

Ascent Solar Technologies, Inc.  
Form SB-2/A  
March 13, 2006

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As filed with the Securities and Exchange Commission on March 13, 2006

Securities Act File No. 333-131216

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# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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AMENDMENT NO. 1  
TO

## FORM SB-2

REGISTRATION STATEMENT

Under  
The Securities Act of 1933

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### Ascent Solar Technologies, Inc.

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or Other Jurisdiction of  
Incorporation or Organization)

**3674**  
(Primary Standard Industrial  
Classification Code Number)  
**8120 Shaffer Parkway**  
**Littleton, Colorado 80127**  
**(303) 420-1141**

**20-3672603**  
(I.R.S. Employer  
Identification No.)

(Address and Telephone Number of Principal Executive Offices and Principal Place of Business)

**Matthew Foster**  
**8120 Shaffer Parkway**  
**Littleton, Colorado 80127**  
**(303) 420-1141**

(Name, Address and Telephone Number of Agent for Service)

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*Copy to:*

**Mark A. von Bergen**  
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**Approximate Date of Commencement of Proposed Sale to Public:** As soon as practicable after this registration statement becomes effective.

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If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. ☐

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**The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

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The information in this prospectus is not complete and may be changed. We have filed a registration statement with the Securities and Exchange Commission relating to this offering. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED MARCH 13, 2006

PROSPECTUS

**3,000,000 Units**  
**Each unit consisting of one share of common stock,**  
**one redeemable Class A warrant**  
**and two non-redeemable Class B warrants**

This is a firm commitment initial public offering of 3,000,000 units by Ascent Solar Technologies, Inc. Each unit consists of one share of common stock, one redeemable Class A warrant and two non-redeemable Class B warrants, each warrant to purchase one share of common stock. The warrants will trade only as part of a unit for 30 days following the date of this prospectus after which the common stock and public warrants each will trade separately.

Prior to this offering, there has been no public market for our securities. We have applied to have the units, the common stock, the Class A warrants and the Class B warrants quoted on the Nasdaq Capital Market under the symbols ASTIU, ASTI, ASTIW and ASTIZ, respectively. We also have applied for listing of these securities on the Boston Stock Exchange.

We anticipate that the initial public offering price of our units will be between \$5.00 and \$6.00 per unit. The aggregate price of the units offered hereby, excluding units that may be sold on exercise of the underwriters' over-allotment option, would be \$16,500,000, assuming an initial public offering price of \$5.50 per unit.

**Investing in these units involves significant risks. See "Risk Factors" beginning on page 5.**

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

|                                 | Per Unit | Total |
|---------------------------------|----------|-------|
| Public offering price           | \$       | \$    |
| Underwriting discount           | \$       | \$    |
| Proceeds to us, before expenses | \$       | \$    |

The expenses for this offering will include (in addition to the underwriting discount) a non-accountable expense allowance of 3% of the gross proceeds of this offering payable to Paulson Investment Company, Inc. Additionally, we have granted the underwriters a 45-day option to purchase up to an additional 450,000 units to cover over-allotments and have agreed to issue the representative of the underwriters a warrant to purchase up to 300,000 units.

**Paulson Investment Company, Inc.**

*The date of this prospectus is* \_\_\_\_\_, 2006

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Until \_\_\_\_\_, 2006 (the 25<sup>th</sup> day after the date of this prospectus), all dealers effecting transactions in our units, whether or not participating in this distribution, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

You should rely only on the information contained in this prospectus and in any free writing prospectus that states that it has been provided with our approval. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. Information contained on our website does not constitute a part of this prospectus. The information in this prospectus may only be accurate as of the date appearing on the cover page of this prospectus, regardless of the time this prospectus is delivered or our units are sold.

We are not, and the underwriters are not, making an offer to sell the units in any jurisdiction where the offer or sale is not permitted.

We own no registered trademarks. Brand names or trademarks appearing in this prospectus are the property of their respective owners.

*Notice to California investors:* Each purchaser of units in California must meet one of the following suitability standards: (1) annual gross income of at least \$65,000 and liquid net worth of at

least \$250,000 (exclusive of home, home furnishings and automobiles); (2) liquid net worth of at least \$500,000 (exclusive of home, home furnishings and automobiles); (3) net worth of at least \$1,000,000 (inclusive of home, home furnishings and automobiles); or (4) annual gross income of at least \$200,000. In addition, the amount purchased may not exceed 10% of the purchaser's net worth (as calculated above). This offering was approved in California on the basis of a limited offering qualification where offers/sales can only be made to investors who meet the foregoing suitability standards. The company did not have to demonstrate compliance with some or all of the merit regulations of the Department of Corporations as found in Title 10, California Code of Regulations, Rule 260.140 et seq. Furthermore, the exemptions for secondary trading available under California Corporations Code Section 25104(h) will be withheld, but there may be other exemptions available to cover private sales.

## PROSPECTUS SUMMARY

*This is only a summary and does not contain all the information that may be important to you. You should read the more detailed information contained in this prospectus, including the risk factors beginning on page 5. References to "we," "us," "our," "Ascent" or the "company" mean Ascent Solar Technologies, Inc.*

### Our Company

Ascent was formed in October 2005 to commercialize certain photovoltaic ("PV") technology developed by ITN Energy Systems, Inc. ("ITN") for space and near-space applications. By leveraging this technology inherited from ITN, we intend to be the first company to manufacture PV modules in commercial quantities that use a highly efficient thin-film Copper-Indium-Gallium-diSelenide ("CIGS") absorbing layer on a flexible high-temperature plastic substrate. We have produced and tested small-scale demonstration samples of our CIGS PV products at the laboratory level, but we have not yet produced any products in commercial quantities nor have we yet received any revenues from the proposed products that we intend to commercialize as our principal business activity. We intend to use the majority of the net proceeds of this offering to establish a production line that will enable us to transition into full-scale, commercial manufacturing of our CIGS PV products.

When used on space satellites and near-space aircraft, PV devices convert sunlight into the electricity needed to reliably power instruments, communications systems and the like. Currently, most PV devices used for space and near-space applications are rigid, bulky and relatively heavy, posing significant challenges to scientists and designers wishing to minimize volume and weight in order to maximize payload and reduce deployment costs. In addition to these shortcomings, PV devices traditionally used for such applications are expensive to manufacture and require the time-consuming and labor-intensive task of connecting individual solar cells together to create a complete PV module.

We hope to overcome many of these limitations by offering a flexible, lightweight PV product suitable for space and near-space applications. By employing a proprietary monolithic integration fabrication process, we intend to manufacture our PV devices on the module level, rather than the cell level, thereby avoiding the time-consuming and weight-additive cell-to-cell interconnect procedures utilized by other PV device manufacturers. We believe that our choice of substrate materials and proprietary monolithic integration fabrication processes should permit us to achieve cost, volume and weight performance advantages over competitors in our target markets. As a result, we believe that we will be well-positioned to capture opportunities in markets that require or desire highly efficient, lightweight and flexible PV power sources, including the markets for military and commercial spacecraft and satellites and the emerging high-altitude airship ("HAA") initiatives under the supervision of the U.S. Department of Defense.

Although we anticipate making slight variations to address specific market or customer requirements, such as optimized space coatings and protection diode methods, the basic design and architecture of our CIGS PV cells and modules are complete. We are continuing to develop and optimize our monolithic integration fabrication process and plan to complete such developments by October 2006, after which we intend to demonstrate larger area, fully integrated prototype modules for pre-manufacturing testing.

We intend to use the majority of the net proceeds from this offering to establish a 500 kilowatt ("kW") per shift annual capacity production line. Using this production line, we hope to begin fabrication of rolls and sheets of thin-film PV modules by early 2008. We intend to distribute the rolls or sheets of PV modules to system integrators and manufacturers of spacecraft, satellites and HAAs, who may then integrate the materials into their unique systems and applications. By running more than one shift daily, we anticipate having annual capacity to manufacture PV modules capable of generating over 1 megawatt ("MW"), or 1,000 kW, of power.

ITN, a private company incorporated in 1994, is an incubator dedicated to the development of cutting-edge thin-film, PV, battery and fuel cell technologies. In the last decade, ITN has performed approximately 35 contracts for private and government entities in advanced PV technologies. Government sponsors of these contracts include the U.S. Air Force Research Laboratory, the National Science Foundation, the National Renewable Energy Laboratory, the Defense Advanced Research Projects Agency, the Missile Defense Agency and NASA. Through its work on these contracts, ITN has developed useful and proprietary processing and manufacturing know-how applicable to PV products generally and to CIGS PV products in particular, including the creation and adoption of key processing technologies and the development of a monolithic integration fabrication process. ITN formed Ascent to commercialize this investment in CIGS PV technologies for the space and near-space markets. In January 2006, ITN assigned to us its key CIGS PV technologies and trade secrets and granted to us an exclusive, worldwide license to use certain of ITN's proprietary process, control and design technologies in the production of CIGS PV solar modules for our target markets. ITN also agreed to seek permission to assign certain third-party research and development contracts to us, and we expect that a number of ITN employees with experience in CIGS PV technology will join Ascent in the future. ITN also has agreed to design and build our initial production line, which will utilize ITN's proprietary roll-to-roll processing tools, real-time intelligent processing controls and thin-film processing technologies, and to provide us with administrative services such as facilities management, equipment maintenance, human resources, procurement, information technology services and accounting.

Our principal business office is located at 8120 Shaffer Parkway, Littleton, Colorado, and our telephone number is (303) 420-1141. Our website address is [www.ascentsolarartech.com](http://www.ascentsolarartech.com). Information contained in our website or any other website does not constitute part of this prospectus.



### This Offering

|                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |       |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|
| Securities offered                                               | 3,000,000 units. Each unit consists of one share of common stock, one redeemable Class A warrant and two non-redeemable Class B warrants, each warrant to purchase one share of common stock. The common stock and warrants will trade only as a unit for 30 days following the effective date of this offering, after which the common stock and public warrants each will trade separately.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |       |
| Class A warrants                                                 | <p>The Class A warrants included in the units will be exercisable commencing 30 days after the effective date of this offering. The exercise price of each Class A warrant will be 120% of the public offering price of the units. The Class A warrants expire on the fifth anniversary of the effective date of this offering.</p> <p>We will have the right to redeem the Class A warrants issued in this offering at a redemption price of \$0.25 per warrant at any time after (i) 180 days from the effective date of this offering and (ii) the date on which the closing price of our common stock, as reported on the Nasdaq Capital Market, has equaled or exceeded 170% of the public offering price of the units for five consecutive trading days. We are required to provide 30 days' prior written notice to the Class A warrant holders of our intention to redeem the warrants.</p> |       |
| Class B warrants                                                 | <p>The Class B warrants included in the units will be exercisable commencing 30 days after the effective date of this offering. The exercise price of a Class B warrant will be 200% of the public offering price of the units. The Class B warrants expire on the fifth anniversary of the effective date of this offering.</p> <p>The Class B warrants are not redeemable.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |
| Common stock outstanding after this offering                     | 5,290,909 shares, including shares underlying units issued to certain bridge lenders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |
| Use of proceeds                                                  | Build production line, repayment of bridge loans, sales and marketing, research and development and working capital.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |
| Proposed Nasdaq Capital Market and Boston Stock Exchange symbols | Units:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ASTIU |
|                                                                  | Common stock:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ASTI  |
|                                                                  | Class A warrants:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ASTIW |
|                                                                  | Class B warrants:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ASTIZ |
| Risk factors                                                     | Investing in the units involves a high degree of risk. You should be able to bear a complete loss of your investment. You should carefully consider the information set forth in the "Risk Factors" section.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |       |

## Edgar Filing: Ascent Solar Technologies, Inc. - Form SB-2/A

We have 2,000,000 shares of common stock issued and outstanding as of March 1, 2006. Unless the context indicates otherwise, all share and per-share common stock information in this prospectus:

assumes a public offering price of \$5.50 per unit;

assumes the issuance of up to 290,909 units to certain bridge lenders;

assumes no exercise of the warrants underlying the units issued to certain bridge lenders;

assumes no exercise of the Class A and Class B warrants;

assumes no exercise of the underwriters' over-allotment option to purchase up to 450,000 units;

assumes no exercise of the representative's warrants; and

excludes 750,000 shares reserved under our 2005 Stock Option Plan.

## RISK FACTORS

*An investment in our securities involves a high degree of risk and many uncertainties. You should carefully consider the specific factors listed below, together with the cautionary statement that follows this section and the other information included in this prospectus, before purchasing our units. If one or more of the possibilities described as risks below actually occurs, our operating results and financial condition would likely suffer and the trading price of our securities could fall, causing you to lose some or all of your investment in the securities we are offering. The following is a description of what we consider to be our key challenges and all material risks to our business and securities.*

### **Risks Relating to Our Business**

*We have no history of operations and are therefore subject to various startup company risks.*

We were formed in October 2005 and our business to date has consisted of initial setting up of operations to pursue our business plan. In order to pursue our plan, we will have to continue to establish internal infrastructure, hire additional personnel, adopt company plans and procedures, set up a sales organization, oversee the design and construction of our initial production line and otherwise establish the functional capabilities of an operating company. Accomplishing this task may take longer or cost more than expected, and it is likely that problems that we cannot now anticipate will require solution. We cannot assure you that we will be successful in establishing ourselves as an operating company.

*We intend to address an unproven market that may not justify our commitment to it.*

We intend to develop and offer flexible, lightweight, high efficiency PV products for use in space and near-space applications. Because existing PV technology has suffered from weight, volume and cost constraints that have limited its use in these applications, there is no established market for our flexible thin-film CIGS technology. Our business plan assumes that such a market will develop as a result of the technological improvements that we have made and expect to continue to make. We cannot assure you that such a market will develop or, if it does develop, that it will meet our expectations.

*Many of the applications for which we intend to compete will require further technological development, which we cannot guarantee.*

Discussions with some potential purchasers of our PV products have been based on the assumption that we will continue to improve the cost, performance/weight and performance/volume characteristics of our products. While we believe that the assumptions on which these discussions have been based are reasonable, we cannot assure you that we will be able to achieve these improvements. If we are not able to achieve these improvements, the use of our PV products may be unfeasible or economically unattractive to our potential customers, in which case the sales assumptions underlying our business plan would be incorrect.

*If we are not selected to participate in Lockheed Martin's HAA prototype project, we would be forced to either generate revenue or seek funds from other sources to support our operations.*

In October 2005, we submitted a written proposal to supply CIGS on high-temperature plastic substrate PV modules to Lockheed Martin Corporation ("Lockheed Martin") for use in a prototype HAA program sponsored by the Missile Defense Agency. The prototype project is divided into three development phases and a production phase. Participation in each of the second and third development phases generally is dependent upon performance in the previous phase. Based upon the projected power capacity needs published by Lockheed Martin, we believe that the project represents a revenue opportunity for us of up to \$4 million for the development phases and up to \$50 million for the entire project. However, our products may not meet Lockheed Martin's technical specifications in each phase

of the project, and we may not be able to produce an adequate amount of satisfactory product within the time frames contemplated by Lockheed Martin. If Lockheed Martin does not select us as a supplier for the prototype project or if it eliminates us as a supplier for later phases of the project, we would be forced to seek alternate customers or other sources of funding to support our operations after the net proceeds from this offering are consumed. Without revenues from such customers or funding, we might be forced to curtail or even cease operations.

***Failure of the HAA market to develop as quickly as we envision would adversely affect our projected sales, growth and revenues.***

The HAA market is in its infancy, and should the market opportunity not materialize, opportunities for growth may be limited. In particular, there is not yet long-term government funding for HAA projects. Because HAA projects will be subject to the size and priorities of government budgets, the funding for HAA projects always will be at risk. For example, there is a risk that Lockheed Martin's prototype project could be curtailed, delayed or cancelled as a result of budgetary constraints, political considerations, emergence of competing technologies or other events. As a small, start-up company, we have little opportunity to exert significant influence on the technical, economic and policy issues that will determine the nature, scope and timing of the Lockheed Martin project or the HAA market as a whole. If our expectations with respect to the project or the HAA market are not justified, our business would be adversely impacted, we would be forced to rely more heavily on sales in other markets, our growth would be slower than planned and we may be forced to curtail or even cease operations.

***We have no contracts for PV products and have recorded no sales of such products; we expect that significant PV product sales will not occur for some time.***

We have recorded no sales of PV products and have no contracts for such sales. Because of the nature of the projects in which such products may be used, we expect that the sales cycle will be quite long; therefore, we believe that it will be at least 18 months before we record any PV product sales, although we expect to record revenue from the performance of research and development contracts in the interim. As a result, we expect that it will be some time before we can determine whether our expectations relating to our products and their target markets are justified. Also, as a result, we will be required to invest substantial resources in pursuing these markets in advance of any significant revenue stream that may result from such investments. An unanticipated or longer than expected delay revenue ramp-up could put a strain on our capital resources and require us to seek additional capital.

***We intend to sell our PV modules to contractors of government-funded projects, which will be subject to political, scheduling and funding risks.***

We intend initially to sell our PV modules to system integrators and manufacturers of spacecraft, satellites and HAAs participating in government-funded projects. We would be a subcontractor or supplier on these projects. The government agencies overseeing the projects are subject to economic and political pressures that dictate the manner in which they spend money. As a result, even if a contractor or government agency wants to purchase our PV modules, it may be unable to do so due to budgetary or political constraints. Orders may be canceled or substantially delayed due to budgetary, political or other scheduling delays that frequently occur in connection with government-funded projects. Any such cancellations or delays would likely adversely affect our business.

***Because the nature of our operations will be different than that of ITN, the financial statements of the transferred assets of ITN that are included in this prospectus are not representative of our business or prospects.***

ITN has been and is a research and development company that performs development contracts for private and government entities. ITN derives no significant revenue from commercial manufacturing and sales. In contrast, Ascent was formed to commercialize CIGS PV technologies for the space and near-space markets. Over time, we expect that our revenues will result primarily from commercial sales of our product. Consequently, the historical financial statements of Ascent and for the Transferred Assets that are part of this prospectus are not indicative of our prospects as a manufacturing company and do not represent our historical operations.

***A failure by ITN to transfer PV research and development contracts to us could impair our revenues and hamper our research and development efforts.***

Development contracts with third parties provide a source of revenue and enable us to develop new technologies more rapidly than we would be able to do otherwise. In a typical year, ITN historically has realized annual revenues between \$1 million and \$3 million from PV research and development programs. These contracts with third-parties include Small Business Innovation Research ("SBIR") contracts sponsored by government agencies, non-SBIR government contracts and agreements with non-governmental entities. Although we currently have no such programs, ITN has agreed to seek permission to assign certain third-party research and development contracts to us with a full-year value in 2006 of approximately \$2.5 million and a value in 2007 of approximately \$500,000. However, a majority of these full-year figures are attributable to SBIR contracts for which we may not be eligible. Furthermore, there is a possibility that the parties to ITN's non-SBIR contracts will deny ITN permission to transfer some of the contracts to us. Either scenario would prevent us from collecting revenue under at least some of these contracts and might hamper our ability to develop technologies as quickly as planned or at all.

***Because we may be ineligible to apply for or service SBIR contracts, we may be forced to seek alternate sources to fund our research and development efforts.***

Many PV companies, including some of our competitors, rely on SBIR contracts to develop new technologies. In fact, the majority of funding associated with ITN's third-party research and development projects results from SBIR contracts. After we become a publicly traded company, we may be ineligible to apply for or service SBIR contracts, in which case we would need to find alternate sources to help fund our research and development efforts.

***Contracts involving government agencies are subject to the government's authority to unilaterally cancel or modify the contracts.***

Contracts involving government agencies may be terminated or modified at the convenience of the agency. Other risks include potential disclosure of our confidential information to third parties and the exercise of "march-in" rights by the government. March-in rights refer to the right of a United States government agency to require us to grant a license to the technology to a responsible applicant or, if we refuse, the government may grant the license itself. The government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the technology or because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give the United States industry preference. ITN's and our government-sponsored research contracts are subject to audit and require that ITN or we provide regular written technical updates as well as a final report on the results of our technical research. Because these reports are generally available to the public, third parties may obtain some aspects of our sensitive confidential information. Moreover, the failure to provide these reports or to provide inaccurate or

incomplete reports may provide the government with rights to any intellectual property arising from the related research. Funding from government contracts also may limit when and how we can deploy technology developed under those contracts.

***We initially will be substantially dependent on the administrative and engineering resources of our parent company ITN Energy Systems, Inc.***

ITN will be responsible for designing and building our production line, which we anticipate will require a majority of the net proceeds from this offering. We also will be dependent on ITN, at least initially, to provide administrative services such as facilities management, equipment maintenance, human resources and accounting. Furthermore, ITN has agreed to seek permission from third parties to transfer certain research and development contracts to us. There is a possibility that a party to one or more of these contracts will reject ITN's request, in which case ITN intends to continue to service the contracts for which permission to transfer is denied and, to the extent possible, assign to us the ownership of any inventions developed under those contracts. Although we are entitled to assume ownership of any inventions developed under these government contracts, the inventions themselves largely are predicated on ITN's ability to carry out those contracts successfully. If our relationship with ITN falters or if ITN fails to carry out its services or contracts in a satisfactory manner, our business may suffer.

***Conflicts of interest may arise from our close relationship with ITN.***

For the foreseeable future, we will be substantially dependent on the administrative and engineering resources of our parent company ITN. Two members of our Board of Directors, Dr. Mohan Misra and Mr. Ashutosh Misra, also serve as directors or officers of ITN. Although we do not expect a conflict of interest due to the dual roles of these individuals, it nevertheless is conceivable that conflicts may arise with respect to, for example, the pricing of services provided by ITN to us, the sharing of resources and the allocation of each individual's time. Furthermore, because Dr. Misra and Mr. Misra may be asked to secure government contracts not only for us, but also for other companies in which they serve as directors or officers, actual or perceived conflicts of interest may arise.

***Failure to build or operate our production line successfully would adversely impact our business and financial condition.***

We plan to produce our thin-film PV modules using a custom-built 500 kW per shift annual capacity production line beginning in early 2008. Design, building and testing of this production line, which has not yet been built, will require a substantial investment of capital, currently estimated by us to be approximately \$8.2 million, which we intend to fund with the net proceeds from this offering. We believe that, if our PV modules are manufactured in large quantities, we will be able to demonstrate manufacturing yields, equipment capability, product performance and product quality that will enable us to produce PV modules for the space and near-space markets at costs lower than those of competitors. However, the successful completion and operation of the production line will require substantial engineering resources and will be subject to significant risks, including risks of cost overruns and delays and the possibility that the production line may never be completed or operational. We may never be able to operate our production processes in high volume, make planned process and equipment improvements, attain projected manufacturing yields or desired annual capacity, obtain timely delivery of equipment to build the production line or hire and train the additional employees and management needed to operate the production line. We also may face insurmountable challenges or incur unforeseen expense as when we try to achieve performance results from our products produced on a large-scale roll-to-roll production line compared to the results we have achieved in small-scale laboratory samples. Failure to meet our manufacturing objectives could materially and adversely affect our business, results of operations and financial condition.

***If we fail to clear certain technical hurdles, we may not be able to begin commercial production of our CIGS PV modules in 2008 as planned.***

Several technical matters must be resolved in order for us to begin commercial production of CIGS PV modules in 2008 as planned. In particular, the Dow Corning Corporation, which we hope will supply us with high-temperature plastic substrate material, must develop capacity to produce the substrate material in commercial quantities. We also must complete final testing and integration of our monolithic integration technology by early 2007 and tailor the intelligent process controls developed by ITN for use in our production line. Finally, additional development may be required as we scale up from small laboratory-level batches to large area continuous roll-to-roll production using much larger manufacturing equipment. Our inability to quickly overcome these technical hurdles could delay the timeline for the commercial production of our products and adversely affect our anticipated revenues and plan of operations.

***Our products may not gain market acceptance, in which case we would be unable to sell our products or achieve profitability.***

The development of demand for our proposed products and our ability to sell them may be adversely affected by a number of factors, many of which are beyond our control, including:

our failure to produce PV modules that compete favorably against competing products on the basis of cost, quality, weight, efficiency and performance;

our failure to develop or maintain successful relationships with aerospace industry leaders, systems integrators and strategic partners; and

the failure of our products to achieve qualification or certification by customers for use in space or near-space applications.

If our products fail to gain market acceptance, we would be unable to sell our products or achieve profitability.

***Our future success depends on retaining our existing management 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 Matthew Foster, our President and Chief Executive Officer, and Dr. Joseph Armstrong, our Chief Technology Officer. Our success also will depend, in part, on our ability to attract and retain highly skilled employees, including management, technical and sales personnel. The loss of services 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.

***Upon becoming a reporting company, we will be required to disclose detailed aspects of our business on a regular and ongoing basis that our competitors might use against us.***

The United States Securities and Exchange Commission requires that all public companies disclose certain detailed financial information including the discussion of known trends, demands, events and uncertainties with specific disclosure about liquidity, capital resources, and critical accounting estimates. In the course of conducting our business, it may on occasion be necessary to publicly disclose certain financial, market, production, technology, product, or other material information that we would otherwise consider proprietary and competitively sensitive. As a result, our competitors may use this information in ways that would adversely affect our earnings, growth and revenues and hamper our ability to adequately protect our intellectual property and carry out our strategic plans.

***We may be unable to adequately protect or enforce our proprietary information, which may result in its unauthorized use or reduced sales or otherwise reduce our ability to compete.***

Our business and competitive position depend upon our ability to protect our proprietary technology. Despite our efforts to protect this information, unauthorized persons may attempt to obtain and use information that we regard as proprietary. Any patents issued in connection with our efforts to develop new technology for solar power products may not be broad enough to protect all of the potential uses of the technology.

When others are responsible for the control, prosecution, maintenance and enforcement of certain important intellectual property, such as technology licensed to us, the protection of the intellectual property rights may be outside of our control. If the entity that controls the intellectual property rights does not adequately protect those rights, our rights may be impaired, which may impact our ability to develop, market and commercialize our products.

Our means of protecting our proprietary rights may not be adequate, and our competitors may:

independently develop substantially equivalent proprietary information, products and techniques;

otherwise gain access to our proprietary information; or

design around our patents or other intellectual property.

Our employees, consultants and advisors execute proprietary information and invention agreements when they begin working for us. However, these agreements may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure. Failure to maintain trade secret and patent protection may adversely affect our business.

***Successful infringement claims by third parties could result in substantial damages, lost product sales and the loss of important proprietary rights.***

There has been substantial litigation regarding patent and other intellectual property in various high technology industries. In the future, we may be notified of allegations that we may be infringing on intellectual property rights possessed by others. Should litigation be brought against us, such litigation could be extremely expensive and time consuming and could materially adversely affect our business, financial condition and results of operations, regardless of the outcome of the litigation. Such litigation could also result in loss of certain proprietary rights, significant monetary liability and barriers to product manufacturing. Any of these outcomes could materially harm our business and have a material negative impact on the value of your investment.

#### **Risks Related to Investment in Our Securities**

***As a public company, we will be subject to complex legal and accounting requirements that will require us to incur substantial expense and will expose us to risk of non-compliance.***

As a public company, we will be 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. Our inexperience with these requirements may increase the cost of compliance and may also increase the risk that we will fail to comply. 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 that we will be able to comply with all of these requirements or that the cost of such compliance will not prove to be a substantial competitive disadvantage vis-à-vis our privately held and larger public competitors.



***There currently is no public trading market for our securities, and an active market may not develop or, if developed, be sustained. If a public trading market does not develop, you may not be able to sell any of your securities.***

There currently is no public trading market for our common stock, and we cannot assure you that an active market will develop or be sustained. If an active public trading market for our stock does not develop or is not sustained, it may be difficult or impossible for you to resell your securities at any price. Even if a public market does develop, the market price could decline below the amount you paid for your securities.

***The Class A warrants may be redeemed on short notice, which may adversely affect their price.***

We may redeem the Class A warrants for \$0.25 per warrant on 30 days' notice at any time after (i) 180 days from the effective date of this offering and (ii) the date on which the last reported sale price per share of our common stock as reported by the principal exchange or trading facility on which our common stock trades equals or exceeds 170% of the unit price of the securities offered in this offering, for five consecutive trading days. If we give notice of redemption, holders of our Class A warrants will be forced to sell or exercise the Class A warrants they hold or accept the redemption price. The notice of redemption could come at a time when it is not advisable or possible for holders of our Class A warrants to sell or exercise them because, for example, a current prospectus is not available to permit exercise of the warrants.

***While the Class A and Class B warrants are outstanding, it may be more difficult to raise additional equity capital.***

While the Class A and Class B warrants are outstanding, the holders of those warrants are given the opportunity to profit from a rise in the market price of our common stock, and we may not redeem the Class A warrants except under certain conditions or the Class B warrants at all. We may find it more difficult to raise additional equity capital while these warrants are outstanding. At any time during which these warrants are likely to be exercised, we may be able to obtain additional equity capital on more favorable terms from other sources. Accordingly, any exercise of the warrants likely would be dilutive to existing stockholders.

***If we seek additional capital in the future, your investment could be diluted.***

If we are forced to seek additional capital in pursuit of our business objectives, such additional capital, if available, could substantially dilute our then-existing investors.

***Future sales or the potential for future sales of our securities may cause the trading price of our common stock and Class A and Class B warrants to decline and could impair our ability to raise capital through subsequent equity offerings.***

Sales of a substantial number of shares of our common stock or other securities in the public markets, or the perception that 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. Immediately after this offering, 5,290,909 shares of our common stock will be issued and outstanding, 5,740,909 shares if the underwriters' over-allotment option is exercised in full. The 3,000,000 units (and constituent shares and warrants) sold in this offering (or 3,450,000 units if the underwriters' over-allotment option is exercised in full) will be freely tradable without restriction or further registration under the federal securities laws unless purchased by our affiliates. All of the shares outstanding immediately prior to this offering will be subject to one or more contractual lock-up agreements. However, we cannot assure you that these agreements will be adequately enforced.

*If we do not maintain an effective registration statement or comply with applicable state securities laws, you may not be able to exercise the Class A or Class B warrants.*

For you to be able to exercise the Class A or Class B warrants, the shares of our common stock to be issued to you upon exercise of the Class A or Class B warrants must be covered by an effective and current registration statement and qualify or be exempt under the securities laws of the state or other jurisdiction in which you live. We cannot assure you that we will continue to maintain a current registration statement relating to the shares of our common stock underlying the Class A or Class B warrants or that an exemption from registration or qualification will be available throughout their term. This may have an adverse effect on demand for the Class A or Class B warrants and the prices that can be obtained from reselling them.

### **FORWARD-LOOKING STATEMENTS**

We make forward-looking statements in this prospectus that are subject to risks and uncertainties. These forward-looking statements include information about possible or assumed future results of our business, financial condition, liquidity, results of operations, plans and objectives. In some cases, you may identify forward-looking statements by words such as "may," "should," "plan," "intend," "potential," "continue," "believe," "expect," "predict," "anticipate" and "estimate," the negative of these words or other comparable words. These statements are only predictions. You should not place undue reliance on these forward-looking statements. The forward-looking statements are qualified by their terms and/or important factors, many of which are outside our control, involve a number of risks, uncertainties and other factors that could cause actual results and events to differ materially from the statements made. The forward-looking statements are based on our beliefs, assumptions and expectations of our future performance, taking into account information currently available to us. These beliefs, assumptions and expectations can change as a result of many possible events or factors, including those events and factors described in "Risk Factors," not all of which are known to us. Neither we nor any other person assumes responsibility for the accuracy or completeness of these statements. We will update this prospectus only to the extent required under applicable securities laws. If a change occurs, our business, financial condition, liquidity and results of operations may vary materially from those expressed in our forward-looking statements.

**USE OF PROCEEDS**

We estimate that, at a per unit price of \$5.50, the net proceeds from the sale of the 3,000,000 units that we are selling in this offering will be approximately \$13,985,000, after deducting the estimated underwriting discount of \$1,320,000 and estimated offering expenses of approximately \$1,195,000.

We intend to use the net proceeds of this offering as follows:

|                                                                                           | <b>Amount</b>        | <b>Percentage</b> |
|-------------------------------------------------------------------------------------------|----------------------|-------------------|
| Design, building and testing of production line and other non-recurring engineering costs | \$ 8,200,000         | 58.6%             |
| Repayment of bridge loans                                                                 | 1,645,000            | 11.8              |
| Business development and product qualifications                                           | 1,000,000            | 7.2               |
| Research and technology development                                                       | 1,800,000            | 12.9              |
| General corporate purposes                                                                | 1,340,000            | 9.5               |
| <b>Total:</b>                                                                             | <b>\$ 13,985,000</b> | <b>100.0%</b>     |

The bridge loans being repaid consist of principal and interest owed to a group of lenders who provided us with short-term working capital in January 2006. The loans, in a principal amount of \$1,600,000, accrue interest at an annual rate of 10% and are due and payable on the earlier of January 2007 or the completion of a public offering of equity securities with gross proceeds of at least \$5,000,000.

Design, building and testing of production line includes purchase and installation of capital equipment, facility modifications, laboratory equipment, test equipment, quality control equipment, and the labor associated with the engineering, installation, commissioning, and product certification and test.

Business development and product qualifications includes marketing activities, preparation of customer bids and proposals, product prototypes, product qualification and testing, and salaries and wages of associated staff.

Research and technology development includes, internal research and development projects, bid and proposal for research and development contracts, performance of those contracts, and salaries and wages of associated scientists, engineering, and technician staff.

General corporate purposes consist of general and administrative costs, including salaries, accounting and legal fees, rent and other facilities expenses, and other working capital expenses.

The foregoing information is an estimate based on our current business plan. Other than repayment of the bridge loans, we may find it necessary to shift funds reserved for one category of uses to another. For example, if our non-recurring engineering and other costs exceed current estimates (due to sharp increases in costs of materials or equipment), we may be forced to draw from funds budgeted for research and technology development or business development. In such cases, we may find it necessary or advisable to re-allocate portions of the net proceeds we receive from this offering, and we will have broad discretion in doing so. Pending these uses, we intend to invest the net proceeds of the offering in short-term, interest-bearing securities.

Some of the net proceeds will be used to pay ITN for equipment and services as detailed in our Service Center Agreement, Manufacturing Line Agreement, Sublease Agreement and Administrative Services Agreement with ITN. Notably, in connection with our contract with ITN to design and build our 500 kW/shift/year production line, we have budgeted approximately \$6,700,000 in payments to ITN through 2007 for equipment, engineering, labor, plant commissioning, production readiness and qualification. We also sublease approximately 9,500 square feet of office and manufacturing space from

ITN and currently pay \$11,997 per month (or a total of approximately \$300,000 through 2007) in rent, plus pass-through expenses such as taxes, insurance, water and utilities, which we estimate will total approximately \$250,000 for the subleased space through the end of 2007. ITN also has agreed to perform administrative services for us at cost, including services such as facilities maintenance, payroll, human resources, accounting and information technology services. Although actual costs may vary from month to month, we estimate that the average monthly cost of such services will be approximately \$20,000. Payments to ITN under our Sublease Agreement and Administrative Service Center Agreement will draw from proceeds allocated to "general corporate purposes." A portion of proceeds allocated to "business development and product qualification" and "research and technology development" also may be paid to ITN under our Service Center Agreement, which gives us the right to use, on an as needed and as available basis, certain of ITN's laboratories, equipment and research and development tools. If and when we use the laboratories, equipment and tools, we will pay ITN in accordance with the standard rates that ITN charges its other customers.

#### **DIVIDEND POLICY**

We have not declared or paid any dividends and do not intend to pay any dividends in the foreseeable future. We intend to retain any future earnings for use in the operation and expansion of our business. Any future decision to pay dividends on common stock will be at the discretion of our Board of Directors and will depend upon our financial condition, results of operations, capital requirements and other factors our board of directors may deem relevant.

**CAPITALIZATION**

The following table sets forth our:

Actual capitalization as of December 31, 2005; and

Pro forma capitalization as of December 31, 2005 after giving effect to: (i) issuance of 1,028,000 shares of common stock to ITN for the transfer of Transferred Assets at historical cost; (ii) the sale of 3,000,000 units in this initial public offering at a price of \$5.50 per unit, less the underwriting discount and offering expenses; (iii) the issuance of 290,909 units to certain bridge lenders; and (iv) the payment of \$200,000 note payable to underwriter.

|                                                                                                                                      | December 31, 2005 |                       |
|--------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|
|                                                                                                                                      | Actual            | Pro Forma as Adjusted |
| <b>DEBT</b>                                                                                                                          |                   |                       |
| Note payable                                                                                                                         | \$ 200            | \$                    |
| <b>STOCKHOLDERS' EQUITY</b>                                                                                                          |                   |                       |
| Preferred stock, \$0.0001 par value: 25,000,000 shares actual authorized: no shares issued and outstanding                           | \$                | \$                    |
| Common stock, \$0.0001 par value: 75,000,000 shares actual authorized: 5,290,909 shares issued and outstanding pro forma as adjusted | 97                | 529                   |
| Additional paid-in capital                                                                                                           | 997,907           | 15,768,223            |
| Accumulated deficit                                                                                                                  | (1,207,234)       | (2,087,234)           |
| Total capitalization                                                                                                                 | \$ (209,230)      | \$ 13,681,518         |

You should read this table in conjunction with the sections of this prospectus captioned "Use of Proceeds" and "Management's Discussion and Analysis of Financial Condition and Results of Operations," as well as the financial statements and related notes included elsewhere in this prospectus.

**DILUTION**

For purposes of the dilution computation and the following tables, we have attributed the full purchase price of a unit to the share of common stock included in the unit and nothing to the warrants included in the unit. If you invest in our units, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of our capital stock after this offering. Our net tangible book deficiency as of December 31, 2005 was \$209,230 without giving effect to any changes in the net tangible book value after December 31, 2005 other than (i) issuance of 1,028,000 shares of common stock to ITN for the transfer of Transferred Assets at historical cost; (ii) the sale of 3,000,000 units in this initial public offering at a price of \$5.50 per unit, less the underwriting discount and offering expenses; and (iii) the issuance of 290,909 units to certain bridge lenders. Our pro forma net tangible book value as of December 31, 2005 was \$13,681,518, or \$2.59 per share of outstanding capital stock. Dilution in net tangible book value per share represents the difference between the amount per share paid by the purchasers of our units in this offering and the net tangible book value per share of our capital stock immediately afterwards. This represents an immediate increase of \$2.63 per share of capital stock to existing stockholders and an immediate dilution of \$2.91 per share of common stock to the new investors who purchase units in this offering. The following table illustrates this per share dilution:

|                                                                        |    |        |             |
|------------------------------------------------------------------------|----|--------|-------------|
| Initial price to public                                                |    | \$     | 5.50        |
| Net tangible book value (deficiency) as of December 31, 2005           |    | \$     | (0.04)      |
| Increase in net tangible book value per share attributable to:         |    |        |             |
| Issuance of 1,028,000 shares to ITN for transferred assets             | \$ | 0.02   |             |
| Bridge investor conversion                                             |    | (0.03) |             |
| New investors                                                          |    | 2.64   |             |
|                                                                        |    |        | <u>2.63</u> |
| Increase in net tangible book value per share to existing stockholders |    |        | 2.63        |
|                                                                        |    |        | <u>2.59</u> |
| As adjusted net tangible book value per share after this offering      |    |        | 2.59        |
|                                                                        |    |        | <u>2.91</u> |
| Dilution in net tangible book value per share to new investors         |    | \$     | 2.91        |

If the underwriters' over-allotment option is exercised in full, dilution per share to new investors would be \$2.72 per share of common stock.

The following table summarizes the differences between the existing stockholders and the new investors with respect to the number of shares of common stock purchased, the total consideration paid, and the average price per share paid:

|                                  | Shares Purchased |         | Total Consideration |         | Average Price Per Share |
|----------------------------------|------------------|---------|---------------------|---------|-------------------------|
|                                  | Number           | Percent | Amount              | Percent |                         |
| Founders stock                   | 972,000          | 18.4%   | \$ 38,880           | 0.2%    | \$ 0.04                 |
| ITN stock for transferred assets | 1,028,000        | 19.4%   | 65,748              | 0.4%    | 0.06                    |
| Bridge investors                 | 290,909          | 5.5%    |                     |         |                         |
| Subtotal                         | 2,290,909        | 43.3%   | 104,628             | 0.6%    | 0.05                    |
| New investors                    | 3,000,000        | 56.7%   | 16,500,000          | 99.4%   | 5.50                    |
| Total                            | 5,290,909        | 100.0%  | \$ 16,604,628       | 100.0%  | \$ 3.14                 |

**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 the financial statements and related notes to the financial statements included elsewhere in this prospectus. This discussion contains forward-looking statements that relate to future events or our future financial performance. 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. These risks and other factors include, among others, those listed under "Risk Factors" and those included elsewhere in this prospectus.*

**Introduction**

Ascent was formed to commercialize CIGS PV technology developed by ITN for the space and near-space markets. For over a decade, ITN had been engaged in the research and development of PV technologies and devices. Funded largely by contracts sponsored by government agencies such as the U.S. Air Force Research Laboratory, the National Science Foundation, the National Renewable Energy Laboratory, the Defense Advanced Research Projects Agency, the Missile Defense Agency and NASA, ITN developed roll-to-roll fabrication of a CIGS absorbing layer on a stainless steel metal substrate in the late 1990s. ITN then developed the technology necessary to put a CIGS absorbing layer on high-temperature plastic and produced and tested small area demonstration cells of CIGS on high-temperature plastic. This new technology has been transferred to us and will comprise the technical foundation for our initial product line and business in the near-term.

Unlike ITN, we intend primarily to be a commercial manufacturing company engaged in the production of CIGS PV on high-temperature plastic modules. Our near-term objective is to assemble a 500 kW/shift/year production line by the end of 2007 and begin commercial production of CIGS PV on high-temperature plastic modules by early 2008. We expect to remain substantially dependent upon the net proceeds from this offering until commencement of commercial production, after which we hope that revenues from sales will be sufficient to sustain all or a substantial portion of our ongoing operations.

Our most serious near-term challenges and uncertainties relate to product development and manufacturing, on the one hand, and to sales and marketing, on the other.

*Product Development and Manufacturing*

Meeting the 2008 production deadline with products that satisfy the technical specifications demanded by customers, including by Lockheed Martin in the early stages of its HAA prototype project, will require timely resolution of certain technical matters. These matters relate to the supply of our substrate material, further testing of our monolithic integration technology and our intelligent process controls.

We currently obtain the majority of our high-temperature plastic substrate material from Ube Industries, Ltd. (Japan) ("Ube"). We believe the supply of this material from Ube will be available to us in commercial quantities. However, we also have tested our CIGS absorbing layer on a relatively new high-temperature silicone resin (also a form of plastic) substrate material developed by the Dow Corning Corporation ("DCC"). The DCC substrate material can be processed at a higher temperature than the Ube substrate material, a feature that typically results in higher PV efficiencies. We therefore believe that the DCC substrate can be successfully used in our CIGS PV products in space and near-space applications, where efficiencies and weight are a critical measurement. To date, however, the DCC substrate is not commercially available, but DCC has informed us that it is improving on its ability to provide the material in larger quantities. However, if sufficient quantities are not available

when we begin production, we will be forced to rely on Ube and other suppliers to provide substrate materials that may result in lower efficiencies for our products. Although we do not expect serious technical difficulties in the use of materials from these alternate suppliers, the impact on efficiencies may affect evaluation and qualification of our product by our customers and force us to boost efficiencies through implementation of other technologies, some of which (such as tandem-junction devices) already are under development by us.

Meeting the projected deadlines also requires final testing and integration of our monolithic integration technology by early 2007. In 2000, ITN demonstrated monolithic integration process technology on plastic substrates in small areas. In 2005, ITN established a next-generation, laser patterning operation to further improve its monolithic integration technology. Now that we own the technology, we intend to tailor it for use in our planned production line. All laser patterning steps and printing steps have been separately demonstrated, and the first attempts at combining the steps to produce interconnects and modules are underway. We are conducting further tests of the monolithic integration process with Ube's substrate materials, while ITN is modifying the process for use with DCC's silicone resin substrate material, with the technical aspects of ITN's development to be assigned to us. We expect to be able to demonstrate monolithic integration processes for both substrate materials by the third quarter of 2006; if we are unable to do so before the latter half of 2007, we might opt to manufacture discrete cells instead of modules. We would then integrate the cells into modules using the traditional interconnect methods used throughout the PV industry today. The additional interconnect steps would add cost to our end products, leaving product weight and efficiencies as the primary advantages we believe that our products would have over those of competitors. The financial impact of these additional costs cannot be quantified at this time.

We also need to tailor the intelligent process controls developed by ITN for use in our production line. We believe that implementation of intelligent closed-loop controls that continuously monitor the manufacturing process will help to control and maximize product yields and efficiencies. In addition, the manufacturing process parameters that have demonstrated promising results in small batches at laboratory level may require additional development as we scale up to large area continuous roll-to-roll production methods in much larger manufacturing equipment.

These challenges must be addressed in order for us to execute out our business plan, which contemplates completion of our 500 kW/shift/year production line by the end of 2007. Although we believe that the project can be completed within the contemplated time frame, events such as unforeseen shortages in supplies or equipment or variations in materials costs could force us to modify our development calendar or reallocate funds, which may affect our anticipated cash flow in 2008. Significant delays could require us to seek additional capital in 2008 to sustain operations. Furthermore, because one of our challenges will be to meet the product performance and manufacturing metrics including yield, rate and efficiencies of customers such as Lockheed Martin within their own project calendars, a delay in our own development calendar or our inability to timely resolve one or more of the technical challenges above might jeopardize our ability to attract and retain customers and generate revenues.

#### *Sales and Marketing*

The market's acceptance of our products poses a significant challenge to our success. Although system developers in the space and near-space markets are in search of efficient, lightweight, flexible and less-expensive PV products, we will be attempting to introduce a new technology into a field dominated by large, established companies that may be reluctant to quickly adopt our newer technologies.

The Missile Defense Agency has awarded Lockheed Martin a contract to deliver the first prototype HAA. Lockheed Martin began development of the prototype in 2005 with plans to fly in



2010. This prototype project presents a timely opportunity for us to enter the near-space market. Lockheed Martin's timeline is consistent with our development calendar. In October 2005 and in response to a request for proposal, we, together with ITN and with the support of DCC, submitted a written proposal to supply our CIGS on high-temperature plastic substrate PV modules to Lockheed Martin for use on its program. The program is divided into three development phases and a final production phase. Participation in each of the second and third development phases generally will be dependent upon technical performance in the previous phase, and selection for production likely will be based on overall performance in the development phases. Based on Lockheed Martin's published specifications, each of the first two development phases requires 2 kW of sample PV materials, the third development phase requires 10 kW of sample PV materials, and the final order for the production phase in 2009 likely will require up to 1 MW of PV material. Based upon information provided by Lockheed Martin, we believe that more than one supplier may be selected for the first and second development phases. We expect that Lockheed will select its phase one supplier(s) in the late spring or early summer of 2006. The program itself is scheduled to begin in October 2006.

We believe that we will be a successful bidder in one or more phases of the program because of our continuing collaboration with Lockheed Martin, because our products are designed to meet the specific power and power density requirements of the prototype project, and because of other technical and strategic advantages that we believe we hold over our competitors in the near-space market. If we are not selected to participate in the initial phases of the prototype program, we will work with Lockheed Martin to pursue the subsequent phases in the program. To participate during phase two without having participated in phase one, we would need to outperform the contractor or contractors that Lockheed Martin selected in phase one, requiring us to fund the initial development phase with our own resources at an expense of roughly \$1 million which would largely come from our internal research and technology development budget.

We also plan to begin immediately qualifying our products for customers other than Lockheed Martin. We believe we can offer our products at competitive prices in the both the near space and space markets. Current prices for PV products sold in the space market plan are approximately \$1,000 per Watt. We plan to offer our space products initially at prices between \$200 and \$300 per Watt and may be able to reduce our prices to the \$100 per Watt level and still generate gross profit as our manufacturing operations improve. The volume of product required for HAAs is significantly greater than for spacecraft as evidenced by the 1 MW of product that Lockheed Martin requires for its initial HAA project. Volume of this magnitude may allow us to pass on economies of scale to customers. For the near space market, we are targeting initial prices of \$50 per Watt, and as the market continues to grow, we may be able to achieve levels of \$25 per Watt.

We expect the space satellite market to be more difficult to penetrate than the HAA near-space market. Although we believe that our products will offer cost and performance advantages over others available on the market, we will first be challenged to find customers willing to use our products on their platforms, each of which is likely to have different product requirements. Although we intend to manufacture and package our products in such a way that they can easily be integrated in a variety of diverse platforms, the space market we believe is more uncertain than the near-space market in terms of gaining customer confidence and acceptance. In addition to these challenges, we also need to adopt and undertake quality control processes, procedures and tests to qualify and validate our products for use in the harsh environmental conditions of space and near-space.

## Information Presented

Historical financial information in this prospectus consists of:

An audited historical balance sheet of Ascent as of December 31, 2005 and audited statements of operations, stockholder's equity and cash flows for the period from inception (October 18, 2005) through December 31, 2005.

An unaudited pro forma combined balance sheet of Ascent as of December 31, 2005 and unaudited pro forma statements of operations of Ascent for the years ended December 31, 2005 and December 31, 2004, reflecting the transfer of the Transferred Assets (described below under "Overview") from ITN in consideration of 1,028,000 shares of common stock as if such transaction had occurred, in the case of the balance sheet, on December 31, 2005 and, in the case of the statements of operations, on January 1, 2004.

Audited statements of selected assets and liabilities of ITN as of December 31, 2005 and December 31, 2004, and audited statements of revenues and expenses, changes in net assets and cash flows relating to the Transferred Assets, for the years ended December 31, 2005 and December 31, 2004.

The assets, liabilities and operations reflected in these financial statements reflect a portion of the assets and liabilities of ITN and the conduct of a portion of ITN's business, specifically the portion relating to PV technology, research and development. ITN is a relatively mature company engaged in the business of developing technology, in part through obtaining and performing governmental research and development contracts. Ascent proposes to continue to perform under the government contracts that have been transferred to it, but its principal business is expected to consist of commercial sales of PV devices for use in space and near-space applications.

Because of the substantially different nature of the businesses conducted by ITN and proposed to be conducted by us, we believe that the historical financial data presented in this prospectus are not predictive of our future financial condition or results of operations.

## Overview

ITN formed Ascent to commercialize CIGS PV technology for the space and near-space markets. In January 2006, in exchange for 1,028,000 shares of common stock of Ascent, ITN: (i) assigned its CIGS PV technologies and trade secrets ("Transferred Assets") to Ascent; (ii) licensed certain proprietary process, control and design technologies to Ascent; (iii) agreed to seek permission to assign certain contract rights relating to its CIGS PV business to Ascent; (iv) transferred certain key personnel to Ascent; (v) executed a contract to design and build Ascent's initial production line, which will utilize ITN's proprietary roll-to-roll processing tools, real-time intelligent processing controls and thin-film processing technologies; and (vi) executed a contract to provide administrative services such as facilities management, equipment maintenance, human resources and payroll at cost.

The statements of selected assets and liabilities, of revenues and expenses, of changes in net assets and of cash flows of the Transferred Assets have been presented in the accompanying financial statements. These selected assets and liabilities directly correspond to contracts related to ITN's PV business. Because of uncertainty surrounding the novation of SBIR to Ascent, the SBIR contracts were

not included in the Transferred Assets financial statements. The following table reflects total revenues from ITN's PV contracts, including revenues from SBIR contracts, for the financial periods reported:

|                                             | For the Years Ended<br>December 31, |              |
|---------------------------------------------|-------------------------------------|--------------|
|                                             | 2005                                | 2004         |
| Contract revenue from PV non-SBIR contracts | \$ 1,050,502                        | \$ 1,425,886 |
| Contract revenue from PV SBIR contracts     | \$ 2,056,347                        | \$ 1,893,769 |
| Total ITN PV contracts                      | \$ 3,106,849                        | \$ 3,319,655 |

During 2004, ITN partnered with government agencies such as the National Renewable Energy Laboratory ("NREL"), a division of the Department of Energy. The NREL contracts are cost-reimbursable contracts with no profit and also include a cost-sharing arrangement where ITN contributes its own internal funds for technology development. In 2004 and 2005, ITN received additional significant awards of SBIR contracts from the Air Force Research Laboratory along with a non-SBIR award from NASA. These research and development ("R&D") contracts do not have a cost-sharing arrangement and have profit margins of 6 to 7%. We intend to pursue government contracts in 2006 and beyond for continued R&D related to our PV devices. However, our business plan does not rely on the acquisition of any such new government contracts. We do not anticipate meaningful revenue until we are able to begin sales of PV products produced by our proposed manufacturing facility. We plan to offer standard pricing of our products to both commercial and government customers and will use portions of our earnings for continued R&D purposes.

Our historical statement of operations for the period ended December 31, 2005 reflects a loss of approximately \$1,207,000, of which \$959,000 relates to a non-cash recording of stock based compensation.

As a result of the investment required to develop our proposed manufacturing facility, we expect our indirect costs to increase substantially in 2006 and 2007 as we hire new personnel and invest in new equipment. We therefore expect that our net losses will increase substantially until 2008, when we anticipate they will be offset to a limited degree by revenue from the sale of PV devices.

We expect to be dependent on additional capital infusions, such as the net proceeds of this offering, to execute our business plan, and we may require additional capital if we wish to further expand capacity.

### Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements will require us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and the related disclosures. A summary of accounting policies that have been applied to the historical financial statements presented in the prospectus can be found in the footnotes thereto. We consider certain of these accounting policies to be critical as they are both important to the portrayal of our financial condition and results of operations and require judgments on the part of management about matters that are uncertain. We have identified the following accounting policies that are important to the presentation of the financial information in this Prospectus.

#### Revenue Recognition

Revenue from cost-type R&D 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 fixed price-type R&D 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. Revenue from time and materials contracts is recognized as costs are incurred at amounts represented by the agreed-upon billing amounts.

Certain of the US government R&D contracts require that the contracting party contribute to the R&D effort under a cost-sharing arrangement. The contracting party's share of costs is expensed as incurred.

#### **Stock based compensation**

In December 2004, the FASB issued SFAS No. 123(R), "Share-Based Payment," which is a revision of SFAS No. 123, Accounting for Stock-Based Compensation. SFAS No. 123(R) is effective for public companies for interim or annual periods beginning after June 15, 2005, supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees, and amends SFAS No. 95, Statement of Cash Flows.

SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro-forma disclosure is no longer an alternative. The Company adopted the new standard October 18, 2005.

#### **Results of Operations**

##### **Transferred Assets of ITN Energy Systems Inc.:**

##### **Comparison of years ended December 31, 2005 and 2004**

*Revenues.* Total revenues related to the Transferred Assets were \$1,050,502 for the year ended December 31, 2005, a decrease of \$375,384 or 26% from the corresponding period in 2004. All revenues for both periods were from government research and development contracts ("R&D contracts"). R&D contracts in 2004 were cost-reimbursable contracts with no profit. A few of the R&D contracts also had cost-sharing arrangements where ITN contributed their own internal funds for technology development. The decrease is due to several contracts completed during late 2004 and early 2005. A new contract awarded in April 2005 partially offset the decrease from the completed contracts in 2004.

*Direct contract costs.* Direct contract costs were \$529,218 for the year ended December 31, 2005, a decrease of \$154,212 or 23% from the corresponding period in 2004. This 23% decrease is in direct relationship to the 26% decrease in revenues and overall contract volume.

*Gross margin on revenues.* Gross margin on revenue was \$521,284 for the year ended December 31, 2005, or 50% of contract revenues. Gross margin for the year ended December 31, 2004 was \$742,456, or 52% of contract revenues. The slight increase in gross margin for the year ended December 31, 2005 was due to proportionately lower direct labor costs in the period compared with the prior year.

*Indirect costs.* Indirect costs were \$513,678 for the year ended December 31, 2005, a decrease of \$309,788 or 38% from the previous period. Indirect costs include: general and administrative expenses; overhead expenses; and subcontract, material and handling expenses. Indirect costs are allocated to all contracts based on an approved government allocation method. The decrease of indirect costs from 2004 to 2005 was due to the decrease in contract volume and the significant decrease in direct labor. A majority of indirect costs are allocated based on direct labor incurred on the contract.

*Net income (loss).* Net income of \$7,706 for the year ended December 31, 2005 represented an increase of \$88,616 or 110% from the year ended December 31, 2004. This increase in net income was due to a decrease in cost-share commitments on contracts from 2004 to 2005 of approximately \$120,000, profit from the new contract awarded in April 2005, and lower indirect expenses.

**Ascent Solar Technologies, Inc. for the period ended December 31, 2005**

Ascent's activity for the period from inception (October 18, 2005) to December 31, 2005 consisted mainly of general and administrative expenses. General and administrative expenses include:

|                                                          |    |           |
|----------------------------------------------------------|----|-----------|
| Salaries & fringe benefits                               | \$ | 29,000    |
| Organizational costs                                     |    | 106,000   |
| Operating costs                                          |    | 110,000   |
| Stock based compensation founders' stock & stock options |    | 959,000   |
|                                                          |    | <hr/>     |
| Total general & administrative expense                   | \$ | 1,204,000 |

Salaries and fringe benefits of \$29,000 relate to the Company's employees. Organizational costs of \$106,000 are comprised mostly of attorney costs related to the formation of the company. Operating costs of \$110,000 consist of facility costs, administrative support by ITN and other normal operating expenses. Stock based compensation is a non-cash transaction recording the issuance of the Company's stock and stock options at fair value.

Other income (expense) of \$2,740 consists of interest expense on the \$200,000 short-term note from Paulson Investment Company, Inc.

**Liquidity and Capital Resources**

We currently do not have manufacturing capabilities or other means to generate revenues or cash. The net proceeds from the offering will be utilized to build our operational infrastructure and to develop the manufacturing capacity necessary to produce PV products for sale into our target markets. We do not anticipate that we will develop such capability until the first quarter of 2008, but we believe that the net proceeds from this offering, less the \$1.6 million plus accrued interest to be repaid to bridge lenders, will be sufficient to sustain our operations until then. However, even after we begin production as scheduled in early 2008, it is unlikely that our initial sales revenue will be sufficient to immediately support all of our operations and cash requirements, which we estimate will be approximately \$750,000 per quarter in 2008. Consequently, unless we receive additional infusions of cash from, for example, the exercise of the Class A or Class B warrants being issued in this offering, we may have to raise additional capital from outside sources.

Our principal business will be to manufacture and sell CIGS PV modules into the space and near-space markets. To realize this objective, we intend to use the majority of the net proceeds from this offering to construct a 500 kW per shift annual capacity production line to fabricate rolls and sheets of thin-film PV modules. We have budgeted approximately \$8.2 million for the design, building, and testing of our production line, including related non-recurring engineering costs, according to the following development calendar. The capital outlays shown in this calendar represent payments to be made pursuant to our Manufacturing Line Agreement with ITN; however, only the first \$200,000 has

been agreed to by the parties, the balance of \$6.5 million is only an estimate we have made for purposes of planning.

| Development Stage                   | Completion Milestone     | Capital Outlay |
|-------------------------------------|--------------------------|----------------|
| Completion of engineering           | 2 <sup>nd</sup> QTR 2006 | \$ 200,000     |
| Facility and equipment build        |                          |                |
| Progress payment 1                  | 3 <sup>rd</sup> QTR 2006 | \$ 2,000,000   |
| Progress payment 2                  | 4 <sup>th</sup> QTR 2006 | \$ 2,000,000   |
| Progress payment 3                  | 1 <sup>st</sup> QTR 2007 | \$ 2,000,000   |
| Plant commissioning                 | 2 <sup>nd</sup> QTR 2007 | \$ 300,000     |
| Production readiness, qualification | 4 <sup>th</sup> QTR 2007 | \$ 200,000     |
| Commencement of production          | 1 <sup>st</sup> QTR 2008 |                |
| Total                               |                          | \$ 6,700,000   |

The remaining \$1.5 million of the \$8.2 million budgeted includes labor and management reserves. Until plant commissioning, labor initially will be limited to a project engineer and head of manufacturing, yielding an expected burn rate of approximately \$80,000 per quarter. After the plant is commissioned in 2007, we plan to hire additional engineers, process technicians and operators in anticipation of commencement of production during the first quarter of 2008, which we expect will yield a burn rate of approximately \$325,000 per quarter to support single shift production operations.

Although over-hiring or hiring personnel too soon can put untimely demands on cash, we believe that such a risk is within management's control and can be managed virtually on a daily basis. In contrast, the capital outlay of \$6.7 million for plant and equipment represents our single largest cash risk, both because of the amounts involved and the difficulty in "turning back" once the project is started. To manage this risk, we have divided the project into three phases: engineering, build and commissioning, and qualification, and have contracted with ITN to carry out the project. The engineering and qualification phases involve principally labor, so, in an effort to minimize our expenses, our Manufacturing Line Agreement with ITN contemplates a cost-only arrangement for engineering services. During the build and commissioning phase of the project, which we believe will consume approximately \$6.3 million, we may be exposed to risk of delays and cost-overruns, but we intend to manage these risks by adopting progress payments and a fixed-price contract with ITN.

We have budgeted \$1.3 million for general corporate purposes, which consists of general and administrative costs, accounting and legal fees, rent and other facility expenses, and other working capital expenses. We have entered into contracts with ITN to have ITN provide us with many administrative services such as facilities management, information technology, payroll and human resources, on a cost-only basis. We believe that this cost-effective arrangement enables us to avoid the overhead and risks associated with the hiring of our own personnel to perform these functions. We estimate that the total burn rate for our general corporate purposes will be approximately \$168,000 per quarter through 2007.

We have budgeted \$1.0 million of the net proceeds for business development and product qualifications, which include marketing activities, preparation of customer bids and proposals, product prototypes, product qualifications and associated labor expenses. We expect that these initiatives will require approximately \$125,000 per quarter, which will include portions of our senior management's labor insofar our Chief Executive Officer and Chief Technology Officer will be active in our business development efforts. However, our spending in this category of activities may be impacted by the emergence of unforeseen customer or project opportunities and changes in existing customer programs.

We consider our \$1.8 million research and technology development account to be discretionary as our immediate cash needs in this area are relatively low while we concentrate our efforts on building

our production line. Nevertheless, our longer-term objective is to assemble a research and technology development team to research new technologies and develop enhancements to our products.

As discussed elsewhere in this prospectus, ITN is a party to several R&D contracts and has agreed to seek permission to transfer some of these contracts to us. The full-year revenues associated with the R&D contracts are approximately \$2.5 million in 2006 and approximately \$500,000 in 2007; the year-on-year decrease is due to the fact that a majority of the existing R&D contracts end in the last quarter of 2006 and the first quarter of 2007. As of December 31, 2005, none of the remaining R&D contracts had cost-share arrangements whereby ITN was required to contribute its own funds to develop the technology. Of the \$3 million remaining revenues from R&D contracts at December 31, 2005, approximately \$800,000 are from non-SBIR contracts and \$2.2 million are from SBIR contracts. We anticipate that if and as each R&D contract is transferred, some of the scientists, engineers and technicians staffing the contract will be transferred to our payroll as well. However, each transferred R&D contract should bring funds sufficient to support the costs associated with our performance of that contract, including labor, facilities and other expenses. Because our projections for research and technology development spending do not assume that any R&D contracts will be transferred to us, transferred R&D contracts should allow us to build a research and technology development team without drawing large amounts from the \$1.8 million budgeted. We also intend to pursue development contracts in our own right, which also should permit us to hire or retain research and technology development staff at little or no net expense. Currently, we expect to spend approximately \$125,000 per quarter on research and technology development in 2006, but our needs in 2007 and beyond largely will depend on certain contingencies (such as our proposal to Lockheed Martin), the outcomes of which we cannot predict at this time.

## PROPOSED BUSINESS

### Overview

On space satellites and near-space aircraft, photovoltaic ("PV") devices convert sunlight into the electricity needed to reliably power instruments, communications systems and the like. Currently, most PV devices used for space and near-space applications are rigid, bulky and relatively heavy, posing significant challenges to scientists and designers wishing to minimize volume and weight in order to maximize payload and reduce deployment cost. In addition to these shortcomings, PV devices traditionally used for such applications are expensive to manufacture and typically require the time-consuming and labor-intensive task of connecting individual solar cells together to create a complete PV module.

We are working to overcome these limitations by creating a flexible, lightweight PV product suitable for space and near-space applications. We intend to be the first company to manufacture PV modules in commercial quantities that use a highly efficient thin-film Copper-Indium-Gallium-diSelenide ("CIGS") absorbing layer on a flexible high-temperature plastic substrate. By employing a proprietary monolithic integration fabrication process, we intend to manufacture our PV devices on the module level, rather than the cell level, allowing us to avoid time-consuming and weight-additive cell-to-cell interconnect procedures utilized by other PV device manufacturers. We believe that our choice of substrate materials and proprietary monolithic integration fabrication processes should permit us to achieve cost, volume and weight performance advantages over competitors in our target markets. As a result, we believe that we will be well-positioned to capture opportunities in markets requiring highly efficient, lightweight and flexible PV power sources, including the markets for military and commercial spacecraft and satellites and the emerging high-altitude airship ("HAA") initiatives under the supervision of the U.S. Department of Defense ("DoD").

### Photovoltaic Technology

Thin-film devices are manufactured by depositing a thin film of material onto a substrate or onto previously deposited layers. We intend to use thin-film techniques to manufacture PV modules for space and near-space applications.

Solar cells are the most elementary component of a PV device; they absorb light and convert it into electrical power. Solar cells consist of a light-absorbing layer mounted on a substrate, together with top and back electrical contact points, much like a household battery. There are three materials currently considered by the PV industry as candidates for thin-film production: amorphous silicon ("a-Si"), cadmium telluride and CIGS. We intend to use a CIGS absorbing layer in our products because of that technology's excellent performance attributes. An absorbing layer can be deposited on a substrate that is either rigid or flexible. A majority of companies currently use rigid glass substrates. The few companies that incorporate flexible substrates in their devices typically opt for stainless steel (or other metal) foil. We believe that the deposition of a CIGS absorbing layer on a high-temperature plastic substrate best meets the rigorous specifications and unusual demands of the space and near-space markets.

Once fabricated, individual solar cells must be interconnected to form PV modules. Historically, this interconnection has been done manually using welding, soldering or bonding techniques that add both complexity and cost to the manufacturing process. We intend to avoid manual interconnects by utilizing a proprietary form of "monolithic integration," whereby we intersperse laser patterning and printing steps during the thin-film deposition steps. We intend to create the interconnects at the same time we create the cells, and we fabricate our PV devices at the module level, while most of our competitors manufacture at the cell level. We believe that the use of monolithic integration in our fabrication process will offer us cost and device weight savings over our competitors. The PV devices we intend to sell commercially will be complete modules with protective thermal and environmental



coatings, mechanical and electrical interconnects, diode protection and the like. These modules can then easily be hooked together to create PV arrays in a variety of desired patterns, shapes or sizes.

In sum, as the beneficiary of ITN's substantial investment in research and development of CIGS PV technology, we intend to manufacture monolithically integrated CIGS on high-temperature plastic substrate modules for use in the space and near-space markets.

### **The Space and Near-Space Markets**

Our thin-film PV modules are designed for space and near-space applications. We envision installation of our products on satellites and other spacecraft, as well as near-space instruments such as the HAAs being developed by Lockheed Martin and others. The target customers for our PV modules therefore include traditional aerospace companies, companies in the defense and communications industries and domestic and foreign government entities. We believe that the HAA industry presents attractive opportunities for us, insofar as companies such as Lockheed Martin are searching for standard suppliers of PV subsystems for use with their HAA designs. Also, although the market for satellites is relatively well-established, we believe that significant opportunities exist there as companies search for lighter, cheaper and more efficient PV devices.

#### *Space Applications: Satellites and Spacecraft*

The U.S. satellite industry is dominated by four major manufacturers: Lockheed Martin, The Boeing Company, Orbital Sciences Corporation and Loral Space & Communications Ltd. In a recent publicly available study titled "Satellite Manufacturing Report," Futron Corporation, a space and telecommunications consulting firm, reports that these four manufacturers together accounted for 16 of the 19 U.S. satellites launched in 2004. These and major foreign satellite manufacturers represent our target customers in the space market.

The vast majority of satellites currently use rigid and heavy PV array panels with market prices of approximately \$1,000 per watt generated. The industry, however, is pursuing new, lightweight, flexible and less expensive PV products that can lower power costs, reduce the overall weight of satellites, increase payload capacity and permit the use of smaller, less expensive launch systems for placing satellites in orbit. As noted in a recent Small Business Innovative Research program announcement (AF06-274, titled "Next Generation Solar Cells Based on Nanostructures") published on behalf of the U.S. Air Force:

"Higher efficiency solar cells are needed to reduce solar array mass, stowed volume, and cost for Air Force (AF) space missions. Conventional crystalline multijunction solar cells are currently limited in efficiency by the complexity of adding more junctions to increase absorption of the solar spectrum, and the necessity to match lattice parameter and current for each junction. The ideal new solar cell would be flexible and lightweight. However, efforts should be focused on significantly increased metrics (W/m<sup>2</sup> and W/Kg) over state of the art (SOA) multijunction solar cells at lower costs. Current array level costs are ~\$1000/watt. A threshold cost for early systems based on the new technology would be comparable or less than current systems, with costs dropping to <\$250/watt with continued development. Current state-of-the-art crystalline multijunction solar cells are ~30% efficient, >350 W/m<sup>2</sup>, and ~70 W/Kg at the array level. Thresholds for the new technology would be >40% efficiency, >450 W/m<sup>2</sup>, and >250 W/kg."

We believe that flexible thin-film PV devices generally, and our CIGS on high-temperature plastic substrate modules in particular, are primed to take advantage of these evolving market requirements.

*Near-Space Applications: High-Altitude Airships*

The DoD and the militaries of U.S. allies have long been interested in solar-powered HAAs as low-cost platforms to augment sensor-carrying unmanned aerial vehicles, aircraft and space satellites. As currently conceived, HAAs resemble giant blimps roughly 500 feet long and 150 feet in diameter. Cheaper to launch than space satellites, which orbit the planet outside the earth's atmosphere, HAAs, which are filled with lighter than air gases, operate within the atmosphere but at an altitude above the reach of many aircraft and conventional weapons systems. Operating at these near-space altitudes affords opportunities attractive to the communications and surveillance industries. For example, military commanders could park one or more HAAs equipped with advanced surveillance instruments at 65,000 to 100,000 feet in a stationary position over a combat zone to facilitate 24/7 surveillance. At an altitude of 65,000 to 100,000 feet (less than 20 miles), images generated and data gathered by a stationary HAA likely would offer greater resolution and detail than that from a geostationary surveillance satellite in space, which typically orbits the earth at a distance of 22,000 miles. Even a non-geostationary satellite, which has the disadvantage of making only infrequent passes over a given area of the earth's surface, operates hundreds of miles up, far higher than the anticipated realm of HAAs. Furthermore, HAAs should be more easily moved and deployed from one geographic region to another compared with space satellites. This is a valuable feature since some experts propose the deployment of HAAs equipped with signal repeaters or transmission equipment over areas victimized by a terrorist attack or by a natural disaster such as a tornado, flood or hurricane and in which conventional communications systems are incapacitated. Stationary HAAs could afford responders and government officials a means for rapid communication.

Despite the potential of HAAs, prohibitively high costs and immature technology made HAAs a relatively low priority until the terrorist attacks of September 11, 2001. Since then, the DoD, Missile Defense Agency, Department of Homeland Security and North American Aerospace Defense Command have initiated plans to accelerate development of the HAA concept. A contract to deliver the first prototype HAA has been awarded by the Missile Defense Agency to Lockheed Martin, which began development of the prototype in 2005 with plans to fly in 2010. In October 2005, we, together with ITN and with the support of the Dow Corning Corporation, submitted a written proposal to supply CIGS on high-temperature plastic substrate PV modules to Lockheed Martin for use on its craft. The prototype project is divided into three development phases and a production phase. Participation in each of the second and third development phases generally is dependent upon performance in the previous phase. The production phase, which we expect will entail an order of approximately 1 MW of PV manufacturing capacity, will follow completion of the development phases. Based upon information provided by Lockheed Martin, we believe that multiple suppliers will be selected for the first and second development phases of the project. Selection of phase one suppliers is expected in late spring or early summer of 2006. We hope to be among those selected to fly on the prototype and, due to our technical and strategic advantages over our competitors, hope to be the sole supplier to HAA projects in the long-term. We expect that once Lockheed Martin's prototype HAA is successfully demonstrated, the number of HAA systems will grow and PV power requirements will increase as the industry moves into full-scale production. We expect to be able to satisfy such increases in demand by growing our production line, which will incorporate a modular design for relatively easy expansion, subject to the size of our facilities. Expansion of production also should permit us to recognize economies of scale, which should enable us to achieve lower manufacturing costs and thereby generate additional market opportunities. We also may supply PV modules to companies other than Lockheed Martin, including some commercial ventures, who also are developing their own HAA concepts and systems.

## Technical Demands of Space and Near-Space Applications

Space and near-space systems require sources of energy to power communications, propulsion and other subsystems. PV technology is a logical choice for generating power because it is renewable and does not depend on an imported fuel source that would reduce other payload. Weight, volume, relative efficiency and cost play crucial roles in the selection of PV technology for space and near-space applications. Because satellites, spacecraft and other orbiting systems must be launched into space or to very high altitudes, it is desirable to minimize both the weight and volume of PV devices so as to accommodate greater instrument payloads. At the same time, specific power (the amount of PV power produced relative to PV device weight, expressed as W/Kg), power density (the amount of PV power produced relative to the PV device area, expressed as W/m<sup>2</sup>) and efficiency (a measure of sunlight-to-energy conversion, measured as a percentage) need to be maximized, while the cost per watt generated (\$/W) needs to be minimized.

PV devices geared toward the terrestrial market, where weight and volume generally are not critical, typically employ traditional crystalline silicon solar cell technologies at prices less than \$5/W at the array level. Because space and near-space markets require much more sophisticated PV technology, array-level prices of PV devices for space applications currently approach or exceed \$1,000/W. Notwithstanding this premium in price, existing PV systems typically generate only about 70 W/Kg, requiring substantial weight in order to meet the power needs of the instruments to which the devices are attached and making them unlikely candidates for any space or near-space applications requiring a significant amount of power. Moreover, while the crystalline PV panels that currently dominate the market for space applications are very efficient (up to about 30%), they require flat, rigid and relatively heavy substrates that make them unsuitable for HAA. Thin-film PV technology offers a potential solution to these shortcomings.

## Ascent's Technology: Thin-Film CIGS on Flexible High-Temperature Plastic Substrate

In the last decade, ITN has performed approximately 35 contracts for private and government entities in advanced PV technologies. Government sponsors of these contracts include the U.S. Air Force Research Laboratory, the National Science Foundation, the National Renewable Energy Laboratory ("NREL"), the Defense Advanced Research Projects Agency, the Missile Defense Agency and NASA. Through its work on these contracts, ITN has developed useful and proprietary processing and manufacturing know-how applicable to PV products generally and CIGS PV products in particular, including the creation and adoption of key processing technologies and the development of a monolithic integration fabrication process. ITN formed Ascent to commercialize this investment in CIGS PV technologies for the space and near-space markets. In January 2006, ITN assigned to us its key CIGS PV technologies and trade secrets and granted to us an exclusive, worldwide license to use certain of ITN's proprietary process, control and design technologies that we believe will be useful in our production of solar modules for our target markets. ITN also has agreed to design and build our initial production line, which will utilize ITN's proprietary roll-to-roll processing tools, real-time intelligent processing controls and thin-film processing technologies.

We believe that our use of CIGS on a flexible high-temperature plastic substrate will offer the best combination of efficiency, specific power and power density among competing technologies in the space and near-space markets. Furthermore, we believe that our proprietary fabrication process which, among other things, incorporates monolithic, cell-to-cell integration techniques will allow us to manufacture our products with significant cost savings compared with our competitors.

## *Ascent's Technical Advantages Over Competitors*

Most PV companies employing thin-film techniques in commercial production currently use a-Si as an absorbing layer. Instead we have chosen CIGS because it offers inherent performance and physical

advantages over the a-Si and cadmium telluride technologies. CIGS displays the highest efficiency of the three thin-film technologies, with a demonstrated cell efficiency of 19.5% by NREL in a terrestrial laboratory environment (compared with 12.9% demonstrated cell efficiency for a-Si under similar conditions). Unlike CIGS, a-Si exhibits inherent inefficiencies and measurable degradation when exposed to ultraviolet light, including ultraviolet light present in natural sunlight. To mitigate these effects, manufacturers using a-Si are forced to employ steps that add cost and complexity to the manufacturing process. By using CIGS, we avoid these issues. While cadmium telluride has demonstrated efficiencies approaching that of CIGS, cadmium telluride currently requires use of a rigid, transparent substrate, which virtually disqualifies it as a candidate for a multitude of applications, such as Lockheed Martin's prototype HAA project. We believe that our choice of CIGS therefore will provide us a significant technical advantage over competitors who use the alternative technologies of a-Si and cadmium telluride.

We also believe that we will hold a technical advantage over our competitors through our choice of high-temperature plastic as a substrate material. This flexible plastic is among the lightest materials currently available for PV modules and should offer us a substantial advantage in achieving the published specific energy and power density requirements of the current prototype HAA project, as well as the more aggressive targets likely to be adopted for future HAA projects. By way of illustration, the prototype HAA project initially requires that candidate PV modules achieve a power density of at least 125 W/m<sup>2</sup> and specific power of at least 400 W/kg under normal operating conditions. To achieve these minimum thresholds, a PV module like ours that will use a high-temperature plastic substrate would need to record efficiencies of about 9.3%, which, based upon the efficiencies achieved in the laboratory and in test production, we believe can reliably and consistently be attained in volume production. In contrast, a PV device using a stainless steel foil substrate would need to demonstrate efficiencies in excess of 24%, far greater than even the highest efficiencies achieved under controlled conditions by NREL. We believe that our choice of substrate material will offer us another significant advantage over the vast majority of our competitors in the space and near-space markets.

Our planned use of a roll-to-roll manufacturing process (which enables us to fabricate our flexible PV modules in large format or continuous operations), together with our use of proprietary monolithic, cell-to-cell integration techniques (which allows us to avoid the time-consuming, weight-additive and labor-intensive step of manually connecting individual solar cells), also should afford us technical and cost advantages over our competitors. Over the past 12 years, ITN has developed proprietary sensor-based controls and intelligent process controls for use in the roll-to-roll production of thin-film CIGS PV modules, and we are now a beneficiary of that expertise.

In sum, the technical advancements that we believe will distinguish us from our competitors in the space and near-space markets include:

Our use of CIGS, which we believe will offer the highest efficiencies of the three candidate thin-film technologies and which can be deposited on variety of flexible substrates;

Our use of high-temperature plastic as a substrate material, which not only is flexible, lightweight and relatively inexpensive but also provides us the ability to achieve the challenging specific power and power density requirements for space and near-space programs;

Our experience with, and ITN's demonstrated ability to implement, roll-to-roll manufacturing in the context of thin-film CIGS PV modules; and

Our use of proprietary monolithic integration techniques, which eliminates an entire back-end processing step in the assembly of a PV module, and that should save us time, labor and money relative to our competitors while also potentially offering measurable performance and weight advantages.

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We are pursuing improvements and enhancements to bolster performance of our PV modules including use of a high-temperature substrate, which allows for a higher CIGS processing temperature and, hence, higher efficiencies and incorporation of a two-junction (tandem) thin-film technology using a novel high-efficiency top cell in conjunction with proven high-efficiency CIGS PV bottom cell. Our longer-term objective is to develop flexible, low-weight, low-cost PV modules with efficiencies exceeding 15%, specific power in excess of 1,000 W/kg and packaging of one-tenth the volume of existing systems.

Finally, although our products will be designed and manufactured specifically for the rigorous demands of the space and near-space markets, in the future it is possible that some of our technologies and advancements may be used in a line of products geared toward terrestrial applications. Although we currently have no plans to initiate sales into the terrestrial market, we believe that significant improvements over time in our manufacturing processes and technical enhancements to our products could substantially decrease our incremental manufacturing costs to a point where entry into the terrestrial market becomes economically viable.

### *Ascent's Strategic Advantages Over Competitors*

We believe that we can introduce a product into the HAA market that delivers superior performance at a lower cost than competing technologies. If we are successful in doing so, we believe that the following factors, together with the technical advantages of our PV products, will offer us a competitive advantage in the space and near-space markets:

We intend to be the first to market with a flexible thin-film PV product that meets the specific power and power density requirements of the prototype HAA project and future HAA systems;

We intend to offer the lowest-cost solution to ensure that our PV modules becomes the *de facto* standard for full-scale HAA systems;

We have the benefit of, and draw upon, the extensive experience and expertise of our key personnel in the thin-film, PV and aerospace industries;

We benefit from our close and continuing business relationships with ITN and MicroSat Systems, Inc. ("MicroSat"), another ITN-initiated business, which designs and builds small, high performance satellites for military and commercial applications;

Our key management and that of ITN and MicroSat share long-standing relationships with the U.S. Air Force Research Laboratory, NASA and other government agencies;

Our PV modules are designed specifically for the unique requirements of the space and near-space markets, and our production line will be custom-built for that purpose; and

We aggressively pursue improvements and enhancements to our existing technology and development of new technologies.

By way of illustration, our close relationship with ITN and MicroSat may offer us testing or marketing opportunities typically unavailable through third parties. For example, in connection with MicroSat's bid to construct the TACSAT 3 spectral imaging satellite for the U.S. military, we, in conjunction with MicroSat, are investigating mounting a test package on the satellite to measure performance of our PV modules in true operational conditions if MicroSat secures the TACSAT project. We also are pursuing other flight demonstration opportunities with MicroSat, including one involving a MicroSat-developed patented, foldable array known as a "Fold Integrated Thin-film Stiffener" solar array deployment system ("FITS") that can incorporate our thin-film PV modules. We may choose to jointly market FITS with MicroSat to commercial and government customers. We believe that successful early demonstration of FITS in the space satellite market will help validate our CIGS on high-temperature plastic PV modules for future space applications.

### *Key Competitors*

Competition in the near-space market currently is limited to other flexible thin-film PV device manufacturers, while competition in the space market also includes rigid PV device manufacturers. We believe that our primary competitors include United Solar Ovonic, a subsidiary of Energy Conversion Devices, Inc. ("Uni-Solar"), Global Solar Energy, Inc., a subsidiary of UniSource Energy Corporation ("GSE"), and DayStar Technologies, Inc. ("DayStar"). Uni-Solar, which employs a-Si technology, is an established participant in terrestrial market for solar power. Despite Uni-Solar's commercial success in that market, we believe that our flexible CIGS on high-temperature plastic PV modules will prove technically superior to Uni-Solar's devices in space and near-space applications and that our focus on these markets will provide an advantage over Uni-Solar.

GSE was established in 1996 as a venture between ITN and Tucson Electric Power Company, which was later acquired by UniSource Energy Corporation. Now wholly owned by UniSource, GSE, together with DayStar are, to our knowledge, the only other companies actively exploring the production of a CIGS-based product on a flexible substrate for the space and near-space markets. Both DayStar and GSE's baseline products use a metal foil substrate for space and HAA applications. Given comparable efficiencies, our CIGS on high-temperature plastic substrate cells will have a higher specific power than a CIGS product on metallic foil due to our choice of lightweight material. Furthermore, CIGS on a metallic foil must be interconnected, either by hand or by automation equipment, resulting in added weight and complexity. Our use of a high-temperature plastic substrate and monolithically interconnected devices avoids these issues.

### **Intellectual Property**

In January 2006, ITN assigned to us its key CIGS PV technologies, including a pending patent application titled "Apparatus and Method of Production of Thin Film Photovoltaic Cell," filed on July 19, 2002 (Serial No. 10/197,813), certain unpublished invention disclosures relating to the design and fabrication of CIGS PV solar cells, and trade secrets relating to proprietary manufacture, process and control steps in the CIGS PV field. ITN also granted to us a perpetual, exclusive, worldwide license to use certain of ITN's proprietary process, control and design technologies that, although non-specific to CIGS PV, we believe will be useful in our production of solar modules for our target markets. We also are in the process of obtaining non-exclusive licenses with the University of Delaware's Institute of Energy Conversion ("IEC") and with NREL for U.S. patents that we believe will prove useful to our manufacturing process. The patents we intend to license from IEC relate to the fabrication of CIGS on flexible plastic substrates, the use of laser patterning and thin-film deposition during the fabrication of flexible monolithically-integrated CIGS PV devices and certain process steps that we intend to use during the manufacturing process. We have signed a letter of intent with IEC and are in the process of finalizing the IEC license. The patents that we intend to license from NREL relate to CIGS processing steps.

### **Suppliers**

We rely on several unaffiliated companies to supply certain ingredients and materials used during the fabrication of our PV modules. We acquire these materials on a purchase order basis and do not have long-term contracts with the suppliers, although we may enter such contracts. We acquire our high-temperature plastic from Ube Industries, Ltd. (Japan), although alternative suppliers of similar materials exist. In particular, we are working with the Dow Corning Corporation ("DCC") to ascertain whether commercial quantities of DCC's new silicone resin substrate material will be available by the time we intend to begin production in 2008. We purchase component copper, indium, gallium and selenium from a variety of suppliers. Our production line will be assembled using off-the-shelf components, custom processing tools and software developed by ITN and other commercially available equipment and tools.

## **Employees**

As of March 1, 2006, we had four full-time employees, including three executive officers of the Company and a project engineer. The number of employees should grow significantly as we install manufacturing capacity and as ITN's R&D contracts with third parties are transferred to us along with some of the scientists, engineers, and technicians working on those projects. The current PV programs at ITN support approximately two senior scientists, six engineers, and two process technicians. Transfer of the research and development contracts is predicated on obtaining consent from the government agencies and entities that are party to the contracts, which may in some cases take several months. If and when ITN secures the necessary consents, it will transfer the contracts and employees to us.

In contrast to these R&D activities described above, our core business will involve the manufacturing of PV modules, initially for space and near-space applications. As such, we anticipate that most of our employees will be involved in production, operation, and related product development and product support functions. During the first year of operations, we will focus on the development and installation of a 500 kW/shift/year production line. Once the line has been installed, we intend to hire technicians, product technical engineers and quality control engineers to staff the facility. We plan to hire a vice president of operations after this offering to manage the development and installation of the manufacturing line.

Initially, ITN will provide us with general and administrative support services, at cost, such as human resources, facility management, information technology support, government contract administration, and payroll processing. This should permit us to avoid the cost of hiring individual employees and related infrastructure expenses in the near-term.

## **Property**

Our facilities are located in Littleton, Colorado. We sublease approximately 9,500 square feet of office and manufacturing space from ITN, which occupies space adjacent to ours. The sublease expires in June 2010. In 2006, we will pay \$11,997 per month in rent, plus pass-through expenses such as taxes, insurance, water and utilities. We may sublease additional space from ITN as the need arises and as contracts are transferred to us.

## **Legal Proceedings**

We do not know of any pending or threatened legal proceedings to which we are or would be a party or any proceedings being contemplated by governmental authorities against us, or any of our executive officers or directors relating to their services on our behalf.

## **Company History**

Ascent was formed in October 2005 to commercialize certain PV technology developed by our parent company ITN for space and near-space applications. ITN, a private company incorporated in 1994, is an incubator dedicated to the development of cutting-edge thin-film, PV, battery and fuel cell technologies. Dr. Mohan Misra, Chairman of our Board, owns the majority of the stock in ITN.

## MANAGEMENT

## Directors, Executive Officers and Key Employees

Our executive officers, directors and key employees, and their ages as of March 1, 2006, are as follows:

| Name                       | Age | Position                                    |
|----------------------------|-----|---------------------------------------------|
| Matthew Foster             | 48  | President and Chief Executive Officer       |
| Joseph Armstrong, Ph.D.    | 48  | Vice-President and Chief Technology Officer |
| Janet Casteel              | 45  | Chief Accounting Officer and Treasurer      |
| Mohan S. Misra, Ph.D.      | 62  | Chairman of the Board                       |
| Stanley Gallery            | 48  | Director                                    |
| Ashutosh Misra             | 40  | Director                                    |
| T.W. Fraser Russell, Ph.D. | 71  | Director                                    |
| Mark T. Waller             | 55  | Director                                    |

*Matthew Foster* has served as our President and Chief Executive Officer since October 2005. From March 2004 until Ascent's formation in October 2005, Mr. Foster served as Executive Vice President of ITN Energy Systems, Inc., where he developed and implemented plans to commercialize other ITN technologies such as thin-film battery systems and microsatellites, which developed into companies Infinite Power Solutions, Inc. and MicroSat Systems, Inc., respectively. From January 2001 until March 2004, he served as President and Chief Executive Officer of Infinite Power Solutions. Mr. Foster holds a B.S. degree from Rensselaer Polytechnic Institute.

*Joseph Armstrong, Ph.D.* has served as our Chief Technology Officer since October 2005. Dr. Armstrong served as the Manager of ITN's Advanced PVs Division until joining Ascent in October 2005. While at ITN, Dr. Armstrong led its advancement into thin-film flexible PV products for space and near-space applications and started its development of thin-film battery technologies, a complement to Ascent's thin-film PV technology. He is a named inventor on four U.S. patents in areas including shape memory alloys, thin-film PV technology and electronic circuit assembly. Dr. Armstrong holds a B.S. degree in Physics from Lewis University in Illinois and a M.S. degree and Ph.D. in Solid State Physics from the University of Denver.

*Janet Casteel* has served as our Chief Accounting Officer and Treasurer since February 2006. She served on a part-time basis as our Treasurer and Controller between October 2005 and February 2006, during which time she also served as the part-time controller and business manager of ITN. Prior to October 2005, Ms. Casteel served full-time as the controller and business manager of ITN. At ITN, she supervised the financial and accounting staffs and was responsible for negotiation and administration of ITN's government and commercial contracts, as well as its agreements with subcontractors. She is a member of the American Institute of Certified Public Accountants and is a CPA (inactive) in Colorado. Ms. Casteel holds an Associate Degree in Business Administration from Nebraska College of Business and a B.S. degree in Accounting from Metropolitan State College in Denver.

*Mohan S. Misra, Ph.D.* has served as Chairman of our Board of Directors since October 2005. He founded and is chief executive officer of ITN. Dr. Misra has helped develop and implement several key technologies for aerospace applications including thin-film PVs, smart materials, advanced composites and lightweight structures. Dr. Misra holds a B.S. degree in Metallurgical Engineering from Benaras Hindu University in India, a M.S. degree in Metallurgical Engineering from the University of Washington and a Ph.D. in Metallurgical Engineering from the Colorado School of Mines. Dr. Misra is the uncle of Ashutosh Misra, a director.



*Stanley Gallery* has served on our Board of Directors since October 2005. Mr. Gallery is the chief executive officer of Carts of Colorado, Inc., a provider of mobile merchandising for the food service industry. He also is managing partner of G3 Holdings LLC, which makes real estate and other investments. He also is a co-founder of Bluegate Creek JV and Bluegate Creek II, which are oil and gas ventures in Wyoming. Prior to joining Ascent, Mr. Gallery served on the board of directors of ITN from 2001 until joining our Board in October 2005.

*Ashutosh Misra* has served on our Board of Directors since October 2005. Mr. Misra is Vice President of Operations and General Manager of ITN where he is responsible for ITN's accounting and finance, human resources, facilities, information technology and laboratory operations. He also presided over the prior separation of three separate companies from ITN. From 2002 until March 2005, Mr. Misra also served as the president and chief executive officer of Data Access America, a wholly owned subsidiary of Data Access India, Limited, a telecommunications carrier based in India. Mr. Misra holds a Bachelor of Engineering Degree in Electronics and Telecommunications from Bangalore University in India, and a M.S. degree in Electrical Engineering from the University of Wisconsin, Milwaukee. Mr. Misra is the nephew of Dr. Misra, our Chairman.

*T.W. Fraser Russell, Ph.D.* has served on our Board of Directors since October 2005. Dr. Russell is the Allan P. Colburn Professor in the Department of Chemical Engineering at the University of Delaware. Dr. Russell is a member of the National Academy of Engineering and a fellow of the American Institute of Chemical Engineers. He is the inventor on four U.S. patents on thin-film continuous deposition and has authored numerous engineering and scientific articles on thin-film photovoltaics. He directed the Institute of Energy Conversion at the University of Delaware where he directed the research which led to the first ever deposition of semi-conductor continuously on a moving substrate. Dr. Russell served as a member and chairman of a committee of the National Renewable Energy Laboratory that was charged with reviewing and recommending PV research programs. Dr. Russell holds a B.Sc. degree and a M.Sc. degree from the University of Alberta in Canada and a Ph.D. from the University of Delaware.

*Mark T. Waller* has served on our Board of Directors since October 2005. He is the president and founder of BridgeWorks Capital, a specialized merchant bank focusing on the organization and financing of small- and micro-cap companies. He attended Reed College in Portland, Oregon.

#### **Technical Advisory Group**

We have a Technical Advisory Group ("TAG") currently comprised of no more than five individuals with technical expertise, experience and industry knowledge that may benefit us. Members of our TAG are selected by our Board of Directors and are expected to make themselves available, upon request, for consultation with our management and employees for up to 40 hours each year. The role of our TAG is to provide, upon request, objective analysis and critique of our technical approaches and to advise us on the soundness of our production plans, processes and controls. Although members of the TAG may be approached individually by management or employees for consultation, the TAG is expected to meet periodically as a group to discuss their assessments and to report recommendations, if any, to our Board of Directors. In addition to Dr. Mohan Misra, our Chairman, the members of our TAG, all of whom joined the TAG in November 2005, are:

*Rajeewa R. Arya, Ph.D.* is the principal of Arya International, Inc., which provides consulting services in the area of solar technology and business. Dr. Arya previously spent almost 19 years with BP Solar and its predecessor companies, where he oversaw technology teams and spearheaded PV research programs involving amorphous silicon, copper-indium-diselenide and cadmium telluride. Dr. Arya has co-authored more than 100 technical papers and is a named inventor on several U.S. patents. Dr. Arya holds an M.Sc. degree in Solid State Physics from Jadavpur University in India, an

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M. Tech. degree in Materials Science from the Indian Institute of Technology and a Ph.D. in Engineering from Brown University.

*Bruce Lanning, Ph.D.* is the manager of the thin-film technologies group at ITN, a group he also managed until 2002. From 2002 until November 2005, Dr. Lanning was the principal scientist at the Southwest Research Institute, where he investigated the development of a wireless thin-film sensor system for the U.S. Department of Energy. Dr. Lanning holds a B.S. degree, M.S. degree and Ph.D. in Metallurgical Engineering from the Colorado School of Mines.

*Robert W. Birkmire, Ph.D.* is the Director of the University of Delaware's Institute of Energy Conversion which is devoted to research and development of thin-film PV solar cells and other photonic devices. Dr. Birkmire is the co-author of numerous technical papers and is a named inventor on several U.S. patents. Dr. Birkmire holds a B.S. degree in Physics from the Lowell Technological Institute in Massachusetts and a Ph.D. in Physics from the University of Delaware.

Each member of our TAG receives an option to purchase up to 15,000 shares of our common stock upon appointment.

### Board of Directors

Our Bylaws provide that the authorized size of our Board of Directors, which currently is five members, is to be determined from time to time by resolution of the Board of Directors, but shall consist of at least two and no more than eight members. Our Board of Directors is divided into three classes as nearly equal in number as possible. Each year the shareholders elect the members of one of the three classes to three-year terms of office. Currently, Messrs. Ashutosh Misra and Waller serve as Class 1 directors, whose terms expire in 2006, Mr. Gallery and Dr. Russell serve as Class 2 directors, whose terms expire in 2007, and Dr. Mohan Misra serves as a Class 3 director, whose term expires in 2008.

### Committees of the Board of Directors

Our Board of Directors has three standing committees: an Audit Committee, a Compensation Committee and a Nominating and Governance Committee.

*Audit Committee.* Our Audit Committee oversees our accounting and financial reporting processes, internal systems of accounting and financial controls, relationships with independent auditors, and audits of financial statements. Specific responsibilities include the following:

selecting, hiring and terminating our independent auditors;

evaluating the qualifications, independence and performance of our independent auditors;

approving the audit and non-audit services to be performed by our independent auditors;

reviewing the design, implementation, adequacy and effectiveness of our internal controls and critical accounting policies;

overseeing and monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to financial statements or accounting matters;

reviewing, with management and our independent auditors, any earnings announcements and other public announcements regarding our results of operations; and

preparing the report that the Securities and Exchange Commission (the "Commission") requires in our annual proxy statement.

Our Audit Committee is comprised of Mr. Gallery, Dr. Russell and Mr. Waller. Mr. Waller serves as Chairman of the Audit Committee. The Board has determined that all members of the Audit



Committee are independent under the rules of the Securities and Exchange Commission and the Nasdaq Stock Market and that Mr. Waller qualifies as an "audit committee financial expert," as defined by the rules of the Commission.

*Compensation Committee.* Our Compensation Committee assists our Board of Directors in determining the development plans and compensation of our officers, directors and employees. Specific responsibilities include the following:

- approving the compensation and benefits of our executive officers;
- reviewing the performance objectives and actual performance of our officers; and
- administering our stock option and other equity compensation plans.

Our Compensation Committee is comprised of Mr. Gallery, Dr. Russell and Mr. Waller. Mr. Gallery serves as Chairman of the Compensation Committee. Our Board has determined that all members of the Compensation Committee are independent under the rules of the Nasdaq Stock Market.

*Nominating and Governance Committee.* Our Nominating and Governance Committee assists our Board by identifying and recommending individuals qualified to become members of our Board of Directors, reviewing correspondence from our stockholders, and establishing, evaluating and overseeing our corporate governance guidelines. Specific responsibilities include the following:

- evaluating the composition, size and governance of our Board of Directors and its committees and make recommendations regarding future planning and the appointment of directors to our committees;
- establishing a policy for considering shareholder nominees for election to our Board; and
- evaluating and recommending candidates for election to our Board.

Our Nominating and Governance Committee is comprised of Mr. Gallery, Dr. Russell and Mr. Waller. Mr. Gallery serves as Chairman of our Nominating and Governance Committee. Our Board has determined that all members of the Nominating and Governance Committee are independent under the rules of the Nasdaq Stock Market.

#### **Compensation Committee Interlocks and Insider Participation**

None of the members of our Compensation Committee will be one of our officers or employees. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our Board of Directors or Compensation Committee.

#### **Director Compensation**

Our non-employee directors each receives an annual fee of \$5,000 for his or her service on our Board, plus \$1,000 for each meeting of our Board or board committee that the director attends in person and \$250 for each meeting attended by telephone or videoconference. Each non-employee director also receives reimbursement of travel and other expenses incurred to attend a meeting in person. Each of our directors has been granted an option to purchase 20,000 shares of our common stock as compensation for service on our Board, and each of our non-employee directors has received an additional option to purchase 12,000 shares for service on the committees of our Board.

**Executive Compensation**

Because we were incorporated in October 2005, no compensation was paid by us to our officers in 2003 and 2004. The following table sets forth information concerning total compensation that we paid to our Chief Executive Officer in 2005. No officer has yet earned more than \$100,000 in total compensation from us in any fiscal year. For information about annual compensation arrangements with our executive officer, see "Employment Agreements."

**Summary Compensation Table**

| Name and Principal Position                | Fiscal Year | Long-Term Compensation |                                         |                      |
|--------------------------------------------|-------------|------------------------|-----------------------------------------|----------------------|
|                                            |             | Annual Compensation    | Awards                                  |                      |
|                                            |             | Salary (\$)            | Securities Underlying Options/ SARs (#) | All Other Comp. (\$) |
| Matthew Foster,<br>Chief Executive Officer | 2005        | \$ 9,511               | 30,000                                  |                      |

**Option Grants in Last Fiscal Year**

The following table sets forth information concerning stock option grants to our Chief Executive Officer during 2005. The percentage of total options is based on an aggregate of 90,000 options granted to employees for the year ended December 31, 2005.

**Option Grants in Fiscal Year 2005 (Individual Grants)**

| Name           | Number of Securities Underlying Options/SARs granted (#) | Percent of total options/SARs granted to employees in fiscal year | Exercise or base price (\$/sh) | Expiration Date   |
|----------------|----------------------------------------------------------|-------------------------------------------------------------------|--------------------------------|-------------------|
| Matthew Foster | 30,000                                                   | 33.3%                                                             | \$ 0.10                        | November 18, 2015 |

**Option Exercises and Holdings**

The following table sets forth, as to our Chief Executive Officer, certain information concerning the number of shares subject to both exercisable and unexercisable stock options as of December 31, 2005, and the number of shares of common stock received upon exercise of options during the year ended December 31, 2005.

**Aggregated Option Exercises in Fiscal Year 2005 and Fiscal Year-End Option Values**

| Name           | Shares Acquired on Exercise (#) | Value Realized (\$) | Number of Shares Underlying Unexercised Options at December 31, 2005 (#) Exercisable/Unexercisable | Value of Unexercised In-the-Money Options at December 31, 2005 (\$) Exercisable/Unexercisable(1) |
|----------------|---------------------------------|---------------------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Matthew Foster | 0                               | n/a                 | 0 / 30,000                                                                                         | \$0 / \$162,000                                                                                  |

(1)

Assumes a share price of \$5.50.

**Employment Agreements**

We have executive employment agreements with Matthew Foster, our Chief Executive Officer, Janet Casteel, our Chief Accounting Officer and Treasurer, and Joseph Armstrong, our Vice-President

and Chief Technology Officer. Each executive employment agreement has a term of three years and expires in December 2008 in the cases of Mr. Foster and Dr. Armstrong, and in February 2009 in the case of Ms. Casteel. Under the terms of his agreement, Mr. Foster is entitled to a base salary of \$175,000 per year and a discretionary bonus of up to 30% of that base salary based upon his individual performance and our performance as a company. Ms. Casteel earns a base salary of \$108,000 per year and may receive a discretionary bonus of up to 15% of that base salary based upon her individual performance and our performance as a company. Dr. Armstrong earns a base salary of \$120,000 per year and may receive a discretionary bonus of up to 15% of that base salary based upon his individual performance and our performance as a company. Bonuses are not ensured and are awarded at the discretion of the Board. Each agreement may be terminated without notice if for cause, but 30 days' advance notice is required for termination without cause. Further, if either Mr. Foster is terminated without cause during the term of his employment agreement, he will be entitled to receive his base salary for a period of twelve months after termination. If either Dr. Armstrong or Ms. Casteel is terminated without cause during the term of his or her agreement, he or she will be entitled to receive his or her base salary for a period of six months after termination.

### Stock Option Plan

In October 2005, our Board of Directors approved our 2005 Stock Option Plan (the "Option Plan"). The Option Plan was then approved by our stockholders in November 2005. The Option Plan authorizes the grant and issuance of options and other equity compensation to employees, officers and consultants. A total of 750,000 shares of common stock are reserved for issuance under the Option Plan.

The Option Plan is administered by the Compensation Committee of the Board of Directors. Subject to the provisions of the Option Plan, the Committee determines who will receive the options, the number of options granted, the manner of exercise and the exercise price of the options. The term of incentive stock options granted under the Option Plan may not exceed ten years, or five years for options granted to an optionee owning more than 10% of our 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 our common stock on the date the option is granted. The exercise price of a non-qualified option granted under the Option Plan must be equal to or greater than 85% of the fair market value of the shares of our common stock on the date the option is granted. An incentive stock option granted to an optionee owning more than 10% of our voting stock must have an exercise price equal to or greater than 110% of the fair market value of our common stock on the date the option is granted.

As of March 1, 2006, there were outstanding options to purchase 594,000 shares of common stock under the Option Plan. The following table sets forth information as of March 1, 2006 relating to all of our equity compensation plans:

|                                                            | Number of securities<br>to be issued upon<br>exercise of outstanding<br>options, warrants and<br>rights | Weighted-average<br>exercise price of<br>outstanding options,<br>warrants and rights | Number of securities<br>remaining available<br>for future issuance<br>under equity<br>compensation plans |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Equity compensation plan approved by security holders      | 594,000                                                                                                 | \$ 1.50                                                                              | 156,000                                                                                                  |
| Equity compensation plans not approved by security holders |                                                                                                         |                                                                                      |                                                                                                          |
| <b>TOTAL:</b>                                              | <b>594,000</b>                                                                                          | <b>\$ 1.50</b>                                                                       | <b>156,000</b>                                                                                           |

### **Limitation of Liability and Indemnification**

Our Certificate of Incorporation, as amended, contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our shareholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

Any breach of their duty of loyalty to our company or our stockholders.

Acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law.

Unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law.

Any transaction from which the director derived an improper personal benefit.

Our Bylaws provide that we are required to indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by Delaware law. Our Bylaws also provide that we shall advance expenses incurred by a director or officer before the final disposition of any action or proceeding upon receipt of an undertaking from or on behalf of that director or officer to repay the advance if it is ultimately determined that he or she is not entitled to be indemnified. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the Board of Directors. These agreements provide for indemnification for related expenses including attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our Certificate of Incorporation and Bylaws may discourage shareholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Furthermore, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees regarding which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

Insofar as we may permit indemnification for liabilities arising under the Securities Act to directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy, as expressed in the Securities Act and is, therefore, unenforceable.



**PRINCIPAL STOCKHOLDERS**

Set forth below is information regarding the beneficial ownership of our common stock, as of March 1, 2006 and as adjusted to reflect the sale of 3,000,000 units in this offering and the issuance of 290,909 units to bridge lenders, by (i) each person whom we know owned, beneficially, more than 5% of the outstanding shares of our common stock, (ii) each of our directors, (iii) our Chief Executive Officer, and (iv) all of the current directors and executive officers as a group. We believe that, except as otherwise noted below, each named beneficial owner has sole voting and investment power with respect to the shares listed. Unless otherwise indicated herein, beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission, and includes voting or investment power with respect to shares beneficially owned. Shares of common stock to be received upon conversion of preferred stock, or subject to options or warrants currently exercisable or exercisable within 60 days of March 1, 2006, are deemed outstanding for computing the percentage ownership of the person holding such options or warrants, but are not deemed outstanding for computing the percentage ownership of any other person.

| <b>Name of Beneficial Owner</b>                          | <b>No. of Shares<br/>Beneficially Owned</b> | <b>Before This<br/>Offering(1)</b> | <b>After This Offering</b> |
|----------------------------------------------------------|---------------------------------------------|------------------------------------|----------------------------|
| <b>Officers and Directors</b>                            |                                             |                                    |                            |
| Matthew Foster                                           | 86,286(2)                                   | 4.3%                               | 1.6%                       |
| Joseph Armstrong                                         | 53,572(3)                                   | 2.7%                               | 1.0%                       |
| Janet Casteel                                            | 18,572(4)                                   | *                                  | *                          |
| Dr. Mohan S. Misra                                       | 1,433,000(5)                                | 71.7%                              | 27.1%                      |
| Stanley Gallery                                          | 33,000(6)                                   | 1.7%                               | *                          |
| Ashutosh Misra                                           | 55,000(7)                                   | 2.8%                               | 1.0%                       |
| Dr. T.W. Fraser Russell                                  | 8,000(8)                                    | *                                  | *                          |
| Mark T. Waller                                           | 98,000(9)                                   | 4.9%                               | 1.9%                       |
| <i>All directors and officers as a group (8 persons)</i> | 1,785,430(10)                               | 89.3%                              | 33.7%                      |
| <b>5% Stockholders</b>                                   |                                             |                                    |                            |
| ITN Energy Systems, Inc.                                 | 1,028,000                                   | 51.4%                              | 19.4%                      |

\*

Less than 1%

(1)

Assumes 2,000,000 shares outstanding prior to this offering.

(2)

Does not include options to purchase 115,714 shares that will not be exercisable within 60 days of March 1, 2006.

(3)

Does not include options to purchase 46,428 shares that will not be exercisable within 60 days of March 1, 2006.

(4)

Does not include options to purchase 41,428 shares that will not be exercisable within 60 days of March 1, 2006.

(5)

Includes options to purchase 5,000 shares that are vested within 60 days of March 1, 2006. Also includes 1,028,000 shares of the Company held by ITN, which is 100% owned by Inica, Inc., a Colorado corporation that is majority owned by Dr. Misra.

(6)

Includes options to purchase 8,000 shares that are exercisable within 60 days of March 1, 2006.

(7)

Includes options to purchase 5,000 shares that are exercisable within 60 days of March 1, 2006.

(8)

Includes options to purchase 8,000 shares that are exercisable within 60 days of March 1, 2006.

(9)

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Includes options to purchase 8,000 shares that are exercisable within 60 days of March 1, 2006.

(10)

Includes options to purchase 55,430 shares that are exercisable within 60 days of March 1, 2006.

## RELATED PARTY TRANSACTIONS

### Transactions Involving ITN Energy Systems, Inc.

We were formed in October 2005 to commercialize certain technologies developed by ITN. ITN and its affiliates own a majority of the outstanding shares of our common stock. ITN is wholly owned by Inica, Inc., which, in turn, is majority owned by Dr. Mohan Misra, Chairman of our Board of Directors.

On January 17, 2006, ITN assigned or licensed certain thin-film PV technology and intellectual property to us and signed a Manufacturing Line Agreement, Sublease Agreement, Administrative Services Agreement and Service Center Agreement with us. In consideration for these asset transfers, licenses and agreements, we issued 1,028,000 shares of our common stock to ITN. Our Audit Committee reviewed and approved the transactions with ITN, finding them to be no less favorable to us than could be obtained from independent third parties.

*Manufacturing Line Agreement.* We have contracted with ITN to design and build our 500 kW/shift/year CIGS PV production line on a turnkey basis. We have agreed to pay ITN its costs for work performed under the Manufacturing Line Agreement and to reimburse ITN for all materials and equipment purchased. We estimate that we eventually will pay ITN an aggregate of approximately \$6.7 million over the life of the project, the development phases of which are detailed in "Management's Discussion and Analysis of Financial Condition and Results of Operation," above. The parties, though, have agreed only to our estimate of \$200,000 for the first phase of the project; the balance of \$6.5 million is our estimate only for completion of the other phases.

*Sublease Agreement.* We sublease approximately 9,500 square feet of office and manufacturing space from ITN. Under the Sublease Agreement, our rent payments are \$11,997 per month until June 2007 and \$13,216 beginning July 2007, resulting in aggregate rent payments of \$701,288 until expiration of the agreement in June 2010. We also are responsible for certain pass-through expenses, such as taxes, insurance, water and utilities, which we estimate currently total approximately \$8,500 per month. The building and space that we sublease from ITN is leased to ITN by an entity of which Stanley Gallery, one of our directors, is an investor and manager.

*Administrative Services Agreement.* ITN has agreed to perform administrative services for us at cost, including services such as facilities maintenance, payroll, human resources, accounting and information technology services. Although actual costs may vary from month to month, we estimate that the average monthly cost of such services will be approximately \$20,000. The Administrative Services Agreement expires in January 2007.

*Service Center Agreement.* From time to time, we may find our own facilities inadequate or unsuitable to handle specific or special tasks or processes, but discover that ITN has such capability. Under the Service Center Agreement, we have the right to use, on an as needed and as available basis, certain of ITN's laboratories, equipment and research and development tools. If and when we make periodic use of the laboratories, equipment and tools, we will pay ITN in accordance with the standard rates that ITN charges its other customers. Although the Service Center Agreement expires in December 2009, it is automatically renewable on a month-to-month basis.

### Executive Employment Agreements

We have executive employment agreements with Matthew Foster, our Chief Executive Officer, Janet Casteel, our Chief Accounting Officer and Treasurer, and Joseph Armstrong, our Vice-President and Chief Technology Officer. Please see "Employment Agreements" for a summary of these executive employment agreements. Our Compensation Committee approved these agreements.

**Future Transactions**

Future transactions with our officers, directors or greater than five percent stockholders will be on terms no less favorable to us than could be obtained from independent third parties, and all such transactions will be reviewed and subject to approval by our Audit Committee, which will have access, at our expense, to our or independent legal counsel.

## DESCRIPTION OF SECURITIES

Our authorized capital stock consists of 75,000,000 shares of common stock, \$0.0001 par value, and 25,000,000 shares of preferred stock, \$0.0001 par value. As of March 1, 2006, we had 2,000,000 shares of common stock and no shares of preferred stock outstanding. Immediately after this offering, we will have 5,290,909 shares of common stock outstanding, including shares issued to our bridge lenders. If the over-allotment option is exercised in full, we will have 5,740,909 shares outstanding.

The following is a summary of the rights of certain of our securities as provided in our Certificate of Incorporation and Bylaws, as they will be in effect upon the closing of this offering. For more detailed information relating to our capital stock, please see our Certificate of Incorporation and Bylaws, which have been filed as exhibits to the registration statement of which this prospectus is a part.

### Units

Each unit consists of one share of common stock, one redeemable Class A warrant and two non-redeemable Class B warrants, each warrant to purchase one share of common stock. The common stock and warrants will trade only as part of a unit for at least 30 days following the date of this prospectus. After separation of the units, the common stock and public warrants will trade as separate securities, and trading of the units will cease.

At the closing of this offering, we will deliver certificates representing the units to the representative of the underwriters through the facilities of the Depository Trust Company. Thereafter, investors may request physical delivery of unit certificates at any time before the securities comprising the units begin trading separately from the common stock included in the units. An investor also may request delivery of separate physical certificates for the public warrants and the common stock comprising the units, but we will not be obligated to make delivery of the separate certificates until after the common stock and warrants begin trading separately. Until that time, investors will be unable to make separate delivery of certificates for the public warrants and common stock comprising a unit and will be unable to settle trades in those securities.

### Class A Warrants

*General.* The Class A warrants issued in this offering may be exercised after they become separately tradable until the expiration date, which is the fifth anniversary of the effective date of this offering. Each Class A warrant entitles the holder to purchase one share of common stock at an exercise price of \$[ ] per share.

*Redemption.* We will have the right to redeem the Class A warrants at a price of \$0.25 per warrant, after providing 30 days prior written notice to the Class A warrant holders, at any time after (i) 180 days after the effective date of this offering and (ii) the date on which the closing price of our common stock, as reported on Nasdaq, equals or exceeds \$[ ] for five consecutive trading days. We will send a written notice of redemption by first class mail to holders of the Class A warrants at their last known addresses appearing on the registration records maintained by the transfer agent. No other form of notice or publication will be required. If we call the Class A warrants for redemption, the holders will then have to decide whether to sell their Class A warrants, exercise them before the close business on the business day preceding the specified redemption date or hold them for redemption.

### Class B Warrants

The Class B warrants issued in this offering may be exercised after they become separately tradable until the expiration date, which is the fifth anniversary of the effective date of this offering. Each Class B warrant entitles the holder to purchase one share of common stock at an exercise price

of \$[ ] per share. This exercise price will be adjusted if specific events, summarized below, occur. A holder of warrants will not be deemed a holder of the underlying stock for any purpose until the warrant is exercised.

*No Redemption.* The Class B warrants are non-redeemable.

#### **Provisions Applicable to the Class A and Class B Warrants**

*Exercise.* The holders of the warrants may exercise them only if an appropriate registration statement is then in effect. To exercise a warrant, the holder must deliver to our transfer agent the warrant certificate on or before the expiration date or the redemption date, as applicable, with the form on the reverse side of the certificate executed as indicated, accompanied by payment of the full exercise price for the number of warrants being exercised. Fractional shares of common stock will not be issued upon exercise of the warrants.

*Adjustments in Certain Events.* The warrants provide for adjustment of the number of shares for which each warrant is exercisable if certain events occur. If we distribute to our stockholders additional shares of common stock through a dividend or distribution, or if we effect a stock split of our common stock, the total number of shares of common stock purchasable on exercise of a warrant will be adjusted so that the holder of a warrant thereafter exercised will be entitled to receive the number of shares of common stock the holder would have owned or received after such event if the warrant holder had exercised the warrant before the event causing the adjustment and held the securities received on such exercise through the record date for the event. The aggregate exercise price of the warrant will remain the same in that circumstance, but the effective purchase price per share of common stock purchasable upon exercise of the warrant will be proportionately reduced because a greater number of common stock shares will then be purchasable upon exercise of the adjusted warrant. We will make equivalent changes in the warrants if we effect a reverse stock split.

In the event of a capital reorganization or reclassification of our common stock, the warrants will be adjusted so that thereafter each warrant holder will be entitled to receive upon exercise the same number and kind of securities that such holder would have received if the warrant had been exercised before the capital reorganization or reclassification of our common stock and the securities received on such exercise had been held through the record date of the recapitalization.

If we merge or consolidate with another corporation, or if we sell our assets as an entirety or substantially as an entirety to another corporation, we will make provisions so that warrant holders will be entitled to receive upon exercise of a warrant the kind and number of securities, cash or other property that would have been received as a result of the transaction by a person who was our stockholder immediately before the transaction and who owned the same number of shares of common stock for which the warrant was exercisable immediately before the transaction. No adjustment to the warrants will be made, however, if a merger or consolidation does not result in any reclassification or change in our outstanding common stock.

#### **Preferred Stock**

Our Board of Directors is authorized by our Certificate of Incorporation to establish classes or series of preferred stock and fix the designation, powers, preferences and rights of the shares of each such class or series and the qualifications, limitations or restrictions thereof without any further vote or action by our stockholders. Any shares of preferred stock so issued could have priority over our common stock with respect to dividend or liquidation rights. Any future issuance of preferred stock may have the effect of delaying, deferring or preventing a change in our control without further action by our stockholders and may adversely affect the voting and other rights of the holders of our common

stock. At present we have no plans to issue any shares of preferred stock or to adopt any new series, preferences or other classification of preferred stock.

The issuance of shares of preferred stock, or the issuance of rights to purchase such shares, could be used to discourage an unsolicited acquisition proposal. For instance, the issuance of a series of preferred stock might impede a business combination by including class voting rights that would enable a holder to block such a transaction. In addition, under certain circumstances, the issuance of preferred stock could adversely affect the voting power of holders of our common stock. Although our Board of Directors is required to make any determination to issue preferred stock based on its judgment as to the best interests of our stockholders, our Board could act in a manner that would discourage an acquisition attempt or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which such stockholders might receive a premium for their stock over the then market price of such stock. Our Board presently does not intend to seek stockholder approval prior to the issuance of currently authorized stock, unless otherwise required by law or applicable stock exchange rules.

#### **Bridge Loans and Bridge Rights**

In January 2006, we completed a \$1.6 million bridge loan from lenders ("Bridge Noteholders") to help us meet our working capital needs. The loans ("Bridge Loans") accrue interest at an annual rate of 10% and are due and payable on the earlier of January 2007 or the completion of a public offering of equity securities with gross proceeds of at least \$5,000,000 ("Qualified Public Offering"). If a Qualified Public Offering is not completed by January 2007, the Bridge Noteholders will have the right to convert the principal and unpaid interest into shares of our common stock at a price of \$3.00 per share.

In connection with the Bridge Loans, we issued rights ("Bridge Rights") to the Bridge Noteholders. One Bridge Right was issued for every \$25,000 loaned. At the closing of a Qualified Public Offering before January 2007, holders of Bridge Rights will be entitled to receive units identical to the units being offered in this offering. The holder of each Bridge Right will be entitled to receive that number of units equal to \$25,000 divided by the initial public offering price of the units. If a Qualified Public Offering is not completed by January 2007, then each Bridge Right may be exercised for 8,333 shares of our common stock; provided, however, that if at any time before expiration of the Bridge Rights, we have a class of equity securities traded on any exchange or quotation system, then each Bridge Right may be exercised for \$25,000 of such equity securities. The Bridge Rights expire in January 2008.

#### **2005 Stock Option Plan**

The Option Plan currently authorizes the grant of up to 750,000 shares of common stock (subject to adjustment for stock splits and similar capital changes) in connection with restricted stock awards, incentive stock option grants and non-qualified stock option grants. Employees and, in the case of nonqualified stock options, directors, consultants or any affiliate are eligible to receive grants under our plans. As of March 1, 2006, there were outstanding options to purchase 594,000 shares under our Option Plan.

#### **Authorized but Unissued Shares**

The authorized but unissued shares of common and preferred stock are available for future issuance without stockholder approval. These additional shares may be used for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares could hinder or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

### **Anti-Takeover Effects of Certain Provisions of Delaware Law and Our Certificate of Incorporation and Bylaws**

Our Certificate of Incorporation and Bylaws contain a number of provisions that could make our acquisition by means of a tender or exchange offer, a proxy contest or otherwise more difficult. These provisions are summarized below.

*Removal of Directors.* Our Bylaws provide that our directors may only be removed by the affirmative vote of the shares entitled to vote at an election of directors; provided, however, that if less than the entire board of directors is to be removed, no one director may be removed if the vote cast against his removal would be sufficient to elect him if then cumulatively voted at an election of the entire Board of Directors. Although our Bylaws do not give the Board the power to approve or disapprove stockholder nominations for the election of directors or of any other business stockholders desire to conduct at an annual or any other meeting, the Bylaws may have the effect of precluding a nomination for the election of directors or precluding the conduct of business at a particular annual meeting if the proper procedures are not followed, or discouraging or deterring a third party from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control, even if the conduct of that solicitation or attempt might be beneficial to our stockholders.

*Staggered Board.* Staggered terms tend to protect against sudden changes in management and may have the effect of delaying, deferring or preventing a change in our control without further action by our stockholders. Our Board of Directors is divided into three classes, with one class of directors elected at each year's annual stockholder meeting.

*Special Meetings.* Our Bylaws provide that special meetings of stockholders can be called by the President, at the request of a majority of the Board of Directors at the written request of holders of at least 50% of the shares outstanding and entitled to vote.

*Undesignated Preferred Stock.* The ability to authorize undesignated preferred stock makes it possible for our Board of Directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

*Delaware Anti-Takeover Statute.* We will be subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly held Delaware corporation from engaging under certain circumstances in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

Prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder.

Upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer.

On or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66<sup>2</sup>/<sub>3</sub>% of the outstanding voting stock which is not owned by the interested stockholder.



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Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting securities. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our Board of Directors does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

The provisions of Delaware law, our Certificate of Incorporation and our Bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

### **Transfer Agent, Warrant Agent and Registrar**

The transfer agent and registrar for our common stock and warrant agent for the public warrants is Computershare Investor Services, 350 Indiana Street, Suite 800, Golden, Colorado 80401.

### **Listing**

We have applied to list our units, common stock, Class A warrants and Class B warrants on the Nasdaq Capital Market and the Boston Stock Exchange.

## SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our securities. Sales of our securities in the public market, or the perception that those sales may occur, could cause the prevailing market price to decrease or to be lower than it might be in the absence of those sales or perceptions.

### This Offering

Upon completion of this offering, we expect to have 5,290,909 shares of common stock outstanding, assuming the issuance of 290,909 units to certain bridge lenders. This number assumes no exercise of the underwriters' over-allotment option, the public warrants, the representative's warrants or any other outstanding options and warrants. We expect to 5,740,909 shares of common stock outstanding if the underwriters' over-allotment is exercised in full.

The 3,000,000 shares of common stock issued as part of the units sold in this offering, together with the up to 9,000,000 shares issued upon exercise of the Class A warrants and Class B warrants comprising part of the units sold in this offering, will be freely tradable, except by any of our "affiliates" as defined in Rule 144(a) under the Securities Act, without restriction or registration under the Securities Act. Contemporaneously with this offering, we intend to register the 290,909 units (and the 290,909 shares, 290,909 Class A warrants and 581,818 Class B warrants underlying the units) to be issued to certain bridge lenders. All remaining shares, and all shares subject to outstanding options and warrants, were issued and sold by us in private transactions and are eligible for public sale if registered under the Securities Act or sold in accordance with Rule 144 or Rule 701 under the Securities Act. These remaining shares are considered "restricted" within the meaning of Rule 144.

### Restricted Stock, Lock-Up Agreements and Rule 144

The 2,000,000 shares of restricted stock may not be sold in the absence of registration under the Securities Act unless an exemption from registration is available, including the exemption from registration offered by Rule 144. The holders of these shares, and the bridge lenders who will receive 290,909 units concurrently with the closing of this offering, have agreed not to sell or otherwise dispose of any of their shares of common stock (or any securities convertible into shares of common stock) for a period of one year after completion of this offering, without the prior written consent of Paulson Investment Company, Inc., the representative of the underwriters, subject to certain limited exceptions. After the expiration of this lock-up period, or earlier with the prior written consent of Paulson Investment Company, Inc., all of the outstanding restricted shares subject to the lock-up that are not also subject to escrow arrangements imposed by state securities regulators may be sold in the public market pursuant to Rule 144.

In addition to the foregoing, of the 2,000,000 shares subject to lock-up agreements with Paulson Investment Company, Inc., 59,000 shares are subject to contractual lock-up agreements with the Company preventing the sale of those shares until the third anniversary of this offering; and 970,500 shares are subject to contractual lock-up agreements preventing the sale of those shares until the second anniversary of this offering.

In general, under Rule 144, as currently in effect, beginning 90 days after the date of this prospectus, a person who has beneficially owned restricted shares for at least one year, including a person who may be deemed to be our affiliate, may sell within any three-month period a number of shares of common stock that does not exceed a specified maximum number of shares. This maximum is equal to the greater of 1% of the then outstanding shares of our common stock or the average weekly trading volume in the common stock during the four calendar weeks immediately preceding the sale. Sales under Rule 144 are also subject to restrictions relating to manner of sale, notice and availability of current public information about us. In addition, under Rule 144(k) of the Securities Act, a person who is not our affiliate, has not been an affiliate of ours within three months prior to the sale and has

beneficially owned shares for at least two years would be entitled to sell such shares immediately without regard to volume limitations, manner of sale provisions, notice or other requirements of Rule 144.

### **Stock Options**

As of March 1, 2006, we had granted and had outstanding stock options to purchase 594,000 shares of common stock under our Option Plan. A total of 750,000 shares of common stock currently are reserved for issuance under our Option Plan, and we intend to file a registration statement on Form S-8 to register these shares under the Securities Act. However, none of the shares registered on Form S-8 will be eligible for resale until expiration of the lock-up agreements to which they are subject.

### **Bridge Rights**

In connection with the Bridge Loans made in January 2006, we issued Bridge Rights, the holders of which will be entitled to receive units identical to the units being offered in this offering. The holder of each Bridge Right will be entitled to receive that number of units equal to \$25,000 divided by the initial public offering price of the units. The units to be issued in connection with the Bridge Rights are being registered concurrently herewith, but the bridge lenders each have agreed not to sell the units or the securities underlying the units, before the first anniversary of this offering without the consent of Paulson Investment Company, Inc.

### **Representative's Warrants**

In connection with this offering, we have agreed to issue to the representative of the underwriters warrants to purchase 300,000 units. The representative's warrants will be exercisable for units at any time beginning 180 days after the effective date of this offering until the fifth anniversary of the effective date. However, neither the representative's warrants nor the underlying securities may be sold, transferred, assigned, pledged or hypothecated, or be the subject of any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of this offering, except to any member participating in the offering and the officers or partners thereof, and only if all securities so transferred remain subject to the 180-day lock-up restriction for the remainder of the lock-up period. We will cause the registration statement of which this prospectus is a part to remain effective until the earlier of the time that all of the representative's warrants have been exercised and the date which is five years after the effective date of the offering or will file a new registration statement covering the exercise and resale of those securities. The common stock and public warrants issued to the representative upon exercise of these representative's warrants will be freely tradeable.

**UNDERWRITING**

Paulson Investment Company, Inc. is acting as the representative of the underwriters. We and the underwriters named below have entered into an underwriting agreement with respect to the units being offered. In connection with this offering and subject to certain conditions, each of the underwriters named below has severally agreed to purchase, and we have agreed to sell, the number of units set forth opposite the name of each underwriter.

| <b>Underwriters</b>              | <b>Number of<br/>Units</b> |
|----------------------------------|----------------------------|
| Paulson Investment Company, Inc. |                            |
| Total                            | 3,000,000                  |

The underwriting agreement provides that the underwriters are obligated to purchase all of the units offered by this prospectus, other than those covered by the over-allotment option, if any units are purchased. The underwriting agreement also provides that the obligations of the several underwriters to pay for and accept delivery of the units is subject to the approval of certain legal matters by counsel and certain other conditions. These conditions include, among other things, the requirements that no stop order suspending the effectiveness of the registration statement be in effect and that no proceedings for this purpose have been instituted or threatened by the SEC.

The representative has advised us that the underwriters propose to offer our units to the public initially at the offering price set forth on the cover page of this prospectus and to selected dealers at that price less a concession of not more than \$            per unit. The underwriters and selected dealers may reallow a concession to other dealers, including the underwriters, of not more than \$            per unit. After completion of the public offering of the units, the offering price, the concessions to selected dealers and the reallowance to their dealers may be changed by the underwriters.

The underwriters have informed us that they do not expect to confirm sales of our units offered by this prospectus on a discretionary basis.

**Over-allotment Option**

Pursuant to the underwriting agreement, we have granted the underwriters an option, exercisable for 45 days from the date of this prospectus, to purchase up to an additional 450,000 units on the same terms as the other units being purchased by the underwriters from us. The underwriters may exercise the option solely to cover over-allotments, if any, in the sale of the units that the underwriters have agreed to purchase. If the over-allotment option is exercised in full, the total public offering price, underwriting discount and proceeds to us before offering expenses will be \$18,975,000, \$1,518,000 and \$17,457,000, respectively.

**Stabilization**

The rules of the SEC generally prohibit the underwriters from trading in our securities on the open market during this offering. However, the underwriters are allowed to engage in some open market transactions and other activities during this offering that may cause the market price of our securities to be above or below that which would otherwise prevail in the open market. These activities may include stabilization, short sales and over-allotments, syndicate covering transactions and penalty bids.

Stabilizing transactions consist of bids or purchases made by the managing underwriter for the purpose of preventing or slowing a decline in the market price of our securities while this offering is in progress.

Short sales and over-allotments occur when the managing underwriter, on behalf of the underwriting syndicate, sells more of our units than it purchases from us in this offering. In order to cover the resulting short position, the managing underwriter may exercise the over-allotment option described above or may engage in syndicate covering transactions. There is no contractual limit on the size of any syndicate covering transaction. The underwriters will deliver a prospectus in connection with any such short sales. Purchasers of units sold short by the underwriters are entitled to the same remedies under the federal securities laws as any other purchaser of units covered by the registration statement.

Syndicate covering transactions are bids for or purchases of our securities on the open market by the managing underwriter on behalf of the underwriters in order to reduce a short position incurred by the managing underwriter on behalf of the underwriters.

A penalty bid is an arrangement permitting the managing underwriter to reclaim the selling concession that would otherwise accrue to an underwriter if the common stock originally sold by the underwriter was later repurchased by the managing underwriter and therefore was not effectively sold to the public by such underwriter.

If the underwriters commence these activities, they may discontinue them at any time without notice. The underwriters may carry out these transactions on the Nasdaq Capital Market, the Boston Stock Exchange or otherwise.

#### **Indemnification**

The underwriting agreement provides for indemnification between us and the underwriters against specified liabilities, including liabilities under the Securities Act, and for contribution by us and the underwriters to payments that may be required to be made with respect to those liabilities. We have been advised that, in the opinion of the SEC, indemnification for liabilities under the Securities Act is against public policy as expressed in the Securities Act and is therefore unenforceable.

#### **Underwriters' Compensation**

We have agreed to sell the units to the underwriters at the initial offering price of \$[ ] per unit, which represents the initial public offering price of the units set forth on the cover page of this prospectus less the [ ]% underwriting discount. The underwriting agreement also provides that Paulson Investment Company, Inc. will be paid a nonaccountable expense allowance equal to 3% of the gross proceeds from the sale of the units offered by this prospectus, excluding any units purchased on exercise of the over-allotment option. We have paid Paulson Investment Company, Inc. a \$35,000 advance against the nonaccountable expense allowance.

On completion of this offering, we will issue to the representative of the underwriters warrants to purchase up to 300,000 units, for a price per unit equal to 120% of the initial offering price of the units. The representative's warrants will be exercisable for units at any time beginning 180 days after the effective date of this offering, and will expire on the fifth anniversary of the effective date. However, neither the representative's warrants nor the underlying securities may be sold, transferred, assigned, pledged, or hypothecated, or be the subject of any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the securities by any person for a period of 180 days immediately following the date of effectiveness or commencement of sales of the offering, except to any member participating in the offering and the officers or partners thereof, and only if all securities so transferred remain subject to the 180-day lock-up restriction for the remainder of the lock-up period.

The holder of these warrants will have, in that capacity, no voting, dividend or other stockholder rights. Any profit realized on the sale of the units issuable upon exercise of these warrants may be

deemed to be additional underwriting compensation. The securities underlying these warrants are being registered pursuant to the registration statement of which this prospectus is a part. During the term of these warrants, the holder thereof is given the opportunity to profit from a rise in the market price of our common stock. We may find it more difficult to raise additional equity capital while these warrants are outstanding. At any time at which these warrants are likely to be exercised, we may be able to obtain additional equity capital on more favorable terms.

The following table summarizes the underwriting discount we will pay to the underwriters and the non-accountable expense allowance we will pay to the representative of the underwriters. These amounts are shown assuming both no exercise and full exercise of the underwriters' over-allotment option.

|                                   | Total    |                        |                     |
|-----------------------------------|----------|------------------------|---------------------|
|                                   | Per Unit | Without Over-Allotment | With Over-Allotment |
| Underwriting discount             | \$ 0.44  | \$ 1,320,000           | \$ 1,518,000        |
| Non-accountable expense allowance | \$ 0.165 | \$ 495,000             | \$ 495,000          |

#### Lock-Up Agreements

Our officers, directors and all stockholders (including holders of securities convertible into common stock) have agreed that for a period of one year from the date this registration statement becomes effective they will not sell, contract to sell, grant any option for the sale or otherwise dispose of any of our equity securities, or any securities convertible into or exercisable or exchangeable for our equity securities, other than through existing Rule 10b5-1 trading plans, intra-family transfers or transfers to trusts for estate planning purposes, without the consent of Paulson Investment Company, Inc., as the representative of the underwriters, which consent will not be unreasonably withheld. Paulson Investment Company, Inc. may consent to an early release from the one-year lock-up period if, in its opinion, the market for the common stock would not be adversely impacted by sales and in cases of an officer, director or other stockholder's financial emergency. We are unaware of any officer, director or current stockholder who intends to ask for consent to dispose of any of our equity securities during the lock-up period.

In addition, the holders of the 2,000,000 shares of common stock outstanding prior to this offering have agreed that they will not sell 970,500 of those shares before the second anniversary, and 59,000 of those shares before the third anniversary, of the effective date of this offering

#### Determination of Offering Price

The public offering price of the units offered by this prospectus and the exercise price of the public warrants have been determined by negotiation between us and the underwriters. Among the factors considered in determining the public offering price of the units and the exercise price of the warrants were:

our prospects;

the industry in which we operate;

the status and development prospects for our proposed products;

the previous experience of our executive officers; and

the general condition of the securities markets at the time of this offering.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the units. That price is subject to change as a result of market

conditions and other factors, and we cannot assure you that the units, or the common stock and warrants contained in the units, can be resold at or above the initial public offering price.

#### **LEGAL MATTERS**

Holland & Knight LLP will pass upon the validity of the common stock offered by this prospectus on our behalf. Certain legal matters will be passed upon for the underwriters by Stoel Rives LLP.

#### **EXPERTS**

The financial statements in this prospectus for the years ended December 31, 2005 and 2004 relating to the assets transferred from ITN to us, and the financial statements of Ascent Solar Technologies, Inc. for the period ended December 31, 2005, have been audited by Hein & Associates LLP, an independent registered public accounting firm, to the extent and for the periods set forth in their report, and are set forth in this prospectus in reliance upon such report given upon the authority of them as experts in auditing and accounting.

#### **WHERE YOU CAN FIND MORE INFORMATION**

In connection with the units offered by this prospectus, we have filed a registration statement on Form SB-2 under the Securities Act with the SEC. This prospectus, filed as part of the registration statement, does not contain all of the information included in the registration statement and the accompanying exhibits and schedules. For further information with respect to our units, shares and warrants, and as you should refer to the registration statement and the accompanying exhibits and schedules. Statements contained in this prospectus regarding the contents of any contract or any other document are not necessarily complete, and you should refer to the copy of the contract or other document filed as an exhibit to the registration statement, each statement being qualified in all respects by the actual contents of the contract or other document referred to. You may inspect a copy of the registration statement and the accompanying exhibits and schedules without charge at the SEC's public reference facilities, 100 F Street, N.E., Washington, D.C. 20549, and you may obtain copies of all or any part of the registration statement from those offices for a fee. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains a web site that contains reports, proxy and information statements and other information regarding registrants that file electronically. The address of the site is <http://www.sec.gov>.

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**Ascent Solar Technologies, Inc.**

**Unaudited Pro Forma Financial Statements**

**Introduction**

In January 2006, ITN Energy Systems, Inc. ("ITN") assigned or licensed certain photovoltaic technologies and transferred certain personnel to Ascent. In particular, ITN assigned inventions and trade secrets relating to copper-indium-gallium-diselenide photovoltaic ("CIGS PV") technology. ITN also granted Ascent an exclusive, perpetual, worldwide and royalty-free license to technologies, inventions, trade secrets and patents not assigned, but that are reasonably necessary to Ascent's CIGS PV business. ITN agreed to seek government approvals to transfer government-sponsored CIGS PV research and development contracts to Ascent. The Transfer of Assets will be recorded at historical basis in a manner similar to a reorganization of entities under common control.

The accompanying unaudited Ascent Solar Technologies, Inc. ("Ascent") pro forma balance sheet as of December 31, 2005 is presented as if the transferred PV Assets of ITN Energy Systems, Inc. ("Transferred Assets") had occurred as of December 31, 2005. The accompanying unaudited pro forma statements of operations for the year ended December 31, 2005 and 2004 are presented as if transfer of the Transferred Assets had occurred as of January 1, 2004. The adjustments to the historical financial statements reflect those necessary to show the effect of the asset transfer with the formation of Ascent.

The unaudited pro forma financial information is not necessarily indicative of what the Company's results of operations actually would have been had the acquisition been completed as of January 1, 2004. Additionally, the unaudited pro forma financial information does not attempt to project the future results of operations of the Company. In the opinion of management, all significant adjustments necessary to reflect the effects of the acquisition have been made. The unaudited pro forma combined financial statements should be read in conjunction with the historical financial statements of Ascent and the Transferred Assets included elsewhere in this registration statement.

## ASCENT SOLAR TECHNOLOGIES, INC.

## UNAUDITED PRO FORMA COMBINED BALANCE SHEET

As of December 31, 2005

|                                                                                                        | Historical  |                    | Pro Forma   |             |
|--------------------------------------------------------------------------------------------------------|-------------|--------------------|-------------|-------------|
|                                                                                                        | Ascent      | Transferred Assets | Adjustments | Combined    |
| <b>Assets</b>                                                                                          |             |                    |             |             |
| Current assets:                                                                                        |             |                    |             |             |
| Cash                                                                                                   | \$ 28,059   | \$                 | \$          | \$ 28,059   |
| Deferred financing costs                                                                               | 27,165      |                    |             | 27,165      |
| Accounts receivable                                                                                    |             | \$ 67,830          |             | 67,830      |
| Other current assets                                                                                   |             | 9,000              |             | 9,000       |
| Total current assets                                                                                   | 55,224      | 76,830             |             | 132,054     |
| Patent costs                                                                                           |             | 24,957             |             | 24,957      |
| Deferred offering costs                                                                                | 141,007     |                    |             | 141,007     |
| Total assets                                                                                           | \$ 196,231  | \$ 101,787         | \$          | \$ 298,018  |
| <b>Liabilities and Stockholders' Deficit</b>                                                           |             |                    |             |             |
| Current liabilities:                                                                                   |             |                    |             |             |
| Accounts payable                                                                                       | \$ 42,974   | \$ 36,039          | \$          | \$ 79,013   |
| Related Party Payable                                                                                  | 48,878      |                    |             | 48,878      |
| Accrued Expenses                                                                                       | 113,609     |                    |             | 113,609     |
| Note Payable                                                                                           | 200,000     |                    |             | 200,000     |
| Total current liabilities                                                                              | 405,461     | 36,039             |             | 441,500     |
| Commitments and contingencies                                                                          |             |                    |             |             |
| <b>Stockholders' Deficit</b>                                                                           |             |                    |             |             |
| Preferred Stock, \$0.0001 par value,<br>25,000,000 shares authorized, no shares<br>outstanding         |             |                    |             |             |
| Common Stock, \$0.0001 par value,<br>75,000,000 shares authorized, 2,000,000<br>issued and outstanding | 97          |                    | (A)103      | 200         |
| Additional Paid in Capital                                                                             | 997,907     |                    | (A)65,645   | 1,063,552   |
| Accumulated deficit                                                                                    | (1,207,234) |                    |             | (1,207,234) |
| Net assets                                                                                             |             | 65,748             | (A)(65,748) |             |
| Total stockholders' deficit                                                                            | (209,230)   | 65,748             |             | (143,482)   |
| Total liabilities and stockholders' deficit                                                            | \$ 196,231  | \$ 101,787         | \$          | \$ 298,018  |

See accompanying notes to unaudited pro forma combined financial statements.

## ASCENT SOLAR TECHNOLOGIES, INC.

## UNAUDITED PRO FORMA COMBINED STATEMENT OF OPERATIONS

|                                                                     | Historical                                                                                          |                                                                        | Pro Forma   |                |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------|----------------|
|                                                                     | Ascent<br>For the period<br>from inception<br>(October 18, 2005)<br>through<br>December 31,<br>2005 | Transferred<br>Assets<br>For the year<br>ended<br>December 31,<br>2005 | Adjustments | Combined       |
| Contract revenues                                                   |                                                                                                     | \$ 1,050,502                                                           |             | \$ 1,050,502   |
| Direct contract costs:                                              |                                                                                                     |                                                                        |             |                |
| Direct labor                                                        |                                                                                                     | 230,246                                                                |             | 230,246        |
| Subcontractors & materials                                          |                                                                                                     | 298,972                                                                |             | 298,972        |
| Total direct costs                                                  |                                                                                                     | 529,218                                                                |             | 529,218        |
| Gross margin on revenue                                             |                                                                                                     | 521,284                                                                |             | 521,284        |
| Indirect costs (G&A)                                                | \$ 1,204,494                                                                                        | 513,678                                                                |             | 1,718,172      |
| Income (loss) from operations                                       | (1,204,494)                                                                                         | 7,606                                                                  |             | (1,196,888)    |
| Other income/(expense):                                             |                                                                                                     |                                                                        |             |                |
| Interest expense                                                    | (2,740)                                                                                             |                                                                        |             | (2,740)        |
| Net income (loss)                                                   | \$ (1,207,234)                                                                                      | \$ 7,606                                                               |             | \$ (1,199,628) |
| Net loss per share<br>(basic and diluted)                           |                                                                                                     |                                                                        |             | \$ (1.57)      |
| Weighted average common share<br>outstanding<br>(basic and diluted) |                                                                                                     |                                                                        |             | 761,838        |

See accompanying notes to unaudited pro forma combined financial statements.

## ASCENT SOLAR TECHNOLOGIES, INC.

## UNAUDITED PRO FORMA COMBINED STATEMENT OF OPERATIONS

For the Year Ended December 31, 2004

|                                                                  | Historical |                    | Pro Forma   |              |
|------------------------------------------------------------------|------------|--------------------|-------------|--------------|
|                                                                  | Ascent     | Transferred Assets | Adjustments | Combined     |
| Contract revenues                                                | \$         | 1,425,886          |             | \$ 1,425,886 |
| Direct contract costs:                                           |            |                    |             |              |
| Direct labor                                                     |            | 396,427            |             | 396,427      |
| Subcontractors & materials                                       |            | 287,003            |             | 287,003      |
| Total direct costs                                               |            | 683,430            |             | 683,430      |
| Gross margin on revenue                                          |            | 742,456            |             | 742,456      |
| Indirect costs (G&A)                                             |            | 823,466            |             | 823,466      |
| Income (loss) from operations                                    |            | (81,010)           |             | (81,010)     |
| Other income/(expense):                                          |            |                    |             |              |
| Interest expense                                                 |            |                    |             |              |
| Net income (loss)                                                | \$         | (81,010)           |             | \$ (81,010)  |
| Net loss per share<br>(basic and diluted)                        |            |                    |             | \$ (0.11)    |
| Weighted average common share outstanding<br>(basic and diluted) |            |                    |             | 761,838      |

See accompanying notes to unaudited pro forma combined financial statements.

**ASCENT SOLAR TECHNOLOGIES, INC.**

**NOTES TO UNAUDITED PRO FORMA COMBINED BALANCE SHEET**

**AND STATEMENTS OF OPERATIONS**

**As of December 31, 2005 and for the period from inception (October 18, 2005) through December 31, 2005 (Ascent) and for the years then ended December 31, 2005 and 2004 (Transferred Assets)**

**(1) Adjustments to Pro Forma Combined Balance Sheet as of December 31, 2005:**

(A)

The issuance of 1,028,000 shares of common stock to ITN for the transfer of Transferred Assets at historical cost

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and  
Stockholders of Ascent Solar Technologies, Inc.

We have audited the accompanying balance sheet of Ascent Solar Technologies, Inc. (a Development Stage Company as defined by SFAS No. 7) as of December 31, 2005, and the related statements of operations, stockholders' deficit and cash flows for the period from inception (October 18, 2005) through December 31, 2005. This financial statement is the responsibility of the Company's management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement preparation. We believe that our audit provides 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, 2005, and the results of its operations and its cash flows for the period from inception (October 18, 2005) through December 31, 2005 in conformity with U.S. generally accepted accounting principles.

*HEIN & ASSOCIATES LLP*  
Denver, Colorado

March 2, 2006

## ASCENT SOLAR TECHNOLOGIES, INC.

(A Development Stage Company as Defined by SFAS No. 7)

## BALANCE SHEET

As of December 31, 2005

| Assets                                                                                   |                   |
|------------------------------------------------------------------------------------------|-------------------|
| <b>Current Assets:</b>                                                                   |                   |
| Cash                                                                                     | \$ 28,059         |
| Deferred financing costs                                                                 | 27,165            |
|                                                                                          | <hr/>             |
| Total current assets                                                                     | 55,224            |
| Deferred Offering Costs                                                                  | 141,007           |
|                                                                                          | <hr/>             |
| <b>Total Assets</b>                                                                      | <b>\$ 196,231</b> |
|                                                                                          | <hr/>             |
| Liabilities & Stockholders' Deficit                                                      |                   |
| <b>Current Liabilities:</b>                                                              |                   |
| Accounts payable                                                                         | \$ 42,974         |
| Related party payable                                                                    | 48,878            |
| Accrued expenses                                                                         | 113,609           |
| Note payable                                                                             | 200,000           |
|                                                                                          | <hr/>             |
| Total current liabilities                                                                | 405,461           |
| <b>Commitments and Contingencies (Note 8)</b>                                            |                   |
| <b>Stockholders' Deficit:</b>                                                            |                   |
| Preferred Stock, \$0.0001 par value, 25,000,000 shares authorized, no shares outstanding |                   |
| Common Stock, \$0.0001 par value, 75,000,000 shares authorized, no shares outstanding    | 97                |
| Additional Paid in Capital                                                               | 997,907           |
| Deficit accumulated during the development stage                                         | (1,207,234)       |
|                                                                                          | <hr/>             |
| Total Stockholders' Deficit                                                              | (209,230)         |
|                                                                                          | <hr/>             |
| <b>Total Liabilities and Stockholders' Deficit</b>                                       | <b>\$ 196,231</b> |
|                                                                                          | <hr/>             |

See accompanying notes to financial statements.

**ASCENT SOLAR TECHNOLOGIES, INC.**

**(A Development Stage Company as Defined by SFAS No. 7)**

**STATEMENT OF OPERATIONS**

**For the Period from inception (October 18, 2005) through December 31, 2005**

|                                                        |                       |
|--------------------------------------------------------|-----------------------|
| <b>General &amp; Administrative Expenses (G&amp;A)</b> | <b>1,204,494</b>      |
|                                                        | <b>_____</b>          |
| <b>Loss from Operations</b>                            | <b>\$ (1,204,494)</b> |
| <b>Other Income/(Expense):</b>                         |                       |
| Interest expense                                       | (2,740)               |
|                                                        | <b>_____</b>          |
| <b>Net Loss</b>                                        | <b>\$ (1,207,234)</b> |
|                                                        | <b>_____</b>          |
| <b>Net Loss Per Share</b>                              |                       |
| (Basic and diluted)                                    | \$ (1.58)             |
|                                                        | <b>_____</b>          |
| <b>Weighted Average Common Shares Outstanding</b>      |                       |
| (Basic and diluted)                                    | 761,838               |
|                                                        | <b>_____</b>          |

See accompanying notes to financial statements.



ASCENT SOLAR TECHNOLOGIES, INC.

(A Development Stage Company as Defined by SFAS No. 7)

STATEMENT OF STOCKHOLDERS' DEFICIT

For the Period from inception (October 18, 2005) through December 31, 2005

|                                               | Common Stock |        | Preferred Stock |        | Additional<br>Paid-In<br>Capital | Accumulated<br>Deficit | Total<br>Stockholders'<br>Deficit |
|-----------------------------------------------|--------------|--------|-----------------|--------|----------------------------------|------------------------|-----------------------------------|
|                                               | Shares       | Amount | Shares          | Amount |                                  |                        |                                   |
| <b>Balance at inception, October 18, 2005</b> |              |        |                 |        |                                  |                        |                                   |
| Proceeds from sale of common stock            | 972,000      | \$ 97  |                 |        | \$ 38,783                        |                        | \$ 38,880                         |
| <b>Stock Based Compensation:</b>              |              |        |                 |        |                                  |                        |                                   |
| Founders Stock                                |              |        |                 |        | 933,120                          |                        | 933,120                           |
| Stock Options                                 |              |        |                 |        | 26,004                           |                        | 26,004                            |
| Net loss                                      |              |        |                 |        |                                  | \$ (1,207,234)         | (1,207,234)                       |
| <b>Balance, December 31, 2005</b>             | 972,000      | \$ 97  |                 |        | \$ 997,907                       | \$ (1,207,234)         | \$ (209,230)                      |

See accompanying notes to financial statements.

## ASCENT SOLAR TECHNOLOGIES, INC.

(A Development Stage Company as Defined by SFAS No. 7)

## STATEMENT OF CASH FLOWS

For the Period from inception (October 18, 2005) through December 31, 2005

|                                                                         |                  |
|-------------------------------------------------------------------------|------------------|
| <b>Operating Activities:</b>                                            |                  |
| Net loss                                                                | \$ (1,207,234)   |
| Adjustments to reconcile net loss to cash used in operating activities: |                  |
| Stock based compensation Founders                                       | 933,120          |
| Stock based compensation Stock Options                                  | 26,004           |
| Changes in operating assets and liabilities:                            |                  |
| Accounts payable                                                        | 42,974           |
| Related party payable                                                   | 48,878           |
| Accrued expenses                                                        | 113,609          |
|                                                                         | <hr/>            |
| Net cash used in operating activities                                   | (42,649)         |
|                                                                         | <hr/>            |
| <b>Investing Activities:</b>                                            |                  |
| Net cash used in investing activities                                   |                  |
| <b>Financing Activities:</b>                                            |                  |
| Deferred financing costs                                                | (27,165)         |
| Deferred offering costs                                                 | (141,007)        |
| Proceeds from note                                                      | 200,000          |
| Proceeds from sale of common stock                                      | 38,880           |
|                                                                         | <hr/>            |
| Net cash provided by financing activities                               | 70,708           |
|                                                                         | <hr/>            |
| <b>Net Change in Cash and Cash Equivalents</b>                          | <b>28,059</b>    |
| <b>Cash and Cash Equivalents at Beginning of Period</b>                 |                  |
|                                                                         | <hr/>            |
| <b>Cash and Cash Equivalents at End of Period</b>                       | <b>\$ 28,059</b> |
|                                                                         | <hr/>            |
| <b>Supplemental Cash Flow Information:</b>                              |                  |
| Cash paid for interest                                                  | \$ 0             |
|                                                                         | <hr/>            |
| Cash paid for income taxes                                              | \$ 0             |
|                                                                         | <hr/>            |

See accompanying notes to financial statements.

**ASCENT SOLAR TECHNOLOGIES, INC.**

**(A Development Stage Company as Defined by SFAS No. 7)**

**NOTE 1. ORGANIZATION AND BASIS OF PRESENTATION**

Ascent Solar Technologies, Inc. ("Ascent" or the "Company") was incorporated on October 18, 2005 to commercialize certain PV technologies developed by ITN Energy Systems, Inc. ("ITN"), a Colorado corporation dedicated to the development of thin-film, photovoltaic ("PV"), battery and fuel cell technologies. ITN has invested considerable resources in the research and development of Copper-Indium-Gallium-Diselenide ("CIGS") PV technology. ITN formed Ascent to commercialize this CIGS PV technology for the space and near-space markets. In January 2006, in exchange for 1,028,000 shares of common stock of Ascent (bringing to 2,000,000 the total number of outstanding shares in the Company), ITN: (i) assigned its CIGS PV technologies and trade secrets ("Transferred Assets") to Ascent; (ii) licensed certain proprietary process, control and design technologies to Ascent; (iii) assigned or agreed to seek permission to assign certain contract rights relating to its CIGS PV business to Ascent; (iv) transferred certain key personnel to Ascent; (v) agreed to design and build Ascent's initial production line, which will utilize ITN's proprietary roll-to-roll processing tools, real-time intelligent processing controls and thin-film processing technologies; and (vi) agreed to provide administrative services such as facilities management, equipment maintenance, human resources and accounting.

**NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Basis of Presentation:**

The Company's activities to date have substantially consisted of raising capital and research and development. Accordingly, the Company is considered to be in the development stage at December 31, 2005, as defined in Statement of Financial Accounting Standards No. 7 ("SFAS No. 7"), Accounting and Reporting by Development Stage Enterprises.

**Revenue Recognition:** Revenue from cost-type 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 fixed price-type 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. Revenue from time and materials contracts is recognized as costs are incurred at amounts represented by the agreed-upon billing amounts.

**Patents:** To the extent the Company obtains or is awarded patents, patent costs will be amortized on a straight line basis over the legal life, or, over their estimated useful lives, whichever is shorter.

**Deferred Financing Costs:** Costs incurred in connection with obtaining debt are capitalized as deferred financing costs and are amortized to interest expense over the life of the related debt. As of December 31, 2005, deferred financing costs were \$27,165. No amortization expense was recognized for the period from inception (October 18, 2005) through December 31, 2005 as the Bridge Loan financing was not completed until January 2006 (Note 9).

**Deferred Offering Costs:** The company capitalizes costs associated with the issuance of stock as they are incurred. Upon issuance of the stock, such issue costs are treated as a reduction of the offering proceeds and accordingly charged to common stock. During 2005, the Company incurred costs of \$141,007 related to a proposed initial public offering of stock that is to be completed subsequent to December 31, 2005 (Note 9).

**Income taxes:** Current income tax expense is the amount of income taxes expected to be payable for the current year. Deferred income taxes are recognized for the tax consequences in future years of

differences between the tax bases of assets and liabilities and their financial reporting amounts at each year end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable earnings. Valuation allowances are established when necessary to reduce deferred tax assets to the amount more likely than not to be related.

**Risks and uncertainties:** The Company's operations are subject to certain risks and uncertainties, including those associated with: the ability to meet obligations; continuing losses, fluctuation in operating results; funding expansions; strategic alliances; financing arrangement terms that may restrict operations; regulatory issues and competition. Additionally, U.S. government contracts may be terminated prior to completion of full funding by the U.S. government.

**Use of estimates:** The preparation of financial statements in conformity with generally accepted accounting principles 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.

**Net loss per common share:** Statement of Financial Accounting Standards No. 128, "Earnings Per Share", provides for the calculation of "Basic" and "Diluted" earnings per share. Basic earnings per share includes no dilution and is computed by dividing income available to common stockholders by the weighted-average number of shares outstanding during the period from inception (October 18, 2005) through December 31, 2005. Diluted earnings per share reflect the potential of securities that could share in the earnings of the Company, similar to fully diluted earnings per share.

For the year ended December 31, 2005, total stock options in the amount of 408,000 are not considered in the computation of diluted earnings per share as their inclusion would be anti-dilutive.

**Stock based compensation:**

In December 2004, the FASB issued SFAS No. 123(R), "Share-Based Payment," which is a revision of SFAS No. 123, Accounting for Stock-Based Compensation. SFAS No. 123(R) is effective for public companies for interim or annual periods beginning after June 15, 2005, supersedes APB Opinion No. 25, Accounting for Stock Issued to Employees, and amends SFAS No. 95, Statement of Cash Flows.

SFAS No. 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro-forma disclosure is no longer an alternative. The Company adopted the new standard October 18, 2005 (Note 4).

**Recent accounting pronouncements:**

In November 2004, the FASB issued SFAS 151, Inventory Costs, which revised ARB 43, relating to inventory costs. This revision is to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material (spoilage). This Statement requires that these items be recognized as a current period charge regardless of whether they meet the criterion specified in ARB 43. In addition, this Statement requires the allocation of fixed production overheads to the costs of conversion be based on normal capacity of the production facilities. SFAS 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The Company does not believe the adoption of SFAS 151 will have a material impact on the Company's financial statements.

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The FASB issued SFAS 153, *Exchanges of Nonmonetary Assets*, which changes the guidance in APB Opinion 29, *Accounting for Nonmonetary Transactions*. This Statement amends Opinion 29 to eliminate the exception for nonmonetary exchanges of similar productive assets and replaces it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. A nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to change significantly as a result of the exchange. SFAS 153 is effective during fiscal years beginning after June 15, 2005. The Company does not believe the adoption of SFAS 153 will have a material impact on the Company's financial statements.

In May 2005, the FASB issued SFAS No. 154, *Accounting Changes and Error Corrections - a replacement of APB Opinion No. 20 and FASB Statement No. 3* ("Statement 154"). SFAS 154 requires retrospective application to prior periods' financial statements for changes in accounting principle, unless it is impracticable to determine either the period-specific effects or the cumulative effect of the change. SFAS 154 also requires that a change in depreciation, amortization, or depletion method for long-lived, non-financial assets be accounted for as a change in accounting estimate effected by a change in accounting principle. SFAS 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005. The implementation of FAS 154 is not expected to have a material impact on the Company's financial statements.

### NOTE 3: NOTE PAYABLE

In advance of the Bridge Financing, on November 11, 2005 the Company took a \$200,000 short-term, 10% accrued interest loan from Paulson Investment Company. At December 31, 2005 the Company had \$200,000 due on the Note and accrued interest payable of \$2,740. On February 1, 2006, the loan was repaid using proceeds from the Bridge Financing.

### NOTE 4: STOCKHOLDERS' DEFICIT

The Company's authorized capital stock consists of 75,000,000 shares of common stock, \$0.0001 par value, and 25,000,000 shares of preferred stock, \$0.0001 par value. As of December 31, 2005, the Company had 972,000 shares of common stock and no shares of preferred stock outstanding.

In November 2005, the Company issued 972,000 shares of common stock at a price of \$0.04 per share. The Company has recorded for financial statement purposes the 972,000 shares at a fair value of \$1.00 per share. The statement of operations reflects compensation expense of \$933,120 related to the recording of this stock transaction. In January 2006, in consideration of certain asset transfers, licenses and service agreements (Note 1), the Company issued 1,028,000 shares of common stock to ITN Energy Systems, Inc.

Preferred stock, \$0.0001 par value per share, may be issued in classes or series. Designations, powers, preferences, rights, qualifications limitations and restrictions are determined by the Company's Board of Directors.

### NOTE 5: STOCK BASED COMPENSATION

#### Stock Option Plan

The Company's 2005 Stock Option Plan (the "Option Plan"), as amended, provides for the grant of incentive or non-statutory stock options to the Company's employees, directors and consultants. A total of 750,000 shares of common stock are reserved for issuance under the Option Plan. The Board

of Directors and the Company's stockholders approved the plan in October and November 2005, respectively.

The Option Plan is administered by the Compensation Committee of the Board of Directors, which determines the terms of the options, including the exercise price, expiration date, vesting schedule and number of shares. The term of any incentive stock option granted under the Option Plan may not exceed ten years, or five 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 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.

In November 2005, the Company granted options to purchase 408,000 shares of common stock under the Option Plan, all at an exercise price of \$0.10 per share. Of these options, 34,000 are to vest on December 31, 2005; 146,000 of such options are to vest on December 31, 2006; 114,500 of such options are to vest on December 31, 2007 and 113,500 of such options are to vest on December 31, 2008. As of December 31, 2005, 342,000 shares remain available for future grants under the Option Plan.

Subsequent to December 31, 2005, an additional 201,000 options were granted and 15,000 shares were cancelled. As of March 1, 2006, there were outstanding options to purchase 594,000 shares of common stock under the Option Plan.

### **Stock Based Compensation**

The Company accounts for share-based payments under the provisions of Statement of Financial Accounting Standards No. 123 (revised 2004), "Share-Based Payment," ("SFAS 123(R)") which requires the measurement and recognition of compensation expense for all share-based payment awards made to employees and directors including employee stock options based on estimated fair values.

SFAS 123(R) requires companies to estimate the fair value of share-based payment awards on the date of grant using an option-pricing model. 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 Statement of Operations. Stock-based compensation expense recognized in the Statement of Operations for the period from inception (October 18, 2005) through December 31, 2005 is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revised, if 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 under SFAS 123(R), we used the Black-Scholes option-pricing model ("Black-Scholes Model"). 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 its employee stock options. In addition, 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.

The weighted average estimated fair value of employee stock options granted during the period from inception (October 18, 2005) through December 31, 2005 was \$1.94 per share, using the Black-Scholes Model with the following weighted average assumptions:

|                          | For the Period<br>from inception<br>(October 18,<br>2005) through<br>December 31,<br>2005 |
|--------------------------|-------------------------------------------------------------------------------------------|
| Expected volatility      | 81.1%                                                                                     |
| Risk free interest rate  | 4.50%                                                                                     |
| Expected dividends       |                                                                                           |
| Expected life (in years) | 6.1                                                                                       |

We based our estimate of expected volatility, risk free interest rate and expected term on disclosures made by peers. Forfeitures were estimated, based on historical employee retention experience among staff of similar position to those granted options in our plan.

Stock-based compensation recognized under SFAS 123(R) for the period from inception (October 18, 2005) through December 31, 2005 was \$26,004, of which \$12,704 related to options granted to officers and directors and \$13,300 to outside providers. The stock-based compensation expense is calculated on a straight-line basis over the vesting periods of the related options.

In future periods, the compensation expense that we record under SFAS 123(R) may differ significantly from what we have recorded in the current period, as we build company-specific performance history.

As of December 31, 2005, we have approximately \$664,000 of total compensation cost (\$324,000 to officers and directors and \$340,000 to outside providers) related to nonvested awards not yet recognized and expect to recognize these costs over a weighted average period of 3.0 years.

The following schedule summarizes activity in our stock option plan (shares in thousands):

|                                         | Stock Option<br>Shares | Stock Options<br>Weighted<br>Average<br>Exercise Price |
|-----------------------------------------|------------------------|--------------------------------------------------------|
| <b>Outstanding at October 18, 2005</b>  | 0                      | \$ N/A                                                 |
| Granted                                 | 408                    | 0.10                                                   |
| Exercised                               |                        |                                                        |
| Cancelled                               |                        |                                                        |
| <b>Outstanding at December 31, 2005</b> | 408                    | \$ 0.10                                                |
| Exercisable at December 31, 2005        | 34                     | \$ 0.10                                                |

As of December 31, 2005, approximately 356,000 shares are expected to vest in the future at a weighted average exercise price of \$0.10.

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The following table contains details of our outstanding stock options as of December 31, 2005:

| Exercise Price | Number Outstanding<br>(In Thousands) | Weighted Average Remaining Contractual Life<br>(In Years) | Weighted Average Exercise Price | Number Exercisable<br>(In Thousands) | Weighted Average Exercise Price |
|----------------|--------------------------------------|-----------------------------------------------------------|---------------------------------|--------------------------------------|---------------------------------|
| \$ 0.10        | 408                                  | 9.6                                                       | \$ 0.10                         | 34                                   | \$ 0.10                         |

## NOTE 6: INCOME TAXES

The company records 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 carry-forwards.

At December 31, 2005, the company has \$0 operating loss carryforwards.

Deferred income taxes represent an estimate of the income tax that will be due in future periods from the cumulative temporary differences recognized for financial reporting purposes from that recognized for income tax reporting purposes. At December 31, 2005, the components of these temporary differences and the deferred tax asset were as follows:

### Deferred Tax Asset

|                          |            |
|--------------------------|------------|
| Non-current:             |            |
| Stock based compensation | \$ 350,000 |
| Start-up costs           | 90,000     |
|                          | <hr/>      |
| Net deferred tax asset   | 440,000    |
| Less valuation allowance | (440,000)  |
|                          | <hr/>      |
| Net deferred tax asset   | \$ 0       |
|                          | <hr/>      |

The Company's effective tax rate differs from the statutory rate due to the following (expressed as a percentage of income before income taxes):

|                                 |             |
|---------------------------------|-------------|
|                                 | <b>2005</b> |
|                                 | <hr/>       |
| Federal statutory rate          | (35)%       |
| Increase in valuation allowance | 35%         |
|                                 | <hr/>       |
|                                 | 0           |
|                                 | <hr/>       |

## NOTE 7: RELATED PARTY TRANSACTIONS

Included in General and Administrative Expenses for the period ended December 31, 2005 is \$86,228 of costs to ITN for facility and administrative support expenses. Related Party payable of \$48,878 as of December 31, 2005 represents costs remaining to be paid to ITN for these expenditures.

## NOTE 8: COMMITMENT

### Sublease Agreement

On November 1, 2005, the Company entered into a sublease agreement with ITN, a majority stockholder of the Company, to lease office space in Littleton, Colorado. Two Board members of





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Ascent are partial owners of the company who lease this office space to ITN. Future minimum payments due under the sublease are as follows:

**Year ending December 31:**

|      |    |         |
|------|----|---------|
| 2006 | \$ | 143,967 |
| 2007 | \$ | 151,281 |
| 2008 | \$ | 158,596 |
| 2009 | \$ | 158,596 |
| 2010 | \$ | 79,298  |

The Company also is responsible for payment of pass-through expenses such as property taxes, insurance, water and utilities.

Rent expense for the period ending December 31, 2005 was \$9,550.

### NOTE 9: SUBSEQUENT EVENTS

#### Initial Public Offering

In October 2005, the Company's Board of Directors approved a letter of intent, dated September 16, 2005, by and between the Company and an investment bank to consummate a firmly underwritten public offering of the Company's common stock and warrants. The letter of intent contemplates that the Company will have 2,000,000 shares of its common stock outstanding prior to the offering.

#### Bridge Financing

In January 2006, the Company completed a \$1.6 million bridge loan ("Bridge Financing") from lenders ("Bridge Noteholders") to help meet the Company's working capital needs. The loans ("Bridge Loans") accrue interest at an annual rate of 10% and are due and payable on the earlier of January 2007 or the completion of a public offering of equity securities with gross proceeds of at least \$5,000,000 ("Qualified Public Offering"). If a Qualified Public Offering is not completed by January 2007, the Bridge Noteholders will have the right to convert the principal and unpaid interest into shares of the Company's common stock at a price of \$3.00 per share.

In connection with the Bridge Loans, the Company issued rights ("Bridge Rights") to the Bridge Noteholders. One Bridge Right was issued for every \$25,000 loaned. If a Qualified Public Offering occurs before January 2007, holders of Bridge Rights will be entitled to receive units (or other securities) identical to the units (or other securities) being offered in the Qualified Public Offering. The holder of each Bridge Right will be entitled to receive that number of units (or other securities) equal to \$25,000 divided by the initial public offering price of the units or other securities. If a Qualified Public Offering is not completed by January 2007, then each Bridge Right may be exercised for 8,333 shares of the Company's common stock; provided, however, that if at any time before expiration of the Bridge Rights, the Company has a class of equity securities traded on any exchange or quotation system, then each Bridge Right may be exercised for \$25,000 of such equity securities. The Bridge Rights expire in January 2008.

Paulson Investment Company, Inc. acted as the placement agent for the Bridge Financing. The Company paid Paulson Investment Company, Inc. a commission equal to 10% of the gross proceeds from the Bridge Financing, plus reasonable out-of-pocket expenses.

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and  
Stockholders of ITN Energy Systems, Inc.

We have audited the accompanying statements of selected assets and liabilities of ITN Energy Systems, Inc. (the "Company") that were transferred effective January 17, 2006 to Ascent Solar Technologies, Inc., a Delaware corporation, and that were related to the Company's photovoltaic business (the "Transferred Assets"), as of December 31, 2005 and 2004, and the related statements of revenues and expenses, changes in net assets and cash flows for the years ended December 31, 2005 and 2004. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement preparation. 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 statements of selected assets and liabilities of the Company as of December 31, 2005 and 2004, and the revenues and expenses and its cash flows for December 31, 2005 and 2004 each as they relate to the Transferred Assets, in conformity with U.S. generally accepted accounting principles.

*HEIN & ASSOCIATES LLP*  
Denver, Colorado

February 2, 2006

## TRANSFERRED ASSETS OF ITN ENERGY SYSTEMS, INC.

## STATEMENTS OF SELECTED ASSETS AND LIABILITIES

|                                               | For The Years Ended<br>December 31, |                   |
|-----------------------------------------------|-------------------------------------|-------------------|
|                                               | 2005                                | 2004              |
| <b>ASSETS</b>                                 |                                     |                   |
| <b>Current Assets:</b>                        |                                     |                   |
| Accounts receivable                           | \$ 67,830                           | \$ 304,972        |
| Other current assets                          | 9,000                               | 3,244             |
| Total current assets                          | 76,830                              | 308,216           |
| <b>Patent Costs</b>                           | 24,957                              | 24,286            |
| <b>Total Assets</b>                           | <b>\$ 101,787</b>                   | <b>\$ 332,502</b> |
| <b>LIABILITIES</b>                            |                                     |                   |
| <b>Current Liabilities:</b>                   |                                     |                   |
| Accounts payable                              | \$ 36,039                           | \$ 36,447         |
| Other current liabilities                     |                                     | 66,939            |
| Total current liabilities                     | 36,039                              | 103,386           |
| <b>Commitments and Contingencies (Note 5)</b> |                                     |                   |
| <b>Net Assets</b>                             | 65,748                              | 229,116           |
| <b>Total Liabilities and Net Assets</b>       | <b>\$ 101,787</b>                   | <b>\$ 332,502</b> |

See accompanying notes to financial statements.

**TRANSFERRED ASSETS OF ITN ENERGY SYSTEMS, INC.**

**STATEMENTS OF REVENUES AND EXPENSES**

|                                    | For the Years Ended December 31, |                    |
|------------------------------------|----------------------------------|--------------------|
|                                    | 2005                             | 2004               |
| <b>Contract Revenues</b>           | \$ 1,050,502                     | \$ 1,425,886       |
| <b>Direct Contract Costs:</b>      |                                  |                    |
| Direct labor                       | 230,246                          | 396,427            |
| Subcontractors and materials       | 298,972                          | 287,003            |
| <b>Total direct contract costs</b> | <b>529,218</b>                   | <b>683,430</b>     |
| <b>Gross Margin on Revenue</b>     | <b>521,284</b>                   | <b>742,456</b>     |
| <b>Indirect Costs</b>              | <b>513,678</b>                   | <b>823,466</b>     |
| <b>Net Income (Loss)</b>           | <b>\$ 7,606</b>                  | <b>\$ (81,010)</b> |

See accompanying notes to financial statements.

**TRANSFERRED ASSETS OF ITN ENERGY SYSTEMS, INC.**

**STATEMENTS OF CHANGES IN NET ASSETS**

**FOR THE YEARS ENDED DECEMBER 31, 2005 AND 2004**

|                                           |           |
|-------------------------------------------|-----------|
| Net assets at December 31, 2003           | 258,811   |
| Net loss                                  | (81,010)  |
| Net transfers to ITN Energy Systems, Inc. | 51,315    |
| <hr/>                                     |           |
| Net assets at December 31, 2004           | 229,116   |
| Net income                                | 7,606     |
| Net transfers to ITN Energy Systems, Inc. | (170,974) |
| <hr/>                                     |           |
| Net assets at December 31, 2005           | \$ 65,748 |
| <hr/>                                     |           |

See accompanying notes to financial statements.

## TRANSFERRED ASSETS OF ITN ENERGY SYSTEMS, INC.

## STATEMENTS OF CASH FLOWS

|                                                         | For the Years Ended<br>December 31, |             |
|---------------------------------------------------------|-------------------------------------|-------------|
|                                                         | 2005                                | 2004        |
| <b>Operating Activities:</b>                            |                                     |             |
| Net income (loss):                                      | \$ 7,606                            | \$ (81,010) |
| Changes in operating assets and liabilities:            |                                     |             |
| Accounts receivable                                     | 237,142                             | 146,100     |
| Other current assets                                    | (5,756)                             | (639)       |
| Accounts payable                                        | (407)                               | (91,784)    |
| Other current liabilities                               | (66,939)                            | (23,903)    |
| Net cash provided by (used in) operating activities     | 171,646                             | (51,236)    |
| <b>Investing Activities:</b>                            |                                     |             |
| Patent costs                                            | (672)                               | (80)        |
| Net cash used in investing activities                   | (672)                               | (80)        |
| <b>Financing Activities:</b>                            |                                     |             |
| Net transfers (from) to ITN Energy Systems, Inc.        | (170,974)                           | 51,316      |
| Net cash provided by (used in) financing activities     | (170,974)                           | 51,316      |
| <b>Net Change in Cash and Cash Equivalents</b>          |                                     |             |
| <b>Cash and Cash Equivalents at Beginning of Period</b> |                                     |             |
| <b>Cash and Cash Equivalents at End of Period</b>       | \$                                  | \$          |

See accompanying notes to financial statements.

**Transferred Assets of ITN Energy Systems, Inc.**

**1. Organization and Basis of Presentation:**

Ascent Solar Technologies, Inc. ("Ascent" or the "Company") was incorporated on October 18, 2005 to commercialize certain photovoltaic technologies of ITN Energy Systems, Inc. ("ITN"), a Colorado corporation dedicated to the development of thin-film, photovoltaic ("PV"), battery and fuel cell technologies. ITN has invested considerable resources in the research and development of Copper-Indium-Gallium-Diselenide ("CIGS") PV technology. ITN formed Ascent to commercialize this CIGS PV technology for the space and near-space markets. In January 2006, in exchange for 1,028,000 shares of common stock of Ascent (bringing to 2,000,000 the total number of outstanding shares in the Company), ITN: (i) assigned its CIGS PV technologies and trade secrets ("Transferred Assets") to Ascent; (ii) licensed certain proprietary process, control and design technologies to Ascent; (iii) assigned or agreed to seek permission to assign certain contract rights relating to its CIGS PV business to Ascent; (iv) transferred certain key personnel to Ascent; (v) agreed to design and build Ascent's initial production line, which will utilize ITN's proprietary roll-to-roll processing tools, real-time intelligent processing controls and thin-film processing technologies; and (vi) agreed to provide administrative services such as facilities management, equipment maintenance, human resources and accounting.

The selected assets and liabilities related to the Transferred Assets and the related revenues and expenses and cash flows have been presented in the accompanying financial statements. Assets and liabilities separately and distinctly identifiable to the Transferred Assets are reflected in the accompanying statements of selected assets and liabilities. No other assets, liabilities or debt of ITN have been allocated to the Transferred Assets. Sales and primarily all expenses are separately and distinctly identifiable to the Transferred Assets including indirect costs that are allocated based on the approved government allocation method and rates for the year reported. Included in indirect costs for the year ended 2005 and 2004 are \$25,000 and \$30,000, respectively, of indirect costs that are not included in the government indirect cost allocation pool. These indirect costs have been allocated based on the percentage of Transferred Asset revenues to total ITN revenues for the years reported. In the opinion of management, historical charges and allocations have been determined on a reasonable basis and reflect the expenses associated with the Transferred Assets. However, such charges and allocations are not necessarily indicative of the level of expenses which might have been incurred had the Transferred Assets been operating as a stand-alone business.

**2. Summary of Significant Accounting Policies:**

*Revenue recognition* Revenue from cost-type 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 fixed price-type 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. Revenue from time and materials contracts is recognized as costs are incurred at amounts represented by the agreed-upon billing amounts.

*Patents* The Acquired PV assets include costs for a patent application. Upon award, the patent costs will be amortized on a straight-line basis over the legal life, or, over their estimated useful lives, whichever is shorter.

*Income Taxes* Current income tax expense is the amount of income taxes expected to be payable for the current year. Deferred income taxes are recognized for the tax consequences in future years of differences between the tax bases of assets and liabilities and their financial reporting amounts at each



year end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable earnings. Valuation allowances are established when necessary to reduce deferred tax assets to the amount more likely than not to be related.

*Risks and Uncertainties* The operations associated with the Transferred Assets are subject to certain risks and uncertainties, including those associated with: the ability to meet obligations, continuing losses; fluctuation in operating results, funding expansions, strategic alliances, financing arrangement terms that may restrict operations, regulatory issues; and competition. Additionally, US government contracts may be terminated prior to completion of full funding by the US government.

*Use of Estimates* The preparation of financial statements in conformity with generally accepted accounting principles 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.

*Accounts Receivable Contracts* Accounts receivable consists mainly of billed and unbilled amounts under contracts in progress which are primarily with United States government units, principally the Department of Defense and the Department of Energy. Management deems all accounts receivable to be collectible. Management reviews trade receivables periodically and reduces the carrying amount by a valuation allowance that reflects management's best estimate of the amount that may not be collectible. No provision for uncollectible accounts was deemed necessary at December 31, 2005 and December 31, 2004.

### **3. Financial Instruments Concentrations of Credit Risk:**

Financial instruments that potentially subject the Transferred Assets to significant concentrations of credit risk consist principally of accounts receivable.

At December 31, 2005 and 2004, two customers comprised approximately 82.4% and 100% respectively, of accounts receivable and 89.1% and 96.9%, respectively, of revenues. ITN does not require collateral from its customers with respect to the Transferred Assets, but performs periodic credit evaluations of such customers' financial conditions. Management does not believe a significant credit risk existed at December 31, 2005.

### **4. Related Party Transactions:**

Included in Contract revenues for the year ended December 31, 2005 and 2004 is \$91,213 and \$352,290, respectively, from a company formed as a previous spin-off of ITN ("Related Party") for research and development work under a government contract. Amounts included in Accounts Receivable from the Related Party related to these contracts as of December 31, 2005 and December 31, 2004 are \$0 and \$29,076, respectively. Amounts included in Accounts Payable to the Related Party related to these contracts as of December 31, 2005 and December 31, 2004 are \$35,931 and \$0, respectively.

Rent expense recorded in Indirect Costs for the year ended December 31, 2005 and 2004 of \$81,442 and \$84,050, respectively, was paid to MDS, LLC and ARA, LLC who are owned 49% and 40%, respectively, by the majority owner of ITN.

### **5. Contracts:**

*Provisional Indirect Cost Rates* Billings under cost-based government contracts are calculated using actual rates which permit recovery of indirect costs. These rates are subject to audit on an annual basis

by the government agencies' cognizant audit agency. The cost audit will result in the negotiation and determination of the final indirect cost rates which may be used for the period(s) audited. The final rates, if different from the actual, may create an additional receivable or liability.

Management periodically reviews its cost estimates and experience rates, and adjustments, if needed, are made and reflected in the period in which the estimates are revised. In the opinion of management, redetermination of any cost-based contracts for the open years will not have a material effect on the financial position or results of operations related to the Transferred Assets.

*Contract Status* Contracts on which work was in process at December 31, 2005 and December 31, 2004 is as follows:

|                                                                                                  | <b>December 31,<br/>2005</b> | <b>December 31,<br/>2004</b> |
|--------------------------------------------------------------------------------------------------|------------------------------|------------------------------|
| Total contract price of initial contract awards including approved change orders (modifications) | \$ 5,582,000                 | \$ 4,280,000                 |
| Completed to date                                                                                | 5,582,000                    | 3,900,000                    |
| Authorized backlog                                                                               | \$ 0                         | \$ 380,000                   |

The foregoing contracts contain unfunded amounts not reflected in the above amounts totaling approximately \$0 and \$199,000 as of December 31, 2005 and December 31, 2004, respectively.

**ASCENT SOLAR TECHNOLOGIES, INC.**

**3,000,000 Units**

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**PROSPECTUS**

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, 2006

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**PART II Information Not Required In Prospectus**

**Item 24. Indemnification of Directors and Officers.**

Our certificate of incorporation, as amended ("Certificate of Incorporation"), contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our shareholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

Any breach of their duty of loyalty to our company or our stockholders.

Acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law.

Unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law.

Any transaction from which the director derived an improper personal benefit.

Our Bylaws provide that we are required to indemnify our directors and officers and may indemnify our employees and other agents to the fullest extent permitted by Delaware law. Our Bylaws also provide that we shall advance expenses incurred by a director or officer before the final disposition of any action or proceeding upon receipt of an undertaking from or on behalf of that director or officer to repay the advance if it is ultimately determined that he or she is not entitled to be indemnified. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the Board of Directors. These agreements provide for indemnification for related expenses including attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our Certificate of Incorporation and Bylaws may discourage shareholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Furthermore, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees regarding which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

Insofar as we may permit indemnification for liabilities arising under the Securities Act to directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy, as expressed in the Securities Act and is, therefore, unenforceable.

**Item 25. Other Expenses of Issuance and Distribution.**

The estimated expenses of the offering, all of which are to be borne by the Registrant, are as follows:

|                                                             |    |           |
|-------------------------------------------------------------|----|-----------|
| SEC Registration Fee                                        | \$ | 13,725    |
| NASD Filing Fee                                             | \$ | 13,325    |
| Nasdaq Capital Market Listing Fee                           | \$ | 45,000    |
| Boston Stock Exchange Listing Fee*                          | \$ | 15,000    |
| Underwriters' Non-Accountable Expense Allowance             | \$ | 495,000   |
| Printing and Engraving *                                    | \$ | 50,000    |
| Accounting Fees and Expenses *                              | \$ | 100,000   |
| Legal Fees and Expenses *                                   | \$ | 350,000   |
| Blue Sky Fees and Expenses (including related legal fees) * | \$ | 85,000    |
| Transfer Agent Fees *                                       | \$ | 10,000    |
| Miscellaneous *                                             | \$ | 17,950    |
| Total                                                       | \$ | 1,195,000 |

\*  
Estimated

**Item 26. Recent Sales of Unregistered Securities.**

In the last three years, the Registrant has sold securities which were not registered as follows:

In November 2005, the Registrant issued 972,000 shares of its Common Stock to certain members of its management and to employees of ITN who had worked in PV and related technologies prior to the formation of the Registrant for total cash consideration of \$38,880. The issuance of shares to these initial investors was a non-public transaction and was made in reliance upon an exemption under Section 4(2) of the Securities Act.

In January 2006, the Registrant issued rights ("Bridge Rights") to 23 accredited investors in connection with bridge loans totaling \$1.6 million. Holders of Bridge Rights will be entitled to receive units identical to the units being offered in this offering. The holder of each Bridge Right will be entitled to receive that number of units equal to \$25,000 divided by the initial public offering price of the units. The Bridge Rights were issued in reliance upon the exemption specified in Rule 506 of Regulation D, promulgated under the Securities Act, and under Section 4(2) of the Securities Act.

In January 2006, the Registrant issued 1,028,000 shares of common stock to ITN Energy Systems, Inc., a Colorado company ("ITN"), in exchange for certain asset transfers, licenses and service agreements. The issuance of shares to ITN was a non-public transaction and was made in reliance upon an exemption under Section 4(2) of the Securities Act.

As of March 1, 2006, we had granted stock options to our employees, consultants, officers and directors to purchase 594,000 shares of common stock under our 2005 Stock Option Plan. The plan meets the requirements of Rule 701.

**Item 27. Exhibits.**

The following exhibits are filed as part of Registrant's Registration Statement on Form SB-2:

| Exhibit<br>No. | Description                                                                                                              |
|----------------|--------------------------------------------------------------------------------------------------------------------------|
| 1.1            | Form of Underwriting Agreement**                                                                                         |
| 3.1            | Certificate of Incorporation**                                                                                           |
| 3.2            | Amended and Restated Certificate of Incorporation**                                                                      |
| 3.3            | Bylaws**                                                                                                                 |
| 4.1            | Form of common stock certificate*                                                                                        |
| 4.2            | Form of Class A warrant (included in Exhibit 4.5)**                                                                      |
| 4.3            | Form of Class B warrant (included in Exhibit 4.5)**                                                                      |
| 4.4            | Form of unit certificate*                                                                                                |
| 4.5            | Form of Warrant Agreement Between the Registrant and Computershare Trust Company, Inc.**                                 |
| 4.6            | Form of Representative's Purchase Warrant**                                                                              |
| 5.1            | Opinion of Holland & Knight LLP*                                                                                         |
| 10.1           | Securities Purchase Agreement by and between the Registrant and ITN Energy Systems, Inc.** <sup>CTR</sup>                |
| 10.2           | Invention and trade secret assignment agreement and between the Registrant and ITN Energy Systems, Inc.** <sup>CTR</sup> |
| 10.3           | Patent application assignment agreement by and between the Registrant and ITN Energy Systems, Inc.**                     |
| 10.4           | License Agreement by and between the Registrant and ITN Energy Systems, Inc.** <sup>CTR</sup>                            |
| 10.5           | Sublease Agreement**                                                                                                     |
| 10.6           | Service Center Agreement by and between the Registrant and ITN Energy Systems, Inc.**                                    |
| 10.7           | Manufacturing Line Agreement by and between the Registrant and ITN Energy Systems, Inc.**                                |
| 10.7A          | Amendment No. 1 to Manufacturing Line Agreement between the Registrant and ITN Energy Systems, Inc.                      |
| 10.8           | Administrative Services Agreement by and between the Registrant and ITN Energy Systems, Inc.**                           |
| 10.8A          | Amendment No. 1 to Administrative Services Agreement between the Registrant and ITN Energy Systems, Inc.                 |
| 10.9           | Employment Contract of Matthew Foster**                                                                                  |
| 10.10          | Employment Contract of Dr. Joseph Armstrong**                                                                            |
| 10.11          | 2005 Stock Option Plan and Form of Stock Option Agreement**                                                              |
| 10.12          | Bridge Unit Purchase and Investor Subscription Agreement with forms of promissory note and bridge right                  |
| 10.13          | Amendment No. 1 to Bridge Unit Purchase and Investor Subscription Agreement                                              |
| 10.14          | Employment Contract of Janet Casteel                                                                                     |
| 23.1           | Consent of Hein & Associates LLP                                                                                         |
| 23.2           | Consent of Holland & Knight LLP (included in Exhibit 5.1)*                                                               |
| 24             | Power of Attorney**                                                                                                      |

\*  
To be filed by amendment.

\*\*  
Previously filed.

CTR  
Portions of this exhibit have been omitted pursuant to a request for confidential treatment.

**Item 28. Undertakings.**

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange



Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes to:

- (1) File, during any period in which it offers or sells securities, a post-effective amendment to this registration statement to:
  - (i) Include any prospectus required by Section 10(a)(3) of the Securities Act;
  - (ii) Reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement; and notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the dollar value of the securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
  - (iii) Include any additional or changed material information on the plan of distribution.
- (2) For determining liability under the Securities Act, treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial bona fide offering.
- (3) File a post-effective amendment to remove from registration any of the securities that remain unsold at the end of the offering.
- (4) For determining liability of the undersigned registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
  - i. Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
  - ii. Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
  - iii. The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
  - iv. Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

In addition, the undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreements, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.



**SIGNATURES**

In accordance with the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form SB-2 and has authorized this Amendment No. 1 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Littleton, Colorado, on March 10, 2006.

ASCENT SOLAR TECHNOLOGIES, INC.

By: /s/ MATTHEW FOSTER

Matthew Foster, Chief Executive Officer

**POWER OF ATTORNEY**

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 1 to the Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

| <b>Signature</b>                                       | <b>Title</b>                                                                        | <b>Date</b>    |
|--------------------------------------------------------|-------------------------------------------------------------------------------------|----------------|
| <u>/s/ MATTHEW FOSTER</u><br>Matthew Foster            | President and Chief Executive Officer (Principal Executive Officer)                 | March 10, 2006 |
| <u>/s/ JANET CASTEEL</u><br>Janet Casteel              | Chief Accounting Officer and Treasurer (Principal Accounting and Financial Officer) | March 10, 2006 |
| <u>/s/ MOHAN S. MISRA*</u><br>Mohan S. Misra           | Chairman of the Board                                                               | March 10, 2006 |
| <u>/s/ STANLEY GALLERY*</u><br>Stanley Gallery         | Director                                                                            | March 10, 2006 |
| <u>/s/ ASHUTOSH MISRA*</u><br>Ashutosh Misra           | Director                                                                            | March 10, 2006 |
| <u>/s/ T.W. FRASER RUSSELL*</u><br>T.W. Fraser Russell | Director                                                                            | March 10, 2006 |
| <u>/s/ MARK T. WALLER*</u><br>Mark T. Waller           | Director                                                                            | March 10, 2006 |

\*By: /s/ MATTHEW FOSTER

Matthew Foster, Attorney-in-Fact