

Ascent Solar Technologies, Inc.
Form PRE 14A
September 15, 2014
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
SCHEDULE 14A INFORMATION
Proxy Statement Pursuant to Section 14(a) of the
Securities Exchange Act of 1934 (Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Pursuant to Rule 14a-12

ASCENT SOLAR TECHNOLOGIES, INC.

(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

1) Title of each class of securities to which transaction applies:

2) Aggregate number of securities to which transaction applies:

3)

Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (Set forth the amount on which the filing fee is calculated and state how it was determined):

4) Proposed maximum aggregate value of transaction:

5) Total fee paid:

.. Fee paid previously with preliminary materials.

.. Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

1) Amount Previously Paid:

2) Form, Schedule or Registration Statement No.:

3) Filing Party:

4) Date Filed:

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ASCENT SOLAR TECHNOLOGIES, INC.

12300 North Grant Street

Thornton, Colorado 80241

(720) 872-5000

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON OCTOBER [], 2014

September [], 2014

TO OUR STOCKHOLDERS:

NOTICE IS HEREBY GIVEN that a Special Meeting of Stockholders of Ascent Solar Technologies, Inc., a Delaware corporation, will be held on October [], 2014, at []:00 .m. Mountain Time at the Company's offices, 12300 North Grant Street, Thornton, Colorado 80241, for the following purposes, as more fully described in the Proxy Statement accompanying this notice:

1. To approve the issuance and sale by the Company of 1,425,000 shares of the Company's common stock to an investor that would result in such investor's owning greater than 20% of the Company's issued and outstanding shares of common stock after such issuance, which would be considered a change of control of the Company and require approval under Nasdaq Listing Rule 5635(b);
2. To approve an amendment and restatement of the Company's 2005 Stock Option Plan that increases the number of shares of the Company's common stock authorized for issuance under that plan to 3,000,000 shares;
3. To approve a Certificate of Amendment to the Company's Amended and Restated Certificate of Incorporation (the Certificate of Incorporation) to decrease the number of authorized shares of the Company's common stock from 250,000,000 to 150,000,000; and

4. To transact such other business as may properly come before the special meeting or any adjournment thereof. Stockholders who owned shares of our common stock at the close of business on September [], 2014 are entitled to receive notice of, attend and vote at the Special Meeting and any adjournment or postponement thereof. A complete list of these stockholders will be available at our corporate offices listed above during regular business hours for the ten days prior to the Special Meeting.

Your vote is important. Whether or not you plan to attend the Special Meeting, please vote as soon as possible. You may vote by mailing a completed proxy card, by telephone or online. For specific voting instructions, please refer to the information provided in the following Proxy Statement, together with your proxy card or the voting instructions

you receive by e-mail.

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By Order of the Board of Directors

Victor Lee

President and Chief Executive Officer

Thornton, Colorado

September [], 2014

Important Notice Regarding the Availability of Proxy Materials for the Special Meeting of Stockholders to be held on October[], 2014 The Proxy Statement is available at www.ascentsolar.com.

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ASCENT SOLAR TECHNOLOGIES, INC.

12300 North Grant Street

Thornton, Colorado 80241

(720) 872-5000

PROXY STATEMENT

For the Special Meeting of Stockholders to be held on October [], 2014

Your proxy is being solicited on behalf of the Board of Directors (the "Board") of Ascent Solar Technologies, Inc., a Delaware corporation, for use at the Special Meeting of Stockholders (the "Special Meeting") to be held at []:00 _m. Mountain Time on October [], 2014, or at any adjournment or postponement thereof, for the purposes set forth in this Proxy Statement. The Special Meeting will be held at the Company's offices, 12300 Grant Street, Thornton, Colorado 80241.

These proxy materials are first being provided on or about September [], 2014 to all stockholders as of the record date, September [], 2014. Stockholders who owned our common stock at the close of business on September [], 2014 are entitled to receive notice of, attend and vote at the Special Meeting. On the record date, there were [] shares of our common stock outstanding.

All proxies will be voted in accordance with the instructions contained on those proxies, and if no choice is specified, the proxies will be voted in favor of each matter set forth in the accompanying Notice of Special Meeting. Any proxy may be revoked by a stockholder at any time before it is exercised by delivery of written revocation to our corporate secretary.

References to the Company, Ascent, Ascent Solar, our, us or we mean Ascent Solar Technologies, Inc.

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VOTING AND RELATED MATTERS

Voting Procedures

As a stockholder of Ascent Solar, you have a right to vote on certain business matters affecting us. The proposals that will be presented at the Special Meeting and upon which you are being asked to vote are discussed below. Each share of our common stock you owned as of the record date entitles you to one vote on each proposal presented at the Special Meeting.

Methods of Voting

You may vote over the Internet, by telephone, by mail or in person at the Special Meeting.

Voting over the Internet. You can vote via the Internet. The website address for Internet voting and the instructions for voting are provided on your proxy card. You will need to use the control number appearing on your proxy card to vote via the Internet. If you vote via the Internet you do not need to vote by telephone or return a proxy card.

Voting by Telephone. You can vote by telephone by calling the toll-free telephone number provided on your proxy card. You will need to use the control number appearing on your proxy card to vote by telephone. If you vote by telephone, you do not need to vote over the Internet or return a proxy card.

Voting by Mail. You can vote by marking, dating and signing your proxy card, and returning it in the postage-paid envelope provided. Please promptly mail your proxy card to ensure that it is received prior to the closing of the polls at the Special Meeting.

Voting in Person at the Meeting. If you attend the Special Meeting and plan to vote in person, we will provide you with a ballot at the Special Meeting. If your shares are registered directly in your name, you are considered the stockholder of record, and you have the right to vote in person at the Special Meeting. If your shares are held in the name of your broker or other nominee, you are considered the beneficial owner of shares held in street name. As a beneficial owner, if you wish to vote at the Special Meeting, you will need to bring to the Special Meeting a legal proxy from your broker or other nominee authorizing you to vote those shares.

Revoking Your Proxy

You may revoke your proxy at any time before it is voted at the Special Meeting. To do this, you must:

enter a new vote over the Internet or by telephone, or by signing and returning a replacement proxy card;

provide written notice by October [], 2014 of the revocation to our Corporate Secretary at our principal executive offices, which are located at 12300 North Grant Street, Thornton, Colorado 80241; or

attend the Special Meeting and vote in person.

Quorum and Voting Requirements

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Stockholders of record at the close of business on September [], 2014 are entitled to receive notice and vote at the meeting. On the record date, there were [] issued and outstanding shares of our common stock. Each holder of our common stock voting at the meeting, either in person or by proxy, may cast one vote per share of common stock held on all matters to be voted on at the meeting.

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The presence, in person or by proxy, of the holders of a majority of the outstanding shares of common stock entitled to vote constitutes a quorum for the transaction of business at the meeting. Assuming that a quorum is present, the following table summarizes the voting requirements to approve each proposal:

<u>Proposal</u>	<u>Vote Required</u>	<u>Broker Discretionary Voting Allowed</u>
Proposal No. 1 - To approve the issuance by the Company of 1,425,000 shares of the Company's common stock to an investor, which would be considered a change of control of the Company under Nasdaq Listing Rule 5635(b).	The affirmative vote of a majority of the votes cast at the Special Meeting.	No
Proposal No. 2 - To approve an amendment and restatement of the Company's 2005 Stock Option Plan that increases the number of shares of the Company's common stock authorized for issuance under that plan to 3,000,000 shares.	The affirmative vote of a majority of the shares having voting power present in person or represented by proxy at the Special Meeting.	No
Proposal No. 3 - To approve a Certificate of Amendment to the Company's Certificate of Incorporation to decrease the number of authorized shares of the Company's common stock from 250,000,000 to 150,000,000.	The affirmative vote of a majority of the outstanding shares of common stock.	Yes

Votes cast by proxy or in person at the meeting will be tabulated by the election inspectors appointed for the meeting. Such inspectors will also determine whether a quorum is present. The election inspectors will treat abstentions as shares that are present and entitled to vote for purposes of determining the presence of a quorum, but as unvoted for purposes of determining the approval of any matter submitted to the stockholders for a vote. Accordingly, abstentions will have no effect on whether Proposal No. 1 is approved at the Special Meeting. Abstentions will have the same effect as a vote AGAINST Proposal No. 2 and Proposal No. 3.

If your shares are held in street name and you do not instruct your broker on how to vote your shares, your brokerage firm, in its discretion, is permitted to either leave your shares unvoted or vote your shares on matters that are considered routine. Proposal No. 3 is considered a routine matter while Proposal No. 1 and Proposal No. 2 are

considered non-routine matters. Consequently, without your voting instructions, your brokerage firm will not be able to vote your shares on Proposal No. 1 and Proposal No. 2. These unvoted shares, called broker non-votes, refer to shares held by brokers who have not received voting instructions from their clients and who do not have discretionary authority to vote on non-routine matters. Broker non-votes will not be counted as shares that are present and entitled to vote for purposes of determining the presence of a quorum. Assuming that a quorum is present, broker non-votes (i) will have no effect on whether Proposal No. 1 or Proposal No. 2 are approved at the Special Meeting and (ii) will have the same effect as a vote AGAINST Proposal No. 3.

Voting of Proxies

When a proxy is properly executed and returned, the shares it represents will be voted at the Special Meeting as directed. If no specification is indicated, the shares will be voted:

- (1) FOR Proposal No. 1 to approve the issuance by the Company of 1,425,000 shares of the Company's common stock to an investor, which would be considered a change of control of the Company under Nasdaq Listing Rule 5635(b);
- (2) FOR Proposal No. 2 to approve an amendment and restatement of the Company's 2005 Stock Option Plan that increases the number of shares of the Company's common stock authorized for issuance under that plan to 3,000,000 shares;
- (3) FOR Proposal No. 3 to approve a Certificate of Amendment to the Company's Certificate of Incorporation to decrease the number of authorized shares of the Company's common stock from 250,000,000 to 150,000,000; and
- (4) at the discretion of your proxies on any other matter that may be properly brought before the Special Meeting.

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Voting Confidentiality

Proxies, ballots and voting tabulations are handled on a confidential basis to protect your voting privacy. This information will not be disclosed, except as required by law.

Voting Results

Voting results will be announced at the Special Meeting and published in a Form 8-K to be filed within four (4) business days after the Special Meeting.

Householding of Proxy Materials

In a further effort to reduce printing costs and postage fees, we have adopted a practice approved by the SEC called householding. Under this practice, stockholders who have the same address and last name and do not participate in electronic delivery of proxy materials will receive only one copy of our proxy materials, unless one or more of these stockholders notifies us that he or she wishes to continue receiving individual copies.

We will promptly deliver a separate copy of these proxy materials to any stockholder upon written or oral request to our Corporate Secretary by mail at 12300 North Grant Street, Thornton, Colorado 80241 or by phone at (720) 872-5000.

If: (1) you share an address with another stockholder and received only one set of proxy materials, and would like to request a separate paper copy of these materials; or (2) you share an address with another stockholder and in the future together you would like to receive only a single paper copy of these materials, please notify our Corporate Secretary by mail at 12300 North Grant Street, Thornton, Colorado 80241 or by phone at (720) 872-5000.

If you have previously elected to receive our proxy materials electronically, you will continue to receive these materials via e-mail unless you elect otherwise.

Proxy Solicitation

We will bear the cost of this solicitation. In addition, we may reimburse brokerage firms and other persons representing beneficial owners of shares for reasonable expenses incurred in forwarding solicitation materials to such beneficial owners. Proxies also may be solicited by our directors, officers or employees, personally, or by mail, facsimile, telephone, messenger or via the Internet, without additional compensation.

Driving Directions to the Special Meeting

The Company's main office is approximately 29 miles from Denver International Airport. From Denver International Airport, take Pena Boulevard to I-70 West to I-25 North. Exit at 120th Avenue. Turn right onto 120th Avenue, then turn left onto Grant Street. The Company's office is on the right.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table shows information regarding the beneficial ownership of our common stock by our directors, executive officers and greater than 5% beneficial owners as of September [], 2014.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power. For purposes of calculating the percentage of our common stock beneficially owned, the number of shares of our common stock includes 13,428,259 shares of our common stock outstanding as of September 4, 2014.

Unless otherwise indicated, each of the stockholders listed below has sole voting and investment power with respect to the shares beneficially owned. The address for each director or named executive officer is c/o Ascent Solar Technologies, Inc., 12300 North Grant Street, Thornton, Colorado 80241.

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Name of Beneficial Owner	No. of Shares Beneficially	
	Owned	Percentage
<i>5% Stockholders:</i>		
TFG Radiant Investment Group Ltd. (1)	2,448,593	18.2%
Ironridge Technology Co. (2)	1,061,586	7.3%
Seng Wei Seow (3)	1,346,758	9.9%
<i>Officers and Directors:</i>		
Victor Lee (4)	10,000	*
William M. Gregorak (5)	1,250	*
Amit Kumar, Ph.D.(6)	52,730	*
Kim J. Huntley (7)	14,354	*
G. Thomas Marsh (8)	36,276	*
Xu Biao (9)	0	0
Gary Gatchell (10)	0	0
<i>All directors and executive officers as a group (6 persons)</i>	114,610	*%

* Less than 1.0%.

(1) The address of TFG Radiant Investment Group Ltd. (TFG Radiant) is Block B. 4th Floor, Jihong R&D Building, No.1 Binlang Road, Futian FTZ, Shenzhen, China 518038. Does not include 1,425,000 shares which would be acquired if the Company s stockholders approve Proposal 1 at the Special Meeting.

(2) The address for Ironridge Technology Co. (Ironridge) is Harbour House, 2nd Floor, Waterfront Drive, Road Town, Tortola, British Virgin Islands VG1110. Consists of (i) 147,826 shares of common stock issuable upon conversion of 170 outstanding shares of Series C preferred stock, and (ii) an estimated 913,760 shares of common stock which would be currently issuable as payment in lieu of cash for dividends or make-whole amounts (if any) on the conversion of such Series C preferred stock.

(3) The address for Seng Wei Seow is 17 Jalan Haji Salam, Singapore 468784. Consists of 1,170,309 shares of common stock owned as of September 4, 2014. Also includes additional shares of common stock issuable upon conversion of the Series A preferred stock and upon exercise of the common stock warrants held by Seow as of such date. Such Series A preferred stock and common stock warrants contain conversion, exercise and issuance limitations providing that Seow may not be issued shares of common stock (whether by means of conversion of Series A preferred stock, exercise of warrants or otherwise) if after giving effect to such issuance Seow would beneficially own in excess of 9.9% of the Company s outstanding shares of common stock. Does not include any other shares of common stock that may be issued in the future in connection with the Series A preferred stock and common stock warrants that could be issued to Seow if such 9.9% limitation does not apply.

(4)

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Does not include securities held by TFG Radiant, our largest stockholder. Mr. Lee is managing director of Tertius Financial Group Pte Ltd., a 50% owner of TFG Radiant, and disclaims beneficial ownership of our securities held by TFG Radiant. Does not include [] options to purchase common stock issued but not vested as of or within 60 days of [], 2014.

- (5) Does not include [] options to purchase common stock issued but not vested as of or within 60 days of September [], 2014.
- (6) Does not include [] shares of restricted stock issued but not vested as of or within 60 days of September [], 2014.
- (7) Does not include [] shares of restricted stock issued but not vested as of or within 60 days of September [], 2014.
- (8) Does not include [] shares of restricted stock issued but not vested as of or within 60 days of September [], 2014.

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- (9) Does not include securities held by TFG Radiant, our largest stockholder. Mr. Xu is an investor in TFG Radiant, and disclaims beneficial ownership of our securities held by TFG Radiant.
- (10) Mr. Gatchell voluntarily resigned as our Chief Financial Officer effective as of August 30, 2013.

EXECUTIVE COMPENSATION**Compensation of Executive Officers in 2013**

The following Summary Compensation Table sets forth certain information regarding the compensation of our principal executive officer and former chief financial officer for services rendered in all capacities to us during the years ended December 31, 2013 and 2012.

Summary Compensation Table

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)(1)	Option Awards (\$)(2)	All	Total (\$)
						Other Compensation (\$)	
Victor Lee Chief Executive Officer (3)	2013				95,660		95,660
	2012						
Gary Gatchell Former Chief Financial Officer (4)	2013	148,096			23,915		172,011
	2012	204,231	50,000				254,231

- (1) Represents the aggregate grant date fair value computed in accordance with FASB ASC Topic 718 for awards of stock awards granted during the years ended December 31, 2013 and 2012.
- (2) Represents the aggregate grant date fair value computed in accordance with FASB ASC Topic 718 for options granted during the years ended December 31, 2013 and 2012.
- (3) Mr. Lee became our CEO in February 2012. Mr. Lee agreed at that time to serve as CEO without any cash compensation. Mr. Lee is reimbursed for travel expenses in accordance with the Company's expense reimbursement policies. As described below, we entered into an employment agreement with Mr. Lee effective March 31, 2014.
- (4) Mr. Gatchell voluntarily resigned as our Chief Financial Officer on August 30, 2013.

Executive Employment Agreements

As of December 31, 2013, we did not have any executive employment agreements.

On April 4, 2014, we entered into an employment agreement with Mr. Lee. The employment agreement provides that Mr. Lee will receive an annual base salary of \$300,000, subject to annual adjustments as determined by our board. Mr. Lee will also be eligible for an annual bonus of up to 100% of his base salary as determined at the sole discretion of our board or compensation committee. Under this agreement, if the Company terminates Mr. Lee without cause, Mr. Lee is entitled to receive twelve months of base salary from the date of termination. In addition, if Mr. Lee is terminated without Cause, an additional portion of his stock options will become vested. In addition, the employment agreement provides that Mr. Lee is eligible to participate in the Company's standard benefit plans and programs.

As provided in the employment agreement, Mr. Lee was granted stock options to purchase 20,000 shares of the Company's common stock. These options vest in four equal annual installments on the first, second, third and fourth anniversaries of the employment agreement date, with an exercise price of \$5.50 per share. These options expire on April 4, 2024.

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The following table sets forth information concerning the outstanding equity awards granted to the named executive officers as of December 31, 2013.

Outstanding Equity Awards at Fiscal Year-End 2013

Name	Option Awards		Stock Awards		
	Number of Securities Underlying Unexercised Options(#)	Option Exercise Price(\$/sh)	Option Expiration Date	Number of Shares or Units of Stock that Have Not Vested	Market Value of Shares or Units of Stock that Have Not Vested
Victor Lee (1)	20,000	\$ 6.50	3/1/2023		
Gary Gatchell (2)		\$			

Vesting dates of securities underlying unexercised options and stock awards not yet vested as of December 31, 2013:

- (1) \$6.50 options 10,000 vesting on 3/01/14 and 10,000 vesting on 3/01/15
- (2) Gary Gatchell voluntarily resigned as our Chief Financial Officer on August 30, 2013.

DIRECTOR COMPENSATION

In 2013, our independent directors each received an annual cash retainer of \$20,000 and restricted stock units valued at \$35,000 based on the closing price of our common stock on December 31, 2012. In addition, an independent director received: (1) for serving as a Board committee member, restricted stock unit awards valued at \$10,000 based on the closing price of our common stock as of December 31, 2012; (2) for serving as a committee chairman, restricted stock unit awards valued at \$20,000 based on the closing price of our common stock on December 31, 2012; and (3) for serving as chairman of the Board, additional cash compensation of \$100,000 and restricted stock unit awards valued at \$40,000 based on the closing price of our common stock on December 31, 2012.

The following Director Compensation Table summarizes the compensation of each of our non-employee directors for services rendered to us during the year ended December 31, 2013:

2013 Director Compensation Table

Name	Fees Earned or Paid in Cash (\$)	Stock Awards (\$)(1)	All Other Compensation (\$)	Total (\$)
Amit Kumar	120,000	114,998		234,998

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Kim J. Huntley	20,000	74,998	94,998
G. Thomas Marsh	20,000	74,998	94,998
Victor Lee			
Xu Biao			

- (1) Represents the aggregate grant date fair value of restricted stock unit awards computed in accordance with FASB ASC Topic 718 for awards of stock granted during the year ended December 31, 2013.

In addition to the fees listed above, we reimburse the directors for travel expenses submitted to us related to their attendance at meetings of the Board or its committees. The directors did not receive any other compensation or personal benefits.

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PROPOSAL NO. 1:

APPROVAL OF THE ISSUANCE OF 1,425,000 SHARES OF THE COMPANY'S

COMMON STOCK TO AN INVESTOR, WHICH WOULD BE CONSIDERED A CHANGE OF CONTROL OF THE COMPANY UNDER NASDAQ LISTING RULE 5635(b)

Terms of the Transaction

On August 29, 2014, we entered into a Securities Purchase Agreement (the "Purchase Agreement") with Seng Wei Seow ("Seow") and TFG Radiant for a private placement of a total of 3,115,618 shares of our common stock, which is expected to result in gross proceeds of approximately \$8,000,000 to us. Prior to entering into the Purchase Agreement, (i) TFG Radiant, our largest stockholder, owned approximately 13.74% of our common stock and (ii) Seow owned approximately 2.79% of our common stock.

The private placement will take place in two tranches. In the first tranche, which closed on August 29, 2014, we issued (i) 845,309 shares of our common stock to Seow and (ii) 845,309 shares of our common stock to TFG Radiant, all at a price of \$2.366 per share, resulting in gross proceeds of approximately \$4,000,000 to us.

In the second tranche, we plan to issue 1,425,000 shares of our common stock (the "Second Tranche Shares") to TFG Radiant at a price of \$2.80 per share, which is expected to result in gross proceeds of approximately \$4,000,000 to us. The second tranche will not close unless our stockholders approve this Proposal No. 1 at the Special Meeting. If our stockholders do not vote to approve Proposal No. 1, then the second tranche will not close and we will not receive the related proceeds. If our stockholders approve Proposal No. 1, the second tranche will close shortly after the Special Meeting.

After the first tranche closing, (i) TFG Radiant owned approximately 18.2% of our outstanding common stock and (ii) Seow owned approximately 8.76% of our outstanding common stock. If the second tranche closes, we expect that TFG Radiant will own approximately 26.2% of our common stock.

We entered into a First Amended and Restated Stockholders Agreement (the "Stockholders Agreement") with TFG Radiant on December 31, 2011. Under the Stockholders Agreement, TFG Radiant is permitted to designate (i) one director on our Board so long as TFG Radiant beneficially owns 15% or more of our common stock, or (ii) two directors on our Board so long as TFG Radiant beneficially owns 25% or more of our common stock. As a result of TFG Radiant's ownership of over 25% of our common stock in the past, it has designated two of the directors that currently serve on our Board. The Purchase Agreement does not modify the terms of the Stockholders Agreement or provide TFG Radiant with any rights to designate any additional directors to our Board.

At no time will we issue the Second Tranche Shares to TFG Radiant if such transaction would result in TFG Radiant's owning over 20% of our common stock, which would be considered a change of control under Nasdaq Listing Rule 5635(b), unless (i) our stockholders shall have approved the issuance of the Second Tranche Shares or (ii) Nasdaq has provided a waiver of its Listing Rule 5635(b).

Why the Company Needs Stockholder Approval

Our common stock is listed on the Nasdaq Capital Market and, as such, we are subject to the Nasdaq Marketplace Rules. Nasdaq Marketplace Rule 5635(b) requires us to obtain stockholder approval prior to certain issuances with respect to common stock or securities convertible into common stock which could result in a change of control of the

issuer. This rule is referred to as the Nasdaq Change of Control Rule. Generally, Nasdaq interpretations provide that the acquisition of 20% of the shares of an issuer by one person or group of affiliated persons may be considered a change of control of such issuer. The issuance of the Second Tranche Shares is expected to result in TFG Radiant s acquiring more than 20% of our shares of common stock. Accordingly, we need stockholder approval of the issuance of shares of common stock to TFG Radiant in excess of 20% of the amount of our common stock issued and outstanding as of September [], 2014.

In order to comply with the Nasdaq Change of Control Rule, we are seeking stockholder approval for the issuance of the Second Tranche Shares to TFG Radiant.

We did not seek advance stockholder approval of the issuance of the Second Tranche Shares to TFG Radiant because the closing of the second tranche under the Purchase Agreement is expressly conditioned upon our first obtaining stockholder approval of the issuance of the Second Tranche Shares. Therefore, advance stockholder approval was not required by the Nasdaq Marketplace Rules. If our stockholders do not approve Proposal No. 1 at the Special Meeting, the second tranche will not close and we will not receive the related proceeds.

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No Dissenters' Rights

Under applicable Delaware law, our stockholders are not entitled to dissenters' or appraisal rights with respect to the approval of the issuance of the Second Tranche Shares pursuant to the Purchase Agreement.

Effect of Proposal No. 1 on Current Stockholders

If Proposal No. 1 is adopted, we would be able to issue the Second Tranche Shares to TFG Radiant shortly after the Special Meeting. The issuance of such shares will result in additional dilution to our stockholders, and afford them a smaller percentage interest in the voting power, liquidation value and aggregate book value of the Company. Additionally, the sale or any resale into the public markets of the Second Tranche Shares could cause the market price of our common stock to decline.

Further Information

The terms of the Purchase Agreement are only briefly summarized above. For further information, please refer to the description contained in the Company's Current Report on Form 8-K filed with the SEC on September 4, 2014, and the Purchase Agreement, which is filed as an exhibit to such report. The discussion herein is qualified in its entirety by reference to the filed Purchase Agreement.

Required Vote

Approval of the issuance of the Second Tranche Shares to TFG Radiant pursuant to the Purchase Agreement, resulting in TFG Radiant's owning over 20% of our common stock, which would be considered a change of control under Nasdaq Listing Rule 5635(b), requires our receipt of the affirmative vote of a majority of the votes cast by stockholders at the Special Meeting.

Any shares of common stock held by TFG Radiant shall not be entitled to vote on Proposal No. 1.

RECOMMENDATION OF THE BOARD OF DIRECTORS FOR PROPOSAL NO. 1:

THE BOARD RECOMMENDS A VOTE FOR APPROVAL OF THE ISSUANCE OF 1,425,000 SHARES OF OUR COMMON STOCK TO TFG RADIANT PURSUANT TO THE TERMS OF THE PURCHASE AGREEMENT, WHICH WOULD BE CONSIDERED A CHANGE OF CONTROL OF THE COMPANY UNDER NASDAQ LISTING RULE 5635(b).

PROPOSAL NO. 2:

APPROVAL OF AMENDMENT AND RESTATEMENT

OF 2005 STOCK OPTION PLAN

Overview

Subject to stockholder approval, the Board approved an amendment and restatement of our Fourth Amended and Restated 2005 Stock Option Plan (Option Plan) that increases the number of shares of common stock authorized for issuance under the Option Plan from 370,000 shares to 3,000,000 shares. The Option Plan was adopted by the Board in October 2005 and approved by the stockholders in November 2005. The stockholders subsequently approved

amendments to the Option Plan in June 2007, July 2008, July 2009 and June 2010.

We believe that the Option Plan provides meaningful performance incentives to our directors, officers, employees and other service providers, which, in turn, are expected to improve the Company's long-term performance. We are asking our stockholders to approve an increase in the number of shares issuable under the Option Plan, and to increase the limitation on the number of option shares issuable to any single employee in a given fiscal year, in order to continue this company-wide compensation strategy and to provide resources to recruit and retain qualified personnel to support our planned strategic growth. Under the Option Plan, the number of shares of

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common stock currently authorized by our stockholders for issuance is 370,000 shares, as adjusted to reflect a 1-for-10 reverse stock split of our common stock that occurred on August 26, 2014 (the Reverse Stock Split). As of September 11, 2014, approximately 72,697 shares (as adjusted for the Reverse Stock Split) remained available for grant under the Option Plan, and approximately 122 persons were eligible to participate in the Option Plan. We expect the number of persons eligible to participate in the Option Plan to increase as we continue our planned expansion of operations. If the stockholders approve the amendment and restatement of the Option Plan: [] additional shares will be available for issuance under the Option Plan; and no employee may be granted, in any one fiscal year of the Company, options to purchase more than 150,000 shares, provided that the limitation will be 300,000 shares during the fiscal year of any employee's initial year of service with the Company. Currently, the Option Plan limits option grants to 12,500 shares in any one fiscal year and 25,000 shares in the first service year. The proposed amendment and restatement will not become effective if the stockholders do not approve it.

Proposal

The stockholders are asked to approve an amendment and restatement of the Option Plan that, among other things, increases the number of shares of common stock authorized for issuance under the Option Plan to 3,000,000 shares. If approved, the number of shares of our common stock authorized for issuance under our Option Plan will be increased from 370,000 (as adjusted for the Reverse Stock Split) to 3,000,000. The proposed amendment also requires that no employee be granted, in any one fiscal year of the Company, options to purchase more than 150,000 shares, provided that the limitation will be 300,000 shares during the fiscal year of any employee's initial year of service with the Company. The current limitation is 12,500 shares per year and 25,000 shares in the first service year (both as adjusted for the Reverse Stock Split). A copy of the proposed Fifth Amended and Restated 2005 Stock Option Plan is attached to this Proxy Statement as Appendix A.

Summary of the Option Plan

The following summary of the Option Plan is qualified in its entirety by the terms of the Fifth Amended and Restated 2005 Stock Option Plan, a copy of which is attached to this Proxy Statement as Appendix A.

Purpose. The purpose of the Option Plan is to provide a means to allow grants of stock options to selected employees, directors and consultants in order to attract and retain the best available personnel and to promote the success of the Company's business.

Administration. The Option Plan may be administered by the Board or any of its committees (the Plan Administrator). The Plan Administrator, subject to the terms and conditions of the Option Plan, has the authority to determine all matters related to the Option Plan in its discretion, including the authority to select the individuals to receive awards and to determine the number of shares to be subject to each award, the exercise price of options, the forms to be used under the Option Plan and all other terms and conditions of the award.

Stock Subject to the Option Plan. The Option Plan, if amended as proposed, will authorize the issuance of up to 3,000,000 shares of our common stock. Shares of common stock covered by an award granted under the Option Plan will not be counted as used unless and until they are actually issued and delivered to a participant. Shares relating to awards granted under the Option Plan that lapse, are canceled or forfeited, or settled for cash revert to and are available for grant under the Option Plan. The shares of stock deliverable under the Option Plan may consist in whole or in part of authorized and unissued shares or shares now held or subsequently acquired by the Company. The aggregate number of shares available for issuance under the Option Plan will be adjusted in the event of a change affecting our capitalization, such as stock splits, reverse stock splits, stock dividends, combinations or reclassifications or the like.

Awards. The Plan Administrator is authorized to grant incentive stock options and nonqualified stock options under the Option Plan. Awards may consist of one or both of these grant types.

Eligibility. Awards may be granted to employees, officers, directors, agents, consultants, advisors or independent contractors of the Company or a parent or subsidiary of the Company, except that only employees of the Company may receive incentive stock options.

Terms and Conditions of Stock Option Grants. At the discretion of the Plan Administrator, options granted under the Option Plan may be either nonqualified stock options or incentive stock options as defined in Section 422 of the Internal Revenue Code of 1986, as amended (the Code). The exercise price for each option is determined by the Plan Administrator, but may not be less than 100% of fair market value on the date of grant.

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The exercise price for shares purchased under an option must be paid in a form acceptable to the Plan Administrator, which form may include cash, checks, shares of stock, cashless exercise pursuant to a Company implemented plan, a reduction in the amount of liability owed to the Company, or such other consideration as the Plan Administrator may permit.

Unless the Plan Administrator determines otherwise in a particular option agreement, the term of each option will be ten years from the date of grant and each option will vest and become exercisable as follows: one-third of the option will vest on each of the first, second and third anniversaries of the date of grant. An option also may vest according to certain performance targets or criteria established by the Compensation Committee.

The vested portion of options may be exercised at any time in whole or in part in accordance with their terms. The unvested portion terminates upon termination of an optionee's employment or service relationship with the Company for any reason and reverts to the Option Plan. In the event of termination for a reason other than death or total and permanent disability, and unless otherwise provided by the Plan Administrator in an option agreement, the vested portion of options will generally be exercisable for 90 days after the date of termination, except as described in

Change of Control below. In the event of termination by reason of death or total and permanent disability, and unless otherwise provided for by the Plan Administrator in an option agreement, the option will generally be exercisable for one year from the date of such termination.

Unless determined otherwise by the Plan Administrator, options may not be sold, pledged, assigned, hypothecated, transferred or disposed of other than by will or by the applicable laws of descent and distribution.

Capital Adjustments. In the event of a stock split, reverse stock split, stock dividend, combination, reclassification or any increase or decrease in the number of issued shares of common stock effected without receipt of consideration by the Company, the number of shares covered by each outstanding option and the number of shares which have been authorized for issuance under the Option Plan but as to which no options have yet been granted or which have reverted to the Option Plan upon cancellation or expiration of an option, as well as the exercise price of each outstanding option, shall be proportionately adjusted.

Code Section 162(m) Provisions. Section 162(m) of the Code imposes a \$1 million annual deduction limit on the compensation paid to the chief executive officer and the three other most highly compensated officers (other than the principal executive officer or the principal financial officer) of a publicly traded company. Section 162(m) provides an exception to this deduction limit for performance-based compensation that meets certain requirements. Eligible performance criteria specified in the Option Plan are: (A) stock price; (B) market share; (C) sales; (D) earnings per share, core earnings per share or variations thereof; (E) return on equity; (F) costs; (G) revenue; (H) cash to cash cycle; (I) days payables outstanding; (J) days of supply; (K) days sales outstanding; (L) cash flow; (M) operating income; (N) profit after tax; (O) profit before tax; (P) return on assets; (Q) return on sales; (R) inventory turns; (S) invested capital; (T) net operating profit after tax; (U) return on invested capital; (V) total shareholder return; (W) earnings; (X) return on equity or average shareowners' equity; (Y) total shareowner return; (Z) return on capital; (AA) return on investment; (BB) income or net income; (CC) operating income or net operating income; (DD) operating profit or net operating profit; (EE) operating margin; (FF) return on operating revenue; (GG) contract awards or backlog; (HH) overhead or other expense reduction; (II) growth in shareowner value relative to the moving average of the S&P 500 Index or a peer group index; (JJ) credit rating; (KK) strategic plan development and implementation; (LL) net cash provided by operating activities; (MM) gross margin; (NN) economic value added; (OO) customer satisfaction; (PP) financial return ratios; (QQ) market performance; (RR) production capacity; (SS) production volume; (TT) achievement of photovoltaic conversion efficiency; (UU) production yields; (VV) EBITDA; (WW) EBIT; (XX) market capitalization; (YY) liquidity; (ZZ) strategic partnerships; (AAA) production agreements and relationships; and (BBB) product certifications. Stock option-based compensation that qualifies as

performance-based compensation under Section 162(m) includes stock option awards granted under a stockholder-approved plan that specifies a maximum number of shares that may be awarded to an employee during a specified period of time. Under the terms of the Option Plan, if amended as proposed, an employee may not receive awards in any one fiscal year with respect to more than 150,000 shares, provided however, that such limitation will be 300,000 shares during the fiscal year of any employee's initial year of service with the Company. The foregoing limits are subject to automatic adjustment in the event of a stock split, reverse stock split, stock dividend, combination, reclassification or similar event.

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Change of Control. The Option Plan defines certain events as changes of control. In the event of a change in control of the Company, half of the shares subject to an option award outstanding on the date of such change in control that are not yet vested shall become vested and nonforfeitable. However, if an employee is terminated in connection with a change of control, then all of his or her option award(s) outstanding on the date of such change in control that are not yet vested shall become fully vested and nonforfeitable.

Corporate Transactions. In the event of a proposed dissolution or liquidation of the Company, the Plan Administrator may permit an optionee to exercise all vested and unvested options until 10 days prior to the dissolution or liquidation. In the event of a change of control of the Company, one-half of any unvested options then held by an optionee shall vest and become exercisable. However, if an optionee's employment is terminated in connection with a change of control, then all of that optionee's options shall vest and become exercisable.

Term, Termination and Amendment. Assuming approval by the stockholders at the Special Meeting, unless earlier terminated by the Board of Directors, the amended and restated Option Plan will terminate on October [], 2024, the tenth anniversary of such stockholder approval. The Board of Directors may at any time amend the Option Plan, subject to stockholder approval to the extent required by applicable law, regulation, or stock exchange rules. The amendment, suspension or termination of the Option Plan or a portion thereof or the amendment of an outstanding award cannot, without the participant's consent, materially adversely affect any rights under any outstanding award. No amendment that would constitute a modification to an outstanding incentive stock option that would cause the option to fail to continue to qualify as an incentive stock option under Code Section 422 will be made without the consent of the optionee.

Other Information. A new plan benefits table, as described in the SEC's proxy rules, is not provided because all awards made under the amended and restated Option Plan are discretionary. However, please refer to Executive Compensation in this Proxy Statement, which provides information on the grants made in the last fiscal year, and please refer to the description of grants made to our non-employee directors in the last fiscal year under the heading Director Compensation in this Proxy Statement.

Federal Tax Consequences

The following discussion summarizes the material United States federal income tax consequences to the Company and to participants in the Option Plan. This summary is based on the Internal Revenue Code and the United States Treasury regulations promulgated thereunder as in effect on the date of this Proxy Statement, all of which may change with retroactive effect. This summary is not intended to be a complete analysis or discussion of all potential tax consequences that may be important to participants in the Option Plan.

Incentive Stock Options. The incentive stock options granted under the Option Plan are intended to qualify for favorable federal income tax treatment accorded incentive stock options under the Code. Generally, the grant or exercise of an incentive stock option does not result in any federal income tax consequences to the participant or to the Company. However, the optionee generally will have taxable income for alternative minimum tax purposes at the time of exercise as if the option were a nonqualified stock option.

The federal income tax consequence of a disposition of stock acquired through the exercise of an incentive stock option will depend on the period such stock is held prior to disposition. If a participant holds stock acquired through exercise of an incentive stock option for at least two years from the date on which the option is granted and at least one year from the date of exercise of the option, the participant will recognize long-term capital gain or loss in the year of disposition, equal to the difference between the amount realized on the disposition of the stock and the amount paid for the stock on exercise of the option.

Generally, if a participant disposes of the stock before the expiration of either the statutory holding periods described above (a disqualifying disposition), the participant will recognize ordinary income equal to the lesser of (i) the excess of the fair market value of the stock on the date of exercise over the exercise price and (ii) the excess of the amount realized on the disposition of the stock over the exercise price. Subject to certain limitations, to the extent the participant recognized ordinary income by reason of a disqualifying disposition, the Company generally will be entitled to a corresponding business expense deduction in the taxable year during which the disqualifying disposition occurs. Generally, in the taxable year of a disqualifying disposition, the participant will also recognize capital gain or loss equal to the difference between the amount realized on the disposition of such stock over the sum

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of the amount paid for such stock plus any amount recognized as ordinary income by reason of the disqualifying disposition. Such capital gain or loss will be characterized as short-term or long-term depending on how long the stock was held.

Nonqualified Stock Options. Generally, the grant of a nonqualified stock option will not result in any federal income tax consequences to the Company or the participant. Upon exercise of a nonqualified stock option, the participant generally will recognize ordinary income equal to the excess of the fair market value of the stock on the date of exercise over the amount paid for the stock upon exercise of the option. Subject to certain limitations, the Company will be generally entitled to a corresponding business expense deduction equal to the ordinary income recognized by the participant.

Upon disposition of stock, the participant will recognize capital gain or loss equal to the difference between the amount realized on the disposition of such stock over the sum of the amount paid for such stock plus any amount recognized as ordinary income upon exercise of the option. Such capital gain or loss will be characterized as short-term or long-term, depending on how long the stock was held.

Potential Limitations on Deductions. Section 162(m) of the Code precludes a deduction for compensation paid to our chief executive officer and our three other most highly compensated officers (other than the principal executive officer or the principal financial officer) to the extent that such compensation exceeds \$1 million for a taxable year. If certain requirements are met, qualified performance-based compensation is disregarded for purposes of the \$1 million limitation.

Equity Compensation Plan Information

The following table sets forth information as of December 31, 2013 relating to all of our equity compensation plans (all data adjusted to reflect the Reverse Stock Split):

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (1)	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	131,203	\$ 19.50	143,297

(1) This column does not include 1,550 restricted stock awards or units.

Required Vote

The affirmative vote of a majority of the shares having voting power present in person or represented by proxy on the proposal will be required to approve the amendment and restatement of the Option Plan at the Special Meeting.

RECOMMENDATION OF THE BOARD FOR PROPOSAL NO. 2:

THE BOARD OF DIRECTORS RECOMMENDS A VOTE FOR THE PROPOSAL TO AMEND AND RESTATE THE OPTION PLAN.

PROPOSAL NO. 3:

APPROVAL OF AN AMENDMENT TO THE COMPANY S

CERTIFICATE OF INCORPORATION TO DECREASE THE NUMBER OF

AUTHORIZED SHARES OF THE COMPANY S COMMON STOCK

We are seeking approval to decrease the authorized number of shares of our common stock from 250,000,000 to 150,000,000. As described in more detail below, we believe that 150,000,000 shares of common stock is sufficient to satisfy all outstanding equity awards and rights to obtain shares of our common stock as well as support our ongoing efforts to raise capital to fund the Company s operations for the foreseeable future.

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The form of the Certificate of Amendment to our Certificate of Incorporation to accomplish the decrease in our authorized shares of common stock is attached to this Proxy Statement as Appendix B. The discussion herein is qualified in its entirety by the full text of such amendment, which is incorporated herein by reference.

Background and Reasons for the Proposed Decrease in Authorized Shares

Current Capitalization. As of September [], 2014, we currently have 250,000,000 shares of authorized common stock. As of September [], 2014, there were approximately _____ shares of our common stock issued and outstanding. In addition, as of September [], 2014, there were _____ shares of common stock reserved for issuance upon _____; _____ shares of common stock reserved for issuance upon _____; and _____ shares of common stock reserved for issuance upon _____. An additional 2,630,000 shares will be reserved for issuance under our Option Plan if our stockholders approve Proposal No. 2 included in this Proxy Statement.

Reasons for the Decrease. At the Company's 2014 Annual Meeting of Stockholders held on May 22, 2014, the Company's stockholders approved an amendment to our Certificate of Incorporation to effect a reverse stock split of the Company's common stock at a ratio ranging from one-for-five to one-for-ten, with such ratio to be determined by the Board of Directors in its discretion without further approval from the Company's stockholders. The Board of Directors subsequently authorized proceeding with the Reverse Stock Split at a ratio of one-for-ten.

On August 26, 2014, we filed a Certificate of Amendment to the Certificate of Incorporation to effect a reverse stock split of the Company's common stock at a ratio of one-for-ten. As a result, the number of shares of our common stock that may be issued from equity awards or upon conversion of, or for payments related to, our preferred stock was significantly reduced. Therefore, our Board of Directors believes that a reduction of the authorized shares of common stock to 150,000,000 is sufficient to support the Company's ongoing efforts to raise capital to fund its operations for the foreseeable future. Additionally, we may be able to experience cost savings by reducing fees to the State of Delaware based on the number of currently authorized shares of common stock.

For these reasons we are seeking stockholder approval to authorize our Board of Directors to amend Article 4 of our Certificate of Incorporation in order to decrease the number of authorized shares of our common stock from 250,000,000 shares of common stock to 150,000,000 shares of common stock.

General. If approved by our stockholders, the authorized shares of common stock would be available for issuance for any proper corporate purpose as determined by our Board of Directors without further approval by the stockholders, except as required by law, the Listing Rules of the Nasdaq Capital Market or the rules of any other national securities exchange on which our shares of common stock are listed.

There will be no change in the rights attributable to our authorized shares of common stock. The proposed amendment will not affect the par value of our common stock, which will remain at \$0.0001 per share. Under our Certificate of Incorporation, our shareholders do not have preemptive rights to subscribe to additional securities that we may issue; in other words, current holders of our common stock do not have a prior right to purchase any new issue of our capital stock to maintain their proportionate ownership of common stock. If we issue additional shares of common stock or other securities convertible into common stock in the future, it will dilute the voting rights of existing holders of common stock and will also dilute earnings per share and book value per share.

If this Proposal No. 3 is approved by our stockholders, the amendment to our Certificate of Incorporation will become effective upon the filing of the amendment with the Secretary of State of the State of Delaware.

Required Vote

Approval of the amendment to our Certificate of Incorporation to decrease the number of authorized shares of our common stock from 250,000,000 shares to 150,000,000 shares requires our receipt of the affirmative vote of the holders of a majority of the shares of the Company's issued and outstanding common stock entitled to vote.

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RECOMMENDATION OF THE BOARD OF DIRECTORS FOR PROPOSAL NO. 3:

THE BOARD RECOMMENDS A VOTE FOR APPROVAL OF THE AMENDMENT TO OUR CERTIFICATE OF INCORPORATION TO DECREASE THE NUMBER OF AUTHORIZED SHARES OF OUR COMMON STOCK FROM 250,000,000 SHARES TO 150,000,000 SHARES.

WHERE TO FIND MORE INFORMATION

The SEC allows us to incorporate by reference information into this Proxy Statement, which means that we can disclose important information to you by referring you to another document that we filed separately with the SEC. Information in this Proxy Statement updates and, in some cases, supersedes information incorporated by reference from documents that we have filed with the SEC prior to the date of this Proxy Statement, while information that we file later with the SEC will automatically update and, in some cases, supersede the information in this Proxy Statement.

The following documents and information previously filed with the SEC are incorporated by reference into this Proxy Statement:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the SEC on March 28, 2014;

our definitive proxy statement on Schedule 14A filed on April 25, 2014;

our Quarterly Reports on Form 10-Q filed with the SEC on May 7, 2014 and August 13, 2014; and

our Current Reports on Form 8-K filed with the SEC on January 2, 2014, January 24, 2014, February 11, 2014, March 21, 2014, March 27, 2014, April 2, 2014, April 9, 2014, April 22, 2014, May 29, 2014, July 21, 2014, July 30, 2014, July 31, 2014, September 2, 2014, September 4, 2014, and September [], 2014.

In particular, our financial statements and management's discussion and analysis of financial condition and results of operations are incorporated by reference to our Quarterly Reports, and our quantitative and qualitative disclosures about market risks are incorporated by reference to our Annual Report.

In addition, all documents we file under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this Proxy Statement and before the date of the Special Meeting are incorporated by reference into and deemed a part of this Proxy Statement from the date of filing of those documents.

As a stockholder, we may have sent you some of the documents incorporated by reference, but anyone can obtain any of them through us or the SEC. Documents incorporated by reference are available from us without charge, excluding all exhibits unless we have specifically incorporated by reference an exhibit in this Proxy Statement. You may obtain documents that we have filed with the SEC and incorporated by reference in this document, without charge, by making a request to us as follows:

Corporate Secretary

Ascent Solar Technologies, Inc.

12300 North Grant Street

Thornton, Colorado 80241

Telephone: (720) 872-5000

STOCKHOLDER PROPOSALS

Stockholders may present proposals for action at a future meeting if they comply with SEC rules, state law and our Bylaws.

Stockholder Proposals to be Included in the Proxy Statement

To be considered for inclusion in our proxy materials for the 2015 Annual Meeting of Stockholders, a stockholder proposal must be received in writing at our offices, 12300 North Grant Street, Thornton, Colorado 80241, no later than December 26, 2014.

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Stockholder Proposals Not to be Included in the Proxy Statement

If you wish to make a stockholder proposal at the 2015 Annual Meeting of Stockholders that is not intended to be included in our proxy materials for that meeting, you generally must provide appropriate notice to us in the manner specified in our Bylaws between January 21, 2015 and February 20, 2015. Furthermore, a proxy for our 2015 Annual Meeting of Stockholders may confer discretionary authority to vote on any matter not submitted to us by March 6, 2015.

OTHER BUSINESS

We know of no other matters to be submitted to the stockholders at the Special Meeting. If any other matters properly come before the stockholders at the Special Meeting, the persons named as proxies intend to vote the shares they represent as the Board may recommend.

BY ORDER OF THE BOARD OF
DIRECTORS

Victor Lee
President and Chief Executive Officer

September [], 2014
Thornton, Colorado

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APPENDIX A

ASCENT SOLAR TECHNOLOGIES, INC.

FIFTH AMENDED AND RESTATED 2005 STOCK OPTION PLAN

(Approved by the Board of Directors on September [], 2014;

Adopted by Stockholders on October [], 2014)

1. Purposes of the Plan. The purposes of this Fifth Amended and Restated 2005 Stock Option Plan are:

to attract and retain the best available personnel;

to provide additional incentive to Employees, Directors and Consultants; and

to promote the success of the Company's business.

Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant.

2. Definitions. As used herein, the following definitions shall apply:

(a) Administrator means the Board or any of its Committees as shall be administering the Plan, in accordance with Section 4 of the Plan.

(b) Applicable Laws means the requirements relating to the administration of stock option plans under U. S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Options are, or will be, granted under the Plan.

(c) Board means the Board of Directors of the Company.

(d) Code means the Internal Revenue Code of 1986, as amended.

(e) Committee means a committee of Directors appointed by the Board in accordance with Section 4 of the Plan.

(f) Common Stock means the common stock of the Company.

(g) Company means Ascent Solar Technologies, Inc., a Delaware corporation.

(h) Consultant means any person, including an advisor, engaged by the Company or a Parent or Subsidiary to render services to such entity.

(i) Director means a member of the Board.

(j) Disability means total and permanent disability as defined in Section 22(e)(3) of the Code.

(k) Employee means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. A Service Provider shall not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor. For purposes of Incentive Stock Options, no such leave may exceed one hundred eighty (180) days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, on the one hundred eighty-first (181st) day of such leave any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option. Neither service as a Director nor payment of a director's fee by the Company shall be sufficient to constitute employment by the Company.

(l) Exchange Act means the Securities Exchange Act of 1934, as amended.

(m) Fair Market Value means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Market or The Nasdaq Capital Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system for the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share of Common Stock shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable; or

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(iii) In the absence of an established market for the Common Stock, the Fair Market Value shall be determined in good faith by the Administrator.

(n) Incentive Stock Option means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(o) Nonstatutory Stock Option means an Option not intended to qualify as an Incentive Stock Option.

(p) Notice of Grant means a written or electronic notice evidencing certain terms and conditions of an individual Option grant. The Notice of Grant is part of the Option Agreement.

(q) Officer means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(r) Option means a stock option granted pursuant to the Plan.

(s) Option Agreement means an agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(t) Option Exchange Program means a program whereby outstanding Options are surrendered in exchange for Options with a lower exercise price.

(u) Optioned Stock means the Common Stock subject to an Option.

(v) Optionee means the holder of an outstanding Option granted under the Plan.

(w) Parent means a parent corporation, whether now or hereafter existing, as defined in Section 424(e) of the Code.

(x) Plan means this 2005 Stock Option Plan, as amended.

(y) Rule 16b-3 means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(z) Section 16(b) means Section 16(b) of the Exchange Act.

(aa) Service Provider means an Employee, Director or Consultant.

(bb) Share means a share of the Common Stock, as adjusted in accordance with Section 12 of the Plan.

(cc) Subsidiary means a subsidiary corporation, whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 12 of the Plan, the maximum aggregate number of Shares which may be optioned and sold under the Plan is Three Million (3,000,000) Shares. The Shares may be authorized, but unissued, or reacquired Common Stock.

If an Option expires or becomes unexercisable without having been exercised in full, or is surrendered pursuant to an Option Exchange Program, the unpurchased Shares which were subject thereto shall become available for future grant

or sale under the Plan (unless the Plan has terminated); provided, however, that Shares that have actually been issued under the Plan shall not be returned to the Plan and shall not become available for future distribution under the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. The Plan may be administered by different Committees with respect to different groups of Service Providers.

(ii) Section 162(m). To the extent that the Administrator determines it to be desirable to qualify Options granted hereunder as performance-based compensation within the meaning of Section 162(m) of the Code, the Plan shall be administered by a Committee of two or more outside directors within the meaning of Section 162(m) of the Code.

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(iii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder shall be structured to satisfy the requirements for exemption under Rule 16b-3.

(iv) Other Administration. Other than as provided above, the Plan shall be administered by (A) the Board or (B) a Committee, which committee shall be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator shall have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options may be granted hereunder;

(iii) to determine the number of shares of Common Stock to be covered by each Option granted hereunder;

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Option granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Options may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or the shares of Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vi) to institute an Option Exchange Program;

(vii) to construe and interpret the terms of the Plan and awards granted pursuant to the Plan;

(viii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of qualifying for preferred tax treatment under foreign tax laws;

(ix) to modify or amend each Option (subject to Section 14(c) of the Plan), including the discretionary authority to extend the post-termination exercisability period of Options longer than is otherwise provided for in the Plan;

(x) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Option previously granted by the Administrator; and

(xi) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations shall be final and binding on all Optionees and any other holders of Options.

5. Eligibility. Nonstatutory Stock Options may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Limitations.

(a) Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the

Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000, such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(b) Neither the Plan nor any Option shall confer upon an Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall they interfere in any way with the Optionee's right or the Company's right to terminate such relationship at any time, with or without cause.

(c) No Employee shall be granted, in any one fiscal year of the Company, Options to purchase more than One Hundred Fifty thousand (150,000) Shares, provided that such limitation shall be Three Hundred thousand (300,000) Shares during the fiscal year of any person's initial year of service with the Company.

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7. Effective Date and Duration of Plan. The Plan originally became effective as of November 18, 2005, the date on which it was initially approved by the Company's stockholders. This Fifth Amended and Restated Plan, as so amended and restated, will become effective on the date it is approved by the Company's stockholders (the Effective Date). If the Company's stockholders fail to approve the amendment and restatement of the Plan by September [], 2015 the Plan will continue in effect in the form in which it existed immediately prior to that date, and any awards made under the Plan that were contingent upon approval of the amendment and restatement of the Plan by the Company's stockholders shall be void and of no effect. The Plan as amended and restated will terminate at midnight on the tenth (10th) anniversary of the Effective Date (unless the Company's stockholders fail to approve the amendment and restatement of the Plan, in which case the Plan will terminate on the tenth anniversary of the original effective date), and may be terminated prior to such time by Board action. No award will be granted after termination of the Plan. Awards outstanding upon termination of the Plan may continue to be exercised, earned or become free of restrictions, according to their terms.

8. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option, the term shall be ten (10) years from the date of grant or such shorter term as may be provided in the Option Agreement. Moreover, in the case of an Incentive Stock Option granted to an Optionee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

9. Option Exercise Price and Consideration.

(a) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option shall be determined by the Administrator, subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any Employee other than an Employee described in paragraph (A) immediately above, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option

(A) granted to a Service Provider who, at the time the Nonstatutory Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price shall be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant.

(B) granted to a Service Provider other than a Service Provider described in paragraph (A) immediately above, or intended to qualify as performance-based compensation within the meaning of Section 162(m) of the Code, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a merger or other corporate

transaction.

(b) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator shall fix the period within which the Option may be exercised and shall determine any conditions which must be satisfied before the Option may be exercised.

(c) Form of Consideration. The Administrator shall determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator shall determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of:

(i) cash;

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(ii) check;

(iii) other Shares which (A) in the case of Shares acquired upon exercise of an option, have been owned by the Optionee for more than six months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which said Option shall be exercised;

(iv) consideration received by the Company under a cashless exercise program, if implemented by the Company in connection with the Plan;

(v) a reduction in the amount of any Company liability to the Optionee, including any liability attributable to the Optionee's participation in any Company-sponsored deferred compensation program or arrangement;

(vi) any combination of the foregoing methods of payment; or

(vii) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws.

10. Exercise of Option.

(a) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement. Unless otherwise stated in the Option Agreement, Options shall become exercisable at a rate one-third (1/3) per year over three (3) years from the date the Options are granted, with one-third (1/3) of the Shares under the Option vesting on each of the first, second and third anniversaries of the date of grant. Unless the Administrator provides otherwise, vesting of Options granted hereunder shall be suspended during any unpaid leave of absence. An Option may not be exercised for a fraction of a Share.

An Option shall be deemed exercised when the Company receives: (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 12 of the Plan.

Exercising an Option in any manner shall decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, other than upon the Optionee's death or Disability, the Optionee may exercise his or her Option within ninety (90) days of termination, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his

or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within one (1) year of termination, or such longer period of time as may be specified in the Option Agreement, to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

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(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within one (1) year following Optionee's death, or such longer period of time as may be specified in the Option Agreement, to the extent that the Option is vested on the date of death (but in no event later than the expiration of the term of such Option as set forth in the Notice of Grant), by the Optionee's designated beneficiary, provided such beneficiary has been designated prior to Optionee's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Optionee, then such Option may be exercised by the personal representative of the Optionee's estate or by the person(s) to whom the Option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(e) Buyout Provisions. The Administrator may at any time offer to buy out for a payment in cash or Shares an Option previously granted based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made.

(f) Code Section 162(m) Provisions.

(i) Notwithstanding any other provision of the Plan, if the Compensation Committee of the Board (the "Compensation Committee") determines at the time an Option is granted to an Optionee that such Optionee is, or may be as of the end of the tax year for which the Company would claim a tax deduction in connection with such Option, a covered employee within the meaning of Section 162(m)(3) of the Code, and to the extent the Compensation Committee considers it desirable for compensation delivered pursuant to such Option to be eligible to qualify for an exemption from the limit on tax deductibility of compensation under Section 162(m) of the Code, then the Compensation Committee may provide that this Section 10(f) is applicable to such Option under such terms as the Compensation Committee shall determine.

(ii) If an Option is subject to this Section 10(f), then vesting of the Option and issuance of Optioned Stock pursuant thereto, as applicable, may be subject to satisfaction of one, or more than one, objective performance targets. In such event, the Compensation Committee shall determine the performance targets that will be applied with respect to each Option subject to this Section 10(f) at the time of grant, but in no event later than 90 days after the commencement of the period of service to which the performance target(s) relate. The performance criteria applicable to Options subject to this Section 10(f) will be one or more of the following criteria: (A) stock price; (B) market share; (C) sales; (D) earnings per share, core earnings per share or variations thereof; (E) return on equity; (F) costs; (G) revenue; (H) cash to cash cycle; (I) days payables outstanding; (J) days of supply; (K) days sales outstanding; (L) cash flow; (M) operating income; (N) profit after tax; (O) profit before tax; (P) return on assets; (Q) return on sales; (R) inventory turns; (S) invested capital; (T) net operating profit after tax; (U) return on invested capital; (V) total shareholder return; (W) earnings; (X) return on equity or average shareowner's equity; (Y) total shareowner return; (Z) return on capital; (AA) return on investment; (BB) income or net income; (CC) operating income or net operating income; (DD) operating profit or net operating profit; (EE) operating margin; (FF) return on operating revenue; (GG) contract awards or backlog; (HH) overhead or other expense reduction; (II) growth in shareowner value relative to the moving average of the S&P 500 Index or a peer group index; (JJ) credit rating; (KK) strategic plan development and implementation; (LL) net cash provided by operating activities; (MM) gross margin; (NN) economic value added; (OO) customer satisfaction; (PP) financial return ratios; (QQ) market performance; (RR) production capacity; (SS) production volume; (TT) achievement of photovoltaic conversion efficiency; (UU) production yields; (VV) EBITDA; (WW) EBIT; (XX) market capitalization; (YY) liquidity; (ZZ) strategic partnerships; (AAA) production agreements and relationships; and (BBB) product certifications.

(iii) Notwithstanding any contrary provision of the Plan, the Compensation Committee may not increase the number of Optioned Stock pursuant to any Option subject to this Section 10(f), nor may it waive the achievement of any performance target established pursuant to this Section 10(f).

(iv) The Compensation Committee shall have the power to impose such other restrictions on Options subject to this Section 10(f) as it may deem necessary or appropriate to ensure that such Option satisfies all requirements for performance-based compensation within the meaning of Code section 162(m)(4)(C) of the Code, the regulations promulgated thereunder, and any successors thereto.

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11. Limited Transferability of Options. Unless determined otherwise by the Administrator, Options may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or the laws of descent and distribution, and may be exercised during the lifetime of the Optionee, only by the Optionee. If the Administrator in its sole discretion makes an Option transferable, such Option may only be transferred (i) by will, (ii) by the laws of descent and distribution, or (iii) as permitted by Rule 701 of the Securities Act of 1933, as amended.

12. Adjustments Upon Changes in Capitalization, Dissolution, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the stockholders of the Company, the number of shares of Common Stock covered by each outstanding Option, and the number of shares of Common Stock which have been authorized for issuance under the Plan but as to which no Options have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Option, as well as the price per share of Common Stock covered by each such outstanding Option, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of issued shares of Common Stock effected without receipt of consideration by the Company; provided, however, that conversion of any convertible securities of the Company shall not be deemed to have been effected without receipt of consideration. Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. The Administrator in its discretion may provide for an Optionee to have the right to exercise his or her Option until ten (10) days prior to such transaction as to all of the Optioned Stock covered thereby, including Shares as to which the Option would not otherwise be exercisable. In addition, the Administrator may provide that any Company repurchase option applicable to any Shares purchased upon exercise of an Option shall lapse as to all such Shares, provided the proposed dissolution or liquidation takes place at the time and in the manner contemplated. To the extent it has not been previously exercised, an Option will terminate immediately prior to the consummation of such proposed action.

(c) Change of Control. Unless otherwise stated in the Option Agreement, in the event of a Change of Control, then as to each Optionee, fifty percent (50%) of any outstanding Optioned Stock that has not yet vested at the time such Change of Control occurs shall become vested and exercisable. In such event, the Administrator shall notify the Optionee in writing or electronically at least fifteen (15) calendar days prior to the Change of Control of the exercisability of the Option. The portion of the Option that is then vested (including 50% of the unvested portion that becomes vested due to the Change of Control) shall be exercisable by the Optionee for a period of fifteen (15) calendar days from the date of such notice, and the Option shall terminate upon the expiration of such period. Notwithstanding the foregoing and anything else in this Plan, and unless otherwise stated in the Option Agreement, if the employment of an Optionee is terminated by the Company or its successor in connection with a Change of Control (as determined in the sole and absolute discretion of the Committee), then the Optionee's entire Option shall become vested and exercisable upon termination of employment. For purposes of this paragraph, a Change of Control means the happening of any of the following:

(i) any one person, or more than one person acting as a group, acquires ownership of stock of the Company that, together with stock held by such person or group, possesses more than 50 percent of the total fair market value or total voting power of the stock of the Company; provided, however, that if any one person, or more than one person acting

as a group, is considered to own more than 50 percent of the total fair market value or total voting power of the stock of the Company, the acquisition of additional stock by the same person or persons will not be considered a Change of Control. Notwithstanding the foregoing, an increase in the percentage of stock of the Company owned by any one person, or persons acting as a group, as a result of a transaction in which the Company acquires its stock in exchange for property will be treated as an acquisition of stock of the Company for purposes of this subsection (i);

(ii) during any period of 12 consecutive months, individuals who at the beginning of such period constituted the Board (together with any new or replacement directors whose election by the Board, or whose nomination for election by the Company's shareholders, was approved by a vote of at least a majority of the directors then still in office who were either directors at the beginning of such period or whose election or nomination for election was previously so approved) cease for any reason to constitute a majority of the directors then in office; or

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(iii) any one person, or more than one person acting as a group, acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by the person or persons) assets from the Company, outside of the ordinary course of business, that have a gross fair market value equal to or more than 50 percent of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions. For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets. Notwithstanding anything to the contrary in this Agreement, the following shall not be treated as a Change of Control under this subsection (iii): (A) a transfer of assets from the Company to a shareholder of the Company (determined immediately before the asset transfer); (B) a transfer of assets from the Company to an entity, 50 percent or more of the total value or voting power of which is owned, directly or indirectly, by the Company; (C) a transfer of assets from the Company to a person, or more than one person acting as a group, that owns, directly or indirectly, 50 percent or more of the total value or voting power of all the outstanding stock of the Company; or (D) a transfer of assets from the Company to an entity, at least 50 percent of the total value or voting power of which is owned, directly or indirectly, by a person described in (iii)(C) above.

13. Date of Grant. The date of grant of an Option shall be, for all purposes, the date on which the Administrator makes the determination granting such Option, or such other later date as is determined by the Administrator. Notice of the determination shall be provided to each Optionee within a reasonable time after the date of such grant.

14. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company shall obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination.

15. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option unless the exercise of such Option and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Option, the Company may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

16. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

17. Reservation of Shares. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

18. Stockholder Approval. The Plan shall be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted. Such stockholder approval shall be obtained in the manner and to the degree required under Applicable Laws.

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19. Information to Optionees. The Company shall provide, or make available, to each Optionee and to each individual who acquires Shares pursuant to the Plan, not less frequently than annually during the period such participant has one or more Options outstanding, and, in the case of an individual who acquires Shares pursuant to the Plan, during the period such individual owns such Shares, copies of annual financial statements. The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

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EXHIBIT A

ASCENT SOLAR TECHNOLOGIES, INC.

FIFTH AMENDED AND RESTATED 2005 STOCK OPTION PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

«NAME»

The undersigned Optionee has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant:

Vesting Commencement Date:

(same as Date of Grant, if left blank)

Exercise Price per Share:

Total Number of Shares Granted:

Type of Option:

Incentive Stock Option

Nonstatutory Stock Option

Expiration Date:

(10 years from Date of Grant, if left blank)

Vesting Schedule:

Subject to Optionee continuing as a Service Provider, the Options shall vest as follows:

«VESTING SCHEDULE»

Termination Period:

This Option shall be exercisable for ninety (90) days after Optionee ceases to be a Service Provider. Upon Optionee's death or disability, this Option may be exercised for such longer period as provided in the Plan. In no event may Optionee exercise this Option after the Term/Expiration Date as provided above.

II. AGREEMENT

1. Grant of Option. The Plan Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the Optionee), an option (the Option) to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the Exercise Price), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 14(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option (ISO), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the \$100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option (NSO).

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as **Exhibit A** (the Exercise Notice) which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate

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Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash or check;

(b) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan;

(c) surrender of other Shares which, (i) in the case of Shares acquired from the Company, either directly or indirectly, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares; or

(d) any other form or manner endorsed in the Plan.

4. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the shareholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

5. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

6. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

7. Tax Obligations.

(a) Taxes. Optionee acknowledges and agrees that Optionee is solely responsible for the satisfaction of all federal, state, local and foreign income and other tax arising from or applicable to the Option exercise and the acquisition or sale of the Optioned Stock. Optionee agrees that Optionee shall indemnify the Company for any liability, including attorneys' fees and expenses, accrued by the Company as a result of the Optionee's failure to satisfy those taxes.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Optionee herein is an ISO, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (1) the date two (2) years after the Date of Grant, or (2) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition.

8. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter

hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This agreement is governed by the internal substantive laws but not the choice of law rules of Colorado.

9. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE

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IN ANY WAY WITH OPTIONEE S RIGHT OR THE COMPANY S RIGHT TO TERMINATE OPTIONEE S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel and other advisors prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE: ASCENT SOLAR TECHNOLOGIES, INC.

Signature	By
Print Name	Name
	Title

Residence Address

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EXHIBIT A

EXERCISE NOTICE AND AGREEMENT

Ascent Solar Technologies, Inc.

12300 Grant Street

Thornton, CO 80241

Attention: Stock Option Plan Administrator

Re: Exercise of Stock Option Pursuant to Fifth Amended and Restated 2005 Stock Option Plan

Name of Optionee:

Optionee's Address:

Optionee's Social Security Number:

Date of Option Agreement:

Exercise Date:

The Shares Purchased are Incentive Stock Options: Yes / No

(circle one)

Number of Shares Purchased Pursuant to this Notice:

Exercise Price per Share: \$

Aggregate Exercise Price: \$

Amount of Payment Enclosed: \$

1. Exercise of Option. Pursuant to the Fifth Amended and Restated 2005 Stock Option Plan (the "Plan") of Ascent Solar Technologies, Inc., a Delaware corporation (the "Company") and the Stock Option Agreement ("Option Agreement") entered into as of the date set forth above between the undersigned Optionee and the Company, Optionee hereby elects, effective as of the date of this notice, to exercise Optionee's option to purchase the number of shares of common stock (the "Shares") of the Company indicated above.

2. Payment. Enclosed is Optionee's payment in the amount indicated above, which is the full exercise price for the Shares.

3. Deemed Date of Exercise. The date of exercise shall be deemed to be the first date after which this Notice is filed with Company upon which Shares become eligible for issuance to Optionee under applicable state and federal laws and regulatory requirements.

4. Compliance with Laws. Optionee understands and acknowledges that the purchase and sale of the Shares may be subject to approval under the state and federal securities laws and other laws and, notwithstanding any other provision of the Option Agreement to the contrary, the exercise of any rights to purchase Shares is expressly conditioned upon approval (if necessary) and compliance with all such laws.

5. Representations of Optionee. Optionee represents and warrants to the Company, as follows:

(a) Optionee has received, read, and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

(b) The Options exercised herewith are exercisable only according to the schedule in the Option Agreement.

(c) Optionee is aware of the business affairs and financial condition of the Company and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Shares.

6. Refusal to Transfer. The Company shall not be required (a) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement, the Option Agreement, or the Plan or (b) to treat as owner of such Shares or to accord the right to vote or receive dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

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7. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee is not relying on the Company for any tax advice.

8. Entire Agreement. The Plan and the Option Agreement are incorporated herein by reference. This Agreement, the Plan, and the Option Agreement constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof.

Submitted by:
OPTIONEE :

Accepted by:
COMPANY
Ascent Solar Technologies, Inc.,
a Delaware corporation

Signature
Print Name

By
Name
Title

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APPENDIX B
CERTIFICATE OF AMENDMENT
TO THE
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
ASCENT SOLAR TECHNOLOGIES, INC.

Ascent Solar Technologies, Inc., a corporation duly organized and existing under the General Corporation Law of the State of Delaware (the "Corporation"), hereby certifies as follows:

FIRST: That the Board of Directors of the Corporation has duly adopted resolutions (i) authorizing the Corporation to execute and file with the Secretary of State of the State of Delaware this Certificate of Amendment to the Amended and Restated Certificate of Incorporation (this "Amendment") and (ii) declaring this Amendment to be advisable, submitted to and considered by the stockholders of the Corporation entitled to vote thereon for approval by the affirmative vote of such stockholders in accordance with the terms of the Company's Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and Section 242 of the General Corporation Law of the State of Delaware (the "DGCL") and recommended for approval by the stockholders of the Corporation.

SECOND: That this Amendment was duly adopted in accordance with the terms of the Certificate of Incorporation and the provisions of Section 242 of the DGCL by the Board of Directors and stockholders of the Corporation.

THIRD: That the capital of the Corporation shall not be reduced under or by reason of this Amendment.

FOURTH: That upon the effectiveness of this Amendment, the Certificate of Incorporation is hereby amended such that the first sentence of Article 4 of the Company's Amended and Restated Certificate of Incorporation to read in its entirety as follows:

The total number of shares of all classes of stock that the Corporation shall have authority to issue is one hundred fifty million (150,000,000) shares of common stock, having a par value of \$0.0001 per share, and twenty-five million (25,000,000) shares of preferred stock, having a par value of \$0.0001 per share.

IN WITNESS WHEREOF, the Company has caused this Certificate of Amendment to the Amended and Restated Certificate of Incorporation to be executed by William M. Gregorak, its Secretary, this [] day of October, 2014.

ASCENT SOLAR TECHNOLOGIES, INC.

By: /s/ William M. Gregorak
Name: William M. Gregorak
Title: Secretary

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Ascent Solar Technologies Inc.

IMPORTANT SPECIAL MEETING

INFORMATION

Electronic Voting Instructions

You can vote by Internet or telephone!

Available 24 hours a day, 7 days a week!

Instead of mailing your proxy, you may choose one of the two voting methods outlined below to vote your proxy.

VALIDATION DETAILS ARE LOCATED BELOW IN THE TITLE BAR.

Proxies submitted by the Internet or telephone must be received by 1:00 a.m., Central Time, on October [], 2014.

Vote by Internet

Log on to the Internet and go to
www.investorvote.com/ASTI

Follow the steps outlined on the secured website.

Vote by telephone

Call toll free 1-800-652-VOTE (8683) within the USA, US territories & Canada any time on a touch tone telephone. There is **NO CHARGE** to you for the call.

Follow the instructions provided by the recorded message.

Using a black ink pen, mark your votes with an **x** as shown in this example. Please do not write outside the designated areas.

q PLEASE FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. q

A Proposals Board of Directors recommends a vote FOR Proposal 1 and FOR Proposal 2 and FOR Proposal 3.

	For	Against	Abstain
1 To approve the issuance of certain shares of common stock pursuant to the Securities Purchase Agreement dated August 29, 2014.
	For	Against	Abstain
2 To approve an amendment and restatement of the Company's 2005 Stock Option Plan.
	For	Against	Abstain
3 To approve an amendment to the Company's certificate of incorporation (the Certificate of Incorporation) to approve a decrease in the number of authorized shares of the Company's common stock from 250,000,000 to 150,000,000.

B Non-Voting Items

Change of Address Please print new address below.

C Authorized Signatures This section must be completed for your vote to be counted. Date and Sign Below

Please sign exactly as name(s) appears hereon. Joint owners should each sign. When signing as attorney, executor, administrator, corporate officer, trustee, guardian, or custodian, please give full title.

Date (mm/dd/yyyy) Please print date below. Signature 1 Please keep signature within the box. Signature 2 Please keep signature within the box.

/ /

01BVLB

q PLEASE FOLD ALONG THE PERFORATION, DETACH AND RETURN THE BOTTOM PORTION IN THE ENCLOSED ENVELOPE. q

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Proxy ASCENT SOLAR TECHNOLOGIES, INC.

12300 North Grant Street

Thornton, CO 80241

SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON OCTOBER [], 2014

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned hereby appoints Victor Lee and Bill Gregorak, and each of them individually, the proxies of the undersigned, with power of substitution to each of them, to vote all shares of Ascent Solar Technologies, Inc., a Delaware corporation, which the undersigned is entitled to vote at the Special Meeting of Stockholders of Ascent to be held on _____, October _____, 2014, at _____ .m., Mountain time, at the Company's offices, 12300 North Grant Street, Thornton, Colorado 80241, and at any adjournment thereof (the Special Meeting), upon matters properly coming before the meeting.

In their discretion, the proxies are authorized to vote upon such other business as may properly come before the special meeting or any adjournments or postponements thereof.

UNLESS OTHERWISE DIRECTED, THIS PROXY WILL BE VOTED FOR PROPOSAL 1 AND FOR PROPOSAL 2 AND FOR PROPOSAL 3 AND AT THE DISCRETION OF YOUR PROXY ON ANY OTHER MATTER THAT MAY BE PROPERLY BROUGHT BEFORE THE SPECIAL MEETING.

Please date, sign and mail your proxy card in the envelope provided as soon as possible.

Continued and to be dated and signed on reverse side.