpr™ series of portable power banks. The Jumpr™ series provides a compact power storage solution for those who need to take the power of the sun with them on the go. Throughout 2014, EnerPlex released multiple additions to the Jumpr line of products: including the Jumpr Stack 3,6 & 9, innovative batteries equipped with tethered micro-USB and Apple Lightning cables and revolutionary Stack & Charge design, enabling batteries to be charged simultaneously when they are placed on top of one another. Also released in 2014 were the Jumpr Slate series, products which push the boundaries of how thin batteries can be, the Jumpr Slate 10k, at less than 7mm thick was the thinnest lithium polymer battery available when it was released. The Jumpr Slate 5k and 5k Lightning each come with a tethered micro-USB and Lightning cable respectively; freeing consumers from worrying about toting extra cables with them while on the

move.

At Outdoor Retailer 2014, EnerPlex debuted the Generatr Series, the Generatr 1200 and Generatr 100 are lithium-ion based large format batteries; lighter and smaller than competitors the Generatr Series are targeted for consumers who require high-capacity, high-output batteries which remain ultra-portable when compared to the competition. Also debuted at Outdoor Retailer was the Commandr XII, a high output solar charger designed specifically to integrate with and charge the Generatr

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series, allowing consumers to stay out longer without needing to charge their Generatr batteries from a traditional power source. In August, the Kickr II+ and IV+ were also announced, these products represent another evolution in EnerPlex's line of solar products; integrated with a 500mAh battery the Kickr II+ and IV+ are able to provide a constant flow of power even when there are intermittent disruptions in sunlight.

Throughout 2013, we aggressively pursued new distribution channels for the EnerPlex™ brand; these activities have led to placement in a variety of high-traffic ecommerce venues such as www. walmart.com, www.brookstone.com, www.newegg.com as well as many others including our own e-commerce platform at www.goenerplex.com. The April 2013 placement of EnerPlex products at Fry's Electronics, a US West Coast consumer electronics retailer, represented our first domestic retail presence. EnerPlex products are carried in all of Fry's 34 stores across 9 states. Each store is provided with EnerPlex branded merchandising assets to highlight the uniqueness of our product lines.

In 2014 EnerPlex products launched in multiple online and brick-and-mortar partners; including BestBuy.com, 300 premium Verizon Wireless stores via partner The Cellular Connection (TCC) and 25 Micro Center stores across 16 states. This expansion of retail partners between 2013 and 2014 represents a nearly nine-fold increase in number of stores in which EnerPlex has retail presence.

We continue to design and manufacture PV integrated consumer electronics, as well as portable power applications for commercial and military users. Due to the high durability of the monolithic integration employed by our technology, the capability to customize modules into different form factors and the industry leading light weight and flexibility provided by our modules, we believe the potential applications for our products are numerous. During 2014 our partner in the United Kingdom, The Solar Cloth Company, won an award in the BIPV category for their use of Ascent Solar's modules in tensioned fabric applications; this application is an example of the high-volume opportunities which Ascent is positioned to take advantage of in the absence of other technologies which can match Ascent's industry leading durability and power-to-weight ratio.

Commercialization and Manufacturing Strategy

Our proprietary manufacturing process deposits multiple layers of materials, including a thin film of highly efficient Copper-Indium-Gallium-diSelenide ("CIGS") semiconductor material, on a flexible, lightweight, plastic substrate using a roll-to-roll manufacturing process and then laser patterns the layers to create interconnected PV cells, or PV modules, in a process known as monolithic integration. Our monolithic integration techniques enable us to form complete PV modules with less or no costly back end assembly of intercell connections. Traditional PV manufacturers assemble PV modules by bonding or soldering discrete PV cells together. This manufacturing step typically increases manufacturing costs and at times proves detrimental to the overall yield and reliability of the finished product. By reducing or eliminating this added step using our proprietary monolithic integration techniques, we believe we can achieve cost savings in, and increase the reliability of, our PV modules. We believe our technology and manufacturing process, which results in a lighter, flexible module package, provides us with unique market opportunities relative to both the crystalline silicon ("c-Si") based PV manufacturers that currently lead the PV market, as well as other thin-film PV manufacturers that use substrate materials such as glass, stainless steel or other metals that can be heavier and more rigid than plastics.

Currently, we are producing consumer oriented products focusing on charging devices powered by or enhanced by our solar modules. Products in these markets are priced based on the overall value proposition rather than a commodity-style price per watt basis. We continue to develop new consumer products and we have adjusted our utilization of our equipment to meet our near term forecast sales. We plan to continue the development of our current PV technology to increase module efficiency, improve our manufacturing tooling and process capabilities and reduce manufacturing costs. We also plan to continue to take advantage of research and development contracts to fund a portion of this development.

On December 28, 2013, we entered into a definitive agreement for the establishment of a joint venture with the Government of the Municipal City of Suqian in Jiangsu Province, China ("Suqian").

The agreement covers a multi-faceted, three-phase project. Completion of all three phases would involve an anticipated investment of up to $500 million over 6 years, comprised of equipment, intellectual property and cash funded by Suqian, our business, and other supporting investors brought into the project by us.

During the second half of 2014, we and Suqian formed a joint venture entity (“JV”) in which Suqian will ultimately inject approximately $4.8 million in cash and have a majority interest of 75%. We shall ultimately inject approximately $1.6 million in cash and hold a minority interest of 25%. In 2015, Suqian will further inject the balance of the committed $32.5 million while we will contribute our proprietary technology and intellectual property, as well as certain equipment from our Colorado facility, thereby increasing our shareholdings progressively up to an 80% ownership.

The JV will build a factory to manufacture our proprietary photovoltaic modules. We are committed to purchase this factory within the first 5 years, at the initial construction cost, and we will also purchase Suqian's ownership interest in the JV at a cost of 1.5 times Suqian's cash investment.

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The implementation of the agreement, including the formation of the JV entity, will be subject to a number of contractual conditions and governmental approvals. Such conditions and approvals must be obtained in the future in order for the Suqian factory to be built and become operational.

Related Party Activity

In February 2012, we announced the appointment of Victor Lee as President and Chief Executive Officer. Mr. Lee had served on our Board of Directors since November 2011 and is currently the managing director of Tertius Financial Group Pte Ltd, the joint venture partner with Radiant Group, in TFG Radiant. In April 2012, we appointed the Chairman of TFG Radiant, Mr. Winston Xu (aka Xu Biao), as a member of our Board of Directors. TFG Radiant owns approximately 15.4% of our outstanding common stock as of March 13, 2015.

The addition of TFG Radiant as a major shareholder has significantly improved our capabilities on a number of fronts. TFG Radiant's domicile in China provides us access to high quality, low cost contract manufacturing in Asia through expansion of TFG Radiant's existing relationships, developed through many years of successful operation in China. Integrating these suppliers into our supply chain enables us to bring our products to market faster. TFG Radiant also provides a global product perspective that significantly improves the product design activities of our Thornton, Colorado designers as they collaborate with designers in Asia. We continue to integrate and improve the design-to-manufacture process where we manufacture modules in our US plant, ship them to Asia for completion into finished goods at low cost and then ship products to all markets we will serve.

In June 2012, we entered into a supply agreement and a contract manufacturing agreement with TFG Radiant. Under the terms of the contract manufacturing agreement TFG Radiant will oversee certain aspects of the contract manufacturing process related to our EnerPlex™ line of consumer products. We compensated TFG Radiant for acting as general contractor in the contract manufacturing process. Under the supply agreement TFG Radiant intends to distribute our consumer products in Asia. In December 2012, we entered into a consulting agreement with TGF Radiant for product design, product development and manufacturing coordination activities provided by TFG Radiant to us in connection with our line of consumer electronics products. This services agreement was terminated in Q1 2014.

During the year ended December 31, 2014, the Company made disbursements to TFG Radiant in the amount of $518,000. Included within these disbursements is $200,000 for consulting fees and $318,000 for finished goods received and deposits for work-in-process. During the years ended December 31, 2014 and 2013, the Company recognized revenue in the amount of $8,000 and $143,000, respectively, for products sold to TFG Radiant under the supply agreement. As of December 31, 2014, the Company had $0 in receivables and deposits with TFG Radiant.

Significant Trends, Uncertainties and Challenges

We believe the significant trends, uncertainties and challenges that directly or indirectly affect our financial performance and results of operations include:

- our ability to generate customer acceptance of and demand for our products;
- successful ramping up of commercial production on the equipment installed;
- our products are successfully and timely certified for use in our target markets;
- successful operating of production tools to achieve the efficiencies, throughput and yield necessary to reach our cost targets;
- the products we design are saleable at a price sufficient to generate profits;
- our strategic alliance with TFG Radiant results in the design, manufacture and sale of sufficient products to achieve profitability;
- our ability to raise sufficient capital to enable us to reach a level of sales sufficient to achieve profitability on terms favorable to us;
- we are able to successfully design, manufacture, market, distribute and sell our newly introduced line of consumer oriented products;
- effective management of the planned ramp up of our domestic and international operations;
- our ability to successfully develop and maintain strategic relationships with key partners, including OEMs, system integrators, distributors, retailers and e-commerce companies, who deal directly with end users in our target markets;

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- our ability to maintain the listing of our common stock on the NASDAQ Capital Market;
- our ability to achieve projected operational performance and cost metrics;
- our ability to enter into commercially viable licensing, joint venture, or other commercial arrangements; and
- availability of raw materials.

Basis of Presentation: Our activities to date have consisted substantially of raising capital, research and development, establishment and development of our production plant, product development and establishing a sales channel for our line of consumer products which is sold under the EnerPlex™ brand. A development stage entity is defined as an entity devoting substantially all of its efforts to establishing a new business and for which either a) planned principal operations have not commenced or b) planned principal operations have commenced, but there has been no significant revenue therefrom. Our planned principal operations to commercialize flexible PV modules and PV integrated electronics have commenced, but have generated limited revenue to date. The EnerPlex™ brand of consumer oriented products was introduced in 2012. Despite experiencing substantial sequential growth in the third and fourth quarters of 2013 and the full fiscal year ended December 31, 2014, total revenue to date has not been significant. Accordingly, we are considered to be in the development stage and have provided additional disclosure of inception to date activity in our Statements of Operations, Statements of Stockholders' Equity and Statements of Cash Flows. Additionally, due to our development stage nature, the majority of our costs are considered to be research and development costs.

Significant Accounting Policies

Related Party Transactions: We are party to several operating agreements, including a Joint Development Agreement, a Supply Agreement, a Contract Manufacturing Agreement, and a Services Agreement with TFG Radiant, which is also our largest shareholder. Accounting for transactions under these agreements is consistent with those defined in our Significant Accounting Policies. Additional disclosure of related party transactions is included in our financial statements and footnotes.

Revenue Recognition:

Product revenue - We are in the development stage and we generated product revenues of $5,012,000 for the year ended December 31, 2014. Product revenue is generated from commercial sales of flexible PV modules and PV integrated consumer electronics. Products are sold through our own website and through the use of online retailers and distributors. Revenue is recognized as products are shipped or delivered and title has transferred to the customer. In certain instances, we have agreed to refund a portion of the purchase price to customers if we decrease our standard retail price. We estimate the effect of this price protection and record the difference as a reduction of revenue at the time of sale. Estimated costs of returns and allowances and discounts are accrued as a reduction to sales when revenue is recognized.

Some of our distributor relationships allow for discounts to be taken for prompt payment and to fund co-op advertising costs. These discounts are taken as credits against outstanding receivable balances and recorded net of revenue. Large co-op advertising campaigns, funded either by cash payments by us or as credits against outstanding receivables, are recorded as advertising expense included in Selling, general and administrative costs if, and only if, the following criteria are met: 1) we received an identifiable benefit (goods or services) in exchange for the consideration, with the identifiable benefit being sufficiently separable from the distributor's purchase of our products; and 2) we can reasonably estimate the fair value of the identifiable benefit. If the amount of consideration paid by us exceeds the estimated fair value of the benefit received, that excess amount shall be characterized as a reduction of revenue.

Government contracts revenue - Revenue from governmental research and development contracts is generated under terms that are cost plus fee or firm fixed price. Revenue from cost plus fee contracts is recognized as costs are incurred on the basis of direct costs plus allowable indirect costs and an allocable portion of the fixed fee. Revenue from firm fixed price contracts is recognized under the percentage-of-completion method of accounting, with costs and estimated profits included in contract revenue as work is performed. If actual and estimated costs to complete a contract indicate a loss, provision is made currently for the loss anticipated on the contract.

Convertible Preferred Stock: During the second and third quarter of 2013, we issued Series A preferred stock and warrants. Upon issuance, the Series A preferred stock was evaluated under FASB ASC 480, "Distinguishing Liabilities from Equity" and it was determined the Series A preferred stock was not within the scope of ASC 480; therefore, the

Series A preferred stock was not considered a liability under ASC 480. The warrants associated with the Series A preferred stock offering were also not considered a liability as assessed under ASC 480.

Under FASB ASC 470, “ Debt with Conversion Features and Other Options” (“ASC 470"), the proceeds from issuance must be allocated to both the Series A preferred stock and the warrants using the relative fair value method. The allocation of proceeds to the warrants created a discount in the fair value of the Series A Preferred Stock in the amount of $1.1 million. Because the Series

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A preferred stock was immediately convertible, the discount was accreted as of the date of issuance, recorded as "Additional paid in capital" in Stockholders' Equity and "Deemed dividend on preferred stock and accretion of warrants" in the Statements of Operations.

The Series A preferred stock was then evaluated under ASC 470 to determine if there was a beneficial conversion feature (“BCF”). A convertible financial instrument includes a BCF if its conversion rate is lower than the issuer's stock price at the commitment date. The BCF compares the carrying value of the preferred stock after the value of any derivatives or equity instruments have been allocated from the proceeds to the transaction date value of the number of shares of common stock the holder would receive upon conversion. The calculation resulted in a BCF of $1.4 million. Because the Series A preferred stock was immediately convertible, the BCF was recorded as of the date of issuance as "Additional paid in capital" in Stockholders' Equity and "Deemed dividend on preferred stock and accretion of warrants" in the Statements of Operations.

During the fourth quarter of 2013, we issued Series B preferred stock. Upon issuance, the Series B preferred stock was evaluated under FASB ASC 480, “Distinguishing Liabilities from Equity" and it was determined the Series B preferred stock was not within the scope of ASC 480; therefore, the Series B preferred stock was not considered a liability under ASC 480.

During the second quarter of 2014, we issued Series C preferred stock. Upon issuance, the Series C preferred stock was evaluated under FASB ASC 480, “Distinguishing Liabilities from Equity" and it was determined the Series C preferred stock was not within the scope of ASC 480; therefore, the Series C preferred stock was not considered a liability under ASC 480.

During the fourth quarter of 2014, we issued Series D preferred stock. Upon issuance, the Series D preferred stock was evaluated under FASB ASC 480, “Distinguishing Liabilities from Equity" and it was determined the Series D preferred stock was within the scope of ASC 480; therefore, the Series D preferred stock is considered a liability under ASC 480.

Make-whole dividend liability: The Series A, Series B, and Series C preferred stock issuances include make-whole provisions with variable rate dividends which are indexed to our own stock. The make-whole provisions have attributes of embedded derivatives and were evaluated under ASC 815, “Derivatives and Hedging" (“ASC 815”). We believe the Series A, Series B, and Series C preferred stock are considered equity hosts for the purposes of evaluating the make-whole provisions for potential bifurcation. The Series A, Series B, and Series C preferred stock holders may convert to common shares at any time after issuance. Upon conversion, the holders are entitled to a make-whole dividend which is payable in cash or common shares, at our election. We concluded the make-whole payments should be characterized as embedded derivatives under ASC 815. The fair value of make-whole dividend liabilities must be evaluated at each period end, with changes recorded as a component of Other Income/(Expense).

Inventories: All inventories are stated at the lower of cost or market, with cost determined using the weighted average method. As a development stage entity with limited production, inventory values do not include labor and overhead allocations which would be typical in higher volume production environments, however, such differences are not significant.

Inventory balances are frequently evaluated to ensure that they do not exceed net realizable value. The computation for net realizable value takes into account many factors, including expected demand, product lifecycle and development plans, module efficiency, quality issues, obsolescence and others. Management's judgment is required to determine reserves for obsolete or excess inventory. If actual demand and market conditions are less favorable than those estimated by management, additional inventory write downs may be required. The majority of our inventory is raw materials which have a long life cycle; obsolescence is not a significant factor in their valuation. During the years ended December 31, 2014 and December 31, 2013, we recognized lower of cost or market adjustments on certain raw materials in the amounts of $0 and $598,000, respectively. These expenses are included within “Research, development and manufacturing operations” expense in the Statements of Operations.

Impairment of Long-lived assets: We analyze our long-lived assets (property, plant and equipment) and definitive-lived intangible assets (patents) for impairment, both individually and as a group, whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. Events that might cause impairment would include significant current period operating or cash flow losses associated with the use of a

long-lived asset or group of assets combined with a history of such losses, significant changes in the manner of use of assets and significant negative industry or economic trends. An undiscounted cash flow analysis is calculated to determine if an impairment exists. If an impairment is determined to exist, any related loss is calculated using the difference between the fair value and the carrying value of the assets. During the years ended December 31, 2014 and 2013, we incurred impairments of our manufacturing facilities and equipment in the amounts of $0.3 million and $0.8 million, respectively, based on estimates prepared by management.

Research, Development and Manufacturing Operations Costs: Research, development and manufacturing operations expenses were $24,514,000 and $21,343,000 for the years ended December 31, 2014 and 2013, respectively. Research, development and manufacturing operations expenses include: 1) technology development costs, which include expenses incurred in researching new technology, improving existing technology and performing federal government research and development contracts, 2) product development costs, which include expenses incurred in developing new products and lowering product design

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costs, and 3) pre-production and production costs, which include engineering efforts to improve production processes, material yields and equipment utilization, and manufacturing efforts to produce saleable product. Research, development and manufacturing operations costs are expensed as incurred, with the exception of costs related to inventoried raw materials, work-in-process and finished goods, which are expensed as products are sold, assuming the resulting product has been completed, tested and is ready for significant commercial manufacturing. For the twelve months ended December 31, 2014, technology development costs were $1,256,000, product development costs were $1,600,000 and production and pre-production costs were $21,658,000. For the twelve months ended December 31, 2013, technology development costs were $1,148,000, product development costs were $2,101,000 and production and pre-production costs were $18,094,000.

Share-Based Compensation: We measure and recognize compensation expense for all share-based payment awards made to employees, officers, directors, and consultants based on estimated fair values. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service period in our statements of operations included herein. Share-based compensation is based on awards ultimately expected to vest and is reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, as necessary, in subsequent periods if actual forfeitures differ from those estimates. For purposes of determining estimated fair value of share-based payment awards on the date of grant, we use the Black-Scholes option-pricing model (“Black-Scholes Model”) for option awards. The Black-Scholes Model requires the input of highly subjective assumptions. Because our employee stock options may have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management’s opinion, the existing models may not provide a reliable single measure of the fair value of our employee stock options. Management will continue to assess the assumptions and methodologies used to calculate estimated fair value of share-based compensation. Circumstances may change and additional data may become available over time, which result in changes to these assumptions and methodologies, which could materially impact our fair value determination. We estimate the fair value of our restricted stock awards at our stock price on the grant date.

The accounting guidance for share-based compensation may be subject to further interpretation and refinement over time. There are significant differences among option valuation models, and this may result in a lack of comparability with other companies that use different models, methods and assumptions. If factors change and we employ different assumptions in the accounting for share-based compensation in future periods, or if we decide to use a different valuation model, the compensation expense we record in the future may differ significantly from what we have recorded in the current period and could materially affect our loss from operations, net loss and net loss per share.

Use of Estimates: The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Recent Accounting Pronouncements

In May 2014, FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The update will establish a comprehensive revenue recognition standard for virtually all industries in GAAP. ASU 2014-09 will change the amount and timing of revenue and cost recognition, implementation, disclosures and documentation. ASU 2014-09 is effective for fiscal years beginning in 2017. The Company is researching whether the adoption of ASU 2014-09 will have a material effect on the Company’s financial statements.

In June 2014, FASB issued ASU No. No. 2014-10, Development Stage Entities (Topic 915). Amongst other things, the amendments in this update removed the definition of development stage entity from Topic 915, thereby removing the distinction between development stage entities and other reporting entities from US GAAP. In addition, the amendments eliminate the requirements for development stage entities to (1) present inception-to-date information on the statements of income, cash flows and shareholders equity; (2) label the financial statements as those of a development stage entity; (3) disclose a description of the development stage activities in which the entity is engaged;

and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. The standard will be effective for the Company during the first quarter of 2015. The Company is evaluating the potential impact of this new standard on its financial statements.

In August 2014, FASB issued ASU No. 2014-15, Presentation of Financial Statements-Going Concern (Subtopic 205-40). This ASU provides guidance to determine when and how to disclose going-concern uncertainties in the financial statements. The new standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date that the financial statements are issued. An entity must provide certain disclosures if conditions or events raise substantial doubt about the entity's ability to continue as a going concern. The standard will be

effective for the Company for fiscal years beginning in 2016. The Company is evaluating the impact of the adoption of this accounting standard update on its financial statements.

Results of Operations

Comparison of the Years Ended December 31, 2014 and 2013

Our activities to date have substantially consisted of raising capital, business and product development, research and development and the development of our production lines.

Revenues. Our revenues were $5,335,500 for the year ended December 31, 2014 compared to $1,316,500 for the year ended December 31, 2013, an increase of $4,019,000. Revenues for the years ended December 31, 2014 and December 31, 2013 included product sales of $5,012,000 and $1,118,000, respectively. Revenues earned on our government research and development contracts increased by $124,000 for the year ended December 31, 2014 due to the addition of new government contracts.

Research, development and manufacturing operations costs. Research, development and manufacturing operations costs were $24,514,000 for the year ended December 31, 2014 compared to $21,343,000 for the year ended December 31, 2013, an increase of $3,172,000. Research, development and manufacturing operations costs include the costs incurred for product development, pre-production and production activities in our manufacturing facility. Research, development and manufacturing operations costs also include costs related to technology development and governmental contracts. The following factors contributed to the increase in research, development, and manufacturing operations expenses during 2014:

1. Materials and Equipment Related expenses increased $3,404,000 for the twelve months ended December 31, 2014 as compared to the twelve months ended December 31, 2013. The increase was due to our increased sales for 2014 as compared to 2013. Management expects materials and equipment related expenses to increase as our sales and manufacturing production increases.

2. Personnel related expenses increased $271,000 as compared to 2013. $131,000 of this increase was related to non-cash stock compensation expense. The overall increase in personnel related costs was primarily due to increase in employee related insurance premiums. Management expects personnel related expenses to remain relatively consistent with 2014 levels during 2015.

3. Consulting and Contract Services decreased by $637,000 from the prior year. The decrease in expense as compared to the prior year was primarily attributed to the termination of the consulting services contract with TFGR, effective March 31, 2014. Management expects this expense to remain consistent with 2014 levels during 2015.

4. Facility Related Expenses increased $118,000 during the twelve months ended December 31, 2014. The increase was primarily due to increased utilities expenses at our manufacturing facility in Thornton, CO. Management expects this expense to increase as our manufacturing production increases.

Selling, general and administrative. Selling, general and administrative expenses were $14,356,000 for the year ended December 31, 2014 compared to $7,391,000 for the year ended December 31, 2013, an increase of $6,965,000. The following factors contributed to the increase in selling, general, and administrative expenses during 2014:

1. Personnel related costs increased $1,378,000 during the twelve months ended December 31, 2014. $82,000 of this increase was related to non-cash stock compensation expense. The overall increase in personnel related costs was due to additional sales and management personnel hired during 2014 in order to facilitate our expected increase in sales. The Company does not anticipate a significant change in employee headcount for 2015.

2. Marketing and related expenses increased $3,910,000 as compared to the prior year. This increase was due to our aggressive marketing and advertising campaigns throughout 2014 in order to build our brand, which included television advertisements, print advertisements, and trade shows. We believe we have seen positive results from our marketing and advertising strategy as evidenced by our increased revenues in 2014. We expect marketing and

related expenses in 2015 to remain consistent with 2014 levels.

3. Legal expenses decreased by $1,520,000 from the prior year. The Company incurred significant legal expenses in the prior year associated with the Jefferies settlement, including the actual settlement amount.

4. Public Company costs increased $953,000 as compared to 2013 primarily from legal expenses associated with additional SEC filings required by our financing transactions that occurred during the course of 2014. We believe the

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number of SEC filings will decrease in 2015 as compared to 2014, and as a result Public Company costs are expected to decrease significantly in 2015.

5. Consulting and contract services increased $2,062,000 during the twelve months ended December 31, 2014 due to staffing costs associated with our kiosks. Management expects this expense to significantly decrease during 2015 as we transition to automated kiosks that do not require significant staffing expense.

Impairment loss. Impairment losses incurred as a result of write downs of Property, Plant and Equipment were $324,000 and $822,000 for years ended December 31, 2014 and 2013, respectively. The impairment loss incurred during both 2014 and 2013 was the result of certain manufacturing equipment no longer being utilized for its intended purpose.

Other Income/(Expense), net. Other Income/(Expense) was $9,495,000 net expense for the year ended December 31, 2014 compared to $1,892,000 net expense for the year ended December 31, 2013, an increase of $7,603,000. The following factors contributed to the increase in other income/(expense), net during 2014:

1. Interest Expense increased $3,677,000 as compared to 2013. The increase is due to non-cash interest expense and amortization of debt discounts related to the Notes and Series D Preferred Stock. We expect non-cash interest expense related to our Notes to increase in 2015 due to the $32,000,000 outstanding balance as of December 31, 2014.

2. We incurred $300,000 in non-cash expenses as a result of penalty shares issued in connection with our Series C Preferred Stock. This was a one-time non-recurring expense.

3. Loss on Extinguishment of liabilities increased $2,831,000 as compared to 2013. The increase in this non-cash expense is a result of extinguishments of liabilities related to Series A, Series B, Series C, and Series D preferred stock. Management expects these non-cash expenses to continue going forward into 2015 due to our November 2014 financing transaction.

4. We incurred $4,037,000 in non-cash interest expense as a result of the liability classified warrants associated with the Notes and Series D Preferred Stock. This was a one-time non-recurring expense.

5. Change in fair value of derivative liabilities fluctuated $3,255,000 as compared to 2013, resulting in a net gain as of December 31, 2014. The fluctuation in this non-cash item relates to the change in fair value of our derivative liabilities associated with our Warrant Liability, Series A, Series B, Series C, and Series D Preferred Stock, as well as our derivative associated with the Notes.

Net Loss. Our Net Loss was $43,354,000 for the year ended December 31, 2014, compared to a Net Loss of $30,131,000 for the year ended December 31, 2013, an increase in Net Loss of $13,223,000. The increase in Net Loss for the year ended December 31, 2014 can be summarized in variances in significant account activity as follows:

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	(Increase) decrease in Net Loss For the Year Ended December 31, 2014 Compared to the Year Ended December 31, 2013
Revenues	$ 4,019,000
Research, development and manufacturing operations expenses	
Materials and Equipment Related Expenses	(3,404,000)
Personnel Related Expenses	(271,000)
Consulting and Contract Services	637,000
Facility Related Expenses	(118,000)
Other Miscellaneous Costs	(16,000)
Selling, general and administrative expenses	
Personnel Related Expenses	(1,378,000)
Marketing Related Expenses	(3,910,000)
Legal Expenses	1,520,000
Public Company Costs	(953,000)
Consulting and Contract Services	(2,062,000)
Other Miscellaneous Costs	(182,000)
Impairment loss	498,000
Other Income/(Expense)	
Interest Expense	(3,677,000)
Other Income	(13,000)
Non-Cash Preferred C Penalty Shares	(300,000)
Non-Cash Loss on Extinguishment of Liabilities	(2,831,000)
Deemed (non-cash) Interest Expense on Warrant Liability	(4,037,000)
Non-Cash Change in Fair Value of Derivative Liabilities	3,255,000
Increase to Net Loss	$ (13,223,000)

Liquidity and Capital Resources

As of December 31, 2014, we had $3.3 million in cash and equivalents, $28 million in restricted cash, and working capital of $24.0 million. We are in the development stage and are currently incurring significant losses from operations as we work toward commercialization.

In May 2013, we completed the sale of 250,000 shares of common stock in a private placement for proceeds of $1.4 million. In August 2013, we completed the sale 750,000 shares of Series A preferred stock and warrants to purchase up to 262,500 shares of common stock in a private placement for gross proceeds of $6.0 million. In November 2013, we completed the sale of 500 shares of Series B preferred stock in a private placement for gross proceeds of $10.0 million, $5.0 million of which was received with the closing of the transaction in November 2013 and the remaining $5.0 million was received in February 2014. In May 2014, we completed the sale of 600 shares of Series C preferred stock in a private placement for gross proceeds of $6.0 million. On July 29, 2014, we entered into a securities purchase agreement (the “Purchase Agreement”) with SHTARD Enterprises Ltd. ("SHTARD"). Pursuant to the terms of the Purchase Agreement, we issued and sold to SHTARD 400,000 shares of our common stock in the aggregate original amount of $1,320,000 or $3.30 per share. On August 11, 2014, SHTARD purchased an additional 800,000 shares from us at $3.30 per share or $2,640,000.

On August 29, 2014, we entered into a securities purchase agreement with Seng Wei Seow (“Seow") and TFG Radiant Investment Group Ltd. for a private placement of a total of 3,115,618 shares of our common stock, which resulted in gross proceeds of approximately $8,000,000. The private placement took place in two tranches. In the first tranche,

which closed on August 29, 2014, we issued (i) 845,309 shares of Common Stock to Seow and (ii) 845,309 shares of Common Stock to TFG Radiant, all at a price of $2.366 per share, resulting in gross proceeds of approximately $4,000,000. For the second tranche, which closed on November 11, 2014, we issued 1,425,000 shares of Common Stock (the “Second Tranche Shares") to TFG Radiant at a price of $2.80 per share, resulting in gross proceeds of approximately $4,000,000. The closing of the second tranche was subject to the Company obtaining stockholder approval of the issuance of the Second Tranche Shares in

accordance with the applicable listing rules of The Nasdaq Stock Market. This approval was obtained at a special shareholder meeting held on October 22, 2014.

On November 14, 2014, we entered into a securities purchase agreement (the "November 2014 Purchase Agreement") with one institutional and accredited investor (the "Investor"). Pursuant to the terms of the November 2014 Purchase Agreement, we sold to the Investor (i) $3,000,000 (3,000 shares) of Series D Convertible Preferred Stock (the "Series D Preferred Stock"), (ii) $32,000,000 original principal amount of senior secured convertible notes, and (iii) warrants (the "Warrants") to purchase up to 7,777,778 shares of our common stock, par value $0.0001 per share. The Financing closed on November 19, 2014 (the "Closing"). We received gross proceeds of approximately $4.5 million at Closing. The remaining $30.5 million of gross proceeds from the Financing was deposited on the Closing Date by the Investor into restricted control accounts. $2.5 million of these restricted proceeds were released on December 22, 2014. Thereafter, additional funds from the control accounts shall be released to us (i) in connection with certain conversions of the Notes and redemptions of the Series D Preferred Stock, and (ii) up to $6 million in any 90 day period, provided that we meet certain equity conditions. The balance in the restricted bank account totals approximately $28 million at December 31, 2014.

We have commenced production at our manufacturing facility. We do not expect sales revenue and cash flows will be sufficient to support operations and cash requirements until we have fully implemented our new consumer products strategy. Changes in the level of expected operating losses, the timing of planned capital expenditures or other factors may negatively impact cash flows and reduce current cash and investments faster than anticipated. During the twelve months ended December 31, 2014, we used $28.1 million in cash for operations. In 2015, we expect to incur a base level of maintenance capital expenditures and relatively minor improvements to the existing asset base. Other than the Notes described in the preceding paragraph, our primary significant long term obligation consists of a note payable of $6.1 million to a financial institution secured by a mortgage on our headquarters and manufacturing building in Thornton, Colorado. Total payments of $0.7 million, including principal and interest, will come due in 2015. Additionally, the Company owes $1.4 million as of December 31, 2014 related to a litigation settlement reached in April 2014, which is being paid in equal installments over 40 months which began April 2014.

On June 30, 2014, we entered into a Service Agreement with Swyft, Inc. (“Swyft”). Swyft will sell consumer products through automated retail stores (kiosks), provide online and mobile retail channels through a website and mobile application, and provide visual and text based advertising through both physical and digital channels. We will provide financing to Swyft in the form of a three year 8% convertible note to purchase seventy five (75) automated retail stores at $4,500 per store, or a total of $337,500, from ZoomSystems, the manufacturer of automated retail machines. The first convertible loan financing for thirty eight (38) automated retail stores of $171,000 was provided by us on July 31, 2014 and the second convertible loan financing for thirty seven (37) automated retail stores of $166,500 will be provided by us during the first quarter of 2015. We also have an option to continue loan financing for each additional block of fifty (50) automated retail stores. The Service Agreement also required that we pay a one-time project set-up fee of $125,000 which was paid during the third quarter of 2014.

Additional projected product revenues are not anticipated to result in a positive cash flow position for the year 2015 overall. As such, cash liquidity sufficient for the year ending December 31, 2015 may require additional financing. We continue to accelerate sales and marketing efforts related to our consumer products strategy through increased hiring and expansion of our sales channel. We have begun activities related to securing additional financing through strategic or financial investors, but there is no assurance we will be able to raise additional capital on acceptable terms or at all. If our revenues do not increase rapidly, and/or additional financing is not obtained, we will be required to significantly curtail operations to reduce costs and/or sell assets. Such actions would likely have an adverse impact on our future operations.

Statements of Cash Flows Comparison of the Years Ended December 31, 2014 and 2013

For the year ended December 31, 2014, our cash used in operations was $28.1 million compared to $20.3 million for the year ended December 31, 2013, an increase of $7.8 million, which is primarily the result of increased SG&A investments for sales channel expansion and brand awareness, partially offset by increases in Accounts Payable and

Accrued Expenses. For the year ended December 31, 2014, our cash used in investing activities was $1.1 million compared to cash used in investing activities of $0.9 million for the year ended December 31, 2013, a net increase of $0.2 million. The increase in cash used in investing activities is primarily the result of our investment in the Suqian Joint Venture, partially offset by a reduction in equipment purchases. During the year ended December 31, 2014, negative operating cash flows of $28.1 million was funded through $25.9 million of net funding received from private placements and $4 million from the Convertible Note transaction that has been released from the restricted control account.

Contractual Obligations

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The following table presents our contractual obligations as of December 31, 2014. Our long-term debt obligation is related to our building loan and includes both principal and interest. Our purchase obligations include orders for equipment, inventory and operating expenses.

		Payments Due by Year (in thousands)			
Contractual Obligations	Total	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years
Long-term debt obligations	$10,566	$1,294	$3,031	$2,022	$4,219
Operating lease obligations	122	122	—	—	—
Purchase obligations	1,777	1,777	—	—	—
Total	$12,465	$3,193	$3,031	$2,022	$4,219

Off Balance Sheet Transactions

As of December 31, 2014, we did not have any off balance sheet arrangements as defined in Item 303(a)(4)(ii) of Regulation S-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency Exchange Risk

Historically, we have purchased manufacturing equipment internationally, which exposes us to foreign currency risk. From time to time we enter into foreign currency fair value hedges utilizing forward contracts designed to match scheduled contractual payments to equipment suppliers. Our objective is to fix the dollar amount of our foreign currency denominated manufacturing equipment purchases at the time of order. Although our hedging activity is designed to fix the dollar amount to be expended, the asset purchased is recorded at the spot foreign currency rate in effect as of the date of the payment to the supplier. The difference between the spot rate and the forward rate has been reported as gain or loss on forward contract. We cannot accurately predict future exchange rates or the overall impact of future exchange rate fluctuations on our business, results of operations and financial condition. All forward contracts entered into by us have been settled on the contract settlement dates, the last of which was settled in December 2009. We held no forward contracts during the years ended December 31, 2014 and 2013.

We hold no funds and have no future obligations denominated in foreign currencies as of December 31, 2014. Although our reporting currency is the U.S. Dollar, we may conduct business and incur costs in the local currencies of other countries in which we may operate, make sales and buy materials. As a result, we are subject to currency translation risk. Further, changes in exchange rates between foreign currencies and the U.S. Dollar could affect our future net sales and cost of sales and could result in exchange losses.

Interest Rate Risk

Our exposure to market risks for changes in interest rates relates primarily to our cash equivalents and investment portfolio. As of December 31, 2014, our cash equivalents consisted only of operating, restricted, and savings accounts held with financial institutions. From time to time, we hold money market funds, investments in U.S. government securities and high quality corporate securities. The primary objective of our investment activities is to preserve principal and provide liquidity on demand, while at the same time maximizing the income we receive from our investments without significantly increasing risk. The direct risk to us associated with fluctuating interest rates is limited to our investment portfolio, and we do not believe a change in interest rates will have a significant impact on our financial position, results of operations or cash flows.

Credit Risk

From time to time, we hold certain financial and derivative instruments that potentially subject us to credit risk. These consist primarily of cash, cash equivalents, restricted cash, investments, and forward foreign currency option contracts. We are exposed to credit losses in the event of nonperformance by the counter parties to our financial and derivative instruments. We place cash, cash equivalents, investments and forward foreign currency option contracts with various high quality financial institutions, and exposure is limited at any one institution. We continuously evaluate the credit standing of our counter party financial institutions.

Item 8. Financial Statements and Supplementary Data

The Financial Statements and Supplementary Data required by this item are included in Part IV, Item 15(a)(1) and are presented beginning on Page F-1.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934, as amended (the “Exchange Act”) is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms. Our disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed under the Exchange Act is accumulated and communicated to management as appropriate to allow timely decisions regarding required disclosures. Our management conducted an evaluation required by Rules 13a-15 and 15d-15 under the Exchange Act of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15 and 15d-15 under the Exchange Act as of December 31, 2014. Based on this evaluation, our management concluded the design and operation of our disclosure controls and procedures were effective as of December 31, 2014.

Management’s Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles in the United States of America and includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Our management conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2014 based on the Internal Control — Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, our management concluded our internal control over financial reporting was effective as of December 31, 2014. Our management reviewed the results of its assessment with the Audit Committee.

This annual report does not include an attestation report from our independent registered public accounting firm regarding internal control over financial reporting. Management’s report was not subject to attestation by our registered public accounting firm pursuant to Sarbanes-Oxley Rule 404(c).

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended December 31, 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

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PART III

Item 10. Directors, Executive Officers and Corporate Governance

Incorporated by reference from the definitive proxy statement for our 2015 annual meeting of stockholders, which will be filed no later than 120 days after the close of our fiscal year ended December 31, 2014.

Item 11. Executive Compensation

Incorporated by reference from the definitive proxy statement for our 2015 annual meeting of stockholders, which will be filed no later than 120 days after the close of our fiscal year ended December 31, 2014.

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

Incorporated by reference from the definitive proxy statement for our 2015 annual meeting of stockholders, which will be filed no later than 120 days after the close of our fiscal year ended December 31, 2014.

Securities Authorized for Issuance under Equity Compensation Plans

The following table sets forth information as of December 31, 2014 relating to all of our equity compensation plans:

	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	194,277	$ 14.67	4,345,055

(1) This column does not include 10,291 restricted stock awards or units.

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

Incorporated by reference from the definitive proxy statement for our 2015 annual meeting of stockholders, which will be filed no later than 120 days after the close of our fiscal year ended December 31, 2014.

Item 14. Principal Accounting Fees and Services

Incorporated by reference from the definitive proxy statement for our 2015 annual meeting of stockholders, which will be filed no later than 120 days after the close of our fiscal year ended December 31, 2014.

PART IV

Item 15. Exhibits and Financial Statement Schedules

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

(1) Financial Statements—See Index to Financial Statements at Item 8 of the Annual Report on Form 10-K.

(2) Financial Statement Schedules—Supplemental schedules are not provided because of the absence of conditions under which they are required or because the required information is given in the financial statements or notes thereto.

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

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

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ASCENT SOLAR TECHNOLOGIES, INC.
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 on the 18th day of March, 2015.

ASCENT SOLAR TECHNOLOGIES, INC.

By: /S/ VICTOR LEE
Lee Kong Hian (aka Victor Lee)
President and Chief Executive Officer

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

Signature	Capacities	Date
/S/ VICTOR LEE Lee Kong Hian (aka Victor Lee)	President & Chief Executive Officer and a Director (Principal executive officer)	March 18, 2015
/S/ WILLIAM M. GREGORAK William M. Gregorak	Vice President and Chief Financial Officer (Principal financial and accounting officer)	March 18, 2015
/S/ AMIT KUMAR Amit Kumar, Ph.D.	Chairman of the Board of Directors	March 18, 2015
/S/ WINSTON XU Xu Biao (aka Winston Xu)	Director	March 18, 2015
/S/ G. THOMAS MARSH G. Thomas Marsh	Director	March 18, 2015
/S/ KIM J. HUNTLEY Kim J. Huntley	Director	March 18, 2015

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Ascent Solar Technologies, Inc.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM
To the Board of Directors
Ascent Solar Technologies, Inc.
Thornton, Colorado

We have audited the accompanying balance sheets of Ascent Solar Technologies, Inc. (a Development Stage Company) as of December 31, 2014 and 2013, and the related statements of operations, stockholders' equity and cash flows for the years then ended and for the period from inception (October 18, 2005) through December 31, 2014. 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 audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purposes of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, 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 financial position of Ascent Solar Technologies, Inc. as of December 31, 2014 and 2013, and the results of its operations and its cash flows for the years then ended and for the period from inception (October 18, 2005) through December 31, 2014 in conformity with U.S. generally accepted accounting principles.

/s/ HEIN & ASSOCIATES LLP

Denver, Colorado
March 18, 2015

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

BALANCE SHEETS

	December 31, 2014	December 31, 2013
ASSETS		
Current Assets:		
Cash and cash equivalents	$3,316,576	$3,318,155
Restricted cash - short term	24,000,000	—
Trade receivables, net	2,782,105	458,076
Related party receivables and deposits	—	21,122
Inventories	2,427,212	1,887,612
Prepaid expenses and other current assets	2,660,384	1,157,484
Total current assets	35,186,277	6,842,449
Property, Plant and Equipment:	37,598,452	38,614,905
Less accumulated depreciation and amortization	(22,941,264)	(17,850,688)
	14,657,188	20,764,217
Other Assets:		
Restricted cash - long term	4,001,880	—
Patents, net of amortization of $122,731 and $83,364, respectively	1,305,895	879,541
Investment in joint venture	320,000	—
Other non-current assets	449,142	52,813
	6,076,917	932,354
Total Assets	$55,920,382	$28,539,020
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$1,569,746	$442,754
Accrued expenses	2,934,246	1,417,869
Current portion of long-term debt	302,210	282,960
Current portion of convertible note payable, net of discount of $7,607,492 and $0, respectively	364,093	—
Current portion of litigation settlement	493,732	382,500
Series D preferred stock, net of discount of $1,194,222 and $0, respectively	224,778	—
Short term embedded derivative liabilities	4,427,011	—
Make-whole dividend liability	849,560	3,146,156
Total current liabilities	11,165,376	5,672,239
Accrued Litigation Settlement, net of current portion	880,760	1,317,500
Long-Term Debt	5,764,965	6,067,175
Long-Term Convertible Note, net of discount $22,930,946 and $0, respectively	1,097,469	—
Warrant Liability	15,866,667	—
Long Term Embedded Derivative Liabilities	13,344,155	—
Accrued Warranty Liability	136,000	47,937
Commitments and Contingencies (Notes 4 & 15)		
Stockholders' Equity:		
Series A preferred stock, $.0001 par value; 750,000 shares authorized and issued; 212,390 and 362,390 shares outstanding as of December 31, 2014 and December 31,	21	36

2013, respectively ($2,548,680 Liquidation Preference)		
Series B-1 preferred stock, $.0001 par value; 1,000 shares authorized and 500 shares issued; 0 and 350 shares outstanding as of December 31, 2014 and December 31, 2013, respectively	—	—
Series C preferred stock, $.0001 par value; 1,000 shares authorized and 630 shares issued; 0 and 0 shares outstanding as of December 31, 2014 and December 31, 2013, respectively	—	—
Common stock, $0.0001 par value, 450,000,000 shares authorized; 18,211,104 and 6,174,853 shares issued and outstanding, respectively	1,821	617
Additional paid in capital	306,947,144	263,275,563
Deficit accumulated during the development stage	(299,283,996)	(247,842,047)
Total stockholders' equity	7,664,990	15,434,169
Total Liabilities and Stockholders' Equity	$55,920,382	$28,539,020

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF OPERATIONS

	For the Years Ended December 31,		For the Period from Inception (October 18, 2005) Through December 31, 2014
	2014	2013	
Revenues			
Products *	$5,012,422	$1,117,524	$8,058,209
Government contracts	323,123	198,953	10,189,125
Total Revenues	5,335,545	1,316,477	18,247,334
Costs and Expenses			
Research, development and manufacturing operations	24,514,315	21,342,519	146,271,071
Selling, general and administrative	14,356,176	7,390,884	62,577,477
Impairment loss	324,031	822,350	84,317,471
Total Costs and Expenses	39,194,522	29,555,753	293,166,019
Loss from Operations	(33,858,977)	(28,239,276)	(274,918,685)
Other Income/(Expense)			
Other Income/(Expense), net	(297,143)	15,975	2,236,687
Loss on extinguishment of liabilities	(2,991,025)	(159,841)	(3,150,866)
Interest Expense	(4,109,272)	(432,426)	(6,014,455)
Deemed interest expense on warrant liability	(4,037,517)	—	(4,037,517)
Change in fair value of derivative liabilities	1,939,485	(1,315,383)	624,102
Total Other Income/(Expense)	(9,495,472)	(1,891,675)	(10,342,049)
Net Loss	$(43,354,449)	$(30,130,951)	$(285,260,734)
Deemed (non-cash) dividends on preferred stock and accretion of warrants	(8,087,500)	(5,935,762)	(14,023,262)
Net Loss applicable to common stockholders	$(51,441,949)	$(36,066,713)	$(299,283,996)
Net Loss Per Share (Basic and diluted)	$(4.85)	$(6.61)	
Weighted Average Common Shares Outstanding (Basic and diluted)	10,598,502	5,455,688	

* Includes related party revenue of $8,050 and $142,500 for the years ended December 31, 2014 and 2013, respectively. See Note 14.

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS' EQUITY
For the Period from Inception (October 18, 2005) through December 31, 2014

	Common Stock		Preferred Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance at inception, October 18, 2005	—	$—	—	$—	$—	$—	$ —	$—
Proceeds from sale of common stock (11/05 @ $.40 per share)	97,200	10	—	—	38,870	—	—	38,880
Founders stock	—	—	—	—	933,120	—	—	933,120
Stock based compensation	—	—	—	—	26,004	—	—	26,004
Net loss	—	—	—	—	—	(1,207,234)	—	(1,207,234)
Balance, December 31, 2005	97,200	$10	—	$—	$997,994	$(1,207,234)	$ —	$(209,230)
Transfer of assets at historical cost (1/06 @ $0.30 per share)	102,800	10	—	—	31,190	—	—	31,200
Proceeds from IPO (7/06 @ $5.50 per unit)	300,000	30	—	—	16,499,970	—	—	16,500,000
IPO costs	—	—	—	—	(2,392,071)	—	—	(2,392,071)
Stock issued to bridge loan lenders (7/06 @ $27.50 per share)	29,089	3	—	—	799,997	—	—	800,000
Exercise of stock options (9/06 & 12/06 @ $1.00 per share)	3,120	—	—	—	3,120	—	—	3,120
Stock based compensation	—	—	—	—	348,943	—	—	348,943
Net loss	—	—	—	—	—	(4,180,912)	—	(4,180,912)
Balance, December 31, 2006	532,209	$53	—	$—	$16,289,143	$(5,388,146)	$ —	$10,901,050
Exercise of stock options (1/07 -12/07 @ $1.00) (7/07 - 12/07 @ $42.50) (9/07 - 12/07 @ $25.10 -$27.60)	16,996	2	—	—	346,432	—	—	346,434
Conversion of Class A public warrants at $66.00	309,838	31	—	—	20,449,290	—	—	20,449,321
Redemption of Class A public	—	—	—	—	(48,128)	—	—	(48,128)

warrants at $2.50 per share								
Conversion of Class B public warrants at $110.00 per share	1,100	—	—	—	121,000	—	—	121,000
Proceeds from private placement: Common stock (3/07 @ $57.70 and 8/07 @ $71.98)	253,446	25	—	—	15,962,232	—	—	15,962,257
Proceeds from private placement: Class B public warrants (8/07 @ $19.10)	—	—	—	—	3,754,468	—	—	3,754,468
Private placement costs	—	—	—	—	(75,807)	—	—	(75,807)
Exercise of representative's warrants (9/07 - 11/07 @ $66.00 per unit)	30,000	3	—	—	1,979,997	—	—	1,980,000
Stock based compensation	—	—	—	—	1,734,879	—	—	1,734,879
Net loss	—	—	—	—	—	(6,503,419)	—	(6,503,419)
Balance, December 31, 2007	1,143,589	$114	—	$—	$60,513,506	$(11,891,565)	$ —	$48,622,055

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS' EQUITY
(Continued)
For the Period from Inception (October 18, 2005) through December 31, 2014

	Common Stock		Preferred Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance, December 31, 2007	1,143,589	$114	—	$—	$60,513,506	$(11,891,565)	$ —	$48,622,055
Components of comprehensive loss								
Unrealized gain on investments	—	—	—	—	—	—	331,068	331,068
Net loss	—	—	—	—	—	(13,215,076)	—	(13,215,076)
Total comprehensive loss								(12,884,008)
Exercise of stock options (1/08 - 12/08 @ $1.00, $27.30, $29.00 & $42.50)	13,314	1	—	—	120,532	—	—	120,533
Conversion of Class B public warrants at $110.00 per share	9,880	1	—	—	1,086,799	—	—	1,086,800
Proceeds from private placement: Common stock (3/08 @ $92.62 & 10/08 @$61.76)	476,370	48	—	—	36,647,645	—	—	36,647,693
Proceeds from private placement: Class B public warrants (3/08 @ $39.54)	—	—	—	—	6,681,884	—	—	6,681,884
Exercise of representative's warrants (1/08 @ $66.00 per unit)	7,500	1	—	—	494,999	—	—	495,000
Proceeds from shareholder under Section 16(b)	—	—	—	—	148,109	—	—	148,109
Proceeds from secondary public offering (5/08 @ $140.00)	437,000	44	—	—	61,179,956	—	—	61,180,000
Costs of secondary public offering	—	—	—	—	(4,361,358)	—	—	(4,361,358)
Issuance of Restricted Stock	6,985	1	—	—	(1)	—	—	—

Stock based compensation	—	—	—	—	1,881,399	—	—	1,881,399
Balance, December 31, 2008	2,094,638	$210	—	$—	$164,393,470	$(25,106,641)	$ 331,068	$139,618,107
Components of comprehensive loss								
Unrealized loss on investments	—	—	—	—	—	—	(334,080)	(334,080)
Net loss	—	—	—	—	—	(20,922,717)	—	(20,922,717)
Total comprehensive loss	0	0		—	0			(21,256,797)
Exercise of stock options (1/09 - 12/09 @ $1.00, $27.60 & $42.50)	10,517	1	—	—	339,615	—	—	339,616
Proceeds from private placement: Common stock (10/09 @ $65.00)	76,923	8	—	—	4,999,987	—	—	4,999,995
Proceeds from public offering (10/09 @ $65.00)	461,539	46	—	—	29,999,957	—	—	30,000,003
Costs of public offering	—	—	—	—	(2,062,866)	—	—	(2,062,866)
Issuance of Restricted Stock	14,768	1	—	—	(1)	—	—	—
Stock based compensation	—	—	—	—	2,676,957	—	—	2,676,957
Balance, December 31, 2009	2,658,385	$266	—	$—	$200,347,119	$(46,029,358)	$ (3,012)	$154,315,015

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS' EQUITY
(Continued)
For the Period from Inception (October 18, 2005) through December 31, 2014

	Common Stock		Preferred Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance, December 31, 2009	2,658,385	$266	—	$—	$200,347,119	$(46,029,358)	$ (3,012)	$154,315,015
Components of comprehensive loss	0	0			0			
Unrealized loss on investments	—	—	—	—	—	—	2,786	2,786
Net loss	—	—	—	—	—	(31,233,718)	—	(31,233,718)
Total comprehensive loss	0	0			0			(31,230,932)
Proceeds from public offering (11/11 @ $41.50)	525,000	52	—	—	21,787,448	—	—	21,787,500
Costs of public offering	—	—	—	—	(1,409,937)	—	—	(1,409,937)
Exercise of stock options (1/10 - 12/10 @ $1.00, $29.00, $27.30, $27.60 & $31.70)	16,133	2	—	—	390,999	—	—	391,001
Issuance of Restricted Stock	27,041	3	—	—	(3)	—	—	—
Stock based compensation	—	—	—	—	2,713,468	—	—	2,713,468
Balance, December 31, 2010	3,226,559	$323	—	$—	$223,829,094	$(77,263,076)	$ (226)	$146,566,115
Components of comprehensive loss								
Unrealized loss on investments	—	—	—	—	—	—	1,245	1,245
Net loss	—	—	—	—	—	(105,743,860)	—	(105,743,860)
Total comprehensive loss								(105,742,615)
Proceeds from private offering (8/11 @ $11.50)	640,000	64	—	—	7,359,936	—	—	7,360,000
Costs of private offering	—	—	—	—	(123,973)	—	—	(123,973)
	38,605	4	—	—	305,780	—	—	305,784

Net Proceeds from At-The-Market offering sales (10/11 - 11/11, $8.10 - $8.30)								
Exercise of stock options (1/11 - 9/11 @ $1.00)	5,700	—	—	—	5,700	—	—	5,700
Issuance of Common Stock to service provider (5/11 @ $13.10)	4,500	—	—	—	58,950	—	—	58,950
Issuance of Restricted Stock	19,182	2	—	—	(2)	—	—	—
Stock based compensation	—	—	—	—	1,572,607	—	—	1,572,607
Balance, December 31, 2011	3,934,546	$393	—	$—	$233,008,092	$(183,006,936)	$ 1,019	$50,002,568
Components of comprehensive loss								
Unrealized loss on investments	—	—	—	—	—	—	(1,019)	(1,019)
Net loss	—	—	—	—	—	(28,768,398)	—	(28,768,398)
Total comprehensive loss								(28,769,417)
Proceeds from private offering (8/12 @ $12.00)	916,670	92	—	—	10,999,947	—	—	11,000,039
Costs of private offering	—	—	—	—	(836,697)	—	—	(836,697)
Net Proceeds from At-The-Market offering sales (01/12 - 09/12, $5.00 - $18.30)	197,218	20	—	—	1,896,552	—	—	1,896,572
Exercise of stock options (8/12 - 9/12 @ $6.80)	1,375	—	—	—	9,350	—	—	9,350
Issuance of Restricted Stock	64,582	6	—	—	(6)	—	—	—
Stock based compensation	—	—	—	—	924,315	—	—	924,315
Balance, December 31, 2012	5,114,391	$511	—	$—	$246,001,553	$(211,775,334)	$ —	$34,226,730

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS’ EQUITY
(Continued)
For the Period from Inception (October 18, 2005) through December 31, 2014

	Common Stock		Series A Preferred Stock		Series B-1 Preferred Stock		Series C Preferred Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders’ Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance, December 31, 2012	5,114,391	$511	—	$—	—	$—	—	$—	$246,001,553	(211,775,334)	$34,226,730
Proceeds from private placement: Common stock (5/13 @ $5.70)	250,000	25	—	—	—	—	—	—	1,424,975	—	1,425,000
Proceeds from issuance of Series A Preferred Stock (6/13 - 8/13 at $8.00)	—	—	750,000	75	—	—	—	—	5,999,925	—	6,000,000
Discount on Series A Preferred Stock issuance - Warrants (6/13 - 8/13 @ $9.00)	—	—	—	—	—	—	—	—	1,071,063	—	1,071,063
Discount on Series A Preferred Stock issuance - beneficial conversion feature	—	—	—	—	—	—	—	—	1,350,000	—	1,350,000
Cost of Series A Preferred Share issuance	—	—	—	—	—	—	—	—	(139,894)	—	(139,894)
Conversion of Series A Preferred Shares (9/13 - 10/13 @ $8.00, plus make-whole	487,274	49	(387,610)	(39)	—	—	—	—	919,612	—	919,622

@ $8.30 - $10.70)											
Proceeds from issuance of Series B Preferred Stock (11/13 @ $10,000)	—	—	—	—	500	—	—	—	5,000,000	—	5,000,000
Cost of Series B Preferred Share issuance	—	—	—	—	—	—	—	—	(72,589)	—	(72,589)
Conversion of Series B Preferred Shares (11/13 - 12/13 @ $11.50, plus make-whole @ $6.90 - $8.80)	247,647	25	—	—	(150)	—	—	—	924,121	—	924,146
Exercise of stock options (9/13 @ $6.80)	4,750	—	—	—	—	—	—	—	32,300	—	32,300
Issuance of Common Stock to a service provider (5/13 @ $6.50)	24,000	2	—	—	—	—	—	—	142,997	—	142,999
Issuance of Restricted Stock	46,791	5	—	—	—	—	—	—	(5)	—	—
Stock based compensation	—	—	—	—	—	—	—	—	621,505	—	621,505
Deemed dividends on preferred stock and accretion of warrants	—	—	—	—	—	—	—	—	—	(5,935,762)	(5,935,762)
Net Loss	—	—	—	—	—	—	—	—	—	(30,130,951)	(30,130,951)
Balance, December 31, 2013	6,174,853	$617	362,390	$36	350	$—	—	$—	$263,275,563	$(247,842,047)	$15,434,169

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF STOCKHOLDERS' EQUITY
(Continued)
For the Period from Inception (October 18, 2005) through December 31, 2014

	Common Stock		Series A Preferred Stock		Series B-1 Preferred Stock		Series C Preferred Stock		Additional Paid-In Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount			
Balance, December 31, 2013	6,174,853	$617	362,390	$36	350	$—	—	$—	$263,275,563	$(247,842,047)	$15,434,169
Proceeds from private placement: Common stock (7/14 & 8/14 @ $3.30, 8/14 @ 2.37, 11/14 @ 2.80)	4,315,618	432	—	—	—	—	—	—	11,959,513	—	11,959,945
Conversion of Series A Preferred Shares (3/14 - 5/14 @ $8.00, plus make-whole @ $6.21 - $3.80)	254,075	25	(150,000)	(15)	—	—	—	—	572,424	—	572,434
Proceeds from issuance of Series B Preferred Stock (2/14 @ $10,000)	—	—	—	—	500	—	—	—	5,000,000	—	5,000,000
Conversion of Series B Preferred Shares (1/14, 2/14, 3/14, 4/14, 5/14 @ $11.50, plus make-whole @ $6.21, $6.43, $6.27, $6.68, $5.76, $4.80, $4.40, $3.45)	1,977,811	198	—	—	(850)	—	—	—	7,037,299	—	7,037,497

Proceeds from issuance of Series C Preferred Stock (4/14 & 5/14 @ $10,000)	—	—	—	—	—	—	600	—	6,000,000	—	6,000,000
Issuance of Preferred C Penalty Shares (4/14)	—	—	—	—	—	—	30	—	300,000	—	300,000
Cost of Series C Preferred Share issuance	—	—	—	—	—	—	—	—	(53,362)	—	(53,362)
Conversion of Series C Preferred Shares (6/14, 7,14, 8/14, 9/14, 10/14 @ $11.50, plus make-whole @ $3.17, $3.59, $3.31, $2.40, $1.67, $1.31)	3,482,909	348	—	—	—	—	(630)	—	8,803,910	—	8,804,258
Conversion of Series D Preferred Shares & Dividends (11/14, 12/14 @ $1.41, $1.44, $1.50, $1.41)	1,696,136	170	—	—	—	—	—	—	2,856,532	—	2,856,702
Interest Expense paid with Common stock	180,499	18	—	—	—	—	—	—	266,405	—	266,423
Issuance of Restricted Stock	51,425	5	—	—	—	—	—	—	(5)	—	—
Common Stock Issued to Placement Agent	77,778	8	—	—	—	—	—	—	94,548	—	94,556
Stock based compensation	—	—	—	—	—	—	—	—	834,317	—	834,317
Deemed dividends on preferred	—	—	—	—	—	—	—	—	—	(8,087,500)	(8,087,500)

stock and accretion of warrants									
Net Loss	—	—	—	—	—	——	——	(43,354,449)	(43,354,449)
Balance, December 31, 2014	18,211,104	$1,821	212,390	$21	—	$—	$ $306,947,144	$(299,283,996)	$7,664,990

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)

STATEMENTS OF CASH FLOWS

	For the Years Ended December 31,		For the Period from Inception (October 18, 2005) through December 31,
	2014	2013	2014
Operating Activities:			
Net loss	$(43,354,449)	$(30,130,951)	$(285,260,734)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	5,960,843	6,225,854	36,699,844
Stock based compensation	834,317	621,505	14,267,514
Common stock issued for services	—	142,999	201,949
Realized loss on forward contracts	—	—	1,430,766
Foreign currency transaction loss (gain)	—	—	(590,433)
Amortization of financing costs	51,689	—	1,050,254
Impairment loss	324,031	822,350	84,317,471
Contract cancellation loss	—	—	1,167,586
Non-cash interest expense	266,423	—	266,423
Amortization of debt discount	3,267,340	—	3,267,340
Non-cash Preferred C Penalty Shares	300,000	—	300,000
Loss on extinguishment of liabilities	2,991,025	159,841	3,150,866
Bad debt expense	32,566	—	32,566
Accrued litigation settlement	(325,508)	1,700,000	1,374,492
Deemed interest expense on warrant liability	4,037,517	—	4,037,517
Change in fair value of derivative liabilities	(1,939,485)	1,315,383	(624,102)
Changes in operating assets and liabilities:			
Accounts receivable	(2,356,595)	(357,912)	(2,814,671)
Related party receivables and deposits	21,122	575,217	—
Inventories	(539,600)	271,941	(2,427,212)
Prepaid expenses and other current assets	(387,809)	(922,178)	(1,545,292)
Accounts payable	1,126,992	(412,619)	1,569,745
Accrued expenses	1,516,377	(370,766)	1,983,209
Warranty reserve	88,063	9,750	136,000
Net cash used in operating activities	(28,085,141)	(20,349,586)	(138,008,902)
Investing Activities:			
Purchases of available-for-sale securities	—	—	(907,118,828)
Maturities and sales of available-for-sale securities	—	—	907,118,828
Purchase of property, plant and equipment	(134,727)	(519,741)	(135,476,471)
Note Receivable	(171,000)	—	(171,000)
Investment in Joint Venture	(320,000)	—	(320,000)
Patent activity costs	(465,721)	(413,876)	(1,403,668)
Net cash used in investing activities	(1,091,448)	(933,617)	(137,371,139)
Financing Activities:			
Proceeds from bridge loan financing	—	—	1,600,000
Repayment of bridge loan financing	—	—	(1,600,000)

Payment of debt financing costs	(447,645)	—	(721,210)
Payment of equity offering costs	—	(212,483)	(10,514,523)
Proceeds from debt	—	—	7,700,000
Repayment of debt	(282,960)	(264,936)	(2,732,826)
Proceeds from Convertible Note	32,000,000	—	32,000,000
Restricted cash	(28,001,880)	—	(28,001,880)
Proceeds from shareholder under Section 16(b)	—	—	148,109
Proceeds from issuance of stock and warrants	25,907,495	12,457,300	280,867,075
Redemption of Class A warrants	—	—	(48,128)
Net cash provided by financing activities	29,175,010	11,979,881	278,696,617
Net change in cash and cash equivalents	(1,579)	(9,303,322)	3,316,576
Cash and cash equivalents at beginning of period	3,318,155	12,621,477	—
Cash and cash equivalents at end of period	$3,316,576	$3,318,155	$3,316,576
Supplemental Cash Flow Information:			
Cash paid for interest	$519,014	$428,798	$1,064,397
Cash paid for income taxes	$—	$—	$—
Non-Cash Transactions:			
ITN initial contribution of assets for equity	$—	$—	$31,200
Note with ITN and related capital expenditures	$—	$—	$1,100,000
Non-cash conversions	$16,278,954	$1,683,926	$17,962,880
Make-whole provision on convertible preferred stock	$8,087,500	$3,514,699	$11,602,199
Beneficial conversion feature on convertible preferred stock	$—	$2,421,063	$2,421,063

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

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ASCENT SOLAR TECHNOLOGIES, INC.
(A Development Stage Company)
NOTES TO CONDENSED FINANCIAL STATEMENTS

NOTE 1. ORGANIZATION

Ascent Solar Technologies, Inc. (“Ascent” or “the Company”) was incorporated on October 18, 2005 from the separation by ITN Energy Systems, Inc. (“ITN”) of its Advanced Photovoltaic Division and all of that division’s key personnel and core technologies. ITN, a private company incorporated in 1994, is an incubator dedicated to the development of thin film, photovoltaic (“PV”), battery, fuel cell and nano technologies. Through its work on research and development contracts for private and governmental entities, ITN developed proprietary processing and manufacturing know how applicable to PV products generally, and to Copper-Indium-Gallium-diSelenide (“CIGS”) PV products in particular. ITN formed Ascent to commercialize its investment in CIGS PV technologies. In January 2006, in exchange for 102,800 shares of common stock of Ascent, ITN assigned to Ascent certain CIGS PV technologies and trade secrets and granted to Ascent a perpetual, exclusive, royalty free worldwide license to use, in connection with the manufacture, development, marketing and commercialization of CIGS PV to produce solar power, certain of ITN’s existing and future proprietary and control technologies that, although non-specific to CIGS PV, Ascent believes will be useful in its production of PV modules for its target markets. Upon receipt of the necessary government approvals and pursuant to novation in early 2007, ITN assigned government funded research and development contracts to Ascent and also transferred the key personnel working on the contracts to Ascent.

Currently, the Company is producing consumer oriented products focusing on charging devices powered by or enhanced by the Company's solar modules. Products in these markets are priced based on the overall product value proposition rather than a commodity-style price per watt basis. The Company continues to develop new consumer products and has adjusted utilization of its equipment to meet near term sales forecasts.

Reverse Stock Split

On August 26, 2014, the Company, a Delaware corporation, filed a Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company (the "Certificate of Amendment") with the Secretary of State of the State of Delaware to effect a reverse stock split of the Company's common stock, par value $0.0001 per share at a ratio of one-for-ten (the "Reverse Stock Split"). The Certificate of Amendment did not change the number of authorized shares, or the par value, of the Company’s common stock. The Certificate of Amendment provides that every ten shares of the Company’s issued and outstanding common stock were automatically combined into one issued and outstanding share of the Company’s common stock. All shares and per share amounts in the financial statements and accompanying notes have been retroactively adjusted to give effect to the Reverse Stock Split.

NOTE 2. BASIS OF PRESENTATION

The Company’s activities to date have consisted substantially of raising capital, research and development, establishment and development of the Company's production plant, product development and establishing a sales channel for its line of consumer products which is sold under the EnerPlex™ brand. A development stage entity is defined as an entity devoting substantially all of its efforts to establishing a new business and for which either a) planned principal operations have not commenced or b) planned principal operations have commenced, but there has been no significant revenue therefrom. The Company’s planned principal operations to commercialize flexible PV modules and PV integrated electronics have commenced, but have generated limited revenue to date. The EnerPlex™ brand of consumer oriented products was introduced in 2012. Despite experiencing substantial sequential growth in the third and fourth quarters of 2013 and the full fiscal year ended December 31, 2014, total revenue to date has not been significant. Accordingly, the Company is considered to be in the development stage and has provided additional disclosure of inception to date activity in its Statements of Operations, Statements of Stockholders’ Equity and Statements of Cash Flows. Additionally, due to the development stage nature of the Company, the majority of the Company’s costs are considered to be research and development costs.

NOTE 3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Cash Equivalents: The Company classifies all short-term investments in interest bearing bank accounts and highly liquid debt securities purchased with an original maturity of three months or less to be cash equivalents. The Company maintains cash balances which may exceed federally insured limits. The Company does not believe this results in significant credit risk.
Restricted Cash: Cash and cash equivalents that are restricted as to withdrawal or use under the terms of the November 2014 Purchase Agreement are presented as restricted cash separate from cash and cash equivalents on our balance sheet.

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Investments: Historically the Company has classified its investments as “available-for-sale.” Such investments are carried at fair value, based on quoted market prices with the unrealized holding gains and losses reported as “Other comprehensive income (loss)” in the Statements of Operations. Realized gains and losses on sales of securities are computed using the specific identification method. The Company typically invests in highly rated securities with low probabilities of default. The Company’s investment policy specifies minimum investment grade criteria, types of acceptable investments, concentration limitations and duration guidelines. The Company evaluates declines in market value for potential impairment. If the decline results in a value below cost and is determined to be other than temporary, the investment is written down to its impaired value and a new cost basis is established.

Fair Value Estimates: Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The Company uses fair value hierarchy based on three levels of inputs, of which, the first two are considered observable and the last unobservable, to measure fair value:

- Level 1 - Quoted prices in active markets for identical assets or liabilities.
- Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities

Certain long-lived assets and current liabilities have been measured at fair value on a recurring and non-recurring basis. See Note 6. Property, Plant and Equipment, Note 9. Convertible Note and Series D Preferred Stock, and Note 10. Make-whole Dividend Liability. The carrying value for cash and cash equivalents, restricted cash, accounts receivable, accounts payable, accrued expenses and other assets and liabilities approximate their fair values due to their short maturities.

Related Party Transactions: The Company is party to several operating agreements, including a Joint Development Agreement, a Supply Agreement, a Contract Manufacturing Agreement, and a Services Agreement with TFG Radiant Investment Group Ltd. and its affiliates (“TFG Radiant”), which is also the Company's largest shareholder. Accounting for transactions under these agreements is consistent with the Company's other significant accounting policies.

Foreign Currencies: Bank account balances held in foreign currencies are translated to U.S. dollars utilizing the period end exchange rate. Gains or losses incurred in connection with the Company’s accounts held in foreign currency are recorded in “Other Income/(Expense)” on the Statements of Operations.

Revenue Recognition:

Product revenue - The Company is in the development stage and generated product revenues of $5,012,000 for the year ended December 31, 2014. Product revenue is generated from commercial sales of flexible PV modules and PV integrated consumer electronics, non-PV integrated power banks and associated accessories. Products are sold through the Company's own e-commerce website, online retailers, direct to retailers and indirectly to retailers through distributors. Revenue is recognized as products are shipped or delivered and title has transferred to the customer. In certain instances, the Company has agreed to refund a portion of the purchase price to customers if the Company decreases its standard retail price. The Company estimates the effect of this price protection and records the difference as a reduction of revenue at the time of sale. Estimated costs of returns and allowances and discounts are accrued as a reduction to sales when revenue is recognized. See Note 3. Significant Accounting Policies, Advertising Costs, for accounting treatment related to cooperative advertising programs.

Government contracts revenue - Revenue from governmental research and development contracts is generated under terms that are cost plus fee or firm fixed price. Revenue from cost plus fee contracts is recognized as costs are incurred on the basis of direct costs plus allowable indirect costs and an allocable portion of the fixed fee. Revenue from firm fixed price contracts is recognized under the percentage-of-completion method of accounting, with costs and estimated profits included in contract revenue as work is performed. If actual and estimated costs to complete a contract indicate a loss, provision is made currently for the loss anticipated on the contract.

Advertising Costs: The Company advertises in print, television, online and through social media. The Company will also authorize customers to run advertising campaigns on its behalf through various media outlets. Advertising costs are expensed as incurred. Advertising expenses were $1,171,000 and $201,000 for the years ended December 31, 2014 and 2013, respectively.
Some of the Company's distributor relationships allow for discounts to be taken to fund cooperative advertising programs. These discounts are applied as credits against outstanding receivable balances and recorded net of revenue. Large cooperating

advertising campaigns, funded either by cash payments by the Company, or as credits against outstanding receivables, are expensed as incurred and included in Selling, general and administrative costs if, and only if, the following criteria are met: 1) the Company receives an identifiable benefit (goods or services) in exchange for the consideration, with the identifiable benefit being sufficiently separable from the distributor's purchase of the Company's products; and 2) the Company can reasonably estimate the fair value of the identifiable benefit. If the amount of consideration paid by the Company exceeds the estimated fair value of the benefit received, that excess amount shall be characterized as a reduction of revenue. Discounts taken for cooperative advertising programs have been minimal in amount.

Shipping and Handling Costs: The Company classifies shipping and handling costs for products shipped to customers as a component of "Research, development and manufacturing operations" on the Company's Statements of Operations. Customer payments of shipping and handling costs are recorded as a component of Product revenue.

Receivables and Allowance for Doubtful Accounts: Trade accounts receivable are recorded at the invoiced amount as the result of transactions with customers. The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. The Company estimates the collectability of accounts receivable using analysis of historical bad debts, customer credit-worthiness and current economic trends. Reserves are established on an account-by-account basis. Account balances are written off against the allowance in the period in which the Company determines that is it probable that the receivable will not be recovered. As of December 31, 2014 and 2013, the Company had an allowance for doubtful accounts of $32,566 and $0, respectively.

Product Warranties: The Company provides a limited warranty to the original purchaser of products against defective materials and workmanship. The Company also guarantees that standalone modules and PV integrated consumer electronics will achieve and maintain the stated conversion efficiency rating for certain products. Warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms, historical experience and analysis of peer company product returns. The Company assesses the adequacy of its liabilities and makes adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

Convertible Preferred Stock: During the second and third quarters of 2013, the Company issued Series A preferred stock and warrants. Upon issuance, the Series A preferred stock was evaluated under FASB ASC 480, "Distinguishing Liabilities from Equity" and it was determined the Series A preferred stock was not within the scope of ASC 480; therefore, the Series A preferred stock was not considered a liability under ASC 480. The warrants associated with the Series A preferred stock offering were also not considered a liability as assessed under ASC 480.

Under FASB ASC 470, " Debt with Conversion Features and Other Options" ("ASC 470"), the proceeds from issuance must be allocated to both the Series A preferred stock and the warrants using the relative fair value method. The allocation of proceeds to the warrants created a discount in the fair value of the Series A Preferred Stock in the amount of $1.1 million. Because the Series A preferred stock was immediately convertible, the discount was accreted as of the date of issuance, recorded as "Additional paid in capital" in Stockholders' Equity and "Deemed dividends on preferred stock and accretion of warrants" in the Statements of Operations.

The Series A preferred stock was then evaluated under ASC 470 to determine if there was a beneficial conversion feature ("BCF"). A convertible financial instrument includes a BCF if its conversion rate is lower than the issuer's stock price at the commitment date. The BCF compares the carrying value of the preferred stock after the value of any derivatives or equity instruments have been allocated from the proceeds to the transaction date value of the number of shares of common stock the holder would receive upon conversion. The calculation resulted in a BCF of $1.4 million. Because the Series A preferred stock was immediately convertible, the BCF was recorded as of the date of issuance as "Additional paid in capital" in Stockholders' Equity and "Deemed dividends on preferred stock and accretion of warrants" in the Statements of Operations.

During the fourth quarter of 2013, the Company issued Series B preferred stock. Upon issuance, the Series B preferred stock was evaluated under FASB ASC 480, "Distinguishing Liabilities from Equity" and it was determined the Series B preferred stock was not within the scope of ASC 480; therefore, the Series B preferred stock was not considered a liability under ASC 480.

During the second quarter of 2014, the Company issued Series C preferred stock. Upon issuance, the Series C preferred stock was evaluated under FASB ASC 480, "Distinguishing Liabilities from Equity" and it was determined

the Series C preferred stock was not within the scope of ASC 480; therefore, the Series C preferred stock was not considered a liability under ASC 480.

During the fourth quarter of 2014, the Company issued Series D preferred stock. Upon issuance, the Series D preferred stock was evaluated under FASB ASC 480, “Distinguishing Liabilities from Equity" and it was determined the Series D preferred stock was within the scope of ASC 480; therefore, the Series D preferred stock is considered a liability under ASC 480. Refer to Note 9 for further information.

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Make-whole dividend liability: The Series A, Series B, and Series C preferred stock issuances include make-whole provisions with variable rate dividends which are indexed to the Company's own stock. The make-whole provisions have attributes of embedded derivatives and were evaluated under ASC 815, "Derivatives and Hedging" ("ASC 815"). The Company believes the Series A, Series B, and Series C preferred stock are considered equity hosts for the purposes of evaluating the make-whole provisions for potential bifurcation. The Series A, Series B, and Series C preferred stock holders may convert to common shares at any time after issuance. Upon conversion, the holders are entitled to a make-whole dividend which is payable in cash or common shares, at the Company's election. The Company concluded the make-whole payments should be characterized as embedded derivatives under ASC 815. The fair value of make-whole dividend liabilities must be evaluated at each period end, with changes recorded as a component of Other Income/(Expense).

Warrant liability: Warrants to purchase the Company's common stock with nonstandard antidilution provisions, regardless of the probability or likelihood that may conditionally obligate the issuer to ultimately transfer assets, are classified as liabilities and are recorded at their estimated fair value at each reporting period. Any change in fair value of these warrants is recorded at each reporting period in Other income/(expense) on the Company's statement of operations.

Patents: At such time as the Company is awarded patents, patent costs are amortized on a straight-line basis over the legal life on the patents, or over their estimated useful lives, whichever is shorter. As of December 31, 2014, the Company had $1,306,000 of net patent costs, of which $269,000 represents costs net of amortization incurred for awarded patents, and the remaining $1,037,000 represents costs incurred for patent applications to be filed. During the year ended December 31, 2014, the Company capitalized $466,000 in patent costs as it worked to secure design rights and trademarks for newly developed products. Amortization expense was $39,000 and $35,000 for the years ended December 31, 2014 and 2013, respectively. Amortization expense is expected to remain consistent or increase slightly in future periods.

Inventories: All inventories are stated at the lower of cost or market, with cost determined using the weighted average method. As a development stage entity with limited production, inventory values do not include labor and overhead allocations which would be typical in higher volume production environments, however, such differences are not significant.

Inventory balances are frequently evaluated to ensure they do not exceed net realizable value. The computation for net realizable value takes into account many factors, including expected demand, product life cycle and development plans, module efficiency, quality issues, obsolescence and others. Management's judgment is required to determine reserves for obsolete or excess inventory. If actual demand and market conditions are less favorable than those estimated by management, additional inventory write downs may be required. During the years ended December 31, 2014 and December 31, 2013, the Company recognized lower of cost or market adjustments on certain raw materials in the amounts of $0 and $598,000, respectively. These expenses are included within "Research, development and manufacturing operations" expense in the Statements of Operations.

Property, Plant and Equipment: Property, plant and equipment are recorded at the original cost to the Company. Assets are being depreciated over estimated useful lives of three to forty years using the straight-line method, as presented in the table below, commencing when the asset is placed in service. Leasehold improvements are depreciated over the shorter of the remainder of the lease term or the life of the improvements. Upon retirement or disposal, the cost of the asset disposed of and the related accumulated depreciation are removed from the accounts and any gain or loss is reflected in income. Expenditures for repairs and maintenance are expensed as incurred.

	Useful Lives in Years
Buildings	40
Manufacturing machinery and equipment	5 - 10
Furniture, fixtures, computer hardware/software	3 - 7
Leasehold improvements	life of lease

Interest Capitalization: Historically the Company has capitalized interest cost as part of the cost of acquiring or constructing certain assets during the period of time required to get the asset ready for its intended use. The Company

capitalized interest to the extent that expenditures to acquire or construct an asset have occurred and interest cost has been incurred.

Impairment of Long-lived Assets: The Company analyzes its long-lived assets (property, plant and equipment) and definitive-lived intangible assets (patents) for impairment, both individually and as a group, whenever events or changes in circumstances indicate the carrying amount of the assets may not be recoverable. Events that might cause impairment would include significant current period operating or cash flow losses associated with the use of a long-lived asset or group of assets combined with a history of such losses, significant changes in the manner of use of assets and significant negative industry or economic trends. An undiscounted cash flow analysis is calculated to determine if impairment exists. If impairment is determined to exist, any related loss is calculated using the difference between the fair value and the carrying value of the assets. During the

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years ended December 31, 2014 and 2013, the Company incurred impairments of its manufacturing facilities and equipment in the amounts of $0.3 million and $0.8 million, respectively. The impairments incurred in 2014 and 2013 were based on estimates prepared by management.

Net Loss per Common Share: Basic loss per share does not include dilution and is computed by dividing income available to common stockholders by the weighted average number of shares outstanding during the period. Diluted earnings per share reflect the potential securities that could share in the earnings of the Company, similar to fully diluted earnings per share. Common stock equivalents outstanding as of December 31, 2014 of approximately 45.5 million shares have been omitted from loss per share because they are anti-dilutive. Common stock equivalents consist of stock options, unvested restricted stock, warrants, preferred stock, preferred stock make-whole dividend liability amounts (assuming the make-whole dividend liability is paid in common stock in lieu of cash), and convertible notes (assuming the amortization payments are paid in common stock in lieu of cash). Net loss per common share was the same for both basic and diluted methods for the periods ended December 31, 2014 and 2013.

Research, Development and Manufacturing Operations Costs: Research, development and manufacturing operations expenses were $24,514,000 and $21,343,000 for the years ended December 31, 2014 and 2013, respectively. Research, development and manufacturing operations expenses include: 1) technology development costs, which include expenses incurred in researching new technology, improving existing technology and performing federal government research and development contracts, 2) product development costs, which include expenses incurred in developing new products and lowering product design costs, and 3) pre-production and production costs, which include engineering efforts to improve production processes, material yields and equipment utilization, and manufacturing efforts to produce saleable product. Research, development and manufacturing operations costs are expensed as incurred, with the exception of costs related to inventoried raw materials, work-in-process and finished goods, which are expensed as products are sold, assuming the resulting product has been completed, tested and is ready for significant commercial manufacturing. For the twelve months ended December 31, 2014, technology development costs were $1,256,000, product development costs were $1,600,000 and production and pre-production costs were $21,658,000. For the twelve months ended December 31, 2013, technology development costs were $1,148,000, product development costs were $2,101,000 and production and pre-production costs were $18,094,000.

Income Taxes: Deferred income taxes are provided using the liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carry forwards and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of the changes in tax laws and rates as of the date of enactment. Interest and penalties, if applicable, would be recorded in operations.

The Company has analyzed filing positions in all of the federal and state jurisdictions where it is required to file income tax returns, as well as all open tax years (2010-2014) in these jurisdictions. The Company believes its income tax filing positions and deductions will be sustained on audit and does not anticipate any adjustments that will result in a material adverse effect on the Company’s financial condition, results of operations, or cash flows. Therefore, no reserves for uncertain income tax positions have been recorded.

Share-Based Compensation: The Company measures and recognizes compensation expense for all share-based payment awards made to employees, officers, directors, and consultants based on estimated fair values. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service period in the Company’s Statements of Operations. Share-based compensation is based on awards ultimately expected to vest and is reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, as necessary, in subsequent periods if actual forfeitures differ from those estimates. For purposes of determining estimated fair value of share-based payment awards on the date of grant the Company uses the Black-Scholes option-pricing model (“Black-Scholes Model”) for option awards. The Black-Scholes Model requires the input of highly subjective assumptions. Because the Company’s employee stock options may have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management’s opinion, the existing models may not provide a reliable single measure of the fair value of

the Company's employee stock options. Management will continue to assess the assumptions and methodologies used to calculate estimated fair value of share-based compensation. Circumstances may change and additional data may become available over time, which result in changes to these assumptions and methodologies, which could materially impact the Company's fair value determination. The Company estimates the fair value of its restricted stock awards as its stock price on the grant date.

The accounting guidance for share-based compensation may be subject to further interpretation and refinement over time. There are significant differences among option valuation models, and this may result in a lack of comparability with other companies that use different models, methods and assumptions. If factors change and the Company employs different assumptions in the

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accounting for share-based compensation in future periods, or if the Company decides to use a different valuation model, the compensation expense the Company records in the future may differ significantly from the amount recorded in the current period and could materially affect its loss from operations, net loss and net loss per share.
Reclassifications: Certain reclassifications have been made to the 2013 financial information to conform to the 2014 presentation. Such reclassifications had no effect on the net loss.
Use of Estimates: The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Recently Issued Accounting Standards

In May 2014, FASB issued ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606). The update will establish a comprehensive revenue recognition standard for virtually all industries in GAAP. ASU 2014-09 will change the amount and timing of revenue and cost recognition, implementation, disclosures and documentation. ASU 2014-09 is effective for fiscal years beginning in 2017. The Company is researching whether the adoption of ASU 2014-09 will have a material effect on the Company's financial statements.

In June 2014, FASB issued ASU No. No. 2014-10, Development Stage Entities (Topic 915). Amongst other things, the amendments in this update removed the definition of development stage entity from Topic 915, thereby removing the distinction between development stage entities and other reporting entities from US GAAP. In addition, the amendments eliminate the requirements for development stage entities to (1) present inception-to-date information on the statements of income, cash flows and shareholders equity; (2) label the financial statements as those of a development stage entity; (3) disclose a description of the development stage activities in which the entity is engaged; and (4) disclose in the first year in which the entity is no longer a development stage entity that in prior years it had been in the development stage. The standard will be effective for the Company during the first quarter of 2015. The Company is evaluating the potential impact of this new standard on its financial statements.

In August 2014, FASB issued ASU No. 2014-15, Presentation of Financial Statements-Going Concern (Subtopic 205-40). This ASU provides guidance to determine when and how to disclose going-concern uncertainties in the financial statements. The new standard requires management to perform interim and annual assessments of an entity's ability to continue as a going concern within one year of the date that the financial statements are issued. An entity must provide certain disclosures if conditions or events raise substantial doubt about the entity's ability to continue as a going concern. The standard will be effective for the Company for fiscal years beginning in 2016. The Company is evaluating the impact of the adoption of this accounting standard update on its financial statements.

NOTE 4. LIQUIDITY AND CONTINUED OPERATIONS
As of December 31, 2014, the Company had $3.3 million in cash, $28 million in restricted cash, and working capital of $24.0 million. As discussed in Note 2, the Company is in the development stage and is currently incurring significant losses from operations as it works toward commercialization. In May 2013, the Company completed the sale of 250,000 shares of common stock in a private placement for proceeds of $1.4 million. In August 2013, the Company completed the sale 750,000 shares of Series A preferred stock and warrants to purchase up to 262,500 shares of common stock in a private placement for gross proceeds of $6.0 million. In November 2013, the Company completed the sale of 500 shares of Series B preferred stock in a private placement for gross proceeds of $10.0 million, $5.0 million of which was received with the closing of the transaction in November 2013 and the remaining $5.0 million was received in February 2014. In May 2014, the Company completed the sale of 600 shares of Series C preferred stock in a private placement for gross proceeds of $6.0 million. On July 29, 2014, the Company entered into a securities purchase agreement with SHTARD Enterprises Ltd. ("SHTARD"). Pursuant to the terms of

the purchase agreement, the Company issued and sold to SHTARD 400,000 shares of the Company’s common stock in the aggregate original amount of $1,320,000 or $3.30 per share. On August 11, 2014, SHTARD purchased an additional 800,000 shares from the Company at $3.30 per share or $2,640,000.
On August 29, 2014, the Company entered into a securities purchase agreement with Seng Wei Seow (“Seow") and TFG Radiant for a private placement of a total of 3,115,618 shares of the Company’s common stock, which resulted in gross proceeds of approximately $8,000,000 to the Company. The private placement took place in two tranches. In the first tranche, which closed on August 29, 2014, the Company issued (i) 845,309 shares of Common Stock to Seow and (ii) 845,309 shares of Common Stock to TFG Radiant, all at a price of $2.366 per share, resulting in gross proceeds of approximately $4,000,000 to the Company. For the second tranche, which closed on November 11, 2014, the Company issued 1,425,000 shares of Common Stock (the “Second

Tranche Shares") to TFG Radiant at a price of $2.80 per share, resulting in gross proceeds of approximately $4,000,000 to the Company. The closing of the second tranche was subject to the Company obtaining stockholder approval of the issuance of the Second Tranche Shares in accordance with the applicable listing rules of The Nasdaq Stock Market. This approval was obtained at a special shareholder meeting held on October 22, 2014.

On November 14, 2014, the Company entered into a securities purchase agreement (the "November 2014 Purchase Agreement") with one institutional and accredited investor (the "Investor"). Pursuant to the terms of the November 2014 Purchase Agreement, the Company sold to the Investor (i) $3,000,000 (3,000 shares) of Series D Convertible Preferred Stock (the "Series D Preferred Stock"), (ii) $32,000,000 original principal amount of senior secured convertible notes (the "Notes"), and (iii) warrants (the "Warrants") to purchase up to 7,777,778 shares of the Company's common stock, par value $0.0001 per share. At the closing of the sale of the Series D Preferred Stock, the Notes and the Warrants (the "Financing"), the Company entered into (i) a registration rights agreement with the Investor, (ii) a security and pledge agreement in favor of the collateral agent for the Investor, and (iii) certain account control agreements with several banks with respect to restricted control accounts described in the November 2014 Purchase Agreement. The Financing closed on November 19, 2014 (the "Closing"). The Company received gross proceeds of approximately $4.5 million at Closing. The remaining $30.5 million of gross proceeds from the Financing was deposited on the Closing Date by the Investor into restricted control accounts. $2.5 million of these restricted proceeds were released on December 22, 2014. Thereafter, additional funds from the control accounts shall be released to the Company (i) in connection with certain conversions of the Notes and redemptions of the Series D Preferred Stock, and (ii) up to $6 million in any 90 day period, provided that the Company meets certain equity conditions. The balance in the restricted bank account totals approximately $28 million at December 31, 2014.

The Company has commenced production at its manufacturing facility. The Company does not expect sales revenue and cash flows will be sufficient to support operations and cash requirements until it has fully implemented its new consumer products strategy. Changes in the level of expected operating losses, the timing of planned capital expenditures or other factors may negatively impact cash flows and reduce current cash and investments faster than anticipated. During 2014 the Company used $28.1 million in cash for operations, or an average of $7.0 million per quarter. During the fourth quarter of 2014 the Company used $7.4 million in cash for operations. In 2015, the Company expects to incur a base level of maintenance capital expenditures and relatively minor improvements to the existing asset base. Other than the Notes described in the preceding paragraph, the Company's primary significant long term obligation consists of a note payable of $6.1 million to a financial institution secured by a mortgage on its headquarters and manufacturing building in Thornton, Colorado. Total payments of $0.7 million, including principal and interest, will come due in 2015. Additionally, the Company owes $1.4 million as of December 31, 2014 related to a litigation settlement reached in April 2014, which is being paid in equal installments over 40 month which began April 2014.

On June 30, 2014, the Company entered into a Service Agreement with Swyft, Inc. ("Swyft"). Swyft will sell consumer products through automated retail stores (kiosks), provide online and mobile retail channels through a website and mobile application, and provide visual and text based advertising through both physical and digital channels. The Company will provide financing to Swyft in the form of a three year 8% convertible note to purchase seventy five (75) automated retail stores at $4,500 per store, or a total of $337,500, from ZoomSystems, the manufacturer of automated retail machines. The first convertible loan financing for thirty eight (38) automated retail stores of $171,000 was provided by the Company by July 31, 2014 and the second convertible loan financing for thirty seven (37) automated retail stores of $166,500 will be provided by the Company during the first quarter of 2015. The Company also has an option to continue loan financing for each additional block of fifty (50) automated retail stores. The Service Agreement also required that the Company pay a one-time project set-up fee of $125,000 which was paid during the third quarter of 2014.

Additional projected product revenues are not anticipated to result in a positive cash flow position for the year 2015 overall. As such, cash liquidity sufficient for the year ending December 31, 2015 may require additional financing. The Company continues to accelerate sales and marketing efforts related to its consumer products strategy through increased hiring and expansion of its sales channel. The Company has begun activities related to securing additional financing through strategic or financial investors, but there is no assurance the Company will be able to raise

additional capital on acceptable terms or at all. If the Company's revenues do not increase rapidly, and/or additional financing is not obtained, the Company will be required to significantly curtail operations to reduce costs and/or sell assets. Such actions would likely have an adverse impact on the Company's future operations.

The Company was previously not in compliance with the NASDAQ minimum $1.00 bid price requirement. On March 27, 2014, the Company received approval to transfer its listing from the NASDAQ Global Market tier to the NASDAQ Capital Market tier, effective with opening of the market on March 28, 2014. The Company's common stock continued to trade under the symbol “ASTI”. The NASDAQ Capital Market is a continuous trading market that operates in substantially the same manner as the NASDAQ Global Market. Transfer of the Company's listing to the NASDAQ Capital Market resulted in an additional 180 day period within which to regain compliance with the $1.00 minimum bid price requirement, through September 15, 2014 (the "Compliance Date"). On September 11, 2014, the Company received notification from the Listing Qualifications Department of The Nasdaq Stock Market that the Company had regained compliance with the minimum bid price requirement set forth in Nasdaq

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Listing Rule 5550(a)(2) after maintaining a closing bid price equal to or in excess of $1.00 for a minimum of ten consecutive trading days and that the Company's noncompliance with that rule had been rectified.

NOTE 5. TRADE RECEIVABLES

Trade receivables consist of amounts generated from product sales and government contracts. Accounts receivable totaled $2.78 million and $0.46 million as of December 31, 2014 and 2013, respectively. Product revenue for the year ended December 31, 2014 includes $2.68 million of sales to one major customer, representing 53% of total product revenue. Product revenue for this same major customer was $289,000, representing 26% of total product revenue, for the year ended December 31, 2013. Receivables from this major customer were $1.81 million at December 31, 2014 and $253,000 at December 31, 2013.

Provisional Indirect Cost Rates - The Company bills the government under cost-based research and development contracts at provisional billing rates which permit the recovery of indirect costs. These rates are subject to audit on an annual basis by the government agencies' cognizant audit agency. The cost audit may result in the negotiation and determination of the final indirect cost rates. In the opinion of management, re-determination of any cost-based contracts will not have a material effect on the Company's financial position or results of operations.

NOTE 6. PROPERTY, PLANT AND EQUIPMENT

The following table summarizes property, plant and equipment as of December 31, 2014 and December 31, 2013:

	As of December 31,	
	2014	2013
Building	$5,828,960	$5,820,509
Furniture, fixtures, computer hardware and computer software	475,266	461,491
Manufacturing machinery and equipment	31,227,523	32,332,905
Depreciable property, plant and equipment	37,531,749	38,614,905
Manufacturing machinery and equipment in progress	66,703	—
Property, plant and equipment	37,598,452	38,614,905
Less: Accumulated depreciation and amortization	(22,941,264)	(17,850,688)
Net property, plant and equipment	$14,657,188	$20,764,217

The Company analyzes its long-lived assets for impairment, both individually and as a group, whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. During the quarter ended June 30, 2011, an impairment charge in the amount of approximately $74.5 million was taken against Property, Plant and Equipment. This impairment, combined with a charge of approximately $3.5 million taken against Deposits on manufacturing equipment, resulted in a total write-down of $78.0 million in the quarter ended June 30, 2011. This write-down resulted in net assets of approximately $32.2 million being recorded at fair value as of June 30, 2011. The fair value measurement for these assets relied primarily on Company-specific inputs and the Company's assumptions about the use of the assets, as observable inputs were not available. Accordingly, the Company determined these fair value measurements reside primarily within Level 3 of the fair value hierarchy.

Depreciation expense for the years ended December 31, 2014 and 2013 was $5,925,546 and $6,186,889, respectively. Depreciation expense is recorded under "Research, development and manufacturing operations" expense and "Selling, general and administrative" expense in the Statements of Operations.

NOTE 7. INVENTORIES

Inventories consisted of the following at December 31, 2014 and December 31, 2013:

	As of December 31,	
	2014	2013
Raw materials	$941,912	$1,190,079
Work in process	335,275	401,274

Finished goods	1,150,025	296,259
Total	$2,427,212	$1,887,612

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NOTE 8. DEBT

On February 8, 2008, the Company acquired a manufacturing and office facility in Thornton, Colorado, for approximately $5.5 million. The purchase was financed by a promissory note, deed of trust and construction loan agreement (the “Construction Loan”) with the Colorado Housing and Finance Authority (“CHFA”), which provided the Company borrowing availability of up to $7.5 million for the building and building improvements. In 2009, the Construction Loan was converted to a permanent loan pursuant to a Loan Modification Agreement between the Company and CHFA (the “Permanent Loan”). The Permanent Loan, collateralized by the building, has an interest rate of 6.6% and the principal will be amortized through its term to January 2028. The Company will incur a prepayment penalty if the Permanent Loan is prepaid prior to December 31, 2015. Further, pursuant to certain covenants in the Permanent Loan, the Company may not, among other things, without CHFA’s prior written consent (which by the terms of the deed of trust is subject to a reasonableness requirement): create or incur additional indebtedness (other than obligations created or incurred in the ordinary course of business); merge or consolidate with any other entity; or make loans or advances to the Company’s officers, shareholders, directors or employees.

As of December 31, 2014, future principal payments on long-term debt are due as follows:

2015	$302,210
2016	322,771
2017	344,730
2018	368,183
2019	393,232
Thereafter	4,336,049
	$6,067,175

NOTE 9. CONVERTIBLE NOTE AND SERIES D PREFERRED STOCK

Financing Transaction

On November 14, 2014, the Company entered into the November 2014 Purchase Agreement with the Investor. Pursuant to the terms of the November 2014 Purchase Agreement, the Company sold to the Investor (i) $3,000,000 (3,000 shares) of Series D Convertible Preferred Stock, (ii) $32,000,000 original principal amount of senior secured convertible notes, and (iii) Warrants to purchase up to 7,777,778 shares of the Company’s common stock, par value $0.0001 per share. At the closing of the sale of the Financing, the Company entered into (i) a registration rights agreement with the Investor, (ii) a security and pledge agreement in favor of the collateral agent for the Investor, and (iii) certain account control agreements with several banks with respect to restricted control accounts described in the November 2014 Purchase Agreement. The Financing closed on November 19, 2014.

In connection with the Financing, the Company will pay the placement agent an aggregate cash fee equal to $1,575,000, paid ratably over time as the gross proceeds of the Financing become unrestricted and available to the Company, as well as reimbursement of certain expenses. The Company has paid $412,000 in cash and common stock to the placement agent as of December 31, 2014, and has capitalized these costs, along with 130,000 in other costs associated with the Financing, as deferred financing costs which are subsequently amortized using the effective interest method over the term of the Notes. The short term portion of these deferred financing costs is included in Prepaid expenses and other current assets and the long term portion is included in Other non-current assets on the Balance Sheets. The Company will also issue shares of Common Stock in an amount equal to $700,000 divided by the closing bid price of a share of Common Stock on November 20, 2014. The Company has issued the placement agent 77,778 shares of Common Stock as of December 31, 2014.

Proceeds Received and Restricted Cash

The Company received gross proceeds of approximately $4.5 million at Closing. The remaining $30.5 million of gross proceeds from the Financing was deposited on the Closing Date by the Investor into restricted control accounts. $2.5 million of these restricted proceeds were released on December 22, 2014 to the Company. Thereafter, additional funds from the control accounts shall be released to the Company (i) in connection with certain conversions of the Notes and redemptions of the Series D Preferred Stock, and (ii) up to $6 million in any 90 day period, provided that the Company meets certain equity conditions. The balance in the restricted bank account totals approximately $28 million at December 31, 2014, $24 million of which is expected to be released to the Company during fiscal year 2015.

Description of the Notes and Series D Preferred Stock

The Notes will rank senior to the Company’s outstanding and future indebtedness, except for certain existing permitted indebtedness of the Company. The Notes are secured by a first priority perfected security interest in all of the Company’s and its subsidiaries’ current and future assets (including a pledge of the stock of the Company’s subsidiaries), other than those assets which already secure the Company’s existing permitted indebtedness. So long as any Notes remain outstanding, the Company and its subsidiaries will not incur any new indebtedness, except for permitted indebtedness under the Notes, or create any new encumbrances on the Company’s or its subsidiaries’ assets, except for permitted liens under the Notes. Under certain circumstances, subsidiaries of the Company will be required to guarantee the Company’s obligations under the Notes. The Series D Preferred Stock ranks pari passu with the Company’s existing Series A Preferred Stock with respect to dividends and rights upon liquidation. The Series D Preferred Stock ranks senior to the Company’s Common Stock with respect to dividends and rights upon liquidation. The Series D Preferred Stock ranks junior to all existing and future indebtedness. The Series D Preferred Stock is unsecured.

Unless earlier converted or redeemed, the Notes will mature 42 months after the Closing Date (the “Maturity Date"), subject to the right of the Investors to extend the date under certain circumstances. The Series D Preferred Stock has no fixed maturity date or mandatory redemption date.

All amounts due under the Notes and the Series D Preferred Stock are convertible at any time, in whole or in part, at the option of the Investor into shares of Common Stock at a fixed conversion price, which is subject to adjustment for stock splits, stock dividends, combinations or similar events. The Notes and the Series D Preferred Stock are convertible into shares of Common Stock at the initial price of $2.25 per share (the "Conversion Price"). If and whenever on or after the Closing Date, the Company issues or sells any shares of Common Stock for a consideration per share (the "New Issuance Price"), less than a price equal to the Conversion Price in effect immediately prior to such issuance or sale (a "Dilutive Issuance"), then, immediately after such Dilutive Issuance, the Conversion Price then in effect shall be reduced to an amount equal to the New Issuance Price.

The Company may redeem all, but not less than all, of the Notes or the Series D Preferred Stock at any time after 30 calendar days after the earlier of (A) the date that a resale registration statement for the resale of a portion of the Common Stock underlying the Notes and Warrants becomes effective or (B) the date that the shares of Common Stock underlying the Notes and Warrants are eligible for resale under Rule 144, provided that the Company meets certain equity conditions. In the case of an optional redemption of Notes or Series D Preferred Stock by the Company, the Notes shall be redeemed in cash at a price with a redemption premium of 120% calculated by the formula specified in the Notes and the Series D Preferred Stock. The Company is required to provide holders of the Notes or Series D Preferred Stock with at least 90 trading days prior notice of its election to redeem the Notes or the Series D Preferred Stock.

The Investor has the option to convert a portion of the Notes or the Series D Preferred Stock into shares of Common Stock at an “Alternate Conversion Price” equal to the lowest of (i) the Conversion Price then in effect and (ii) 85% of the quotient of (A) the sum of the volume-weighted average price of the Common Stock for each of the three lowest trading days during the ten consecutive trading day period ending and including the trading day immediately prior to the date of the applicable conversion date, divided by three. During the year ended December 31, 2014, the Investor exercised their option to convert 1,581 Preferred Shares, representing a value of $1,581,000, at an Alternate Conversion Price resulting in the issuance of 1,083,532 Common Shares.

The Company has agreed to make amortization payments with respect to the principal amount of the Notes and the liquidation value of the Series D Preferred Stock in shares of its Common Stock, subject to the satisfaction of certain

equity conditions, or at the Company's option, in cash or a combination of shares of Common Stock and cash, in equal installments payable once every month. Per the terms of the Financing, the Company is required to make pre-payments on the monthly amortization payments twenty trading days prior to the installment due date. The first installment was due on January 2, 2015, and the pre-payment on this installment was due on December 5, 2014. On each of the installment dates, the Company's scheduled amortization payment will be an amount equal to approximately $854,000. On December 2, 2014, the Company made the first pre-installment payment of approximately $854,000, resulting in the issuance of 603,991 shares of common stock. The pre-payment amount is included in Prepaids and other current assets on the Balance Sheets as of December 31, 2014. Amortization payments shall first be applied to the redemption of shares of Series D Preferred Stock until all shares of the Series D Preferred Stock have been redeemed. Thereafter, amortization payments shall be applied to pay principal and interest on the Notes.

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For amortization payments paid in shares of Common Stock, the number of shares of Common Stock that shall be issued as an installment conversion amount shall be determined based on an installment conversion price (the “Installment Conversion Price") of the lowest of (i) the Conversion Price then in effect and (ii) 85% of the quotient of (A) the sum of the volume-weighted average price of the Common Stock for each of the five lowest trading days during the 20 consecutive trading day period ending and including the trading day immediately prior to the applicable installment date, divided by five.

The Company has classified the Series D Preferred Stock as a liability pursuant to ASC 480 at December 31, 2014 due to the structure of the financing agreement, whereby the Company has an unconditional obligation that the Company may settle by issuing a variable number of common shares with a monetary value that is fixed and known at inception.

The Investor may elect to defer the payment of the installment amount due on any installment dates, in whole or in part, to another installment date, in which case the amount deferred will become part of such subsequent installment date and will continue to accrue interest and dividends as applicable. During an installment period, the Investor may elect to accelerate the amortization of the Notes or the Series D Preferred Stock at the Installment Conversion Price of the current installment date if, in the aggregate, all such accelerations in such period do not exceed five times the installment amount. Such accelerated amounts shall be payable in the Company’s common stock.

The Notes bear interest at a rate of 7% per annum, subject to increase to 15% per annum upon the occurrence and continuance of an event of default . Holders of the Series D Preferred Stock will be entitled to receive dividends in the amount of 7% per annum, subject to increase to 15% per annum upon the occurrence and continuance of certain events of default. Interest on the Notes and dividends on the Series D Preferred Stock are payable monthly in shares of Common Stock or cash, at the Company’s option. Interest on the Notes and dividends on the Series D Preferred Stock is computed on the basis of a 360-day year and twelve 30-day months and is payable in arrears monthly and is compounded monthly. During the twelve months ended December 31, 2014, the Company payed dividends in the amount of $12,200 on the Series D Preferred Stock, resulting in the issuance of 8,613 shares of common stock, and interest in the amount of $255,100 on the Note, resulting in the issuance of 180,499 shares of common stock.

The Notes and the Series D Preferred Stock contain standard and customary events of default including but not limited to: (i) failure to make payments when due under the Notes and the Series D Preferred Stock; (ii) bankruptcy or insolvency of the Company; and (iii) certain failures (in the case of the Notes) to comply with the requirements under the registration rights agreement. If there is an event of default, a holder of the Notes or the Series D Preferred Stock may require the Company to redeem all or any portion of the Notes or the Series D Preferred Stock (including all accrued and unpaid interest and dividends and all interest and dividends that would have accrued through the Maturity Date), in cash, at a price equal to the greater of: (i) up to 125% of the amount being redeemed, depending on the nature of the default, and (ii) the product of (A) the conversion rate in effect at such time multiplied by (B) the product of (1) up to 125%, depending on the nature of the default, multiplied by (2) the highest closing sale price of the Common Stock on any trading day during the period beginning on the date immediately before the event of default and ending on the date of redemption. Additionally, if there is an event of default, a holder of the Notes or the Series D Preferred Stock may convert all or any portion of the Notes or the Series D Preferred Stock into shares of Common Stock. In such event, the conversion price would be the lowest of (i) the Conversion Price then in effect and (ii) 85% of the quotient of (A) the sum of the volume-weighted average price of the Common Stock for each of the three lowest trading days during the 10 consecutive trading day period ending and including the trading day immediately prior to the date of the applicable conversion date, divided by three.

Embedded derivative associated with the Notes
Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion options in the Notes were deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately

recorded that value as a derivative liability. At Closing, a derivative liability and a corresponding debt discount in the amount of $10.79 million were recorded. The debt discount will be charged to interest expense ratably over the life of the Note.

The derivative liability associated with the Notes is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At December 31, 2014, the Company conducted a fair value assessment of the embedded derivative associated with the Notes. As a result of the fair value assessment, the Company recorded a $6.61 million expense as "Change in fair value of derivative liabilities" in the Statements of Operations to properly reflect the fair value of the embedded derivative of $17.40 million as of December 31, 2014.

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The derivative associated with the Notes approximates management's estimate of the fair value of the embedded derivative liability at December 31, 2014 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 50%, present value discount rate of 12%, dividend yield of 0%, and remaining life of 3.4 years.

Embedded derivative associated with the Series D Preferred Stock

Pursuant to a number of factors outlined in ASC Topic 815, Derivatives and Hedging, the conversion options in the Series D Preferred Stock were deemed to include an embedded derivative that required bifurcation and separate accounting. As such, the Company ascertained the value of the conversion option as if separate from the convertible issuance and appropriately recorded that value as a derivative liability. At Closing, a derivative liability and a corresponding debt discount in the amount of $1.33 million were recorded. The debt discount will be charged to interest expense ratably over the life of the Series D Preferred Stock.

The derivative liability associated with the Series D Preferred Stock is subject to revaluation on a quarterly basis to reflect the market value change of the embedded conversion option. At December 31, 2014, the Company conducted a fair value assessment of the embedded derivative associated with the Series D Preferred Stock. As a result of the fair value assessment, the Company recorded a $0.96 million gain as "Change in fair value of derivative liabilities" in the Statements of Operations to properly reflect the fair value of the embedded derivative of $0.37 million as of December 31, 2014.

The derivative associated with the Series D Preferred Stock approximates management's estimate of the fair value of the embedded derivative liability at December 31, 2014 based on using a Monte Carlo simulation following a Geometric Brownian Motion with the following assumptions: annual volatility of 50%, present value discount rate of 12%, dividend yield of 0%, and remaining life of 3.4 years.

Description of the Warrants

The Warrants entitle the Investor to purchase, in the aggregate, up to 7,777,778 shares of Common Stock. The Warrants will be exercisable at any time on or after the six month anniversary of the Closing Date through the fifth anniversary of such date. The Warrants will be exercisable at an initial exercise price equal to $2.25 per share. The exercise price of the Warrants is subject to adjustment for stock splits, stock dividends, combinations or similar events. In addition, the exercise price is also subject to a "full ratchet" anti-dilution adjustment, subject to customary exceptions, in the event that the Company issues securities at a price lower than the then applicable exercise price.

Pursuant to ASC 815, the Company is required to report the value of the Warrants as a liability at fair value and record the changes in the fair value of the Warrant Liability as a gain or loss in its statement of operations due to the price-based anti-dilution provisions. The Company utilizes the Monte Carlo simulation valuation method to value the liability classified warrants. At Closing, the value of the Warrant Liability was calculated to be $26.9 million. The Company recorded $21.2 million as a debt discount against the Note, $1.7 million was recorded as a debt discount against the Series D Preferred Stock liability, and $4.0 million was immediately recorded as an expense as "Deemed interest expense on warrant liability" in the Statements of Operations. The debt discount is being charged to interest expense ratably over the life of the Note. At December 31, 2014, the Company conducted a fair value assessment of the Warrant. As a result of the fair value assessment, the Company recorded a $11.0 million gain as "Change in fair value of derivative liabilities" in the Statements of Operations to properly reflect the fair value of the Warrant Liability of $15.9 million at December 31, 2014.

The fair value of these warrants is determined using Level 3 inputs. Inherent in the Monte Carlo valuation model are assumptions related to expected stock-price volatility, expected life, risk-free interest rate and dividend yield. The Company estimates the volatility of its common stock to be 64% based on 5.4 years, the expected remaining life of the warrants. The risk-free interest rate of 1.66% is based on the U.S. Treasury zero-coupon yield curve on the grant date

for a maturity similar to the expected remaining life of the warrants. The dividend rate is based on the historical rate, which the Company anticipates to remain at zero.

NOTE 10. MAKE-WHOLE DIVIDEND LIABILITY

In June 2013, the Company entered into a Series A Preferred Stock purchase agreement. Holders of Series A Preferred Stock are entitled to cumulative dividends at a rate of 8.0% per annum, with the dividend rate being indexed to the Company's stock price and subject to adjustment. Conversion or redemption of the Series A Preferred Stock within 4 years of issuance requires the Company pay a make-whole dividend to the holders, whereby dividends for the full four year period are to be paid in cash or common stock (valued at 10% below market price).

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In October 2013, the Company entered into a Series B Preferred Stock purchase agreement. Holders of Series B Preferred Stock are entitled to cumulative dividends at a rate of 5.75% per annum, with the dividend rate being indexed to the Company's stock price and subject to adjustment. Conversion or redemption of the Series B Preferred Stock within 5 years of issuance requires the Company pay a make-whole dividend to the holders, whereby dividends for the full five year period are to be paid in cash or common stock (valued at 8% below market price, but not to exceed the lowest closing price paid during the applicable measurement period).
In April 2014, the Company entered into a securities purchase agreement to issue 600 shares of Series C Preferred Stock to an investor in exchange for $6.0 million. Holders of Series C Preferred Stock are entitled to cumulative dividends at a rate of 5.75% per annum, when and if declared by the Board of Directors in its sole discretion. The dividends may be paid in cash or in the form of common stock (valued at 8% below market price, but not to exceed 92% of the lowest closing price during the applicable measurement period), at the discretion of the Board of Directors. The dividend rate on the Series C Preferred Stock is indexed to the Company's stock price and subject to adjustment. In addition, the Series C Preferred Stock contains an embedded dividend provision whereby, conversion or redemption of the preferred stock within 5 years of issuance will require dividends for the full five year period to be paid by the Company in cash or common stock (valued at 8% below market price, but not to exceed 92% of the lowest closing price during the applicable measurement period).
The Company concluded the make-whole payments should be characterized as embedded derivatives under ASC 815. See Note 3. Summary of Significant Accounting Policies and Note 11. Stockholders' Equity. Make-whole dividends are expensed at the time of issuance and recorded as "Deemed dividends on Preferred Stock and accretion of warrants" in the Statements of Operations and "Make-whole dividend liability" in the Balance Sheets. The fair value of these dividend liabilities, which are indexed to the Company's common stock, must be evaluated at each period end. The fair value measurements rely primarily on Company-specific inputs and the Company's own assumptions. With the absence of observable inputs, the Company determined these recurring fair value measurements reside primarily within Level 3 of the fair value hierarchy. Fair value determination required forecasting stock price volatility, expected average annual return and conversion date. As a result of this analysis, during the year ended December 31, 2014, the Company recorded a net increase in fair value of the liability in the amount of $3.5 million, recorded as "Change in fair value of derivative liabilities" in Other Income/(Expense) in the Statements of Operations and in the Statement of Cash Flows.
At December 31, 2014, there were 212,390 shares of Series A Preferred Shares outstanding. All remaining shares of Series B and Series C Preferred Shares were converted into shares of common stock during 2014. At December 31, 2014, the Company was entitled to redeem the outstanding Series A preferred shares for $1.7 million, plus a make-whole amount of $0.8 million, payable in cash or common shares. The fair value of the make-whole dividend liability for the Series A Preferred Shares, which approximates cash value, was $0.8 million as of December 31, 2014.

NOTE 11. STOCKHOLDERS' EQUITY

Common Stock

At December 31, 2014, the Company had 450,000,000 shares of common stock, $0.0001 par value, authorized for issuance. Each share of common stock has the right to one vote. As of December 31, 2014, the Company had 18,211,104 shares of common stock outstanding. The Company has not declared or paid any dividends related to its common stock through December 31, 2014.
On August 26, 2014, the Company, a Delaware corporation, filed a Certificate of Amendment with the Secretary of State of the State of Delaware to effect the Reverse Stock Split of the Company's common stock, par value $0.0001 per share at a ratio of one-for-ten . The Certificate of Amendment did not change the number of authorized shares, or the par value, of the Company's common stock. The Certificate of Amendment provides that every ten shares of the Company's issued and outstanding common stock were automatically combined into one issued and outstanding share of the Company's common stock. All shares and per share amounts in the financial statements and accompanying notes have been retroactively adjusted to give effect to the Reverse Stock Split.
Initial Public Offering: The Company completed its initial public offering ("IPO") of 3,000,000 units in 2006. Each unit consisted of one tenth of a share of common stock (as adjusted for the Reverse Stock Split), one redeemable Class A

warrant and two non-redeemable Class B warrants. The IPO price was $5.50 per unit. The net proceeds of the offering were approximately $14 million.

Class A warrants. In 2007, the Company announced it intended to redeem its outstanding Class A warrants at $0.25 per warrant pursuant to its terms. There were 3,290,894 Class A warrants issued in connection with the Company's IPO. During the exercise period, 3,098,382 Class A warrants (94.1% of the total outstanding) were exercised for 309,838 shares of common stock, and the Company received approximately $20 million in proceeds from the warrant exercises. The Class A warrant exercise period ended July 10, 2011.

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Class B warrants. The Class B warrants included in the units became exercisable in August 2006. The exercise price of a Class B public warrant was $110.00. During 2008 and 2007, 9,880 and 1,100 Class B warrants, respectively were exercised resulting in proceeds to the Company of approximately $1.09 million and $121,000 respectively. The Class B warrant exercise period ended July 10, 2011.

IPO warrants. Warrants to purchase 300,000 units at $6.60 were issued to underwriters of the Company's IPO in July 2006 (representative's warrants). A unit consisted of one tenth of a share of common stock (as adjusted for the Reverse Stock Split), one Class A redeemable warrant and two Class B non-redeemable warrants. The proceeds from exercises of representative's warrants were approximately $2.0 million in 2007 and $0.5 million in 2008. The representative's warrant exercise period ended July 10, 2011.

Private Placements of Securities: The Company completed a private placement of securities with Norsk Hydro Produksjon AS ("Norsk Hydro") in March 2007. Norsk Hydro purchased 160,000 shares of the Company's common stock (representing 23% of the Company's then outstanding common stock post transaction) for net proceeds of approximately $9.2 million.

In August 2007, Norsk Hydro acquired an additional 93,446 shares of the Company's common stock and 1,965,690 Class B warrants through the exercise of an option previously granted to Norsk Hydro and approved by the Company's stockholders. Gross proceeds to the Company were $10.48 million. After acquiring these additional shares, Norsk Hydro again held 23% of the then outstanding common shares. Pursuant to a second option that was approved by Ascent's stockholders in June 2007, beginning December 13, 2007, Norsk Hydro was entitled to purchase additional shares and Class B warrants up to a maximum of 35% of each class of security.

In March 2008, Norsk Hydro acquired an additional 234,190 shares of the Company's common stock and 1,689,905 Class B warrants through the exercise of the second option previously granted to Norsk Hydro and approved by Ascent's stockholders in June 2007, resulting in Norsk Hydro ownership of approximately 35% of each class of security. Gross proceeds to the Company were $28.4 million. As a result of the Company's Secondary Public Offering in May 2008, Norsk Hydro's holdings were diluted to approximately 27% of the then outstanding common stock.

In October 2008, Norsk Hydro acquired an additional 242,180 shares of the Company's common stock. The purchase resulted in a return to Norsk Hydro's ownership of approximately 35% of the Company's then outstanding common stock. Gross proceeds to the Company from the follow on investment were approximately $15 million.

In September 2009, the Company sold to Norsk Hydro 76,923 restricted shares of the Company's common stock for approximately $5.0 million in a private placement at a per share price equal to $65.00. Norsk Hydro was granted demand and piggy-back registration rights.

In August 2011, the Company completed a strategic alliance with TFG Radiant. As part of this strategic alliance, TFG Radiant acquired 640,000 shares of the Company's common stock at a price of $11.50 per share or $7,360,000 in the aggregate. The closing price of the Company's common stock on August 12, 2011 was $7.30. In addition, TFG Radiant received an option to acquire an additional 950,000 shares of the Company's common stock at an exercise price of $15.50 per share. The option was approved by the Company's stockholders on October 27, 2011. TFG Radiant may not exercise this option unless, and until, TFG Radiant meets a specified milestone associated with the construction of the first East Asia FAB. This option expired on February 12, 2014.

In January 2012, TFG Radiant agreed to purchase 806,739 shares of the Company's common stock owned by Norsk Hydro for $4 million, or approximately $5.00 per share. The TFG Radiant purchase of these shares closed on March 30, 2012. As of December 31, 2014, TFG Radiant's ownership was approximately 21% of the Company's outstanding Common Stock.

In April 2013, the Company entered into a stock purchase agreement with an investor to sell an aggregate of 250,000 unregistered shares of common stock at a per share price of $5.70. In May 2013, the Company received proceeds of $1,425,000 from this transaction.

On July 29, 2014, the Company entered into a securities purchase agreement with SHTARD Enterprises Ltd. Pursuant to the terms of the Purchase Agreement, the Company issued and sold to SHTARD 400,000 shares of the Company's common stock in the aggregate original amount of $1,320,000 or $3.30 per share. On August 11, 2014, SHTARD purchased an additional 800,000 shares from the Company at $3.30 per share or $2,640,000.

On August 29, 2014, the Company entered into a securities purchase agreement with Seng Wei Seow and TFG Radiant for a private placement of a total of 3,115,618 shares of the Company's common stock, which resulted in gross proceeds of approximately $8,000,000 to the Company. The private placement took place in two tranches. In the first tranche, which closed on August 29, 2014, the Company issued (i) 845,309 shares of Common Stock to Seow and (ii) 845,309 shares of Common Stock to TFG Radiant, all at a price of $2.366 per share, resulting in gross proceeds of approximately $4,000,000 to the Company. For

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the second tranche, which closed on November 11, 2014, the Company issued 1,425,000 shares of Common Stock to TFG Radiant at a price of $2.80 per share, resulting in gross proceeds of approximately $4,000,000 to the Company.
Secondary Public Offerings: In May 2008, the Company completed a secondary public offering of 437,000 shares of common stock, which included 57,000 shares issued upon the underwriter’s exercise of their overallotment in full. The offering price of $140.00 per share resulted in net proceeds of $56.8 million.
In October 2009, the Company completed a secondary offering of 461,539 shares of the Company’s common stock at a price of $65.00 per share. The net proceeds to the Company were approximately $27.9 million.
In November 2010, the Company completed a secondary offering of 525,000 shares of the Company’s common stock at a price of $41.50 per share. The net proceeds to the Company were approximately $20.4 million.
In September 2012, the Company entered into an underwriting agreement with Aegis Capital Corp., providing for the sale, in a firm commitment offering, of 916,670 shares of the Company’s common stock, par value $0.0001 per share, at a price to the public of $12.00 per share. The Offering closed on September 25, 2012. Net proceeds were $10.2 million after deducting the underwriting discount and offering expenses payable by the Company of approximately $837,000.
Other common stock issuances: In February 2011, the Company entered into an At-The-Market Equity Offering Sales Agreement. Under this agreement the Company issued and sold 38,605 shares of its common stock for gross proceeds of $315,270 during 2011. This agreement was terminated on January 4, 2012.
In January 2012, the Company entered into an At-The-Market Equity Offering Sales Agreement under which the Company may issue and sell up to $5,000,000 of shares of its common stock from time to time. Sales of common stock, if any, will be made at market prices by any method deemed to be an “at the market” offering as defined in Rule 415 under the Securities Act, including sales made directly on the NASDAQ stock exchange and any other trading market for the Company’s common stock, and sales to or through a market maker other than on an exchange. The aggregate compensation payable to the sales agent shall be equal to 3% of the gross sales price of the shares sold. As of December 31, 2013, 197,218 shares had been sold under this facility with net proceeds of $1.9 million. This agreement was terminated on October 29, 2013.
In January 2013, the Company retained a consulting firm to provide certain consulting services relating to the retail distribution of the Company's consumer products. In exchange for the consulting services, the Company issued 24,000 unregistered shares of Common Stock to the consulting firm. Under the terms of the consulting agreement, the Company held the shares in escrow until January 2014. With this issuance, half of the shares vested immediately, and the remaining shares vested in January 2014.
In October 2014, the Company filed a “shelf” Registration Statement on Form S-3 with the SEC. With the shelf registration, the Company may from time to time sell common stock, preferred stock, warrants or some combination in one or more offerings for up to $25.0 million. The registration became effective October 16, 2014. This shelf registration replaces the Company's prior shelf registration statement. As of December 31, 2014, approximately $22.0 million was unused on the shelf registration.
Preferred Stock
At December 31, 2014, the Company’s had 25,000,000 shares of preferred stock, $0.0001 par value, authorized for issuance. Preferred stock may be issued in classes or series. Designations, powers, preferences, rights, qualifications, limitations and restrictions are determined by the Company’s Board of Directors. 750,000 shares have been designated as Series A preferred stock, 2,000 shares have been designated for Series B-1 and B-2 preferred stock, 690 shares have been designated as Series C preferred stock, and 3,000 shares have been designated as Series D preferred stock. As of December 31, 2014, the Company had 212,390 shares of Series A preferred stock, 0 shares of Series B-1 and B-2 preferred stock, 0 shares of Series C preferred stock, and 1,419 shares of Series D preferred stock, outstanding. The Company has no declared unpaid dividends related to the preferred stock as of December 31, 2014.
Series A preferred stock: In June 2013, the Company entered into a securities purchase agreement with an investor to sell an aggregate of 750,000 shares of Series A Preferred Stock at a price of $8.00 per share, resulting in gross proceeds of $6,000,000. This purchase agreement included warrants to purchase up to 262,500 shares of common stock of the Company. The transfer of cash and securities took place incrementally, the first closing occurring on June 17, 2013 with the transfer of 125,000 shares of Series A preferred stock and a warrant to purchase 43,750 shares of

common stock for $1,000,000. The final closing took place in August 2013, with the transfer of 625,000 shares of Series A preferred stock and a warrant to purchase 218,750 shares of common stock for $5,000,000.
Holders of Series A preferred stock are entitled to cumulative dividends at a rate of 8.0% per annum when and if declared by the Board of Directors in its sole discretion. The dividends may be paid in cash or in the form of common stock (valued

at 10% below market price, but not to exceed the lowest closing price during the applicable measurement period), at the discretion of the Board of Directors. The dividend rate on the Series A preferred stock is indexed to the Company's stock price and subject to adjustment. In addition, the Series A preferred stock contains a make-whole provision whereby, conversion or redemption of the preferred stock within 4 years of issuance will require dividends for the full four year period to be paid by the Company in cash or common stock (valued at 10% below market price, but not to exceed the lowest closing price during the applicable measurement period).

The Series A preferred stock may be converted into shares of common stock at the option of the Company if the closing price of the common stock exceeds $11.60, as adjusted, for 20 consecutive trading days, or by the holder at any time. The Company has the right to redeem the Series A preferred stock at a price of $8.00 per share, plus any accrued and unpaid dividends, plus the make-whole amount (if applicable). At December 31, 2014, the preferred shares were not eligible for conversion to common shares, at the option of the Company. The holder of the preferred shares may convert to common shares at any time, at no cost, at a ratio of 1 preferred share into1 common share (as adjusted for the Reverse Stock Split, subject to standard ratable anti-dilution adjustments). Upon any conversion (whether at the option of the Company or the holder), the holder is entitled to receive any accrued but unpaid dividends and also any make-whole amount (if applicable). See Note 10. Make-whole dividend liability.

During the twelve months ended December 31, 2014, the holder of the Series A preferred stock converted 150,000 preferred shares into 150,000 shares of common stock. As a result of these conversions, the Company paid make-whole dividends in the amount of 104,075 shares of common stock in lieu of a cash payment of $520,000. During the twelve months ended December 31, 2013, the holder of the Series A preferred stock converted 387,610 preferred shares into 387,610 shares of common stock. As a result of these conversions, the Company paid make-whole dividends in the amount of 99,664 shares of common stock in lieu of a cash payment of $752,000.

Except as otherwise required by law (or with respect to approval of certain actions), the Series A preferred stock shall have no voting rights. Upon any liquidation, dissolution or winding up of the Company, after payment or provision for payment of debts and other liabilities of the Company, the holders of Series A preferred stock shall be entitled to receive, pari passu with any distribution to the holders of common stock of the Company, an amount equal to $8.00 per share of Series A preferred stock plus any accrued and unpaid dividends.

The warrants offered as part of the securities purchase agreement have a three year term and require payment of an exercise price of $9.00 per common share to the Company.

The securities purchase agreement for the Series A preferred stock required the registration statement, filed on August 16, 2013, must be declared effective within 90 days of the filing date. If the registration statement was not declared effective by this date, damages of 1% of the total investment amount, or $60,000, plus interest, would have been owed by the Company to the Holder for each month until registration statement effectiveness is reached or the investment amount is repaid in full. The registration statement became effective on August 30, 2013, therefore any potential registration rights liability owed to the Holder by the Company was eliminated as of September 30, 2013.

Series B preferred stock: In October 2013, the Company entered into a securities purchase agreement with an investor to offer up to 1,000 shares of Series B-1 and Series B-2 preferred stock at a price of $10,000 per share, and gross proceeds of up to $10,000,000. The Company offered the Series B preferred stock in two tranches. The first tranche closed on November 1, 2013, with the Company selling 500 shares of Series B-1 preferred stock in exchange for gross proceeds of $5,000,000. On January 20, 2014, at a special meeting of the stockholder's, the Company obtained stockholder approval for the offering. Delivery of the second tranche of $5,000,000 in exchange for 500 shares of Series B-1 preferred shares occurred on February 7, 2014. With the closing of both tranches resulting in the issuance of Series B-1 preferred shares, the Company will not offer Series B-2 preferred shares.

Holders of Series B preferred stock are entitled to cumulative dividends at a rate of 5.75% per annum when, and if, declared by the Board of Directors in its sole discretion. The dividends may be paid in cash or in the form of common stock (valued at 8% below market price, but not to exceed the lowest closing price during the applicable measurement period), at the discretion of the Board of Directors. The dividend rate on the Series B preferred stock is indexed to the Company's stock price and subject to adjustment. In addition, the Series B preferred stock contains an embedded dividend provision whereby, conversion or redemption of the preferred stock within 5 years of issuance will require

dividends for the full five year period to be paid by the Company in cash or common stock (valued at 8% below market price, but not to exceed the lowest closing price during the applicable measurement period).

The Series B preferred stock may be converted into shares of common stock at the option of the Company if the closing price of the common stock exceeds $20.00, as adjusted, for 20 consecutive trading days, or by the holder at any time. The Company has the right to redeem the Series B preferred stock at a price of $10,000 per share, plus any accrued and unpaid dividends, plus the embedded dividend liability amount (if applicable). The holder of the Series B-1 preferred stock may

convert to common shares at any time, at no cost, at a conversion price of $11.50 and a ratio of 1 preferred share into 870 common shares. Conversions by the holder are subject to standard ratable anti-dilution adjustments. Upon any conversion (whether at the option of the Company or the holder), the holder is entitled to receive any accrued but unpaid dividends and also any embedded dividend amount (if applicable). See Note 10. Make-whole dividend liability.

During the twelve months ended December 31, 2014, the holder of the Series B preferred stock converted 850 preferred shares into 739,130 shares of common stock. As a result of these conversions, the Company paid a make-whole dividends in the amount of 1,238,681 shares of common stock in lieu of a cash payment of $6,483,000. During the twelve months ended December 31, 2013, the holder of the Series B preferred stock converted 150 preferred shares into 130,435 shares of common stock. As a result of these conversions, the Company paid a make-whole dividends in the amount of 117,212 shares of common stock in lieu of a cash payment of $788,000.

Except as otherwise required by law (or with respect to approval of certain actions), the Series B preferred stock shall have no voting rights. Upon any liquidation, dissolution or winding up of the Company, holders of Series B preferred stock will be entitled to be paid out of the Company's assets, on a parity with holders of the Company's common stock and the Company's Series A preferred stock, an amount equal to $10,000 per share plus any accrued but unpaid dividends thereon.

Series C preferred stock: On April 1, 2014, the Company entered into a securities purchase agreement to issue 600 shares of Series C Preferred Stock to an investor in exchange for $6.0 million.

The Series C Preferred Stock is convertible into common stock at a fixed conversion price of $11.50 per share of common stock. Holders of Series C Preferred Stock are entitled to cumulative dividends at a rate of 5.75% per annum when and if declared by the Board of Directors in its sole discretion. The dividends may be paid in cash or in the form of common stock (valued at 8% below market price, but not to exceed 92% of the lowest closing price during the applicable measurement period), at the discretion of the Board of Directors. The dividend rate on the Series C Preferred Stock is indexed to the Company's stock price and subject to adjustment. In addition, the Series C Preferred Stock contains an embedded dividend provision whereby, conversion or redemption of the preferred stock within 5 years of issuance will require dividends for the full five year period to be paid by the Company in cash or common stock (valued at 8% below market price, but not to exceed 92% of the lowest closing price during the applicable measurement period).

The Series C Preferred Stock may be converted into shares of common stock at the option of the Company if the closing price of the common stock exceeds $22.30, as adjusted, for 20 consecutive trading days, or by the holder at any time. The Company has the right to redeem the Series C Preferred Stock at a price of $10,000 per share, plus any accrued and unpaid dividends, plus the embedded dividend amount (if applicable). The holder of the Series C Preferred Stock may convert to common shares at any time, at no cost, at a conversion price of $11.50 and a ratio of 1 preferred share into 870 common shares. Conversions by the holder are subject to standard ratable anti-dilution adjustments. Upon any conversion (whether at the option of the Company or the holder), the holder is entitled to receive any accrued but unpaid dividends and also any embedded dividend amount (if applicable).

Except as otherwise required by law (or with respect to approval of certain actions), the Series C Preferred Stock shall have no voting rights. Upon any liquidation, dissolution or winding up of the Company, holders of Series C Preferred Stock will be entitled to be paid out of the Company's assets, on a parity with holders of the Company's common stock and the Company's Series A preferred stock, an amount equal to $10,000 per share plus any accrued but unpaid dividends thereon.

In connection with the securities purchase agreement, the Company entered into a Registration Rights Agreement (“RRA”). The RRA provided that if a resale registration statement was not declared effective on or before (i) the 30th day after April 1, 2014, the Company would be required to issue 30 additional shares of Series C Preferred Stock to the investor; (ii) the 60th day after April 1, 2014, the Company would be required to issue 30 additional shares of Series C Preferred Stock to the investor; and (iii) before the 90th day after April 1, 2014, the Company would be required to issue 30 additional shares of Series C Preferred Stock to the investor. Because the resale registration statement was not declared effective until May 27, 2014, the Company issued 30 additional shares of Series C

Preferred Stock to the investor on May 1, 2014.

During the year ended December 31, 2014, the holder of the Series C preferred stock converted 630 preferred shares into 547,827 shares of common stock. As a result of these conversions, the Company paid make-whole dividends in the amount of 2,935,082 shares of common stock in lieu of a cash payment of $6,841,000.

Series D preferred stock: On November 17, 2014, the Company entered into a securities purchase agreement to issue 3,000 shares of Series D Preferred Stock to an investor in exchange for $3,000,000.

All amounts due under the Series D Preferred Stock are convertible at any time, in whole or in part, at the option of the Investor into shares of Common Stock at a fixed conversion price, which is subject to adjustment for stock splits, stock dividends, combinations or similar events. The Series D Preferred Stock are convertible into shares of Common Stock at the

initial price of $2.25 per share. If and whenever on or after the Closing Date, the Company issues or sells any shares of Common Stock for a consideration per share, less than a price equal to the Conversion Price in effect immediately prior to such issuance or sale, then, immediately after such Dilutive Issuance, the Conversion Price then in effect shall be reduced to an amount equal to the New Issuance Price.
The Investor has the option to convert a portion of the Series D Preferred Stock into shares of Common Stock at an "Alternate Conversion Price" equal to the lowest of (i) the Conversion Price then in effect and (ii) 85% of the quotient of (A) the sum of the volume-weighted average price of the Common Stock for each of the three lowest trading days during the ten consecutive trading day period ending and including the trading day immediately prior to the date of the applicable conversion date, divided by three. During the year ended December 31, 2014, the Investor exercised their option to convert 1,581 Preferred Shares, representing a value of $1,581,000, at an Alternate Conversion Price resulting in the issuance of 1,083,532 Common Shares.

Holders of the Series D Preferred Stock will be entitled to receive dividends in the amount of 7% per annum, subject to increase to 15% per annum upon the occurrence and continuance of certain events of default. Dividends on the Series D Preferred Stock are payable monthly in shares of Common Stock or cash, at the Company's option. Dividends on the Series D Preferred Stock is computed on the basis of a 360-day year and twelve 30-day months and is payable in arrears monthly and is compounded monthly. During the twelve months ended December 31, 2014, the Company payed dividends in the amount of $12,200 on the Series D Preferred Stock, resulting in the issuance of 8,613 shares of common stock.

The Company has agreed to make amortization payments with respect to the liquidation value of the Series D Preferred Stock in shares of its Common Stock, subject to the satisfaction of certain equity conditions, or at the Company's option, in cash or a combination of shares of Common Stock and cash, in equal installments payable once every month. Per the terms of the Financing, the Company is required to make pre-payments on the monthly amortization payments twenty trading days prior to the installment due date. The first installment was due on January 2, 2015, and the pre-payment on this installment was due on December 5, 2014. On each of the installment dates, the Company's scheduled amortization payment will be an amount equal to approximately $854,000. On December 2, 2014, the Company made the first pre-installment payment of approximately $854,000, resulting in the issuance of 603,991 shares of common stock. The pre-payment amount is included in Prepaids and other current assets on the Balance Sheets as of December 31, 2014. Amortization payments shall first be applied to the redemption of shares of Series D Preferred Stock until all shares of the Series D Preferred Stock have been redeemed. Thereafter, amortization payments shall be applied to pay principal and interest on the Notes.
The Company has classified the Series D Preferred Stock as a liability pursuant to ASC 480 at December 31, 2014 due to the structure of the financing agreement, whereby the Company has an unconditional obligation that the Company may settle by issuing a variable number of common shares with a monetary value that is fixed and known at inception. There are 1,419 shares of Series D Preferred Stock outstanding as of December 31, 2014.

NOTE 12. EQUITY PLANS AND SHARE-BASED COMPENSATION
Stock Option Plan: The Company's 2005 Stock Option Plan, as amended (the "Stock Option Plan") provides for the grant of incentive or non-statutory stock options to the Company's employees, directors and consultants. Upon recommendation of the Board of Directors, the stockholders approved an increase in the total shares of common stock reserved for issuance under the Stock Option Plan from 370,000 (as adjusted for the Reverse Stock Split) to 3,400,000 in 2014.
Restricted Stock Plan: The Company's 2008 Restricted Stock Plan, as amended (the "Restricted Stock Plan") was adopted by the Board of Directors and was approved by the stockholders on July 1, 2008. The Restricted Stock Plan initially reserved up to 75,000 shares (as adjusted for the Reverse Stock Split) of the Company's common stock for restricted stock awards and restricted stock units to eligible employees, directors and consultants of the Company. Upon recommendation of the Board of Directors, the stockholders approved an increase in the total shares of common stock reserved for issuance under the Restricted Stock Plan to 1,500,000 shares in 2014.

The Stock Option Plan and the Restricted Stock Plan are administered by the Compensation Committee of the Board of Directors, which determines the terms of the option and share awards, including the exercise price, expiration date, vesting schedule and number of shares. The term of any incentive stock option granted under the Stock Option Plan may not exceed ten years, or 5 years for options granted to an optionee owning more than 10% of the Company’s voting stock. The exercise price of an incentive stock option granted under the Option Plan must be equal to or greater than the fair market value of the shares of the Company’s common stock on the date the option is granted. An incentive stock option granted to an optionee owning more than 10% of the Company’s voting stock must have an exercise price equal to or greater than 110% of the fair market value of the Company’s common stock on the date the option is granted. The exercise price of a non-statutory option granted under the Option Plan must

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be equal to or greater than 85% of the fair market value of the shares of the Company's common stock on the date the option is granted.

Grants Outside Existing Equity Plans: Prior to the adoption of the Restricted Stock Plan, the Board of Directors granted 4,000 restricted stock awards (as adjusted for the Reverse Stock Split) in connection with an executive employment agreement. In July 2009, the Board of Directors granted an inducement award (as defined in NASDAQ Rule 5635(c) (4)) made outside of the existing Stock Option Plan for 20,000 stock options (as adjusted the Reverse Stock Split).

Share-Based Compensation: The Company measures share-based compensation cost at the grant date based on the fair value of the award and recognizes this cost as an expense over the grant recipients' requisite service periods for all awards made to employees, officers, directors and consultants.

The share-based compensation expense recognized in the Condensed Statements of Operations was as follows:

	For the years ended December 31,	
	2014	2013
Share-based compensation cost included in:		
Research, development and manufacturing operations	$358,626	$228,120
Selling, general and administrative	475,691	393,385
Total share-based compensation cost	$834,317	$621,505

The following table presents share-based compensation expense by type:

	For the years ended December 31,	
	2014	2013
Type of Award:		
Stock Options	$413,697	$311,965
Restricted Stock Units and Awards	420,620	309,540
Total share-based compensation cost	$834,317	$621,505

Stock Options: The Company recognized share-based compensation expense for stock options of $414,000 to officers, directors and employees for the year ended December 31, 2014 related to stock option awards, reduced for estimated forfeitures. The weighted average estimated fair value of employee stock options granted for the years ended December 31, 2014 and 2013 was $4.25 and $4.90 per share, respectively. Fair value was calculated using the Black-Scholes Option Pricing Model with the following assumptions:

	For the years ended December 31,			
	2014		2013	
Expected volatility	94.6	%	97.3	%
Risk free interest rate	1.9	%	0.9	%
Expected dividends	—		—	
Expected life (in years)	6.0		5.2	

Expected volatility is based on the historical volatility of the Company's stock. The risk-free rate of return is based on the yield of U.S. Treasury bonds with a maturity equal to the expected term of the award. Historical data is used to estimate forfeitures within the Company's valuation model. The Company's expected life of stock option awards is derived from historical experience and represents the period of time that awards are expected to be outstanding.

As of December 31, 2014, total compensation cost related to non-vested stock options not yet recognized was $219,000 which is expected to be recognized over a weighted average period of approximately 1.9 years. As of

December 31, 2014, 194,277 shares were vested or expected to vest in the future at a weighted average exercise price of $14.67. As of December 31, 2014, 3,083,892 shares remained available for future grants under the Option Plan.

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The following table summarizes stock option activity for grants made within the Stock Option Plan:

	Stock Option Shares	Stock Options Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
Outstanding at December 31, 2012	121,967	$25.40	7.79	$8,057
Granted	78,500	$6.60		
Exercised	(4,750)	$6.80		$5,400
Forfeited	(40,917)	$20.40		
Outstanding at December 31, 2013	154,800	$17.83	7.81	$51,160
Granted	105,300	$5.55		
Exercised	—	$—		$—
Forfeited	(15,900)	13.37		
Outstanding at December 31, 2014	244,200	$12.82	7.84	$96
Exercisable at December 31, 2014	98,267	$22.40	6.36	$96

Restricted Stock: The Company recognized share-based compensation expense related to restricted stock grants of $421,000 for the year ended December 31, 2014. The weighted average estimated fair value of restricted stock grants for the years ended December 31, 2014 and 2013 was $7.06 and $6.20, respectively.

Total unrecognized share-based compensation expense from unvested restricted stock as of December 31, 2014 was $16,000 which is expected to be recognized over a weighted average period of approximately 0.1 years. As of December 31, 2014, 10,291 shares were expected to vest in the future. As of December 31, 2014, 1,261,163 shares remained available for future grants under the Restricted Stock Plan.

The following table summarizes non-vested restricted stock and the related activity as of and for the years ended December 31, 2014 and 2013:

	Shares	Weighted Average Grant-Date Fair-Value
Non-vested at December 31, 2012	4,800	$34.70
Granted	42,741	$6.20
Vested	(46,791)	
Forfeited	—	
Non-vested at December 31, 2013	750	$36.77
Granted	61,955	7.06
Vested	(49,815)	
Forfeited	(1,845)	
Non-vested at December 31, 2014	11,045	$7.00

NOTE 13. INCOME TAXES

The Company records income taxes using the liability method. Under this method, deferred tax assets and liabilities are computed for the expected future impact of temporary differences between the financial statement and income tax bases of assets and liabilities using current income tax rates and for the expected future tax benefit to be derived from tax loss and tax credit carryforwards. ASC 740 provides detailed guidance for the financial statement recognition, measurement and disclosure of uncertain tax positions recognized in the financial statements. Tax positions must meet a “more-likely-than-not” recognition threshold before a benefit is recognized in the financial statements.

At December 31, 2014, the Company had $201,963,000 of cumulative net operating loss carryforwards for federal income tax purposes that were available to offset future taxable income through the year 2034. Under the Internal

Revenue Code, the future utilization of net operating losses may be limited in certain circumstances where there is a significant ownership change. The Company prepared an analysis for the year ended December 31, 2013 and determined that a significant change in ownership

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has occurred as a result of the cumulative effect of the sales of common stock through its offerings. Such change limited the Company's utilizable net operating loss carryforwards to $114,922,000 for the year ended December 31, 2014. Available net operating loss carryforwards may be further limited in the event of another significant ownership change.

Deferred income taxes reflect an estimate of the cumulative temporary differences recognized for financial reporting purposes from that recognized for income tax reporting purposes. At December 31, 2014 and 2013, the components of these temporary differences and the deferred tax asset were as follows:

	As of December 31	
	2014	2013
Deferred Tax Asset		
Current:		
Accrued Expenses	$615,000	$705,000
Inventory Allowance	339,000	427,000
Other	16,000	—
Total Current	970,000	1,132,000
Non-current:		
Stock Based Compensation-Stock Options and Restricted Stock	1,565,000	1,332,000
Tax effect of NOL carryforward	43,252,000	27,027,000
Depreciation	23,771,000	25,336,000
Amortization	(513,000)	(334,000)
Warranty reserve	53,000	18,000
Convertible Note	3,170,000	—
Total Non-current	71,298,000	53,379,000
Net deferred tax asset	72,268,000	54,511,000
Less valuation allowance	(72,268,000)	(54,511,000)
Net deferred tax asset	$—	$—

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical losses and projections of future taxable income over the periods in which the deferred tax assets are deductible, management believes it is not "more-likely-than-not" that the Company will realize the benefits of these deductible differences at December 31, 2014. The Company’s deferred tax valuation allowance of $72,268,000 reflected above is an increase of $17,757,000 from the valuation allowance reflected as of December 31, 2013 of $54,511,000, resulting from the increase in net loss.

As of December 31, 2014, the Company has not recorded a liability for uncertain tax positions. The Company recognizes interest and penalties related to uncertain tax positions in income tax (benefit)/expense. No interest and penalties related to uncertain tax positions were accrued at December 31, 2014.

The Company’s effective tax rate for the years ended December 31, 2014 and 2013 differs from the statutory rate due to the following (expressed as a percentage of pre-tax income):

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	2014		2013	
Federal statutory rate	35	%	35	%
State statutory rate	4	%	3	%
Change in rate	2	%	—	%
Permanent tax differences	(3	)%	—	%
Loss on revaluation	(3	)%	(2	)%
Warrant/Derivative	5	%	—	%
Other	—	%	(5	)%
Increase in valuation allowance	(40	)%	(31	)%
	—	%	—	%

NOTE 14. RELATED PARTY TRANSACTIONS

TFG Radiant owns approximately 21% of the Company's outstanding common stock as of December 31, 2014. In February 2012, the Company announced the appointment of Victor Lee as President and Chief Executive Officer. Mr. Lee had served on the Company's Board of Directors since November 2011 and is currently the managing director of Tertius Financial Group Pte Ltd, the joint venture partner with Radiant Group in TFG Radiant. In April 2012, the Company appointed the Chairman of TFG Radiant, Mr. Winston Xu (aka Xu Biao), as a member of its Board of Directors.

In June 2012, the Company entered into a supply agreement and a contract manufacturing agreement with TFG Radiant. Under the terms of the contract manufacturing agreement TFG Radiant will oversee certain aspects of the contract manufacturing process related to the Company's EnerPlex™ line of consumer products. The Company compensated TFG Radiant for acting as general contractor in the contract manufacturing process. Under the supply agreement TFG Radiant intends to distribute the Company's consumer products in Asia. In December 2012, the Company entered into a consulting agreement with TGF Radiant for product design, product development and manufacturing coordination activities provided by TFG Radiant to the Company in connection with the Company's line of consumer electronics products. This consulting services agreement was terminated effective March 31, 2014. During the year ended December 31, 2014, the Company made disbursements to TFG Radiant in the amount of $518,000. Included within these disbursements is $200,000 for consulting fees and $318,000 for finished goods received and deposits for work-in-process. During the years ended December 31, 2014 and 2013, the Company recognized revenue in the amount of $8,000 and $143,000, respectively, for products sold to TFG Radiant under the supply agreement. As of December 31, 2014, the Company had $0 in receivables and deposits with TFG Radiant.

NOTE 15. COMMITMENTS AND CONTINGENCIES

On October 21, 2011, the Company was notified that a complaint claiming $3.0 million for an investment banking fee (the “Lawsuit”) was filed by Jefferies & Company, Inc. (“Jefferies”) against the Company in New York State Supreme Court in the County of New York. In December 2010, the Company and Jefferies entered into an engagement agreement (the “Fee Agreement”) pursuant to which Jefferies was hired to act as the Company's financial advisor in relation to certain potential transactions. In addition, Jefferies claimed an award for attorney's fees and prejudgment interest in the approximate amount of $1.2 million.

On April 16, 2014, the parties settled the lawsuit where the Company agreed to pay Jefferies a total of $2.0 million in equal installments over 40 months. The Company has paid $450,000 through December 31, 2014.

The Company records a liability in its financial statements for costs related to claims, including settlements and judgments, where the Company has assessed that a loss is probable and an amount can be reasonably estimated. The Company accrued $1.7 million, the net present value of the $2.0 million settlement, as of December 31, 2013. As of December 31, 2014, $881,000 was accrued for the long-term portion of this settlement and $494,000 was recorded as Accrued litigation settlement, current portion, in the Balance Sheets.

On June 30, 2014, the Company entered into a Service Agreement with Swyft, Inc.Swyft will sell consumer products through automated retail stores (kiosks), provide online and mobile retail channels through a website and mobile application, and provide visual and text based advertising through both physical and digital channels. The Company

will provide financing to Swyft in the form of a three year 8% convertible note to purchase seventy five (75) automated retail stores at $4,500 per store, or a total of $337,500, from ZoomSystems, the manufacturer of automated retail machines. The first convertible loan financing for thirty eight (38) automated retail stores of $171,000 was provided by the Company by July 31, 2014 and the second convertible loan financing

for thirty seven (37) automated retail stores of $166,500 will be provided by the Company during the first quarter of 2015. The Company also has an option to continue loan financing for each additional block of fifty (50) automated retail stores. The Service Agreement also required that the Company pay a one-time project set-up fee of $125,000 which was paid during the third quarter of 2014.

NOTE 16. RETIREMENT PLAN

On July 1, 2006, the Company adopted a qualified 401(k) plan which provides retirement benefits for all of its eligible employees. Under the plan, employees become eligible to participate at the first entry date, provided they are at least 21 years of age. The participants may elect through salary reduction to contribute up to ceilings established in the Internal Revenue Code. The Company will match 100% of the first six percent of employee contributions. In addition, the Company may make discretionary contributions to the Plan as determined by the Board of Directors. Employees are immediately vested in all salary reduction contributions. Rights to benefits provided by the Company’s discretionary and matching contributions vest 100% after the first year of service for all employees hired before January 1, 2010. For employees hired after December 31, 2009, matching contributions vest over a three-year period, one-third per year. Payments for 401(k) matching totaled $262,467 and $253,997 for the years ended December 31, 2014 and 2013, respectively. Payments for 401(k) matching are recorded under “Research, development and manufacturing operations" expense and “Selling, general and administrative" expense in the Statements of Operations.

NOTE 17. JOINT VENTURE

On December 28, 2013, the Company entered into a definitive agreement for the establishment of a joint venture with the Government of the Municipal City of Suqian in Jiangsu Province, China (“Suqian”).
The agreement covers a multi-faceted, three-phase project. Completion of all three phases would involve an anticipated investment of up to $500 million over 6 years, comprised of equipment, intellectual property and cash funded by Suqian, the Company, and other supporting investors to be brought in by the Company.

During the second half of 2014, the Company and Suqian formed a joint venture entity (“JV”) in which Suqian will ultimately inject approximately $4.8 million in cash and have majority interest of 75%. The Company will inject approximately $1.6 million in cash and hold a minority interest of 25%. In 2015, Suqian will further inject the balance of the committed $32.5 million while the Company will contribute its proprietary technology and intellectual property, as well as certain equipment from its Colorado facility, thereby increasing the Company's shareholdings progressively up to an 80% ownership.
Under the terms of the definitive agreement, in phase 1 and phase 2 of the project, the Company is required to contribute to the JV manufacturing equipment, intellectual property assets, proprietary technology and know-how, and cash for its ownership share, and Suqian is required to contribute cash for its ownership share. Pursuant to the terms of the definitive agreement, the Company's total contribution for phase 1 and phase 2 is required to be approximately $130 million. Suqian's total contribution for phase 1 and phase 2 is required to be approximately $32 million.
Pursuant to the terms of the definitive agreement, Ascent and Suqian are required to ascribe a dollar value to the Company's non-cash contributions. The major milestone was the agreement by the Suqian government to credit approximately $77 million to the Company's contribution of its proprietary technology, which represents 60% towards Ascent's total required contribution of $130 million. In order to value the Company's intellectual property assets, the parties jointly agreed to hire an independent appraisal company located in China. The appraisal report valued the Company's intellectual property assets at approximately $65 million, plus 20% premium added by Suqian government to bring the total value to $77 million. The remaining 40% of the Company's contribution will be in the form of some equipment from its Colorado plant and/or cash. The exact amounts of cash and equipment will be determined at a later date. These amounts of cash and equipment will depend, among other things, on an assessment of the contributed equipment by a Chinese appraisal firm mutually selected by the Company and Suqian.
The actual contributions of cash and other assets into the JV by the Company and Suqian will happen incrementally over time. In addition, under the definitive agreement, Suqian has agreed to provide rent-free use of the 331,000-square-foot manufacturing facility and office space that is currently being built for the Company in the

Suqian Economic and Industrial Development Science Park.
The JV will build a factory to manufacture the Company's proprietary photovoltaic modules. The Company is committed to purchase this factory within the first 5 years at the initial construction cost, and will also purchase Suqian's ownership interest in the JV at a cost of 1.5 times Suqian's cash investment.

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The implementation of the agreement, including the formation of the JV entity, will be subject to a number of contractual conditions and governmental approvals. Such conditions and approvals must be obtained in the future in order for the Suqian factory to be built and become operational. On September 17, 2014, the Company was officially granted the Certificate of Approval for Establishment with Foreign Investment in the People's Republic of China, and on September 24, 2014, the Company was officially granted the Business License to operate the JV. Several activities, including the cash injection by Suqian into the JV and the transfer of equipment by the Company, will begin during the first half of 2015.

The Company has contributed $320,000 in cash to the Joint Venture as of December 31, 2014, which is recorded as Investment in Joint Venture on the Balance Sheets.

In December 2013, the Company established a wholly owned legal entity in Singapore (Ascent Solar (Asia) PTE. LTD. "Ascent Asia"). Ascent Asia was established initially to manage the Company's contract manufacturing partners in Asia. In the longer term, this entity will serve as the Company's sales headquarters in Asia, in addition to providing management of regional warehousing operations. Any activity for Ascent Asia will be consolidated into the Company's Balance Sheets, Statements of Operations, Statements of Stockholders' Equity and Statements of Cash Flows.

NOTE 18. SUBSEQUENT EVENT

On February 19, 2015, the Company entered into a securities purchase agreement with one institutional and accredited investor. Pursuant to the terms of the purchase agreement, the Company will sell to the investor (i) $2,500,000 (2,500 shares) of Series D-1 Convertible Preferred Stock and (ii) warrants to purchase up to 541,126 shares of the Company’s common stock, par value $0.0001 per share. The closing of the sale of the Series D-1 Preferred Stock and the warrants occurred on February 25, 2015, and the Company received gross proceeds of $2.5 million. Holders of the Series D-1 Preferred Stock will be entitled to receive dividends in the amount of 7% per annum, which are payable monthly in shares of Common Stock or cash, at the Company’s option.

The Company has agreed to make amortization payments with respect to the liquidation value of the Series D-1 Preferred Stock in shares of its Common Stock, subject to the satisfaction of certain equity conditions, or at the Company’s option, in cash or a combination of shares of Common Stock and cash, in two equal installments. The first installment will be due on April 1, 2015. The second and final installment will be due on May 1, 2015. On each of the installment dates, the Company’s scheduled amortization payment will be an amount equal to approximately $1,250,000. For amortization payments paid in shares of Common Stock, the number of shares of Common Stock that shall be issued as an installment conversion amount shall be determined based on an installment conversion price of the lowest of (i) $2.31 per share and (ii) 85% of the quotient of (A) the sum of the volume-weighted average price of the Common Stock for each of the five lowest trading days during the 20 consecutive trading day period ending and including the trading day immediately prior to the applicable installment date, divided by five.

All amounts due under the Series D-1 Preferred Stock are convertible at any time, in whole or in part, at the option of the holders into shares of Common Stock at a fixed conversion price, which is subject to adjustment for stock splits, stock dividends, combinations or similar events. The Series D-1 Preferred Stock is convertible into shares of Common Stock at the initial price of $2.31 per share.

In addition, a holder of the Series D-1 Preferred Stock has the option to convert a portion of the Series D-1 Preferred Stock into shares of Common Stock at an “Alternate Conversion Price” equal to the lowest of (i) $2.31 per share and (ii) 85% of the lowest volume-weighted average price of the Common Stock on any trading day during the five consecutive trading day period ending and including the trading day immediately prior to the date of the applicable conversion date.

The warrants entitle the holders of the warrants to purchase, in the aggregate, up to 541,126 shares of Common Stock. The warrants will be exercisable on the issuance date through the fifth anniversary of the issuance date. The Warrants will be exercisable at an initial exercise price equal to $2.31 per share.

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INDEX TO EXHIBITS

Set forth below is a list of exhibits that are being filed or incorporated by reference into this Annual Report on Form 10-K:

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.2 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2011)
3.3	Certificate of Amendment dated February 7, 2014 to the Amended and Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed February 11, 2014)
3.4	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated October 27, 2014 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K dated October 28, 2014).
3.5	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated August 26, 2014. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed September 2, 2014).
3.6	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of the Company, dated December 22, 2014. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K dated December 23, 2014).
3.7	Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to our Current Report on Form 8-K filed on February 17, 2009)
3.8	First Amendment to Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.3 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2009)
3.9	Second Amendment to Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed January 25, 2013)
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
4.2	Certificate of Designations of Series A Preferred Stock (filed as Exhibit 4.2 to our Registration Statement on Form S-3 filed July 1, 2013 (Reg. No. 333-189739)).
4.3	Form of Warrant (filed as Exhibit 4.3 to our Registration Statement on Form S-3 filed July 1, 2013 (Reg. No. 333-189739)).
4.4	Certificate of Designations of Series B-1 and B-2 Preferred Stock (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed October 30, 2013)
4.5	Certificate of Designations of Preferences, Rights and Limitations of Series C Preferred Stock (attached as Exhibit 2 to the Stock Purchase Agreement filed as Exhibit 10.1 to our Current Report on Form 8-K filed on

	April 2, 2014).
4.6	Certificate of Designations of Preferences, Rights and Limitations of Series D Preferred Stock (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed November 17, 2014)
4.7	Form of Warrant (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed February 20, 2015).
4.8	Certificate of Designations of Preferences, Rights and Limitations of Series D-1 Preferred Stock (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed February 20, 2015).

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Exhibit No.	Description
4.9	Form of Warrant (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed November 17, 2014)
10.1†	Fifth Amended and Restated 2005 Stock Option Plan (incorporated by reference to Annex A of our definitive proxy statement dated October 22, 2014).†
10.2†	Fifth Amended and Restated 2008 Restricted Stock Plan Stock Option Plan Plan (incorporated by reference to Annex B of our definitive proxy statement dated October 22, 2014).†
10.3	Securities Purchase Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.1 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))[CTR]
10.4	Invention and Trade Secret Assignment Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.2 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))[CTR]
10.5	Patent Application Assignment Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.3 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
10.6	License Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.4 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))[CTR]
10.7	Service Center Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc., as amended (incorporated by reference to Exhibit 10.6 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
10.8	Administrative Services Agreement, dated January 17, 2006, between the Company and ITN Energy Systems, Inc., as amended (incorporated by reference to Exhibit 10.8 to our Registration Statement on Form SB-2 filed on January 23, 2006 (Reg. No. 333-131216))
10.9	Letter Agreement, dated November 23, 2005, among the Company, ITN Energy Systems, Inc. and the University of Delaware (incorporated by reference to Exhibit 10.16 to our Registration Statement on Form SB-2/A filed on May 26, 2006 (Reg. No. 333-131216))

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Exhibit No.	Description
10.10	License Agreement, dated November 21, 2006, between the Company and UD Technology Corporation (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on November 29, 2006)[CTR]
10.11	Novation Agreement, dated January 1, 2007, among the Company, ITN Energy Systems, Inc. and the United States Government (incorporated by reference to Exhibit 10.23 to our Annual Report on Form 10-KSB for the year ended December 31, 2006)
10.12	Construction Loan Agreement, dated February 8, 2008, between the Company and the Colorado Housing and Finance Authority (incorporated by reference to Exhibit 10.37 to our Annual Report on Form 10-K for the year ended December 31, 2007)
10.13	Promissory Note, dated February 8, 2008, issued to the Colorado Housing and Finance Authority (incorporated by reference to Exhibit 10.38 to our Annual Report on Form 10-K for the year ended December 31, 2007)
10.14	Loan Modification Agreement, dated January 29, 2009, between the Company and the Colorado Housing and Finance Authority (incorporated by reference to Exhibit 10.52 to our Annual Report on Form 10-K for the year ended December 31, 2008)
10.15	Cooperation Agreement, dated December 18, 2007, between the Company and Norsk Hydro Produksjon AS (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on December 19, 2007)
10.16	Equipment Purchase Agreement, dated January 7, 2010, between the Company and ITN Energy Systems, Inc. (incorporated by reference to Exhibit 10.46 to our Annual Report on Form 10-K for the year ended December 31, 2009)
10.17	Securities Purchase Agreement dated as of August 12, 2011 between TFG Radiant Investment Group Ltd. and the Company (incorporated by reference to Exhibit 99.1 to our Current Report on Form 8-K filed on August 15, 2011)
10.18	Stockholders Agreement dated as of August 12, 2011 between TFG Radiant Investment Group Ltd. and the Company (incorporated by reference to Exhibit 99.2 to our Current Report on Form 8-K filed on August 15, 2011)
10.19	Registration Rights Agreement dated as of August 12, 2011 between TFG Radiant Investment Group Ltd. and the Company (incorporated by reference to Exhibit 99.3 to our Current Report on Form 8-K filed on August 15, 2011)
10.20	Joint Development Agreement dated as of August 12, 2011 between TFG Radiant New-Energy Group Ltd. and the Company (incorporated by reference to Exhibit 10.5 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2011)[CTR]
10.21	Amended and Restated Stockholders Agreement dated as of December 30, 2011 between TFG Radiant Investment Group Ltd. and the Company (incorporated by reference to Exhibit 99.2 to our Current Report on Form 8-K filed on January 5, 2012)

10.22	Amended and Restated Registration Rights Agreement dated as of December 30, 2011 between TFG Radiant Investment Group Ltd. and the Company (incorporated by reference to Exhibit 99.3 to our Current Report on Form 8-K filed on January 5, 2012)
10.23	Services Agreement dated December 10, 2012 between the Company and TFG Radiant (incorporated by reference to Exhibit 99.1 to our Current Report on Form 8-K filed December 14, 2012)

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Exhibit No.	Description
10.24	Stock Purchase Agreement, dated April 26, 2013, between the Company and Foo Joo Loong (filed as Exhibit 10.1 to our Registration Statement on Form S-3 filed July 1, 2013 (Reg. No. 333-189739)).
10.25	Securities Purchase Agreement, dated June 17, 2013, between the Company and Seng Wei Seow (filed as Exhibit 10.2 to our Registration Statement on Form S-3 filed July 1, 2013 (Reg. No. 333-189739)).
10.26	Registration Rights Agreement dated June 17, 2013 between the Company and Seng Wei Seow (filed as exhibit 10.2 to our Current Report on Form 8-K filed June 21, 2013).
10.27	First Amendment dated August 7, 2013 to Securities Purchase Agreement and Registration Rights Agreement (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on August 7, 2013).
10.28	Second Amendment dated August 13, 2013 to Securities Purchase Agreement (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed on August 15, 2013).
10.29	Framework Agreement, dated July 2, 2013, between the Company and the Government of the Municipal City of Suqian in Jiangsu Province, China (incorporated by reference to Exhibit 10.5 to our Registration Statement on Form S-3 filed August 29, 2013 (Reg. No. 333-190701), as amended)
10.30	Stock Purchase Agreement, dated October 28, 2013 between the Company and Ironridge Technology Co., a division of Ironridge Global IV, Ltd. (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed October 30, 2013)
10.31	Industrial Project Entry and Joint Venture Construction Contract by and between the Registrant and Suqian Economic Development Company, Ltd. dated December 28, 2013*
10.32	Securities Purchase Agreement, dated April 1, 2014, between the Company and Ironridge Global IV, Ltd. (filed as Exhibit 10.1 to our Current Report on Form 8-K April 2, 2014).
10.33	Registration Rights Agreement dated April 1, 2014 between the Company and Ironridge Global IV, Ltd. (filed as exhibit 10.2 to our Current Report on Form 8-K filed April 2, 2014).
10.34†	Executive Employment Agreement, dated April 4, 2014, between the Company and Victor Lee (filed as Exhibit 10.1 to our Current Report on Form 8-K filed on April 9, 2014). †
10.35	Settlement Agreement and Release dated April 15, 2014 between the Company and Jefferies LLC (filed as Exhibit 10.1 to our Current Report on Form 8-K filed on April 22, 2014).
10.36	Stock Purchase Agreement, dated July 29, 2014, between the Company and SHTARD Enterprise Ltd. (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K July 31, 2014).
10.37	Securities Purchase Agreement, dated August 29, 2014, among the Company, Seng Wei Seow and TFG Radiant Investment Group Ltd. (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed September 4, 2014).

10.38	Securities Purchase Agreement, dated November 14, 2014, between the Company and the Investor named therein (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed November 17, 2014).
10.39	Form of Senior Secured Convertible Note (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed November 17, 2014).
10.40	Form of Registration Rights Agreement between the Company and the Investor named therein (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K filed November 17, 2014).
10.41	Form of Security and Pledge Agreement by the Company in favor of the collateral agent named therein (incorporated by reference to Exhibit 10.5 to our Current Report on Form 8-K filed November 17, 2014).
10.42	Securities Purchase Agreement, dated February 19, 2015, between the Company and the Investor named therein(incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed February 20, 2015).

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Exhibit No.	Description
23.1	Consent of Hein & Associates LLP*
31.1	Chief Executive Officer Certification pursuant to section 302 of the Sarbanes-Oxley Act of 2002*
31.2	Chief Financial Officer Certification pursuant to section 302 of the Sarbanes-Oxley Act of 2002*
32.1	Chief Executive Officer Certification pursuant to section 906 of the Sarbanes-Oxley Act of 2002*
32.2	Chief Financial Officer Certification pursuant to section 906 of the Sarbanes-Oxley Act of 2002*
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

* Filed herewith
CTR Portions of this exhibit have been omitted pursuant to a request for confidential treatment.
† Denotes management contract or compensatory plan or arrangement.