

PROSPECTUS SUPPLEMENT
(To Prospectus dated July 21, 2017)



\$3,300,000 of

**Primary Units, Consisting of Class A Common Stock and Series R Warrants to Purchase Class A Common Stock
Alternative Units, Consisting of Series S Warrants to Purchase Class A Common Stock and Series R Warrants to Purchase Class A Common Stock**

We are offering \$3,300,000 of (i) Primary Units, (ii) Alternative Units or (iii) a combination of Primary Units and Alternative Units. Each Primary Unit consists of (i) one share of our Class A common stock, par value \$0.0001, or "Common Stock," and (ii) a Series R Warrant to purchase one share of Common Stock. The purchase price for a Primary Unit is \$0.19. The Series R Warrants are exercisable upon issuance and will remain exercisable until the fifth anniversary of the date of issuance. The exercise price for the Series R Warrants will be \$0.20, subject to certain adjustments. Each Alternative Unit consists of (i) a prepaid Series S Warrant to purchase one share of Common Stock, and (ii) a Series R Warrant to purchase one share of Common Stock. The purchase price for an Alternative Unit is \$0.18. The Series S Warrants are exercisable upon issuance and will remain exercisable until the fifth anniversary of the date of issuance. The additional exercise price for the Series S Warrants will be \$0.01, subject to certain adjustments. The Primary Units and the Alternative Units may be referred to collectively as the "Units." The Units will not be separately issued or certificated. The securities issued as a part of the Primary Units and the Alternative Units are immediately separable and will be issued separately, but will be purchased together as a unit in this offering. This prospectus supplement also covers up to 17,368,421 shares of Common Stock issuable upon exercise of the Series R Warrants and up to 1,430,141 shares of Common Stock issuable upon exercise of the Series S Warrants (without duplication of the 15,938,280 shares of Common Stock being offered as part of the Primary Units). We will enter into a securities purchase agreement with each of the investors, which provides such investors with certain representations, warranties and covenants from us. We expect to enter into separate leak-out agreements with each investor pursuant to which each such investor will agree to certain limits on sales of our Common Stock, including the shares of Common Stock purchased in this offering and issuable upon exercise of the Series R Warrants and the Series S Warrants.

Our Common Stock is quoted on the OTCQX under the symbol "RGSE." On March 29, 2019, the last reported sale price of our Common Stock was \$0.30 per share. There is no established public trading market for the Units, the Series R Warrants or the Series S Warrants and we do not expect a market to develop. In addition, we do not intend to list or qualify for quotation the Units, the Series R Warrants or the Series S Warrants on any national securities exchange or any other trading system.

The aggregate market value of our Common Stock held by non-affiliates pursuant to General Instruction I.B.6 of Form S-3 is \$46,112,896.50, which was calculated based on 92,225,793 shares of outstanding Common Stock held by non-affiliates as of March 29, 2019 and a price of \$0.50 per share, the closing price of our Common Stock on February 6, 2019. As a result, we are currently eligible to offer and sell up to an aggregate of \$15,370,965.50 of shares of our Common stock pursuant to General Instruction I.B.6 of Form S-3. We have not offered or sold any securities in reliance on General Instruction I.B.6 of Form S-3 during the 12 calendar months immediately before and including the date hereof.

Investing in our securities involves a high degree of risk. Please read "Risk Factors" beginning on page S-7 of this prospectus supplement, on page 4 of the accompanying prospectus and in the documents incorporated by reference herein and therein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

We have engaged Dawson James Securities, Inc., “Dawson James” or the “placement agent,” as our exclusive placement agent in connection with this offering. The placement agent has no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities, but will use its reasonable best efforts to sell the securities offered. We have agreed to pay the placement agent the fees set forth in the table below, which assumes that we sell all of the securities we are offering. See “Plan of Distribution” beginning on page S-15 of this prospectus supplement for more information regarding these arrangements.

	Per Primary Unit	Per Alternative Unit	Total
Public offering price	\$ 0.190	\$ 0.180	\$ 3,285,699
Placement agent fees (1)	\$ 0.013	\$ 0.013	\$ 231,000
Proceeds, before expenses, to us (2)	\$ 0.177	\$ 0.167	\$ 3,054,698

(1) In addition, we have agreed to reimburse the placement agent for certain out-of-pocket expenses and issue to the placement agent a warrant to purchase Common Stock equal to 8% of the shares of Common Stock issued as part of the Primary Units and issuable upon exercise of the Series S Warrants. See “Plan of Distribution” beginning on page S-15 of this prospectus supplement.

(2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the warrants being issued in this offering.

We estimate the total expenses of this offering, including placement agent fees and expenses, will be approximately \$350,000. Delivery of the Common Stock and the warrants is expected to be made on or about April 2, 2019 subject to customary closing conditions.

Dawson James Securities, Inc.

The date of this prospectus supplement is April 2, 2019.

Table of Contents

	<u>Page</u>
Prospectus Supplement	
ABOUT THIS PROSPECTUS SUPPLEMENT	S-1
PROSPECTUS SUPPLEMENT SUMMARY	S-2
RISK FACTORS	S-7
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	S-12
USE OF PROCEEDS	S-13
DILUTION	S-14
PLAN OF DISTRIBUTION	S-15
DESCRIPTION OF SECURITIES WE ARE OFFERING	S-18
LEGAL MATTERS	S-21
EXPERTS	S-21
WHERE YOU CAN FIND MORE INFORMATION	S-22
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	S-22
Prospectus	
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	1
PROSPECTUS SUMMARY	3
RISK FACTORS	4
USE OF PROCEEDS	4
PLAN OF DISTRIBUTION	4
DESCRIPTION OF CLASS A COMMON STOCK	7
DESCRIPTION OF PREFERRED STOCK	9
DESCRIPTION OF WARRANTS	10
DESCRIPTION OF RIGHTS	11
DESCRIPTION OF DEBT SECURITIES	12
DESCRIPTION OF UNITS	21
EXPERTS	21
LEGAL MATTERS	21
INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE	21
WHERE YOU CAN FIND MORE INFORMATION	22

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering and also adds to, or updates, the information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information about our Common Stock and other securities that do not pertain to this offering of the Units. This prospectus supplement and the accompanying prospectus are part of a “shelf” registration statement on Form S-3 (File No. 333-215985) that we filed with the Securities and Exchange Commission, or the “SEC,” and that was declared effective by the SEC on July 21, 2017. To the extent that the information contained in this prospectus supplement differs from, or is inconsistent with, any information in the accompanying prospectus or any document incorporated by reference herein or therein, the statements made in the accompanying prospectus and the information incorporated by reference herein and therein are deemed modified or superseded by the statements made in this prospectus supplement.

You should read this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, and any free writing prospectus that we have authorized for use in connection with this offering, carefully before deciding whether to invest in the Units. You also should read and consider the information in the documents we have referred you to under the headings “Incorporation of Certain Documents by Reference” and “Where You Can Find More Information.”

You should rely only on the information contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use relating to this offering. Neither we nor the placement agent have authorized any other person to provide you with different or additional information. You should not rely on any unauthorized information or representations.

We are not, and the placement agent is not, making an offer to sell or soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted. The information contained in this prospectus supplement, the accompanying prospectus, the documents and information incorporated by reference into this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, are accurate only as of their respective dates, regardless of time of delivery of this prospectus supplement or of any sale of the Units. We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference into the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus supplement to “Real Goods Solar,” “we,” “our,” “us” or similar references mean Real Goods Solar, Inc. and its subsidiaries.

This prospectus supplement, the accompanying prospectus and the information incorporated herein and therein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information you should consider before investing in our securities. You should read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the factors described under the heading "Risk Factors" in this prospectus supplement on page S-7 and on page 4 of the accompanying prospectus, and the financial and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering, before making an investment decision.

Overview

We are the exclusive domestic and international licensee of the POWERHOUSE™ in-roof solar shingle, an innovative and aesthetically pleasing solar shingle system using technology developed by The Dow Chemical Company. We are a residential and small business commercial solar energy engineering, procurement and construction firm. We offer turnkey services, including design, procurement, permitting, build-out, grid connection, financing referrals and warranty and customer satisfaction activities. Our solar energy systems use high-quality solar photovoltaic modules. We use proven technologies and techniques to help customers achieve meaningful savings by reducing their utility costs. In addition, we help customers lower their reliance upon fossil fuel energy sources.

We, including our predecessors, have more than 39 years of experience in residential solar energy and trace our roots to 1978, when Real Goods Trading Corporation sold the first solar photovoltaic panels in the United States. We have designed and installed over 25,000 residential and commercial solar energy systems since our founding.

During 2014, we discontinued our entire former Commercial segment and sold the assets associated with our catalog business (a portion of the Other segment). As of September 30, 2017, we created a new segment for our POWERHOUSE™ business. As a result, we now operate as four reportable segments: (1) POWERHOUSE™ – the manufacturing and sales of solar shingles; (2) Sunetric – the installation of solar energy systems for both homeowners and business owners (commercial) in Hawaii; (3) Residential – the installation of solar energy systems for homeowners, including lease financing thereof, and small business commercial in the continental United States; and (4) Other – corporate operations. We believe this structure enables us to more effectively manage our operations and resources.

Our principal executive offices are located at 110 16th Street, 3rd Floor, Denver, CO 80202. Our telephone number is (303) 222-8300. Our website is www.rgsenergy.com. The information on our website is not intended to be a part of this prospectus supplement or the accompanying prospectus, and you should not rely on any of the information provided there in making your decision to invest in our securities. Our website address referenced above is intended to be an inactive textual reference only and not an active hyperlink to our website.

Recent Developments

Nasdaq Delisting and Exchange Act Section 12 Registration

The Common Stock is currently registered pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended, or the "Exchange Act." On March 12, 2019 the Nasdaq Stock Market LLC filed a Form 25-NSE with the Securities and Exchange Commission, which delisted the Common Stock from Nasdaq on March 22, 2019 and will deregister the Common Stock from Section 12(b) of the Exchange Act on June 10, 2019. We plan to file a registration statement on Form 8-A to register the Common Stock pursuant to Section 12(g) of the Exchange Act before June 10, 2019.

Our Common Stock currently trades on the OTCQX under the symbol "RGSE."

Preliminary Fourth Quarter of 2018 Results and Business Update

The following unaudited preliminary results for our fourth quarter ended December 31, 2018 are subject to the completion of our quarterly closing and review procedures, as well as the regular annual audit by our independent registered public accounting firm, and therefore is subject to change.

<i>(000's omitted and unaudited)</i>	<i>Preliminary Dec. 31, 2018</i>	<i>Last Quarter Reported Sept. 30, 2018</i>	<i>Year Ago Quarter Reported Dec. 31, 2017</i>
Selected Balance Sheet Items:			
Cash	\$ 5,831	\$ 8,593	\$ 1,170
Convertible Debt	336	218	1
Shareholder's Equity	10,782	6,639	6,166
Selected Income Statement Items:			
Revenue for Quarter	\$ 2,391	\$ 3,885	\$ 4,910
Gross Margin Percentage	(20)%	9%	10%
Operating Loss	(3,451)	(3,038)	(5,292)
Non-Cash Income (Expense)	(8,462)	(15,253)	37
Net Loss	(11,404)	(18,294)	(5,212)
Other Items:			
Working Capital	\$ 6,901	\$ 5,181	\$ 3,692
Backlog	15,657	15,760	12,765
Debt-to-Equity Ratio	3%	3%	0%

Non-cash expense for debt extinguishment was offset by a non-cash increase to additional paid in capital, and accordingly did not impair stockholders' equity as shown in the table below. Such non-cash expense represented approximately 73% of the loss for the fourth quarter.

On March 30, 2018, we entered into a Securities Purchase Agreement with two unaffiliated institutional and accredited investors for a private placement ("2018 Notes") of up to \$10.75 million in principal amount and \$10 million funding amount (reflecting \$750,000 of original issue discount). During the fourth quarter, a significant amount of the 2018 Notes was converted to into shares of our Common Stock. Under applicable accounting rules for complex financial instruments, we have recorded these conversions as follows:

<i>(000's omitted)</i>	
Statement of Stockholders' Equity:	
Fair value of Class A common stock exchanged for convertible notes	\$ 15,753
Statement of Operations:	
Amortization of debt discount and interest expense	(9,077)
Debt extinguishment on conversion of notes to Class A common stock	903
Net increase in Stockholders' Equity	<u>\$ 7,579</u>
Cash upon conversion, net of offering costs	<u>\$ 3,176</u>

Strategic Alternatives and Discontinuing Mainland Residential EPC Business

We announced on March 7, 2019 that we are exploring strategic alternatives to maximize shareholder value. On March 27, 2019, our Board of Directors authorized commencement of a plan to significantly reduce operations in our residential solar division to reduce the associated annual cash outflow, a matter that has previously raised substantial doubt about our ability to operate as a going concern. On March 29, 2019, we announced that we will exit our mainland residential solar EPC business to focus on the POWERHOUSE™ in-roof shingle market and reduce overall cash outflow, with the goal of maximizing future shareholder value. We retain two facets of our Solar Division that do not require material use of cash, our small commercial business and our Hawaii-based subsidiary Sunetric. We plan to finish installing our backlog of signed contracts through 2019.

2018 Annual Report

On March 27, 2019, our Board of Directors authorized commencement of a plan to significantly reduce operations in our residential solar division to reduce the associated annual cash outflow, a matter that has previously raised substantial doubt about our ability to operate as a going concern. The report of our independent accounting firm included in our Annual Report on Form 10-K for the year ended December 31, 2017 was unqualified with an explanatory paragraph for substantial doubt about our ability to operate as a going concern. We commenced commercialization of a new product, POWERHOUSE™, during the first quarter of 2019. The revenue for the first quarter from the new product was immaterial and, accordingly, we expect the report of our independent accounting firm to be included in our Annual Report on Form 10-K for the year ended December 31, 2018 will be unqualified with an explanatory paragraph for substantial doubt about our ability to operate as a going concern. We require additional time to complete related disclosures. On March 29, 2019, we filed a Form 12b-25 with the Securities and Exchange Commission to provide notice that we are unable to file our Annual Report on Form 10-K for the year ended December 31, 2018 by the prescribed due date without unreasonable effort or expense. We intend to file our Annual Report on Form 10-K for the year ended December 31, 2018 on or before the fifteenth calendar day following the prescribed due date.

The Offering

Issuer	Real Goods Solar, Inc.
Primary Units offered by us	\$3,028,274 of Primary Units, each consisting of (i) one share of our Common Stock, and (ii) a Series R Warrant to purchase one share of Common Stock.
Alternative Units offered by us	\$257,426 of Alternative Units, each consisting of (i) a prepaid Series S Warrant to purchase one share of Common Stock, and (ii) a Series R Warrant to purchase up to one share of Common Stock .
Primary Unit Offering price	The purchase price for a Primary Unit is \$0.19.
Alternative Unit Offering price	The purchase price for an Alternative Unit is \$0.18.
Common Stock offered by us	15,938,280 shares offered as a part of the Primary Units.
Series R Warrants offered by us	<p>Series R Warrants to purchase 17,368,421 shares of Common Stock.</p> <p>The Series R Warrants will be immediately exercisable and will expire on the fifth anniversary of the date of issuance. Each Series R Warrant will have an exercise price of \$0.20 per share.</p> <p>For more information, see the section entitled “Description of Securities We Are Offering — Description of Series R Warrants.”</p> <p>This prospectus supplement also relates to the offering of the shares of Common Stock issuable upon exercise of the Series R Warrants.</p>
Series S Warrants offered by us	<p>Series S Warrants to purchase an aggregate of up to 1,430,141 shares of Common Stock.</p> <p>The Series S Warrants will be immediately exercisable and will expire on the fifth anniversary of the date of issuance. Each Series S Warrant will have an additional exercise price of \$0.01 per share.</p> <p>For more information, see the section entitled “Description of Securities We Are Offering — Description of Series S Warrants.”</p> <p>This prospectus supplement also relates to the offering of the shares of Common Stock issuable upon exercise of the Series S Warrants.</p>
Securities Purchase Agreement	Each of the investors participating in the offering will enter into a securities purchase agreement with us.
Leak-Out Agreement	We expect to enter into separate leak-out agreement with each investor pursuant to which such investor will agree to certain limits on sales of shares of Common Stock, including the shares of Common Stock purchased in this offering and issuable upon exercise of the Series R Warrants and the Series S Warrants.
Absence of Market for the Units and the Warrants	The Units and the warrants offered by this prospectus supplement are a new issue of securities and currently there is no market for the securities. We do not intend to list or qualify for quotation the Units or the warrants offered by this prospectus supplement on any securities exchange or market.

Common Stock outstanding immediately before this offering	92,964,471 shares as of March 29, 2019.
Common Stock to be outstanding immediately after this offering	108,902,751 shares (assuming that none of the warrants issued in connection with this offering are exercised). 110,332,892 shares (assuming that all Series S Warrants are exercised in full).
Use of proceeds	General corporate purposes. See “Use of Proceeds” on S-14.
Listing of our Common Stock	Our Common Stock is quoted on the OTCQX under the symbol “RGSE.”
Risk Factors	Investing in our securities involves a high degree of risk. See “Risk Factors” beginning on page S-7 of this prospectus supplement, page 4 of the accompanying prospectus and under similar headings in the other documents that are filed after the date hereof and incorporated by reference into this prospectus supplement, together with the other information included in or incorporated by reference into this prospectus supplement and the accompanying prospectus before deciding whether to invest in our securities.

The number of shares of Common Stock to be outstanding after this offering is based on 92,964,471 shares issued and outstanding as of March 29, 2019. Except as otherwise indicated, the number of shares of Common Stock to be outstanding after this offering excludes the shares issuable upon exercise of the Series R Warrants, the Series S Warrants and the placement agent warrant issued in connection with this offering and also excludes:

- Approximately 831,591 shares of our Common Stock issuable upon conversion of the remaining balance under the Senior Secured Convertible Notes due April 9, 2019, or “2018 Notes;”
- 145 shares of our Common Stock issuable upon the exercise of options outstanding under our 2008 Long-Term Incentive Plan;
- 1,206,500 shares of our Common Stock issuable upon the exercise of options outstanding under our 2018 Long-Term Incentive Plan;
- Approximately 93,500 shares of our Common Stock available for future issuance under our 2018 Long-Term Incentive Plan;
- Approximately 8,505,298 shares of our Common Stock issuable upon exercise of outstanding warrants at a weighted average exercise price of \$3.22 per share; and
- 26 shares of our Common Stock currently issuable to the sellers from our purchase of Sunetric in May 2014.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision you should carefully read and consider the risks described below, together with all of the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, including, without limitation, the risk factors in the section entitled "Risk Factors" in our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, which are on file with the SEC. If any of the risks listed in our most recent Annual Report on Form 10-K or Quarterly Reports on Form 10-Q or any of the following risks actually occur, our business, financial condition, and/or results of operations could suffer. In that case, the market price of our Common Stock could decline, and you may lose all or part of your investment. You should read the section entitled "Special Note Regarding Forward-Looking Statements" below for a discussion of what types of statements are forward-looking statements, as well as the significance of such statements in the context of this prospectus. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also have a material adverse effect on our business.

Risks Related to this Offering

Management will have broad discretion as to the use of the net proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion as to the application of the net proceeds from this offering. Investors in this offering and our shareholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase our profitability or market value.

Investors in this offering will experience immediate and substantial dilution.

The public offering price of the Units offered pursuant to this prospectus supplement and the accompanying prospectus is substantially higher than the net tangible book value per share of Common Stock. Therefore, if you purchase Units in this offering, you will incur immediate and substantial dilution in the net tangible book value per share of Common Stock included in the Units and issuable upon exercise of the Series S Warrants (but excluding shares of Common Stock issuable upon exercise of the Series R Warrants) from the price per Unit that you pay for the securities. Based on the sale of \$3,028,274 of Primary Units at a public offering price of \$0.19 per Primary Unit and \$257,426 of Alternative Units at a public offering price of \$0.18 per Alternative Unit in this offering, you will suffer immediate dilution of approximately \$(0.12) per share in the net tangible book value of the Common Stock. Moreover, as described under "Prospectus Supplement Summary — The Offering," we have a substantial number of stock options and warrants to purchase Common Stock outstanding. If the holders of outstanding options or warrants exercise those options and warrants at prices below the public offering price, you will incur further dilution.

The offering price determined for this offering is not an indication of our value.

The per-Unit offering price and the exercise price of the Series R Warrants offered by this prospectus supplement and the accompanying prospectus may not necessarily bear any relationship to the book value of our assets, past operations, cash flows, losses, financial condition or any other established criteria for value. You should not consider the offering price of the Units and the exercise price of the Series R Warrants as an indication of the value of the Common Stock included in the Units and underlying the Series R Warrants. After the date of this prospectus supplement, the Common Stock may trade at prices above or below such prices.

The public trading market for the Common Stock may be limited in the future.

Effective February 15, 2019, the Common Stock is quoted on the OTCQX under the symbol "RGSE." Any over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions and may not necessarily represent actual transactions. Prior to such date, the Common Stock traded on the Nasdaq Capital Market under the same symbol. The trading volume for the Common Stock fluctuates and, in the past, there have been time periods during which the Common Stock trading volume has been limited. Management can make no assurances that trading volume will not be similarly limited in the future. Without an active trading market, there can be no assurance of any liquidity or resale value of the Common Stock, and shareholders may be required to hold shares of the Common Stock for an indefinite period of time.

Risk Related to the Units, the Series R Warrants and the Series S Warrants

There is no public market for the Units, the Series R Warrants or the Series S Warrants offered by this prospectus supplement and the accompanying prospectus in this offering.

There is no established public trading market for the Units, the Series R Warrants, or the Series S Warrants offered by this prospectus supplement and the accompanying prospectus and we do not expect a market to develop. In addition, we do not intend to apply to list or qualify for quotation the Units, the Series R Warrants or the Series S Warrants on any national securities exchange or other trading system, including the OTCQX. Without an active market, the liquidity of the Units, the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will be very limited.

As a holder of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus, you have no voting rights.

You will have no voting rights as a holder of the Series R Warrants or the Series S Warrants offered by this prospectus supplement and the accompanying prospectus. Our Common Stock is currently the only class of our securities that carries full voting rights.

If our Common Stock is no longer quoted on the OTCQX, your ability to transfer or sell the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus may be limited and the market value, if any, of the Series R Warrants and the Series S Warrants will likely be materially adversely affected.

We expect that the value of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus, to some extent, is tied to the perceived value of its exercise features. If our Common Stock is no longer quoted on the OTCQX, your ability to transfer or sell the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus may be limited and the market value, if any, of the Series R Warrants and the Series S Warrants will likely be materially adversely affected.

We expect that the market value, if any, of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will be significantly affected by changes in the market price of our Common Stock, which could change substantially at any time.

We expect that the market value, if any, of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will depend on a variety of factors, including, without limitation, the market price of our Common Stock. Each of these factors may be volatile, and may or may not be within our control. For example, we expect the market value, if any, of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will increase with increases in the market price of our Common Stock. As described in another risk factor, the market price of the Common Stock has been volatile in the past and could fluctuate widely in response to various factors.

We may issue additional shares of our Common Stock or instruments convertible or exercisable into our Common Stock, including in connection with exercise of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus or other warrants that are issued and outstanding, and thereby materially and adversely affect the market price of our Common Stock, and, in turn, the market value of the Series R Warrants and Series S Warrants.

Subject to certain contractual limitations we are under, we may offer and sell additional shares of our Common Stock or other securities convertible into or exercisable for our Common Stock during the time you hold the shares of Common Stock, the Series R Warrants or the Series S Warrants offered by this prospectus supplement and the accompanying prospectus. We cannot predict the size of future issuances or the effect, if any, that they may have on the market price for our Common Stock. If we issue additional shares of our Common Stock or instruments convertible or exercisable into our Common Stock, it may materially and adversely affect the price of our Common Stock and, in turn, the market value, if any, of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus. Furthermore, the conversion or exercise of some or all of our outstanding derivative securities, including the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus, will dilute the ownership interests of existing shareholders, and any sales in the public market of shares of our Common Stock issuable upon any such conversion or exercise could adversely affect prevailing market prices of our Common Stock or the market value, if any, of the Series R Warrants and the Series S Warrants. In addition, the existence of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus may encourage short selling by market participants because the exercise of the Series R Warrants and the Series S Warrants could depress the price of our Common Stock.

Holders of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will be entitled to only limited rights with respect to our Common Stock, and will be subject to all changes made with respect to our Common Stock to the extent holders receive shares of Common Stock pursuant to the terms of the Series R Warrants and the Series S Warrants.

Holders of the Series R Warrants and the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will be entitled to only limited rights with respect to our Common Stock until the time at which they become holders of our Common Stock pursuant to the terms of such warrants, but will be subject to all changes affecting our Common Stock before that time. For example, if an amendment is proposed to our articles of incorporation requiring shareholder approval and the record date for determining the shareholders of record entitled to vote on the amendment occurs before the date you are deemed to be a record holder of our Common Stock, you generally will not be entitled to vote on the amendment, although you will nevertheless be subject to any changes affecting our Common Stock.

The exercise price of the Series S Warrants offered by this prospectus supplement and the accompanying prospectus will not be adjusted for certain dilutive events.

The exercise price of the Series S Warrants is not subject to adjustment upon a future issuances of securities, including, without limitation, capital stock, options and convertible securities. Such issuances, transactions or occurrences may adversely affect the market price of our Common Stock or the market value, if any, of the Series S Warrants without resulting in an adjustment of the exercise price of the Series S Warrants.

You may receive less valuable consideration than expected because the value of our Common Stock may decline after you exercise the Series R Warrants or the Series S Warrants issued in this offering but before we settle our obligation thereunder.

An exercising holder will be exposed to fluctuations in the value of our Common Stock during the period from the date such holder surrenders Series R Warrants or Series S Warrants for exercise until the date we settle our exercise obligation. Upon exercise of the warrants offered by this prospectus supplement and the accompanying prospectus, we will be required to deliver the shares of our Common Stock on the second business day following the relevant exercise date. Accordingly, if the price of our Common Stock decreases during this period, the value of the shares that you receive will be adversely affected and would be less than the value on the exercise date.

Risks Related to our Business and Industry

We need to successfully commercialize POWERHOUSE™ or increase our sales, installations and revenue in order to achieve our goal of operating profitability.

Our current levels of sales, installations and revenue are insufficient for profitable operations. We believe we must commercialize POWERHOUSE™ 3.0, the principle component of our revenue growth strategy. Alternatively, we must increase our sales, installations and revenue in our Solar Division to achieve our goal of operating profitably. If we are unsuccessful in executing these plans, we will be unable to increase revenue and will not achieve our goal of operating profitability.

An increase in our cost of materials could arise as a result of the United States imposing trade remedies on imported solar panels, cells, inverters, batteries or other products related to our business.

During 2018, the United States and China each imposed new tariffs on various products imported from the other country. The U.S. tariffs include an additional 25% tariff on solar panels and cells that are manufactured in China and a tariff on inverters, certain batteries and other electrical equipment currently set at 25% effective January 1, 2019. The United States also has, from time to time, imposed, or announced tariffs on goods imported from other countries we use in our business. We cannot predict what actions may ultimately be taken with respect to tariffs or trade relations between the United States and other countries, what products may be subject to such actions, or what actions may be taken by the other countries in retaliation. The adoption and expansion of trade restrictions, the occurrence of a trade war, or other governmental action related to tariffs or trade agreements or policies has the potential to adversely impact our supply chain, our costs, our suppliers, and the U.S. economy, which could in turn adversely affect our business, financial condition and results of operation.

An increase in our cost of materials could arise as a result of changes in the price of oil and the foreign currency exchange rate for Chinese yuan.

The baseplate of our POWERHOUSE™ in-roof solar shingle is plastic and, accordingly, changes in the price of oil will affect our cost of this material. Currently, we purchase the solar laminate for our POWERHOUSE™ in-roof solar shingle from a Chinese manufacturer, and, accordingly, changes in the Chinese yuan versus the US Dollar will affect our cost of this material.

We may be unable to successfully commercialize POWERHOUSE™ 3.0, which may negatively impact our business and results of operation.

There are risks we must address to successfully commercialize POWERHOUSE™ 3.0:

- The adequacy of, and access to, capital necessary to commercialize POWERHOUSE™ 3.0;
- Our ability to satisfy the conditions and our obligations under the exclusive domestic and international world-wide Technology License Agreement with Dow Global Technologies LLC for its POWERHOUSE™ solar shingles;
- Our ability to grow a nationwide network of local roofers and solar installers to purchase POWERHOUSE™ solar shingles;
- Our ability to contract with homebuilders to purchase POWERHOUSE™ solar shingles for their communities;
- Our ability to manage a supply chain, including the cost and availability of raw materials, in order to achieve production levels and competitive pricing of the POWERHOUSE™ 3.0 shingles;
- Our ability to successfully expand operations and realize profitable revenue growth from the sale and installation of POWERHOUSE™ 3.0;
- Our ability to successfully and timely expand our POWERHOUSE™ 3.0 business outside of the United States and manage foreign exchange risks associated with the POWERHOUSE™ 3.0 business;
- Intellectual property infringement claims, and warranty claims related to the POWERHOUSE™ 3.0 business; and

- Competition in the built-in photovoltaic solar system business.

Our License with Dow for the exclusive use of the POWERHOUSE™ trademark name is subject to our selling of 50 megawatts of POWERHOUSE™ 3.0 in-roof shingle within the first 5 years and failure to do so could adversely affect our business, financial condition and results of operation.

If we do not sell 50 megawatts of POWERHOUSE™ 3.0 in-roof shingles during the first 5 years after obtaining UL certification, Dow has the right to amend the License to be non-exclusive. If that were to happen, Dow would be allowed to grant rights to others to sell POWERHOUSE™ 3.0 in-roof solar shingles and use associated intellectual property, thereby increasing competition, which could adversely affect our business, financial condition and results of operation.

While we are exploring and evaluating strategic alternatives, we may not be successful in identifying or completing any strategic alternative and any such strategic alternative may not yield additional value for shareholders.

On March 7, 2019, we announced that we had commenced a review of strategic alternatives which could result in, among other things, the possible sale of our company. Our exploration of strategic alternatives may not result in the identification or consummation of any transaction. In addition, we may incur substantial expenses associated with identifying and evaluating potential strategic alternatives. The process of exploring strategic alternatives may be time consuming and disruptive to our business operations, and if we are unable to effectively manage the process, our business, financial condition and results of operations could be adversely affected. Any potential transaction and the related valuation would be dependent upon a number of factors that may be beyond our control, including, among other factors, market conditions, industry trends, the interest of third parties in our business and the availability of financing to potential buyers on reasonable terms.

We will likely need to receive approval from our shareholders to increase the number of shares of our Common Stock authorized for issuance in order to raise additional capital from equity financing in the future.

Following this offering, we expect to have approximately 11 million shares of Common Stock available for issuance in the future of the 150 million shares of Common Stock currently authorized. If we need to raise additional capital from the sale of shares of Common Stock in the future and we have an insufficient number of shares of Common Stock authorized, we will need to receive approval from our shareholders to amend our articles of incorporation to increase the number of shares of Common Stock authorized for issuance.

Risks Related to Our Securities

Our Common Stock could become subject to the Securities and Exchange Commission's "penny stock" regulations, which may limit the liquidity of Common Stock held by our shareholders.

The SEC has adopted regulations which generally define a "penny stock" to be an equity security that has a market price of less than \$5.00 per share, subject to specific exemptions. Based on our Common Stock's trading price below \$5.00 per share, if we are unable in the future to continue to satisfy an available exemption from the definition of "penny stock," then our Common Stock would be considered a penny stock for purposes of federal securities laws. Penny stock is subject to regulations, which affect the ability of broker-dealers to sell such securities. Broker-dealers who recommend a penny stock to persons (other than established customers and accredited investors) must make a special written suitability determination and receive the purchaser's written agreement to a transaction prior to sale.

If penny stock regulations apply to our Common Stock, it may be difficult to trade the stock because compliance with the regulations can delay and/or preclude certain trading transactions. Broker-dealers could be discouraged from effecting transactions in our Common Stock if penny stock regulations apply because of the sales practice and disclosure requirements. This could adversely affect the liquidity or price of our Common Stock and impede the sale of the Common Stock in the secondary market.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein may contain forward-looking statements within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 that involve risks and uncertainties, including statements regarding our results of operations and financial positions, and our business and financial strategies. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they provide our current beliefs, expectations, assumptions and forecasts about future events, and include statements regarding our future results of operations and financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words “anticipate,” “believe,” “plan,” “estimate,” “expect,” “future,” “intend,” “strategy,” “likely,” “seek,” “may,” “will” and similar expressions as they relate to us are intended to identify such forward-looking statements. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements.

Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, without limitation, the following: our history of operating losses; our ability to implement our revenue growth strategy achieve our target level of sales, generate cash flow from operations, and achieve break-even and better results; our ability to achieve profitability; our ability to generate breakeven cash flow to fund our operations; our success in implementing our plans to increase future sales, and installations and revenue; rules, regulations and policies pertaining to electricity pricing and technical interconnection of customer-owned electricity generation such as net energy metering; the continuation and level of government subsidies and incentives for solar energy; existing and new regulations impacting solar installations including electric codes; future shortages in supplies for solar energy systems; the adoption and general demand for solar energy; the impact of a drop in the price of conventional energy on demand for solar energy systems; seasonality of customer demand and adverse weather conditions inhibiting our ability to install solar energy systems; changing and updating technologies and the issues presented by these new technologies related to customer demand and our product offering; geographic concentration of revenue from the sale of solar energy systems in east coast states; non-compliance with or loss or suspension of licenses required for installation of solar energy systems; loss of key personnel and ability to attract necessary personnel; our failure to accurately predict future warranty claims; adverse outcomes arising from litigation and legal disputes to which we may be subject from time to time; our ability to continue to obtain services and components from suppliers, installers and other vendors; disruption of our supply chain from equipment manufacturers and potential shortages of components for solar energy systems; factors impacting the timely installation of solar energy systems; competition; costs associated with safety and construction risks; continued access to competitive third party financiers to finance customer, roofer and homebuilder solar or POWERHOUSE™ 3.0 installations; the ability to obtain requisite international product certification of POWERHOUSE™ 3.0; our ability to successfully and timely commercialize POWERHOUSE™ 3.0 during 2019 and in future years achieve market share; our ability to satisfy the conditions and our obligations under the POWERHOUSE™ 3.0 license agreement; our ability to manage supply chain in order to have production levels and pricing of the POWERHOUSE™ 3.0 shingles to be competitive; our ability to successfully expand our operations and employees and realize profitable revenue growth from the sale and installation of POWERHOUSE™ 3.0, and to the extent, anticipated; our ability to realize revenue from sales of POWERHOUSE™ arising from the California Energy Commissions’ mandate for solar systems with new home building commencing in 2020; our ability to realize revenue from written reservations for initial POWERHOUSE™ 3.0 deliveries; our ability to obtain future written reservations and purchase orders for POWERHOUSE™ 3.0 deliveries; competition in the built-in photovoltaic solar system business; our ability to successfully and timely expand our POWERHOUSE™ 3.0 business outside of the United States; increases in the cost of materials as a result of changes in the price of oil and foreign currency exchange risks; intellectual property infringement claims related to the POWERHOUSE™ 3.0 business; the performance of the Solar Division; the adequacy of, and access to, capital necessary to implement our revenue growth strategy; our ability to get shareholder approval to increase the authorized number of shares of our Common Stock in connection with an equity financing; whether we will receive any proceeds from exercise of common stock warrants; changes in general economic, business and political conditions, including tariffs or trade remedies regarding imported solar panels, cells, inverters, batteries or other products related to our business and changes in the financial markets; the impact on future hypothetical earnings per share of future employee incentive compensation by cash bonuses and stock option awards; our ability to meet customer expectations; risks and liabilities associated with placing employees and technicians in our customers’ homes and businesses; product liability claims; the probability of the occurrence and potential magnitude of cybersecurity incidents; the adequacy of preventative actions taken to reduce cybersecurity risks and the associated costs, including, if appropriate, discussing the limits of our ability to prevent or mitigate certain cybersecurity risks; future data security breaches or our inability to protect personally identifiable information or other information about our employees and customers; the volatile market price of our Common Stock; the dilutive effect of future issuances of stock, options, warrants or other securities and the effect on the market price of our Common Stock; the low likelihood that we will pay any cash dividends on our Common Stock for the foreseeable future; anti-takeover provisions in our organizational documents; the terms of some of our outstanding securities and transaction documents entered into in connection with past offerings restrict our ability to enter into certain transactions or obtain financing, and could result in our paying premiums or penalties to the holders of some of our outstanding securities; our ability to identify or complete a strategic alternative that yields value for our shareholders; and such other factors as discussed throughout Part I, Item 1A, Risk Factors and Part II, Item 7, Management’s Discussion and Analysis of Financial Conditions and Results of Operations of our Annual Report on Form 10-K for the year ended December 31, 2017 and Part I, Item 2, Management’s Discussion and Analysis of Financial Conditions and Results of Operations and Part II, Item 1A, Risk Factors included in our Quarterly Reports on Form 10-Q for the periods ended March 31, 2018, June 30 2018 and September 30, 2018.

Any forward-looking statement made by us in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise, except as required by applicable law.

USE OF PROCEEDS

The net proceeds from the sale of the Units in this offering are estimated to be approximately \$2,950,000, excluding the proceeds, if any, from the exercise of the Series R Warrants and the Series S Warrants offered in this offering, based on the public offering price of \$0.19 per Primary Unit and \$0.18 per Alternative Unit and after deducting placement agent fees and expenses and other estimated expenses of the offering.

We intend to use the net proceeds from this offering (i) in connection with the commercialization of the POWERHOUSE™ product, (ii) for general corporate purposes, including, without limitation, for working capital purposes, to increase sales and operational capabilities, and (iii) for repayment of up to \$300,000 owed under the 2018 Notes, but not for (i) the satisfaction of any portion of our debt (other than pursuant to clause (iii) above and payment of trade payables in the ordinary course of our business and prior practices), (ii) the redemption of any Common Stock or security exercisable or convertible into Common Stock, (iii) for the settlement of any outstanding litigation or (iv) in violation of regulation under the Foreign Corrupt Practices Act of 1977, as amended, or regulations by the Office of Foreign Assets Control of the U.S. Treasury Department. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds we will have upon completion of the offering or the order of priority in which we may use such proceeds. Accordingly, we will retain broad discretion over the use of these proceeds.

DILUTION

Dilution is the amount by which the purchase price paid by the purchasers for the securities offered in this offering will exceed the as-adjusted net tangible book value (deficit) per share of our Common Stock after the offering.

Net tangible book value (deficit) per share of our Common Stock as of a particular date represents the amount of our total tangible assets less our total liabilities, divided by the number of shares of Common Stock outstanding as of such date. As of September 30, 2018, our net tangible book value (deficit) was approximately \$5.3 million, or \$0.09 per share of Common Stock based on there being 57,191,763 shares of our Common Stock outstanding as of September 30, 2018. Purchasers of Units in this offering will experience substantial and immediate dilution in net tangible book value per share of our Common Stock for financial accounting purposes immediately following the closing. The calculations below are based on there being 92,964,471 shares of our Common Stock outstanding as of March 29, 2019.

The following table illustrates this dilution based on the number of shares of Common Stock issued as part of the Primary Units at closing, and assumes that all Series S Warrants are exercised and all the shares of Common Stock issuable upon exercise of the Series S warrants are issued in this offering.

	Actual
Public offering price per Unit	\$ 0.19
Net tangible book value (deficit) per share as of September 30, 2018	\$ 0.09
Decrease in pro forma net tangible book value from conversions of convertible notes into Common Stock between September 30, 2018 and April 2, 2019	(0.04)
Increase in pro forma net tangible book value (deficit) per share attributable to new investors	0.02
Net tangible book value (deficit) per share after this offering	\$ 0.07
Dilution per share to investors in this offering	\$ (0.12)

The table above do not take into account any shares of Common Stock issuable in the future upon the exercise of the Series R Warrants and the placement agent warrant issued in connection with this offering or of currently outstanding derivative securities. We may in the future sell substantial additional amounts of Common Stock or securities convertible into or exercisable for Common Stock. We may also choose to raise additional capital due to market conditions or other strategic considerations even if we believe we have sufficient funds for our current or future operating plans. The issuance of these securities could result in further dilution to our shareholders.

PLAN OF DISTRIBUTION

Dawson James, LLC, which we refer to as “Dawson James” or the “placement agent,” has agreed to act as the exclusive placement agent in connection with this offering, subject to the terms and conditions of an engagement letter dated March 19, 2019. The placement agent is not purchasing or selling any of the Units offered by this prospectus supplement and the accompanying prospectus, nor is the placement agent required to arrange the purchase or sale of any specific number or dollar amount of the Units. The placement agent has agreed to use reasonable best efforts to arrange for the sale of all of the Units offered hereby. Therefore, we may not sell the entire amount of the Units offered pursuant to this prospectus supplement and the accompanying prospectus. The placement agent may engage one or more sub-agents or selected dealers in connection with this offering. The parties may terminate the engagement letter upon five days’ prior notice.

We currently anticipate that the sale of the Units will be completed on or about April 2, 2019. We estimate the total offering expenses of this offering that will be payable by us, will be approximately \$350,000, which includes all registration and filing fees, the placement agent’s fee, fees and expenses of our counsel and our accountants, and various other fees.

The purchase price for the Units has been determined based upon arm’s-length negotiations between the placement agent, the investors and us.

Securities Purchase Agreement

We will enter into a securities purchase agreement directly with each investor who purchase Units in this offering, which provides such investors with certain representations, warranties and covenants, including indemnifications, from us. Our obligation to issue and sell the Units to the investors is subject to the closing conditions set forth in the securities purchase agreement, including the absence of any material adverse change in our business and certain opinions, letters and certificates from us or our counsel, which conditions may be waived by the respective parties. The foregoing does not purport to be a complete statement of the terms and conditions of the securities purchase agreement, a form of which will be filed as an exhibit to a Current Report on Form 8-K in connection with this offering.

Leak-Out Agreement

We expect to enter into separate and substantially similar leak-out agreement directly with each investor who purchase Units in this offering. During the period commencing on the date of the securities purchase agreement and ending May 1, 2019, each investor (together with certain of its affiliate) may not sell, dispose or otherwise transfer, directly or indirectly (including, without limitation, any sales, short sales, swaps or any derivative transactions that would be equivalent to any sales or short positions), on any trading day, shares of Common Stock (including the shares of Common Stock purchased in this offering and issuable upon exercise of the Series R Warrants and the Series S Warrants and other shares of Common Stock held or acquired in the future), in an amount more than a specified percentage of the trading volume of the Common Stock on the principal trading market, subject to certain exceptions. The aggregate trading volume for all investors who execute leak-out agreements will be 30% of the trading volume of the Common Stock on the principal trading market during each trading day during the above-referenced leak-out period, subject to certain exceptions. This restriction does not apply to any actual “long” (as defined in Regulation SHO promulgated under the Securities Exchange Act of 1934, as amended) sales by such investor (together with certain of its affiliate) at a price greater than \$0.24. Further, this restriction does not apply to sales or transfers of any such shares of Common Stock in transactions which do not need to be reported on the OTCQX consolidated tape (or equivalent thereof) so long as the purchaser or transferee executes and delivers a leak-out agreement. After such sale or transfer, future sales of the securities covered by the leak-out agreement by the original owner (together with certain of its affiliate) and the purchaser or transferee will be aggregated to determine compliance with the terms of the leak-out agreement. The foregoing does not purport to be a complete statement of the terms and conditions of the leak-out agreement, a form of which will be filed as an exhibit to a Current Report on Form 8-K in connection with this offering.

Commissions and Expenses

The following table shows per-Unit and total cash placement agent's fee we will pay to the placement agent in connection with the sale of the Units offered pursuant to this prospectus supplement and the accompanying prospectus:

	Per Primary Unit	Per Alternative Unit	Total
Public offering price	\$ 0.190	\$ 0.180	\$ 3,285,699
Placement agent's fee ⁽¹⁾	\$ 0.013	\$ 0.013	\$ 231,000
Proceeds to us (before expenses) ⁽²⁾	\$ 0.177	\$ 0.167	\$ 3,054,698

- (1) We have agreed to pay the placement agent an aggregate cash placement fee equal to 7% of the gross proceeds received at the closing from the sale of the Units.
- (2) Subject to FINRA Rule 5110(f)(2)(d)(i), we have agreed to reimburse the placement agent for reasonable and documented out-of-pocket legal expenses up to a maximum of \$100,000 and reasonable and documented out-of-pocket accountable expenses up to a maximum of \$5,000.

In addition to the cash fees set forth above, Dawson James, as placement agent, has a right to purchase for the sum of \$100 a warrant to purchase up to an aggregate of 8% of the aggregate number of shares of Common Stock sold in this offering and issuable upon exercise of the Series S Warrants (exclusive of any shares of Common Stock issuable upon exercise of the Series R Warrants). The placement agent warrant will have similar terms as the Series R Warrants, other than (i) it will expire five years after the effective date of this offering; (ii) it will be exercisable through a cashless exercise regardless of whether the shares of Common Stock issuable upon exercise of the placement agent warrant are covered by a registration statement under the Securities Act but only based on the net number of shares; (iii) the exercise price will be 125% of the public offering price per Primary Unit; (iv) certain covenants appearing in the Series R Warrants will be removed in the placement agent warrant; (v) the initial beneficial ownership limitation will be set at 4.99%; (vi) the placement agent warrant will have certain demand and piggyback registration rights with respect to the shares issuable upon exercise of the placement agent warrant, and (vii) pursuant to FINRA Rule 5110(g), the placement agent warrant and the underlying securities will not be transferable for 6 months from the date of issuance, except the transfer of any security:

- by operation of law or by reason of reorganization of our company;
- to any FINRA member firm participating in the offering and the officers or partners thereof, if all securities so transferred remain subject to the lock-up restriction set forth above for the remainder of the time period;
- if the aggregate amount of securities of our company held by the holder of the placement agent warrant or related persons do not exceed 1% of the securities being offered;
- that is beneficially owned on a pro-rata basis by all equity owners of an investment fund, provided that no participating member manages or otherwise directs investments by the fund, and participating members in the aggregate do not own more than 10% of the equity in the fund; or
- the exercise or conversion of any security, if all securities received remain subject to the lock-up restriction set forth above for the remainder of the time period.

The placement agent warrant and the shares of Common Stock issuable upon exercise of the placement agent warrant are not being registered on the registration statement of which this prospectus supplement is a part.

Indemnification

We have agreed to indemnify the placement agent against liabilities under the Securities Act. We have also agreed to contribute to payments the placement agent may be required to make in respect of such liabilities.

Electronic Distribution

This prospectus supplement and the accompanying prospectus may be made available in electronic format on websites or through other online services maintained by the placement agent or by an affiliate of the placement agent. Other than this prospectus supplement and the accompanying prospectus in electronic format, the information on the placement agent's website and any information contained in any other website maintained by the placement agent or by an affiliates is not part of this prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus are a part, has not been approved and/or endorsed by us or the placement agent, and should not be relied upon by investors.

Regulation M Restrictions

The placement agent may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of any shares of Common Stock or the warrants sold by it while acting as a principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the placement agent would be required to comply with the requirements of the Securities Act and the Securities Exchange Act of 1934, as amended, or the "Exchange Act," including Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M promulgated under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares offered hereby by any placement agent acting as a principal. Under these rules and regulations, a placement agent:

- must not engage in any stabilization activity in connection with our securities; and
- must not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Other

From time to time, the placement agent and its affiliates may in the future provide various investment banking, financial advisory and other services to us and our affiliates for which services they may receive customary fees, but we have no present arrangements to do so. Subject to Regulation M and other applicable statutes and regulations, in the course of its businesses, the placement agent and its affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the placement agent and its may at any time hold long or short positions in such securities or loans.

Listing

Our Common Stock is quoted on the OTCQX under the symbol "RGSE." There is no established public trading market for the Units, the Series R Warrants or the Series S Warrants offered by this prospectus supplement and the accompanying prospectus and we do not expect a market to develop. In addition, we do not intend to list or qualify for quotation the Units, the Series R Warrants or the Series S Warrants on any national securities exchange or any other trading system.

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering \$3,300,000 of (i) Primary Units, (ii) Alternative Units or (iii) a combination of Primary Units and Alternative Units. Each Primary Unit consists of (i) one share of our Common Stock and (ii) a Series R Warrant to purchase one share of Common Stock. The purchase price for a Primary Unit is \$0.19. Each Alternative Units consists of (i) a prepaid Series S Warrant to purchase one share of Common Stock, and (ii) a Series R Warrant to purchase one share of Common Stock. The purchase price for an Alternative Unit is \$0.18. The Units will not be separately issued or certificated.

The securities issued as a part of the Primary Units and the Alternative Units are immediately separable and will be issued separately, but will be purchased together as a unit in this offering. This prospectus supplement also covers up to 17,368,421 shares of Common Stock issuable upon exercise of the Series R Warrants and up to 1,430,141 shares of Common Stock issuable upon exercise of the Series S Warrants (without duplication of the 15,938,280 shares of Common Stock being offered hereby as part of the Primary Units).

Description of Common Stock

The material terms and provisions of our Common Stock are described under the caption “Description of Common Stock” starting on page 7 of the accompanying prospectus.

Description of Series R Warrants

The following is a brief summary of certain terms and conditions of the Series R Warrant offered by this prospectus supplement and the accompanying prospectus and is subject in all respects to the provisions contained in the Series R Warrant, a form of which will be filed as an exhibit to a Current Report on Form 8-K.

Form. The Series R Warrants will be issued as individual warrant agreements, a form of which will be filed as an exhibit to a Current Report on Form 8-K.

Amount of Series R Warrant Shares. Each purchaser of Units will receive a Series R Warrant exercisable into a number of shares of Common Stock equal to (i) 100% of the number of shares of Common Stock purchased as part of the Primary Units plus (ii) 100% of the number of shares of Common Stock issuable upon exercise of the Series S Warrants issued as a part of the Alternative Units. The number of shares of Common Stock will be fixed at the closing of this offering.

Exercisability. The Series R Warrants will be exercisable at any time after their issuance and up to the date that is five years after their issuance. The Series R Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of Common Stock purchased upon such exercise. No fractional shares of Common Stock will be issued in connection with the exercise of a Series R Warrant, but rather the number of shares of Common Stock to be issued shall be rounded up to the nearest whole number.

Registration of Series R Warrant Shares. The issuance of shares of Common Stock upon exercise of the Series R Warrants is registered on the registration statement of which this prospectus supplement is a part. If a registration statement under the Securities Act covering the exercise of the Series R Warrants is not available in the future, then we expect that the Series R Warrants will be exercisable on a cashless basis.

Cashless Exercise. If the issuance of the shares of Common Stock issuable upon exercise of a Series R Warrant is not covered by a registration statement under the Securities Act, the holder may, in its sole discretion, elect to exercise a Series R Warrant through a cashless exercise, in which case the holder would receive upon such exercise the “net number” of shares of Common Stock determined according to the formula set forth in the Series R Warrant. Further, on or after the 60th day following issuance, if the volume weighted price of the Common Stock for five consecutive trading days is less than the exercise price, the holder may thereafter, in its sole discretion and regardless of whether the shares of Common Stock issuable upon exercise of a Series R Warrant is not covered by a registration statement under the Securities Act, elect to exercise a Series R Warrant without payment of any exercise price and receive a number of shares of Common Stock equal to the product of (x) the aggregate number of shares that would be issuable upon exercise of a Series R Warrant if such exercise were by means of a cash exercise rather than a cashless exercise and (y) 0.50.

Limitations on Exercise and Issuance. A holder may not exercise a Series R Warrant and we may not issue shares of Common Stock under a Series R Warrant if, after giving effect to the exercise or issuance, the holder together with its affiliates would beneficially own in excess of a set percentage of the outstanding shares of our Common Stock. The cap will be set on the date of issuance at a percentage not in excess of 9.99%, at each holder's election. If no election is made, the initial cap will be set at 4.99%. At each holder's option, the cap may be increased or decreased to any other percentage not in excess of 9.99%, except that any increase will not be effective until the 61st day after notice to us

Exercise Price. The exercise price per share of Common Stock purchasable upon exercise of the Series R Warrants is \$0.20. The exercise price of the Series R Warrants is subject to adjustments (i) for stock splits or similar events and (ii) if we in the future issue or are deemed to have issued (or announce the issuance of) shares of Common Stock or securities exercisable or convertible into shares of Common Stock at an effective price per share less than the exercise price then in effect, then the exercise price will be reduced to such lower effective price per share. In addition, we may, with the consent of the "required holders" (as defined in the Series R Warrants), reduce the then current exercise price to any amount and for any period of time deemed appropriate by our board of directors.

Transferability. Subject to applicable laws, the Series R Warrants may be offered for sale, sold, transferred or assigned without our consent. However, there is no established public trading market for the Series R Warrants and we do not expect one to develop.

Purchase Rights. The holders of the Series R Warrants are entitled to acquire options, convertible securities or rights to purchase our securities or property granted, issued or sold pro rata to the holders of our Common Stock on an "as if exercised for Common Stock" basis.

Rights Upon Distribution. The holders of Series R Warrants are entitled to receive any dividend or other distribution of our assets (or rights to acquire our assets), at any time after the issuance of the Series R Warrants, on an "as if exercised for Common Stock" basis.

Fundamental Transactions. The Series R Warrants prohibit us from entering into transactions constituting a "fundamental transaction" (as defined in the Series R Warrants) unless the successor entity assumes all of our obligations under the Series R Warrants and the other transaction documents in a written agreement approved by the "required holders" of the Series R Warrants. Further, after a fundamental transaction, upon the request of a holder, we are required to purchase such holder's Series R Warrants for an amount equal to the "Black Scholes value" (as defined in the Series R Warrants) of the remaining unexercised portion of such Series R Warrants. The definition of "fundamental transactions" includes, but is not limited to, a merger, a sale of all or substantially all our assets, certain tender offers, and other transactions that result in a change of control.

Rights as a Shareholder. Except as otherwise provided in the Series R Warrants or by virtue of such holder's ownership of shares of Common Stock, the holder of a Series R Warrant does not have the rights or privileges of a holder of Common Stock, including any voting rights, until the holder exercises the Series R Warrant.

Amendment and Waiver. The provisions of a Series R Warrant may be amended or waived and we may take action prohibited by the Series R Warrant, or omit to perform any act required by the Series R Warrant, only if we have obtained the written consent of a holder.

Market and Exchange Listing. The Series R Warrants are a new issue of securities and currently there is no market for the securities. We do not intend to list or qualify for quotation the Series R Warrants on any national securities exchange or any other trading system.

Description of Series S Warrants

The following is a brief summary of certain terms and conditions of the Series S Warrant offered by this prospectus supplement and the accompanying prospectus and is subject in all respects to the provisions contained in the Series S Warrant, a form of which will be filed as an exhibit to a Current Report on Form 8-K.

Form. The Series S Warrants will be issued as individual warrant agreements, a form of which will be filed as an exhibit to a Current Report on Form 8-K.

Amount of Series R Warrant Shares. Each purchaser of Alternative Units will receive a Series S Warrant exercisable into one share of Common Stock as part of the Alternative Units. The number of shares of Common Stock will be fixed at the closing of this offering.

Exercisability. The Series S Warrants will be exercisable at any time after their issuance and up to the date that is five years after their issuance. The Series S Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice and by payment in full in immediately available funds for the number of shares of Common Stock purchased upon such exercise. No fractional shares of Common Stock will be issued in connection with the exercise of a Series S Warrant, but rather the number of shares of Common Stock to be issued shall be rounded up to the nearest whole number.

Registration of Series S Warrant Shares. The issuance of shares of Common Stock upon exercise of the Series S Warrants is registered on the registration statement of which this prospectus supplement is a part. If a registration statement under the Securities Act covering the exercise of the Series S Warrants is not available in the future, then we expect that the Series S Warrants will be exercisable on a cashless basis.

Cashless Exercise. If the issuance of the shares of Common Stock issuable upon exercise of a Series S Warrant is not covered by a registration statement under the Securities Act, the holder may, in its sole discretion, elect to exercise a Series S Warrant through a cashless exercise, in which case the holder would receive upon such exercise the "net number" of shares of Common Stock determined according to the formula set forth in the Series S Warrant.

Limitations on Exercise and Issuance. A holder may not exercise a Series S Warrant and we may not issue shares of Common Stock under a Series S Warrant if, after giving effect to the exercise or issuance, the holder together with its affiliates would beneficially own in excess of a set percentage of the outstanding shares of our Common Stock. The cap will be set on the date of issuance at a percentage not in excess of 9.99%, at each holder's election. If no election is made, the initial cap will be set at 4.99%. At each holder's option, the cap may be increased or decreased to any other percentage not in excess of 9.99%, except that any increase will not be effective until the 61st day after notice to us.

Exercise Price. The additional exercise price per share of Common Stock purchasable upon exercise of the Series S Warrants is \$0.01. The exercise price of the Series S Warrants is subject to adjustments for stock splits or similar events.

Transferability. Subject to applicable laws, the Series S Warrants may be offered for sale, sold, transferred or assigned without our consent. However, there is no established public trading market for the Series S Warrants and we do not expect one to develop.

Purchase Rights. The holders of the Series S Warrants are entitled to acquire options, convertible securities or rights to purchase our securities or property granted, issued or sold pro rata to the holders of our Common Stock on an “as if exercised for Common Stock” basis.

Rights Upon Distribution. The holders of Series S Warrants are entitled to receive any dividend or other distribution of our assets (or rights to acquire its assets), at any time after the issuance of the Series S Warrants, on an “as if exercised for Common Stock” basis.

Fundamental Transactions. The Series S Warrants prohibit us from entering into transactions constituting a “fundamental transaction” (as defined in the Series S Warrants) unless the successor entity assumes all of our obligations under the Series S Warrants and the other transaction documents in a written agreement approved by the “required holders” of the Series S Warrants. The definition of “fundamental transactions” includes, but is not limited to, a merger, a sale of all or substantially all our assets, certain tender offers, and other transactions that result in a change of control.

Rights as a Shareholder. Except as otherwise provided in the Series S Warrants or by virtue of such holder’s ownership of shares of Common Stock, the holder of a Series S Warrant does not have the rights or privileges of a holder of Common Stock, including any voting rights, until the holder exercises the Series S Warrant.

Amendment and Waiver. The provisions of a Series S Warrant may be amended or waived and we may take action prohibited by the Series S Warrant, or omit to perform any act required by the Series S Warrant, only if we have obtained the written consent of a holder.

Market and Exchange Listing. The Series S Warrants are a new issue of securities and currently there is no market for the securities. We do not intend to list or qualify for quotation the Series S Warrants on any national securities exchange or any other trading system.

LEGAL MATTERS

The validity of the Units, the Series R Warrants, the Series S Warrants and the shares of Common Stock issued as part of the Units and issuable upon exercise of the Series R Warrants and the Series S Warrants will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP, Denver, Colorado.

Ellenoff Grossman & Schole LLP, New York, New York, is counsel for the placement agent in connection with this offering.

EXPERTS

The consolidated financial statements of Real Goods Solar, Inc. and its subsidiaries, as of and for the year ended December 31, 2016, incorporated in this prospectus supplement and the accompanying prospects by reference from the Real Goods Solar, Inc. Annual Report on Form 10-K for the year ended December 31, 2016 have been audited by Hein & Associates LLP, an independent registered public accounting firm, as stated in their report incorporated herein by reference, and have been incorporated in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of Real Goods Solar, Inc. and its subsidiaries, as of and for the year ended December 31, 2017, incorporated in this prospectus supplement and the accompanying prospects by reference from the Real Goods Solar, Inc. Annual Report on Form 10-K for the year ended December 31, 2017 have been audited by Moss Adams LLP, an independent registered public accounting firm, as stated in their report (which report expresses an unqualified opinion and includes an explanatory paragraph related to going concern uncertainty) incorporated herein by reference, and have been incorporated in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy and information statements and other information with the SEC. The SEC maintains a website that contains information we file electronically with the SEC, which you can access over the Internet at <http://www.sec.gov>. We maintain a website at <http://www.rgsenergy.com> with information about our company. Information contained on our website or any other website is not incorporated into this prospectus supplement and the accompanying prospectus and does not constitute a part of this prospectus supplement and the accompanying prospectus. Our website address referenced above is intended to be an inactive textual reference only and not an active hyperlink to our website.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus supplement and the accompanying prospectus the information we file with the SEC, which means that we can disclose important information to you by referring you to other documents filed separately with the SEC. The information incorporated by reference is considered part of this prospectus supplement and the accompanying prospectus, and any information that we file with the SEC subsequent to this prospectus supplement and the accompanying prospectus and prior to the termination of the offering referred to in this prospectus supplement and the accompanying prospectus will automatically be deemed to update and supersede this information. We incorporate by reference into this prospectus supplement and the accompanying prospectus the documents listed below (excluding any portions of such documents that have been “furnished” but not “filed” for purposes of the Exchange Act unless specifically incorporated by reference herein or therein):

- Our Annual Report on Form 10-K for the year ended December 31, 2017, filed April 2, 2018;
- Our Quarterly Reports on Form 10-Q for the three months ended March 31, 2018, filed May 11, 2018, the three months ended June 30, 2018, filed August 14, 2018 and as amended by Amendment No. 1 to Form 10-Q/A filed on August 15, 2018, and the three months ended September 30, 2018, filed November 6, 2018;
- Our Current Reports on Form 8-K (including amendments thereto) filed January 2, 2018 (other than information furnished pursuant to Item 2.02 and Item 7.01 of Form 8-K), January 3, 2018 (other than information furnished pursuant to Item 7.01 of Form 8-K), January 4, 2018 (other than information furnished pursuant to Item 7.01 of Form 8-K), January 25, 2018, February 12, 2018, March 12, 2018, April 2, 2018 (other than information furnished pursuant to Item 2.02 and Item 7.01 of Form 8-K), April 10, 2018, April 24, 2018, June 5, 2018, June 7, 2018 (other than information furnished pursuant to Item 7.01 of Form 8-K), June 21, 2018, June 22, 2018, June 26, 2018, June 28, 2018, July 3, 2018, July 5, 2018, July 6, 2018, July 9, 2018, July 13, 2018, July 16, 2018, July 24, 2018, August 3, 2018, August 7, 2018, August 10, 2018, August 29, 2018, October 1, 2018 (other than information furnished pursuant to Item 7.01 of Form 8-K), November 2, 2018 (other than information furnished pursuant to Item 7.01 of Form 8-K), November 16, 2018, November 20, 2018, December 6, 2018, February 8, 2019, March 7, 2019, and March 29, 2019 (other than information furnished pursuant to Item 2.02 and Item 7.01 of Form 8-K); and
- The description of our Common Stock contained in our registration statement on Form 8-A filed May 5, 2008 including any other amendments or reports filed for the purpose of updating such description (other than any portion of such filings that are furnished under applicable SEC rules rather than filed).

We also incorporate by reference all documents we subsequently file with the SEC (other than information furnished pursuant to Item 2.02 or Item 7.01 of Form 8-K, or as otherwise permitted by SEC rules) pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the initial filing of the registration statement of which this prospectus supplement is a part (including prior to the effectiveness of the registration statement) and prior to the termination of the offering. Any documents that we subsequently file with the SEC will automatically update and supersede the information previously filed with the SEC and will be considered to be a part of this prospectus supplement and the accompanying prospectus from the date those documents are filed. Thus, for example, in the case of a conflict or inconsistency between information set forth in this prospectus supplement or the accompanying prospectus and information incorporated by reference into this prospectus supplement and the accompanying prospectus, you should rely on the information contained in the document that was filed later.

This prospectus supplement is part of a registration statement on Form S-3 that we have filed with the SEC relating to the securities. As permitted by SEC rules, this prospectus supplement does not contain all of the information included in the registration statement and the accompanying exhibits and schedules we file with the SEC. We have filed certain legal documents that control the terms of the Common Stock offered by this prospectus supplement and the accompanying prospectus as exhibits to the registration statement. We may file certain other legal documents that control the terms of the Common Stock offered by this prospectus supplement and the accompanying prospectus as exhibits to reports we file with the SEC. You may refer to the registration statement and the exhibits and schedules for more information about us and our securities. The registration statement and exhibits and schedules are also available at the SEC's Public Reference Room or through its website.

We will provide, without charge and upon oral or written request, to each person, including any beneficial owner, to whom a copies of this prospectus supplement and the accompanying prospectus have been delivered, a copy of any of the documents referred to above as being incorporated by reference into this prospectus supplement or the accompanying prospectus but not delivered with them. You may obtain a copy of these filings, at no cost, by writing or calling us at Real Goods Solar, Inc., 110 16th Street, 3rd Floor, Denver, CO 80202, (303) 222-8300. Exhibits to these filings will not be provided unless those exhibits have been specifically incorporated by reference in this prospectus supplement.

PROSPECTUS

REAL GOODS SOLAR, INC.

\$130,716,933

Class A Common Stock

Preferred Stock

Warrants

Rights

Debt Securities

Units

We may offer and sell from time to time, in one or more offerings, Class A common stock, preferred stock, warrants, rights, debt securities and units (collectively, the “securities”) of Real Goods Solar, Inc. The aggregate amount of the securities offered by us under this prospectus will not exceed \$136,716,933.

Each time we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with the additional information described under the heading “INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE” before you make your investment decision.

We may sell the securities to underwriters or dealers, through agents, or directly to investors, or a combination of these methods. We will set forth the names of any underwriters or agents in the applicable prospectus supplement.

Our Class A common stock is quoted on The Nasdaq Capital Market under the symbol “RGSE.” On July 10, 2017, the last reported sale price of our Class A common stock was \$0.92 per share. Pursuant to General Instruction I.B.6. of Form S-3, in no event will we sell the offered securities in a public primary offering with a value exceeding more than one-third of the aggregate market value of our Class A common stock held by non-affiliates in any 12-month period so long as the aggregate market value of our Class A common stock held by non-affiliates remains below \$75.0 million. We have not offered any securities pursuant to General Instruction I.B.6. during the 12 calendar months prior to and including the date of this prospectus.

Investing in our securities involves certain risks. See “RISK FACTORS” beginning on page 4 of this prospectus for the risks that you should consider. You should read this entire prospectus carefully before you make your investment decision.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is July 21, 2017.

Table of Contents

	Page
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>1</u>
<u>PROSPECTUS SUMMARY</u>	<u>3</u>
<u>RISK FACTORS</u>	<u>4</u>
<u>USE OF PROCEEDS</u>	<u>4</u>
<u>PLAN OF DISTRIBUTION</u>	<u>4</u>
<u>DESCRIPTION OF CLASS A COMMON STOCK</u>	<u>7</u>
<u>DESCRIPTION OF PREFERRED STOCK</u>	<u>9</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>10</u>
<u>DESCRIPTION OF RIGHTS</u>	<u>11</u>
<u>DESCRIPTION OF DEBT SECURITIES</u>	<u>12</u>
<u>DESCRIPTION OF UNITS</u>	<u>21</u>
<u>EXPERTS</u>	<u>21</u>
<u>LEGAL MATTERS</u>	<u>21</u>
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	<u>21</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>22</u>

ABOUT THIS PROSPECTUS

Except where the context requires otherwise, in this prospectus the terms “Company,” “our company,” “Real Goods Solar,” “we,” “us,” and “our” refer to Real Goods Solar, Inc., a Colorado corporation, and where appropriate, its direct and indirect subsidiaries.

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under the shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities that we may offer. Each time that we sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement also may add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information incorporated by reference in this prospectus before making an investment in our securities. See “WHERE YOU CAN FIND MORE INFORMATION” for more information. We may use this prospectus to sell securities only if it is accompanied by a prospectus supplement. You should not assume that the information in this prospectus, any accompanying prospectus supplement or any document incorporated by reference is accurate as of any date other than the date of such document.

This prospectus contains trademarks, tradenames, service marks, and service names of the Company.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and documents incorporated by reference herein may contain forward-looking statements that involve risks and uncertainties. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they provide our current beliefs, expectations, assumptions and forecasts about future events, and include statements regarding our future results of operations and financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words “anticipate,” “believe,” “plan,” “estimate,” “expect,” “future,” “intend,” “may,” “will” and similar expressions as they relate to us are intended to identify such forward-looking statements. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements.

Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, without limitation, the following: our ability to implement our revenue growth strategy; our history of operating losses; our ability to achieve profitability; our ability to generate breakeven cash flow to fund our operations; our success in implementing our plans to increase future sales, and installations and revenue; restrictions on certain transactions and potential premiums and penalties under our outstanding warrants; rules, regulations and policies pertaining to electricity pricing and technical interconnection of customer-owned electricity generation such as net energy metering; the continuation and level of government subsidies and incentives for solar energy; our failure to timely or accurately complete financing paperwork on behalf of customers; the adoption and general demand for solar energy; the impact of a drop in the price of conventional energy on demand for solar energy systems; existing and new regulations impacting solar installations including electric codes; delays or cancellations for system installations where revenue is recognized on a percentage-of-completion basis; seasonality of customer demand and adverse weather conditions inhibiting our ability to install solar energy systems; changing and updating technologies and the issues presented by these new technologies related to customer demand and our product offering; geographic concentration of revenue from the sale of solar energy systems in Hawaii and east coast states, loss of key personnel and ability to attract necessary personnel; loss or suspension of licenses required for installation of solar energy systems; adverse outcomes arising from litigation and legal disputes to which we may be subject from time to time; our failure to accurately predict future warranty claims; the outcome of a dispute with a customer of our former Commercial segment related to remedial work; the possibility that our insurance carrier seeks reimbursement of legal expenses up to \$1.5 million in connection with a now closed U.S. Securities and Exchange Commission investigation related to our July 2014 private placement; our ability to continue to obtain services and components from suppliers, installers and other vendors; disruption of our supply chain from equipment manufacturers and potential shortages of components for solar energy systems; factors impacting the timely installation of solar energy systems; competition; costs associated with safety and construction risks; continued access to competitive third party financiers to finance customer solar installations; increases in interest rates and tightening credit markets; our ability to meet customer expectations; risks and liabilities associated with placing employees and technicians in our customers' homes and businesses; product liability claims; future data security breaches, or our inability to protect personally identifiable information or other information about our customers; failure to comply with the director independence standards of the U.S. Securities and Exchange Commission and the Nasdaq Capital Market; our inability to maintain effective disclosure controls and procedures and internal control over financial reporting; volatile market price of our Class A common stock; possibility of future dilutive issuances of securities and its impact on our ability to obtain additional financing; the low likelihood that we will pay any cash dividends on our Class A common stock for the foreseeable future; compliance with public reporting requirements; anti-takeover provisions in our organizational documents; the terms of our outstanding warrants to purchase Class A common stock and securities purchase agreements in connection with past offerings which limit our ability to enter into certain transactions or obtain financing, and which could result in our paying premiums or penalties to the holders of outstanding warrants; an increase in our cost of materials that could arise if the United States imposes trade remedies on imported crystalline silicon photovoltaic cells and modules; and such other factors as discussed throughout Part I, Item 1A, Risk Factors and Part II, Item 7, Management's Discussion and Analysis of Financial Conditions and Results of Operations of our Annual Report on Form 10-K for the year ended December 31, 2016 and Part I, Item 2, Management's Discussion and Analysis of Financial Conditions and Results of Operations and Part II, Item 1A, Risk Factors included in our Quarterly Report on Form 10-Q for the period ended March 31, 2017 .

Any forward-looking statement made by us in this prospectus and the documents incorporated by reference herein is based only on information currently available to us and speaks only as of the date on which it is made. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

PROSPECTUS SUMMARY

This prospectus summary provides a brief overview of the key aspects of Real Goods Solar and the material terms of the offered securities that are known as of the date of this prospectus. Because it is a summary, it may not contain all of the information that may be important to you. For a more complete understanding of the terms of the offered securities, prior to making an investment decision, you should carefully read:

- This entire prospectus (including the section entitled “Risk Factors”), which explains the general terms of the securities we may offer;
- The applicable prospectus supplement, which explains specific terms of the securities being offered and updates and changes information in this prospectus; and
- The documents referred to in “WHERE YOU CAN FIND MORE INFORMATION” for information about Real Goods Solar, including our financial statements.

Overview of our Company

We are a residential and commercial solar energy engineering, procurement and construction firm. We also perform most of our own sales and marketing activities to generate leads and secure projects. We offer turnkey services, including design, procurement, permitting, build-out, grid connection, financing referrals and warranty. Our solar energy systems use high-quality solar photovoltaic modules. We use proven technologies and techniques to help customers achieve savings by reducing their utility costs. In addition, we help customers lower their emissions output and reliance upon fossil fuel energy sources.

We, including our predecessors, have more than 39 years of experience in residential solar energy and trace our roots to 1978, when Real Goods Trading Corporation sold the first solar photovoltaic panels in the United States. We have designed and installed over 25,000 residential and commercial solar systems since our founding.

During 2014, we discontinued our entire former Commercial segment and sold the assets associated with our catalog segment (a portion of the Other segment). As a result of this major strategic shift, we now operate as three reportable segments: (1) Residential – the installation of solar energy systems for homeowners, including lease financing thereof, and for small businesses (small commercial) in the continental U.S.; (2) Sunetric – the installation of solar energy systems for both homeowners and business owners (commercial) in Hawaii; and (3) Other – catalog, for 2014, and corporate operations.

Our executive offices are located at 110 16th Street, 3rd Floor, Denver, CO 80202. Our telephone number is (303) 222-8300. Our website is www.rgsenergy.com. The information on our website is not intended to be a part of this prospectus, and you should not rely on any of the information provided there in making your decision to invest in our securities. Our website address referenced above is intended to be an inactive textual reference only and not an active hyperlink to our website.

Recent Developments

Reverse Stock Split

On January 25, 2017 at 11:59 pm Eastern Time, we executed a reverse stock split of all outstanding shares of our Common Stock at a ratio of one-for-thirty, whereby thirty shares of Common Stock were combined into one share of Common Stock. The reverse split was authorized by a vote of our shareholders at a special meeting held on January 23, 2017. We did not decrease our authorized shares of capital stock in connection with the reverse stock split. Share amounts set forth in this prospectus are presented to reflect the reverse split in all periods presented.

The Securities We May Offer

We may use this prospectus to offer:

- Class A common stock
- Preferred stock
- Warrants
- Rights
- Debt securities
- Units consisting of two or more of the other securities offered hereby or under another registration statement in any combination.

A prospectus supplement will describe the specific types, amounts, prices and detailed terms of any of these offered securities.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before making an investment decision you should carefully read and consider the risks described below, together with all of the other information included or incorporated by reference in this prospectus, including, without limitation, the risk factors in the section entitled “Risk Factors” in our most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, which are on file with the SEC. If any of the risks listed in our most recent Annual Report on Form 10-K or Quarterly Reports on Form 10-Q or any of the following risks actually occur, our business, financial condition, or results of operations could suffer. In that case, the market price of our Class A common stock offered by this prospectus could decline, and you may lose all or part of your investment. You should read the section entitled “Special Note Regarding Forward-Looking Statements” above for a discussion of what types of statements are forward-looking statements, as well as the significance of such statements in the context of this prospectus. Additional risks and uncertainties that we do not presently know or that we currently deem immaterial may also have a material adverse effect on our business.

USE OF PROCEEDS

Unless otherwise specified in a prospectus supplement accompanying this prospectus, we currently intend to use the net proceeds from the sale of the securities offered under this prospectus for general corporate purposes, which may include additions to working capital, financing of capital expenditures, repayment of existing or future indebtedness, and future acquisitions and strategic investment opportunities. Pending any use, as described in the applicable prospectus supplement, we plan to invest the net proceeds in short-term, investment grade, interest-bearing securities.

PLAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together through any of the following methods:

- Directly to investors or purchasers;
- To investors through agents;
- Directly to agents;
- To or through brokers or dealers;
- To the public through underwriting syndicates led by one or more managing underwriters;

- To one or more underwriters acting alone for resale to investors or to the public;
- Through block trades in which the broker-dealer will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- Through a combination of any of these methods of sale; and
- Through any other method permitted pursuant to applicable law.

We may also issue securities upon exercise of warrants or as a dividend or distribution. We reserve the right to sell securities directly to investors on our own behalf in those jurisdictions where we are authorized to do so.

We may distribute the securities from time to time in one or more transactions:

- At a fixed price or prices, which may be changed from time to time;
- At market prices prevailing at the times of sale;
- At prices related to such prevailing market prices; or
- At negotiated prices.

Direct Sales and Sales through Agents

We may directly solicit offers to purchase the securities offered by this prospectus. Agents designated by us from time to time may solicit offers to purchase the securities. We will name any agent involved in the offer or sale of the securities and set forth any commissions payable by us to an agent in the applicable prospectus supplement. Unless otherwise indicated in the applicable prospectus supplement, any agent will be acting on a best efforts basis for the period of his or her appointment. Any agent may be deemed to be an “underwriter” of the securities as that term is defined in the Securities Act of 1933, as amended (the “Securities Act”).

Sales Through Underwriters or Dealers

If we use an underwriter or underwriters in the sale of securities, we will execute an underwriting agreement with the underwriter or underwriters at the time we reach an agreement for sale. We will set forth in the applicable prospectus supplement the names of the specific managing underwriter or underwriters, as well as any other underwriters, and the terms of the transactions, including compensation of the underwriters and dealers. This compensation may be in the form of discounts, concessions or commissions. The maximum underwriting compensation for any offering under the registration statement to which this prospectus relates may not exceed 8% of the offering proceeds. Underwriters and others participating in any offering of the securities may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. We will describe any of these activities in the applicable prospectus supplement.

If a dealer is used in the sale of the securities, we or an underwriter will sell securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The applicable prospectus supplement will set forth the name of the dealer and the terms of the transactions.

We may directly solicit offers to purchase the securities, and we may sell directly to institutional investors or others. These persons may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. The applicable prospectus supplement will describe the terms of any direct sales, including the terms of any bidding or auction process.

Agreements we enter into with agents, underwriters and dealers may entitle them to indemnification by us against specified liabilities, including liabilities under the Securities Act, or to contribution by us to payments they may be required to make in respect of these liabilities. The applicable prospectus supplement will describe the terms and conditions of indemnification or contribution.

Delayed Delivery Contracts

We may authorize underwriters, dealers and agents to solicit offers by certain institutional investors to purchase offered securities under contracts providing for payment and delivery on a future date specified in the applicable prospectus supplement. The applicable prospectus supplement will also describe the public offering price for the securities and the commission payable for solicitation of these delayed delivery contracts. Delayed delivery contracts will contain definite fixed price and quantity terms. The obligations of a purchaser under these delayed delivery contracts will be subject to only two conditions:

- That the institution's purchase of the securities at the time of delivery of the securities is not prohibited under the law of any jurisdiction to which the institution is subject; and
- That we shall have sold to the underwriters the total principal amount of the offered securities, less the principal amount covered by the delayed delivery contracts.

"At the Market" Offerings

We may from time to time engage a firm to act as our agent for one or more offerings of our securities. We sometimes refer to this agent as our "offering agent." If we reach agreement with an offering agent with respect to a specific offering, including the number of securities and any minimum price below which sales may not be made, then the offering agent will try to sell such securities on the agreed terms. The offering agent could make sales in privately negotiated transactions or using any other method permitted by law, including sales deemed to be an "at the market" offering as defined in Rule 415 promulgated under the Securities Act, including sales made directly on any national exchange upon which our securities are listed, or sales made to or through a market maker other than on an exchange. The offering agent will be deemed to be an "underwriter" within the meaning of the Securities Act with respect to any sales effected through an "at the market" offering.

Market Making, Stabilization and Other Transactions

To the extent permitted by and in accordance with Regulation M promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), in connection with an offering, an underwriter may engage in over-allotments, stabilizing transactions, short covering transactions and penalty bids. Over-allotments involve sales in excess of the offering size, which creates a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would be otherwise. If commenced, the underwriters may discontinue any of these activities at any time.

To the extent permitted by and in accordance with Regulation M promulgated under the Exchange Act, any underwriters who are qualified market makers on any national exchange upon which our securities are listed may engage in passive market making transactions in the securities on such exchange during the business day prior to the pricing of an offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers.

In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

DESCRIPTION OF CLASS A COMMON STOCK

Our authorized common stock consists of 150,000,000 shares of Class A common stock, par value \$.0001 per share. As of July 10, 2017, there were 7,480,906 shares of our Class A common stock outstanding. Although we believe the following summary description of our Class A common stock set forth below is accurate, our articles of incorporation and our bylaws covers all material provisions affecting the rights of holders of our Class A common stock. This summary is not intended to be complete and is qualified by reference to the provisions of applicable law and to our articles of incorporation and bylaws.

Voting Rights

Each holder of shares of Class A common stock is entitled to one vote for each share held on all matters submitted to a vote of shareholders. There are no cumulative voting rights. All holders of shares of Class A common stock vote as a single group on all matters that are submitted to the shareholders for a vote. Accordingly, holders of a majority of the shares of Class A common stock entitled to vote in any election of directors may elect all of the directors who stand for election. Our entire board of directors stands for election each year. A required number of shareholders having the minimum number of votes that would be necessary to authorize or take action at a meeting at which all of the shares entitled to vote thereon were present and voted may consent to an action in writing and without a meeting under certain circumstances.

Dividends and Liquidation

Subject to any preferential rights of any outstanding shares of preferred stock, shares of Class A common stock are entitled to receive dividends, if any, as may be declared by our board of directors out of legally available funds. In the event of a liquidation, dissolution or winding up of our company, the shares of Class A common stock are entitled to our assets remaining after the payment of all of our debts and other liabilities, including preferential payments made to holders of any outstanding shares of preferred stock. Holders of shares of Class A common stock have no preemptive, subscription or redemption rights, and there are no redemption or sinking fund provisions applicable to the shares of Class A common stock.

Anti-Takeover Effects of Our Articles of Incorporation and Bylaws

The following provisions, which are contained in our articles of incorporation or bylaws, could have the effect of delaying, deferring or preventing a change in control of our company.

Our articles of incorporation and bylaws provide that our board may consist of any number of directors, which may be fixed from time to time by our board. Newly created directorships resulting from any increase in our authorized number of directors may be filled by the affirmative vote of a majority of the directors then in office or by an election at an annual meeting or special meeting of shareholders called for that purpose, and any vacancies on our board resulting from death, resignation, retirement, disqualification, removal from office or other cause may be filled a majority of our board then in office, even if less than a quorum is remaining in office.

Our bylaws require advance notice by a shareholder of any proposal to be brought before an annual meeting of shareholders by a shareholder, including any nomination for election of directors by any shareholder entitled to vote for the election of directors at the meeting. Our bylaws also provide that no shareholder proposal may be considered at a meeting of our shareholders unless the proposal relates to a matter on which a shareholder vote is required by our charter, bylaws or by applicable law.

Our board of directors has the power to issue preferred stock with designations, preferences, limitations and relative rights determined by the board of directors without any vote or action by shareholders. The issuance of preferred stock or of rights to purchase preferred stock could have the effect of making it more difficult for a third party to acquire Real Goods Solar, or of discouraging a third party from attempting to acquire Real Goods Solar.

Subject to repeal or change by action of our shareholders, our board may amend, supplement or repeal our bylaws or adopt new bylaws.

Registration Rights

In connection with the closing of its June 3, 2013 private placement, Real Goods Solar entered into a Registration Rights Agreement with the investors to have their shares of Real Goods Solar Class A common stock purchased in the private placement and issuable upon exercise of warrants purchased in the private placement registered with the SEC for public resale under the Securities Act. On June 20, 2013, Real Goods Solar filed a registration statement on Form S-3 to register these shares pursuant to the terms of this Registration Rights Agreement. The SEC declared the registration statement effective on July 3, 2013. Real Goods Solar is required to maintain the effectiveness of the registration statement until the earlier to occur of (a) the fifth anniversary of the effectiveness of the registration statement, or (b) the date on which all of the registrable securities covered by the Registration Rights Agreement have been sold or transferred in a manner that they may be resold without subsequent registration under the Securities Act.

The Registration Rights Agreement further provides that in the event that (a) the registration statement ceases to be effective and available to the investors under certain circumstances, or (b) Real Goods Solar fails to timely file all reports required to be filed under the Exchange Act other than Current Reports on Form 8-K, Real Goods Solar shall pay to the holders of registrable securities, on the occurrence of each such event and on each monthly anniversary thereof until the applicable event is cured, an amount in cash equal to 1.0% of the aggregate purchase price paid by an investor multiplied by the percentage of such investor's registrable securities that are not covered by the registration statement, up to a maximum of 10.0% of such aggregate purchase price. The foregoing description is subject to the terms and conditions identified in the Registration Rights Agreement.

On November 15, 2013, Real Goods Solar entered into an Underwriting Agreement with an underwriter in connection with a registered public offering. Pursuant to the Underwriting Agreement, Real Goods Solar has agreed to file a registration statement covering the issuance of the shares of Real Goods Solar Class A common stock underlying the warrants issued in the offering on November 20, 2013 and to cause such registration statement to be declared effective before the time the warrants become exercisable and to remain effective through the earlier of (a) the expiration date of the warrants and (b) the date on which all of the warrants shall have been exercised in full. The warrants are exercisable at any time on or after the one year anniversary of their original issuance and at any time up to the date that is five and one-half years after the date of their original issuance. If a registration statement registering the issuance of the shares of Real Goods Solar Class A common stock underlying the warrants under the Securities Act is not effective or available and an exemption from registration under the Securities Act is not available for the issuance of such shares, if the holder, in its sole discretion, elects to exercise a warrant, the holder shall do so through a cashless exercise, in which case the holder would receive upon such exercise the "net number" of shares of Real Goods Solar Class A common stock determined according to the formula set forth in the warrant.

In connection with the closing of its July 2, 2014 private placement, Real Goods Solar entered into a Registration Rights Agreement with the investors to have their shares of Real Goods Solar Class A common stock purchased in the private placement and issuable upon exercise of warrants purchased in the private placement registered with the SEC for public resale under the Securities Act. On July 31, 2014, Real Goods Solar filed a registration statement on Form S-3 to register these shares pursuant to the terms of this Registration Rights Agreement. The SEC declared the registration statement effective on August 11, 2014. Real Goods Solar is required to maintain the effectiveness of the registration statement until the earlier to occur of (a) the fifth anniversary of the effectiveness of the registration statement, or (b) the date on which all of the registrable securities covered by the Registration Rights Agreement have been sold or transferred in a manner that they may be resold without subsequent registration under the Securities Act.

The Registration Rights Agreement further provides that in the event that (a) the registration statement ceases to be effective and available to the investors under certain circumstances, or (b) Real Goods Solar fails to timely file all reports required to be filed under the Exchange Act other than Current Reports on Form 8-K, Real Goods Solar shall pay to the holders of registrable securities, on the occurrence of each such event and on each monthly anniversary thereof until the applicable event is cured, an amount in cash equal to 1.0% of the aggregate purchase price paid by an investor multiplied by the percentage of such investor's registrable securities that are not covered by the registration statement, up to a maximum of 10.0% of such aggregate purchase price. The foregoing description is subject to the terms and conditions identified in the Registration Rights Agreement.

On February 23, 2015, Real Goods Solar entered into a Securities Purchase Agreement with an investor in connection with a registered public offering. Pursuant to the Securities Purchase Agreement, Real Goods Solar must use reasonable best efforts to maintain a registration statement effective registering the Registerable Securities (as defined in the Securities Purchase Agreement) for as long as the Series A Warrants, the Series B Warrants, the Series C Warrants and the Series D Warrants issued pursuant to the terms of the Securities Purchase Agreement are outstanding.

On June 26, 2015, Real Goods Solar entered into a Securities Purchase Agreement with several investors in connection with a registered public offering. Pursuant to the Securities Purchase Agreement, Real Goods Solar must use reasonable best efforts to maintain a registration statement effective registering the Registerable Securities (as defined in the Securities Purchase Agreement) for as long as the Series F Warrants issued pursuant to the terms of the Securities Purchase Agreement are outstanding.

On December 8, 2016, Real Goods Solar entered into a Securities Purchase Agreement with several investors in connection with a registered public offering. Pursuant to the Securities Purchase Agreement, Real Goods Solar must use best efforts to maintain a registration statement effective registering the issuance or resale of the shares of Real Goods Solar Class A common stock issuable upon exercise of the Series I Warrants for five years.

On February 1, 2017, Real Goods Solar entered into a Securities Purchase Agreement with several investors in connection with a registered public offering. Pursuant to the Securities Purchase Agreement, Real Goods Solar must use best efforts to maintain a registration statement effective registering the issuance or resale of the shares of Real Goods Solar Class A common stock issuable upon exercise of the Series K Warrants and the Series L Warrants, as applicable, for five years.

On February 7, 2017, Real Goods Solar entered into a Securities Purchase Agreement with several investors in connection with a registered public offering. Pursuant to the Securities Purchase Agreement, Real Goods Solar must use best efforts to maintain a registration statement effective registering the issuance or resale of the shares of Real Goods Solar Class A common stock issuable upon exercise of the Series M Warrants and the Series N Warrants, as applicable, for five years.

Transfer Agent and Registrar

The transfer agent and registrar for our Class A common stock is Computershare Trust Company.

Listing

Our Class A common stock is listed on the Nasdaq Capital Market under the symbol "RGSE."

DESCRIPTION OF PREFERRED STOCK

Our board of directors is authorized, subject to any limitations prescribed by Colorado law, to issue at any time up to 50,000,000 shares of preferred stock. Our board of directors may provide for the issuance of the preferred stock in one or more series or classes with designations, preferences, limitations and relative rights determined by the board of directors without any vote or action by our shareholders as expressed in articles of amendment filed with the Colorado Secretary of State. As a result, the board has the power to issue preferred stock with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of our common stock. Although we have no current plans to issue any preferred stock, the issuance of preferred stock or of rights to purchase preferred stock could have the effect of making it more difficult for a third party to acquire us, or of discouraging a third party from attempting to acquire us. Such an issuance could also dilute the voting power or other incidents of ownership of holders of our common stock.

The issuance of preferred stock could adversely affect the voting power of holders of our common stock, and the likelihood that preferred holders will receive dividend and liquidation preferences may have the effect of delaying, deferring or preventing a change in control of the Company, which could depress the market price of our common stock.

Unless otherwise indicated in the prospectus supplement, all shares of preferred stock to be issued from time to time under this prospectus will be fully paid and nonassessable.

The prospectus supplement relating to the preferred stock offered will contain a description of the specific terms of that series as fixed by our board of directors, including, as applicable:

- The number of shares of preferred stock offered and the offering price of the preferred stock;
- The title and stated value of the preferred stock;
- The dividend rate(s), period(s) or payment date(s) or method(s) of calculation of such rates, periods or dates applicable to the preferred stock;
- The date from which dividends on the preferred stock will accumulate, if applicable;
- The liquidation rights of the preferred stock;
- The procedures for auction and remarketing, if any, of the preferred stock;
- The sinking fund provisions, if applicable, for the preferred stock;
- The redemption provisions, if applicable, for the preferred stock;
- Whether the preferred stock will be convertible into or exchangeable for other securities offered hereby or under another registration statement and, if so, the terms and conditions of the conversion or exchange, including the conversion price or exchange ratio and the conversion or exchange period (or the method of determining the same);
- Whether the preferred stock will have voting rights and the terms of any voting rights, if any;
- Whether the preferred stock will be listed on any securities exchange;
- Whether the preferred stock will be issued with any other securities offered hereby or under another registration statement and, if so, the amount and terms of these securities; and
- Any other specific terms, preferences or rights of, or limitations or restrictions on, the preferred stock.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock, preferred stock, debt securities or other securities offered hereby or under another registration statement. Warrants may be issued independently or together with common stock, preferred stock, debt securities or other securities offered hereby or under another registration statement and may be attached to or separate from any such offered securities. Series of warrants may be issued under a separate warrant agreement entered into between us and a bank or trust company, as warrant agent, all as will be set forth in the prospectus supplement relating to the particular issue of warrants. The warrant agent would act solely as our agent in connection with the warrants and would not assume any obligation or relationship of agency or trust for or with any holders of warrants or beneficial owners of warrants.

As of July 10, 2017, we had outstanding warrants to purchase 6,527,958 shares of our Class A common stock.

The prospectus supplement relating to the warrants offered will contain a description of the specific terms of that series as fixed by our board of directors, including, as applicable:

- The title and aggregate number of the warrants;

- The offering price;
- The currency or currencies, including composite currencies or currency units, in which the price of the warrants may be payable;
- The number of shares of common stock or preferred stock, or the number or amount of other securities offered hereby or under another registration statement, purchasable upon the exercise of a warrant;
- The exercise price or manner of determining the exercise price, the manner in which the exercise price may be paid, and any minimum number of warrants exercisable at one time;
- When the warrants become exercisable and the expiration date;
- The terms of any right of ours to redeem or call the warrants;
- The terms of any right of ours to accelerate the exercisability of the warrants;
- Where the warrant certificates may be transferred and exchanged;
- Whether the warrants are to be issued with common stock, preferred stock or other securities offered hereby or under another registration statement and, if so, the number and terms of any such offered securities;
- The date, if any, on and after which the warrants and the related shares of common stock, preferred stock or other securities offered hereby or under another registration statement will be separately transferable;
- United States federal income tax consequences applicable to the warrants; and
- Any other terms of the warrants, including terms, procedures and limitations relating to exchange and exercise of the warrants.

You should refer to the provisions of the warrant agreement that will be filed with the SEC in connection with the offering of warrants for the complete terms of the warrant agreement.

Prior to the exercise of any warrants, holders of such warrants will not have any rights of holders of the securities purchasable upon such exercise, including the right to receive payments of dividends, or the right to vote such underlying securities.

DESCRIPTION OF RIGHTS

We may issue rights to purchase common stock, preferred stock or debt securities. These rights may be issued independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the rights in such offering. In connection with any offering of such rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

Each series of rights will be issued under a separate rights agreement which we will enter into with a bank or trust company, as rights agent, all as set forth in the applicable prospectus supplement. The rights agent will act solely as our agent in connection with the certificates relating to the rights and will not assume any obligation or relationship of agency or trust with any holders of rights certificates or beneficial owners of rights. We will file the rights agreement and the rights certificates relating to each series of rights with the SEC, and incorporate them by reference as an exhibit to the registration statement of which this prospectus is a part on or before the time we issue a series of rights.

The applicable prospectus supplement will describe the specific terms of any offering of rights for which this prospectus is being delivered, including the following:

- The date of determining the stockholders entitled to the rights distribution;
- The number of rights issued or to be issued to each stockholder;
- The exercise price payable for each share of common stock, preferred stock, debt securities or other securities offered hereby or under another registration statement upon the exercise of the rights;
- The number and terms of the shares of common stock, preferred stock, debt securities or other securities offered hereby or under another registration statement which may be purchased per each right;
- The extent to which the rights are transferable;
- The date on which the holder's ability to exercise the rights shall commence, and the date on which the rights shall expire;
- The extent to which the rights may include an over-subscription privilege with respect to unsubscribed securities;
- If applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of such rights; and
- Any other terms of the rights, including the terms, procedures, conditions and limitations relating to the exchange and exercise of the rights.

The description in the applicable prospectus supplement of any rights that we may offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable rights certificate, which will be filed with the SEC.

DESCRIPTION OF DEBT SECURITIES

We may issue senior debt securities or subordinated debt securities. Senior debt securities will be issued under an indenture, the "senior indenture," between us and the trustee named in the applicable prospectus supplement, as trustee. Subordinated debt securities will be issued under a separate indenture, the "subordinated indenture," between us and the trustee named in the applicable prospectus supplement, as trustee. The senior indenture and the subordinated indenture are sometimes collectively referred to in this prospectus as the "indentures." The indentures will be subject to and governed by the Trust Indenture Act of 1939. A copy of the form of each of these indentures is filed as an exhibit to the registration statement of which this prospectus is a part. This prospectus describes the general terms and provisions of the debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the securities in a supplement to this prospectus. The prospectus supplement will also indicate whether the general terms and provisions described in this prospectus apply to a particular series of debt securities.

The following briefly describes the general terms and provisions of the debt securities and the indentures governing them which may be offered. The particular terms of the debt securities offered, and the extent, if any, to which these general provisions may apply to the debt securities so offered, will be described in a prospectus supplement relating to those securities. The following descriptions of the indentures are not complete and are subject to, and are qualified in their entirety by reference to, all the provisions of the respective indentures.

General

The indentures permit us to issue the debt securities from time to time, without limitation as to aggregate principal amount, and in one or more series. The indentures also do not limit or otherwise restrict the amount of other indebtedness which we may incur or other securities which we or our subsidiaries may issue, including indebtedness which may rank senior to the debt securities. Nothing in the subordinated indenture prohibits the issuance of securities representing subordinated indebtedness that is senior or junior to the subordinated debt securities. Debt securities we issue may be secured or unsecured.

Unless we give you different information in the prospectus supplement, the senior debt securities will be unsubordinated obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. Payments on the subordinated debt securities will be subordinated to the prior payment in full of all of our senior indebtedness, as described under "Subordination" and in the applicable prospectus supplement. Payments on secured debt securities will be secured by the collateral described in the applicable prospectus supplement.

We may issue debt securities if the conditions contained in the applicable indenture are satisfied. These conditions include the adoption of resolutions by our board of directors that establish the terms of the debt securities being issued. Any resolution approving the issuance of any issue of debt securities will include the terms of that issue of debt securities, which may include:

- The title and series designation;
- The aggregate principal amount and the limit, if any, on the aggregate principal amount or initial issue price of the debt securities which may be issued under the applicable indenture;
- The principal amount payable, whether at maturity or upon earlier acceleration;
- Whether the principal amount payable will be determined with reference to an index, formula or other method which may be based on one or more currencies, currency units, composite currencies, commodities, equity indices or other indices;
- Whether the debt securities will be issued as original issue discount securities (as defined below);
- The date or dates on which the principal of the debt securities is payable;
- Any fixed or variable interest rate or rates per annum or the method or formula for determining an interest rate;
- The date from which any interest will accrue;
- Any interest payment dates;
- Whether the debt securities are senior or subordinated, and if subordinated, the terms of the subordination;
- Whether the debt securities are secured or unsecured, and if secured, the collateral securing the debt securities;
- The price or prices at which the debt securities will be issued, which may be expressed as a percentage of the aggregate principal amount of those debt securities;
- The stated maturity date;
- Whether the debt securities are to be issued in global form;

- Any sinking fund requirements;
- Any provisions for redemption, the redemption price and any remarketing arrangements;
- The denominations of the securities or series of securities;
- Whether the debt securities are denominated or payable in U.S. dollars or a foreign currency or units of two or more foreign currencies;
- Any restrictions on the offer, sale and delivery of the debt securities;
- The place or places where payments or deliveries on the debt securities will be made and may be presented for registration of transfer or exchange;
- Whether any of the debt securities will be subject to defeasance in advance of the date for redemption or the stated maturity date;
- The terms, if any, upon which the debt securities are convertible into other securities offered hereby or under another registration statement or another issuer and the terms and conditions upon which any conversion will be effected, including the initial conversion price or rate, the conversion period and any other provisions in addition to or instead of those described in this prospectus;
- Any other terms of the debt securities which are not inconsistent with the provisions of the applicable indenture;
- A description of any documents or certificates that must be received prior to the issuance of any definitive securities;
- Whether and under what circumstances additional amounts will be paid to non-U.S. citizens in connection with any tax, assessment or governmental charge and whether securities may be redeemed in lieu of paying such additional fees;
- The identity of each security registrar or paying agent (if other than trustee);
- Any provisions granting special rights to securities holders upon the occurrence of specified events;
- Any deletions from, modifications of, or additions to any default events or covenants set forth in the form of indenture;
- The portion of the principal amount payable upon the declaration of acceleration of the maturity of any securities; and
- The date any bearer securities of or within the series and any temporary global security representing outstanding securities shall be dated, if other than date of original issuance.

The debt securities may be issued as “original issue discount securities” which bear no interest or interest at a rate which at the time of issuance is below market rates and which will be sold at a substantial discount below their principal amount. If the maturity of any original issue discount security is accelerated, the amount payable to the holder of the security will be determined by the applicable prospectus supplement, the terms of the security and the relevant indenture, but may be an amount less than the amount payable at the maturity of the principal of that original issue discount security. Special federal income tax and other considerations relating to original issue discount securities will be described in the applicable prospectus supplement.

Please see the prospectus supplement or pricing supplement you have received or will receive for the terms of the specific debt securities we are offering.

You should be aware that special U.S. federal income tax, accounting and other considerations may apply to the debt securities. The prospectus supplement relating to an issue of debt securities will describe these considerations.

Registration and Transfer

Unless otherwise indicated in the applicable prospectus supplement, the debt securities will be issued in fully registered form. Holders may present debt securities in registered form for transfer or exchange for other debt securities of the same series at the offices of the applicable indenture trustee according to the terms of the applicable indenture and the debt securities.

Unless otherwise indicated in the applicable prospectus supplement, the debt securities will be issued in fully registered form, and in denominations of \$1,000 and any integral multiple thereof.

No service charge will be required for any transfer or exchange of the debt securities but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with any transfer or exchange.

Payment and Place of Payment

We will pay or deliver principal and any premium and interest in the manner, at the places and subject to the restrictions set forth in the applicable indenture, the debt securities and the applicable prospectus supplement.

Global Securities

Each indenture provides that we may issue debt securities in global form. If any series of debt securities is issued in global form, the prospectus supplement will describe any circumstances under which beneficial owners of interests in any of those global debt securities may exchange their interests for debt securities of that series and of like tenor and principal amount in any authorized form and denomination.

Events of Default

Unless otherwise indicated in the applicable prospectus supplement, the following are events of default under the senior indenture with respect to the senior debt securities and under the subordinated indenture with respect to the subordinated debt securities:

- Default in the payment of any principal or premium or make-whole amount, if any, on the debt securities when due;
- Default in the payment of any interest on the debt securities, or of any coupon pertaining thereto, when due, which continues for 30 days;
- Default in the performance or breach of any other obligation contained in the applicable indenture for the benefit of that series of debt securities (other than defaults or breaches otherwise specifically addressed), which continues for 90 days after written notice of the default or breach;
- Specified events in bankruptcy, insolvency or reorganization of our Company or any of our significant subsidiaries; and
- Any other event of default provided with respect to the debt securities of any series.

If an event of default (other than an event of default arising from specified events in bankruptcy of us or any of our significant subsidiaries) occurs and is continuing for any series of debt securities, the indenture trustee or the holders of not less than 25% in aggregate principal amount or, under certain circumstances, issue price of the outstanding debt securities of that series may declare all amounts, or any lesser amount provided for in the debt securities of that series, to be immediately due and payable.

At any time after the applicable indenture trustee or the holders have accelerated a series of debt securities, but before the applicable indenture trustee has obtained a judgment or decree for payment of money due, the holders of a majority in aggregate principal amount of outstanding debt securities of that series may rescind and annul that acceleration and its consequences, provided that all payments or deliveries due, other than those due as a result of acceleration, have been made and all events of default have been remedied or waived.

The holders of a majority in principal amount or aggregate issue price of the outstanding debt securities of any series may waive any default with respect to that series, except a default:

- In the payment of any amounts due and payable or deliverable under the debt securities of that series; or
- In an obligation contained in, or a provision of, an indenture which cannot be modified under the terms of that indenture without the consent of each holder of each series of debt securities affected.

The holders of a majority in principal amount or, under certain circumstances, issue price of the outstanding debt securities of a series may direct the time, method and place of conducting any proceeding for any remedy available to the applicable indenture trustee or exercising any trust or power conferred on the indenture trustee with respect to debt securities of that series, provided that any direction is not in conflict with any rule of law or the applicable indenture and the trustee may take other actions, other than those that might lead to personal liability, not inconsistent with the direction. Subject to the provisions of the applicable indenture relating to the duties of the indenture trustee, before proceeding to exercise any right or power under the indenture at the direction of the holders, the indenture trustee is entitled to receive from those holders reasonable security or indemnity against the costs, expenses and liabilities which it might incur in complying with any direction.

A holder of any debt security of any series will have the right to institute a proceeding with respect to the applicable indenture or for any remedy under the indenture, if:

- That holder previously gives to the indenture trustee written notice of a continuing event of default with respect to debt securities of that series;
- The holders of not less than 25% in principal amount of the outstanding securities of that series have made written request and offered the indenture trustee indemnity satisfactory to the indenture trustee to institute that proceeding as indenture trustee;
- The indenture trustee will not have received from the holders of a majority in principal amount or, under certain circumstances, issue price of the outstanding debt securities of that series a direction inconsistent with the request; and
- The indenture trustee fails to institute the proceeding within 60 days.

However, the holder of any debt security or coupon has the right to receive payment of the principal of (and premium or make-whole amount, if any) and interest on, and any additional amounts in respect of, such debt security or payment of such coupon on the respective due dates (or, in the case of redemption, on the redemption date) and to institute suit for the enforcement of any such payment.

We are required to furnish to the indenture trustees annually a statement as to the performance of our obligations under the indentures and as to any default in that performance.

Modification and Waiver

Unless otherwise indicated in the applicable prospectus supplement, we and the applicable indenture trustee may amend and modify each indenture or debt securities under that indenture with the consent of holders of at least a majority in principal amount or, under certain circumstances, issue price of each series of all outstanding debt securities then outstanding under the indenture affected. However, without the consent of each holder of any debt security issued under the applicable indenture, we may not amend or modify that indenture to:

- Change the stated maturity date of the principal of (or premium or make-whole amount, if any, on), or any installment of principal or interest on, any debt security issued under that indenture;
- Reduce the principal amount of or any make-whole amount, the rate of interest on or any additional amounts payable in respect thereof, or any premium payable upon the redemption of any debt security issued under that indenture;
- Reduce the amount of principal of an original issue discount security or make-whole amount, if any, issued under that indenture payable upon acceleration of its maturity; or provable in bankruptcy or adversely affect any right of repayment of a debt security;
- Change the place or currency of payment of principal or any premium or any make-whole amount or interest on, any debt security issued under that indenture;
- Impair the right to institute suit for the enforcement of any payment or delivery on or with respect to any debt security issued under that indenture;
- Reduce the percentage in principal amount of debt securities of any series issued under that indenture, the consent of whose holders is required to modify or amend the indenture or to waive compliance with certain provisions of the indenture; or
- Make any change that adversely affects the right to convert or exchange any security or decrease the conversion/exchange rate or increase the conversion/exchange price.

The holders of at least a majority in principal amount of the outstanding debt securities of any series issued under that indenture may, with respect to that series, waive past defaults under the indenture, except as described under “Events of Default.”

Unless otherwise indicated in the applicable prospectus supplement, we and the applicable indenture trustee may also amend and modify each indenture without the consent of any holder for any of the following purposes:

- To evidence the succession of another person to our company;
- To add to our covenants for the benefit of the holders of all or any series of debt securities;
- To add events of default for the benefit of the holders of all or any series of debt securities;
- To surrender any right or power conferred by the applicable indenture upon our company, or to make any change that does not adversely affect the legal rights of the holder provided by the indenture in any material respect;
- To change or eliminate any of the provisions of the applicable indenture in respect of any series of debt securities, so long as any such change or elimination will become effective only in respect of any series of securities when there is no outstanding security of that series which is entitled to the benefit of that provision;
- To establish the form or terms of debt securities of any series;

- To evidence and provide for the acceptance of appointment by a successor indenture trustee;
- To cure any ambiguity or correct any defect or inconsistency in the applicable indenture;
- To provide for uncertified securities as in addition to certified securities;
- To close the indenture with respect to the authentication and delivery of additional series of securities or to qualify or maintain qualifications of the applicable indenture under the Trust Indenture Act; or
- To supplement any of the provisions of an indenture as is necessary to permit or facilitate the defeasance or discharge of any series of securities under specified provisions of the indenture, provided that any such action shall not adversely affect the interests of the holders of securities of such series or any other series of securities under the indenture in any material respect.

Consolidation, Merger and Sale of Assets

Unless otherwise indicated in the applicable prospectus supplement, we may consolidate or merge with or into any other corporation, and we may sell, lease or convey all or substantially all of our assets to any corporation, provided that the resulting corporation, if other than our company, is a corporation organized and existing under the laws of the United States or any U.S. state and assumes all of our obligations to pay or deliver the principal and any premium or make-whole amount, if any, and any interest on, the debt securities; and perform and observe all of our other obligations under the indentures and supplemental indentures. We are not, or any successor corporation, as the case may be, is not, immediately after any consolidation or merger, in default under the indentures.

The indentures do not provide for any right of acceleration in the event of a consolidation, merger, sale of all or substantially all of the assets, recapitalization or change in our stock ownership. In addition, the indentures do not contain any provision that would protect the holders of debt securities against a sudden and dramatic decline in credit quality resulting from takeovers, recapitalizations or similar restructurings.

Regarding the Indenture Trustee

The occurrence of any default under either the senior indenture or the subordinated indenture could create a conflicting interest for the indenture trustee under the Trust Indenture Act if the same entity serves as trustee under both indentures. If that default has not been cured or waived within 90 days after the indenture trustee has or acquired a conflicting interest, the indenture trustee would generally be required by the Trust Indenture Act to eliminate that conflicting interest or resign as indenture trustee with respect to the debt securities issued under the senior indenture or the subordinated indenture. If the indenture trustee resigns, we are required to promptly appoint a successor trustee with respect to the affected securities.

The Trust Indenture Act also imposes certain limitations on the right of the indenture trustee, as a creditor of ours, to obtain payment of claims in certain cases, or to realize on certain property received in respect to any cash claim or otherwise. The indenture trustee will be permitted to engage in other transactions with us, provided that, if it acquires a conflicting interest within the meaning of Section 310 of the Trust Indenture Act, it generally must either eliminate that conflict or resign.

International Offering

If specified in the applicable prospectus supplement, we may issue debt securities outside the United States. Those debt securities will be described in the applicable prospectus supplement. In connection with any offering outside the United States, we will designate paying agents, registrars or other agents with respect to the debt securities, as specified in the applicable prospectus supplement.

We will describe in the applicable prospectus supplement whether our debt securities issued outside the United States: (1) may be subject to certain selling restrictions; (2) may be listed on one or more foreign stock exchanges; and (3) may have special U.S. tax and other considerations applicable to an offering outside the United States.

Defeasance

We may terminate or “defeasance” our obligations under the indenture with respect to the debt securities of any series by taking the following steps:

- (1) Depositing irrevocably with the indenture trustee an amount, which through the payment of interest, principal or premium, if any, will provide an amount sufficient to pay the entire amount of the senior debt securities:
 - In the case of senior debt securities denominated in U.S. dollars, U.S. dollars or U.S. government obligations;
 - In the case of senior debt securities denominated in a foreign currency, of money in that foreign currency or foreign government obligations of the foreign government or governments issuing that foreign currency; or
 - A combination of money and U.S. government obligations or foreign government obligations, as applicable;
- (2) Delivering:
 - An opinion of independent counsel that the holders of the senior debt securities of that series will have no federal income tax consequences as a result of that deposit and termination;
 - An opinion of independent counsel that registration is not required under Investment Company Act of 1940;
 - An opinion of counsel as to certain other matters; and
 - Officers’ certificates certifying as to compliance with the senior indenture and other matters; and
- (3) Paying all amounts due under the senior indenture.

Further, the defeasance cannot cause an event of default under the indenture or any other agreement or instrument and no default under the indenture or any such other agreement or instrument can exist at the time the defeasance occurs.

Subordination

The subordinated debt securities will be subordinated in right of payment to all senior debt. In certain circumstances relating to our liquidation, dissolution, receivership, reorganization, insolvency or similar proceedings, the holders of all senior debt will first be entitled to receive payment in full before the holders of the subordinated debt securities will be entitled to receive any payment on the subordinated debt securities.

If the maturity of any subordinated debt securities is accelerated, we will have to repay all senior debt before we can make any payment on the subordinated debt securities.

Unless otherwise specified in the prospectus supplement relating to the particular series of subordinated debt securities, “senior debt” is defined as:

the principal, premium, if any, unpaid interest (including interest accruing on or after the filing of any petition in bankruptcy or for reorganization relating to us whether or not a claim for post-filing interest is allowed in such proceeding), fees, charges, expenses, reimbursement and indemnification obligations, and all other amounts payable under or in respect of the following indebtedness of us for money borrowed, whether any such indebtedness exists as of the date of the indenture or is created, incurred, assumed or guaranteed after such date:

- (1) Any debt (a) for money borrowed by us, or (b) evidenced by a bond, note, debenture, or similar instrument (including purchase money obligations) given in connection with the acquisition of any business, property or assets, whether by purchase, merger, consolidation or otherwise, but shall not include any account payable or other obligation created or assumed in the ordinary course of business in connection with the obtaining of materials or services, or (c) which is a direct or indirect obligation which arises as a result of banker's acceptances or bank letters of credit issued to secure obligations of us, or to secure the payment of revenue bonds issued for the benefit of us whether contingent or otherwise;
- (2) Any debt of others described in the preceding clause (1) which we have guaranteed or for which we are otherwise liable;
- (3) The obligation of us as lessee under any lease of property which is reflected on our balance sheet as a capitalized lease; and
- (4) Any deferral, amendment, renewal, extension, supplement or refunding of any liability of the kind described in any of the preceding clauses (1), (2) and (3).

“Senior debt” does not include:

(i) any such indebtedness, obligation or liability referred to in clauses (1) through (4) above as to which, in the instrument creating or evidencing the same or pursuant to which the same is outstanding, it is provided that such indebtedness, obligation or liability is not superior in right of payment to the subordinated debt securities, or ranks *pari passu* with the subordinated debt securities, (ii) any such indebtedness, obligation or liability which is subordinated to indebtedness of us to substantially the same extent as or to a greater extent than the subordinated debt securities are subordinated, (iii) any indebtedness to one of our subsidiaries and (iv) the subordinated debt securities.

The subordinated indenture does not limit or prohibit the incurrence of additional senior indebtedness, which may include indebtedness that is senior to the subordinated debt securities, but subordinate to our other obligations. Any prospectus supplement relating to a particular series of subordinated debt securities will set forth the aggregate amount of our indebtedness senior to the subordinated debt securities as of a recent practicable date.

By reason of this subordination in favor of the holders of senior indebtedness, in the event of an insolvency, our creditors who are not holders of senior indebtedness may recover less, proportionately, than holders of senior indebtedness and may recover more, proportionately, than holders of the subordinated debt securities.

The prospectus supplement may further describe the provisions, if any, which may apply to the subordination of the subordinated debt securities of a particular series.

Restrictive Covenants

The subordinated indenture does not contain any significant restrictive covenants. The prospectus supplement relating to a series of subordinated debt securities may describe certain restrictive covenants, if any, to which we may be bound under the subordinated indenture.

DESCRIPTION OF UNITS

As specified in the applicable prospectus supplement, we may issue units consisting of one or more shares of Class A common stock or preferred stock, debt securities, warrants or any combination of such securities. In addition, the prospectus supplement relating to units will describe the terms of any units we issue, including as applicable:

- The designation and terms of the units and the securities included in the units;
- Any provision for the issuance, payment, settlement, transfer or exchange of the units;
- The date, if any, on and after which the units may be transferable separately;
- Whether we will apply to have the units traded on a securities exchange or securities quotation system;
- Any material U.S. federal income tax consequences; and
- How, for U.S. federal income tax purposes, the purchase price paid for the units is to be allocated among the component securities.

EXPERTS

The consolidated financial statements of Real Goods Solar, Inc. and its subsidiaries, as of and for the years ended December 31, 2015 and December 31, 2016, incorporated in this Prospectus by reference from the Real Goods Solar, Inc. Annual Report on Form 10-K for the year ended December 31, 2016 have been audited by Hein & Associates LLP, an independent registered public accounting firm, as stated in their report incorporated herein by reference, and have been incorporated in reliance upon such report and upon the authority of such firm as experts in accounting and auditing.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP, Denver, Colorado.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information we file with the SEC, which means that we can disclose important information to you by referring you to other documents filed separately with the SEC. The information incorporated by reference is considered part of this prospectus and any accompanying prospectus supplement, and information that we file with the SEC subsequent to this prospectus and any accompanying prospectus supplement and prior to the termination of the particular offering referred to in a prospectus supplement will automatically be deemed to update and supersede this information. We incorporate by reference into this prospectus and any accompanying prospectus supplement the documents listed below (excluding any portions of such documents that have been “furnished” but not “filed” for purposes of the Exchange Act unless specifically incorporated by reference herein or therein):

- Our Annual Report on Form 10-K for the year ended December 31, 2016, filed March 10, 2017 as amended by Amendment No. 1 to Annual Report on Form 10-K/A, filed April 11, 2017 ;
- Our Quarterly Reports on Form 10-Q for the period ended March 31, 2017, filed May 10, 2017 ;
- Our current reports on Form 8-K (including amendments thereto) filed, January 9, 2017, January 24, 2017, January 26, 2017 (other than information furnished pursuant to Item 2.02 and Item 7.01 of Form 8-K), January 30, 2017, January 31, 2017, February 1, 2017 (other than information furnished pursuant to Item 7.01), February 2, 2017, February 6, 2017, February 8, 2017 (other than information furnished pursuant to Item 7.01), February 9, 2017 (other than information furnished pursuant to Item 7.01), February 10, 2017, May 24, 2017, June 5, 2017, June 15, 2017, and June 23, 2017; and

- The description of our Class A common stock contained in our registration statement on Form 8-A filed May 5, 2008 including any other amendments or reports filed for the purpose of updating such description (other than any portion of such filings that are furnished under applicable SEC rules rather than filed).

We also incorporate by reference all documents we subsequently file with the SEC (other than information furnished pursuant to Item 2.02 or Item 7.01 of Form 8-K or as otherwise permitted by SEC rules) pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the initial filing of the registration statement of which this prospectus is a part (including prior to the effectiveness of the registration statement) and prior to the termination of the offering. Any statement in a document incorporated by reference in this prospectus will be deemed to be modified or superseded to the extent a statement contained in this prospectus or any other subsequently filed document that is incorporated by reference in this prospectus modifies or supersedes such statement. Unless specifically stated to the contrary, none of the information that we disclose under Items 2.02 or 7.01 or corresponding information furnished under Item 9.01 or related exhibits of any Current Report on Form 8-K that we may from time to time furnish to the SEC will be incorporated by reference into, or otherwise included in this, prospectus.

This prospectus is part of a registration statement on Form S-3 that we have filed with the SEC relating to the securities. As permitted by SEC rules, this prospectus does not contain all of the information included in the registration statement and the accompanying exhibits and schedules we file with the SEC. You may refer to the registration statement and the exhibits and schedules for more information about us and our securities. The registration statement and exhibits and schedules are also available at the SEC's Public Reference Room or through its website.

We will provide, without charge and upon oral or written request, to each person, including any beneficial owner, to whom a copy of this prospectus has been delivered, a copy of any of the documents referred to above as being incorporated by reference into this prospectus but not delivered with it. You may obtain a copy of these filings, at no cost, by writing or calling us at Real Goods Solar, Inc., 110 16th Street, 3rd Floor, Denver, Colorado 80202, (303) 222-8300.

Exhibits to the filings will not be provided, however, unless those exhibits have been specifically incorporated by reference in this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy and information statements and other information with the SEC. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room in Washington, D.C. at 100 F Street, N.E., Room 1580, Washington, D.C. 20549.

You may obtain information about the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website that contains information we file electronically with the SEC, which you can access over the Internet at <http://www.sec.gov>. We maintain a website at <http://www.rgsenergy.com> with information about our company. Information contained on our website or any other website is not incorporated into this prospectus and does not constitute a part of this prospectus. Our website address referenced above is intended to be an inactive textual reference only and not an active hyperlink to our website.



15,938,280 Primary Units Consisting of

15,938,280 Shares of Class A Common Stock

Series R Warrants to Purchase 15,938,280 Shares of a Class A Common Stock

1,430,141 Alternative Units Consisting of

Series S Warrants to Purchase 1,430,141 Shares of a Class A Common Stock

Series R Warrants to Purchase 1,430,141 Shares of a Class A Common Stock

PROSPECTUS SUPPLEMENT

Dawson James Securities, Inc.

April 2, 2019
