

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

**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the fiscal year ended December 31, 2009

or

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_.

Commission File Number 001-34044

**REAL GOODS SOLAR, INC.**

(Exact name of registrant as specified in its charter)

**COLORADO**  
(State or other jurisdiction of  
incorporation or organization)

**26-1851813**  
(I.R.S. Employer  
Identification No.)

**833 WEST SOUTH BOULDER ROAD,  
LOUISVILLE, CO 80027**  
(Address of principal executive offices)

**(303) 222-8400**  
(Registrant's telephone number, including area code)

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

Title of Each Class

Name of Each Exchange on Which Registered

Class A Common Stock, \$0.0001 par value

NASDAQ Stock Market LLC

Securities registered pursuant to section 12(g) of the Act:

None

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer

Accelerated filer

Non-accelerated filer  (Do not check if a smaller reporting company)

Smaller reporting company

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

The aggregate market value of the voting common equity held by non-affiliates of the registrant was approximately \$14,400,623 as of June 30, 2009, based upon the closing price on the NASDAQ Global Market on that date. The registrant does not have non-voting common equity.

As of March 11, 2010, 16,136,299 shares of the registrant's Class A common stock and 2,153,293 shares of the registrant's Class B common stock were outstanding.

#### **DOCUMENTS INCORPORATED BY REFERENCE**

The following documents (or portions thereof) are incorporated by reference into the Parts of this Form 10-K noted:

Part III incorporates by reference from the definitive proxy statement for the registrant's 2010 Annual Meeting of Shareholders to be filed with the Commission pursuant to Regulation 14A not later than 120 days after the end of the fiscal year covered by this Form.

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**REAL GOODS SOLAR, INC.**

Annual Report on Form 10-K

For the Fiscal Year Ended December 31, 2009

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## **Item 1. Business**

### **Introduction**

We are a leading residential and small commercial solar energy integrator. 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 from manufacturers such as Sharp, Kyocera, Sanyo, and SunPower. We use proven technologies and techniques to help customers achieve meaningful savings by reducing their utility costs. In addition, we help customers lower their emissions output and reliance upon fossil fuel energy sources.

We have over 30 years of experience in residential solar energy, beginning with our sale in 1978 of the first solar photovoltaic, or PV, panels in the United States. We have sold a variety of solar products to more than 30,000 customers since our founding. Our focused customer acquisition approach and our efficiency in converting leads into customers enable us to have what we believe are low customer acquisition costs. We believe that our Real Goods brand has a national reputation for high quality customer service in the solar energy market, which leads to a significant number of word-of-mouth referrals and new customers. In addition, our majority shareholder, Gaiam, Inc., is a leader in the sustainable and renewable energy lifestyle market and has a base of over 10 million direct customers, providing us additional lead generation for potential solar energy customers. We also generate leads by selling solar and other renewable energy and sustainable living products and resources through our nationally distributed catalog and website, including books and DVDs on renewable energy and sustainable living, products for solar and other water heating, green building products and systems, air purification products, water conservation and purification products and other solar and sustainable living related products. Our Solar Living Center in Hopland features interactive demonstrations for renewable energy and environmentally sensible technologies and is the largest facility of its kind, with more than 2 million visitors since it opened in 1996.

### **Our History**

We were incorporated in Colorado in 2008 as a successor to a business that began in 1978 and was privately held until 1991. Our predecessor became Real Goods Trading Corporation, which was publicly traded from 1991 to 2001 when it was acquired by Gaiam. Gaiam operated us essentially as a separate business (except for certain consolidated corporate functions) from 2001 to 2008, when operations were moved into our corporate entity, Real Goods Solar, Inc., upon its formation. We acquired Marin Solar in November 2007, Carlson Solar in January 2008, Independent Energy Systems (“IES”) in August 2008, and Regrid Power, Inc. (“Regrid Power”) in October 2008, together representing over 5,000 cumulative solar energy system installations as of the end of 2009.

### **Growth Strategy**

Our goal is to continue to build on our industry-leading position and be the largest and most profitable residential solar energy integrator in the United States. We intend to pursue the following strategies to achieve this goal:

- *Enhance and leverage the Real Goods brand name to increase our market presence.* We intend to enhance and leverage the Real Goods brand name and our reputation for customer service to continue to win business in existing markets and to expand into new markets in which our competitors have little or no brand recognition.
- *Expand into markets in which legislation and government incentives are favorable for solar energy.* We plan to expand the geographic scope of our business as jurisdictions adopt new or improve existing incentive programs that enhance the economics of solar energy systems for a broader customer base. In addition to the \$3.4 billion California Solar Initiative, or CSI, adopted in 2007, a number of states, including Arizona, Colorado, Connecticut, Hawaii, Massachusetts, Nevada, New Jersey and New York, have adopted legislation and incentives favorable to solar energy and other states are considering adopting such legislation and incentives. In late 2008, the federal investment tax credit was extended for eight years and the \$2,000 cap on the credit for residential systems was removed. We believe that this tax credit will continue to stimulate the residential solar market on a national basis.
- *Consolidate the fragmented U.S. solar energy system installation market.* The U.S. solar energy system installation market remains highly fragmented, with over 300 independent installers or integrators in California alone. We intend to continue our consolidation activities in order to penetrate new markets, expand our business and further enhance our national brand and leverage our national marketing programs. We plan to create economies of scale through our consolidation activities in order to increase our operating efficiencies, with a goal of improving our margins and profitability.

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- *Expand our “community of customers” to enhance revenue and lower our customer acquisition costs.* We intend to leverage the reputation for authenticity associated with our Real Goods brand to expand our “community of customers,” which cares deeply about solar energy and a renewable energy lifestyle and views us as the premier provider of products, services and support to enable this lifestyle. We plan to cross-market our wide array of energy-saving and carbon footprint-reducing products and services in addition to our solar energy systems, which we believe will enhance our revenue and create additional customer loyalty. We also intend to leverage our customer base to continue to provide us with new leads and referrals, which, in conjunction with our cross-marketing efforts, should allow us to continue to lower our customer acquisition costs.
- *Make a difference in the world.* We intend to promote our solar energy systems and sustainable living resources as a way for individuals and communities to reduce their carbon footprint, eliminate U.S. dependence on foreign and fossil fuel-based energy sources and foster a culture of respect for the Earth and its natural resources for the benefit of future generations.

## **Competitive Advantages**

We believe that we have a number of advantages over our competitors, including the following:

- *Brand recognition and authenticity.* We believe that our customers often buy our solar energy systems because of the strength of the Real Goods brand, our longevity in the marketplace and our reputation for excellent customer service. In addition, our reference guide authored by our founder, the “Solar Living Sourcebook,” has sold more than 300,000 copies to date. As a result of over 30 years of operating in the solar energy industry, we believe that we are frequently the first company in the industry approached by new solar companies with innovative products.
- *Strength of management.* We have a highly experienced management team. Our founder and President, John Schaeffer, has more than 30 years of experience in the solar energy industry. In addition, our Chief Financial Officer, Erik Zech, has over 10 years of investment banking experience, with a focus on mergers and acquisitions. Also, our Chairman, Jirka Rysavy, founded and grew Corporate Express from \$30 million to \$3 billion in revenue in less than five years. Mr. Rysavy and other members of our management team have considerable experience in the consolidation of fragmented industries, having acquired over 250 companies.
- *Low-cost customer acquisition model.* Our business model gives us a significant cross-marketing advantage by providing us access to potential purchasers of solar energy systems from visitors to our Solar Living Center and from Gaiam’s over 10 million direct customers. In addition, our strong brand name and reputation for outstanding customer service provide us with word-of-mouth referrals.
- *Relationship with Gaiam.* We believe that our relationship with Gaiam provides us with additional expertise across brand building, marketing, acquisition completion and integration and certain administrative functions, enabling us to operate more efficiently and cost-effectively.
- *Strong supplier base.* We maintain strong relationships with many leading solar PV module manufacturers, including Sharp, Kyocera, Sanyo and SunPower, which provides us with continued access to a supply of our key system components and early review of innovative market products. Our financial strength and market position enable us to purchase directly from these manufacturers which lowers our purchasing costs relative to those of our competitors that are only able to purchase through third-party distributors.
- *Strong balance sheet.* We had \$12.2 million of cash and virtually no outstanding debt at December 31, 2009. We believe that our strong balance sheet and our financial strength meaningfully differentiate us from our competitors, providing our suppliers and customers with confidence in our financial strength and longevity, and further supporting our consolidation strategy.

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### Industry Overview

We believe that as demand for electric power increases, the electric power industry will face various challenges, including the following:

- *Power industry at peak capacity with aging infrastructure.* A majority of U.S. power plants in highly populated areas approach capacity during times of peak usage. Additionally, over half of U.S. power plants are more than 30 years old. In order to meet the rising demand for electric power, additional plants will need to be constructed and the aging existing plant infrastructure will require significant capital investment.
- *Finite natural resources.* Non-renewable energy resources are finite. Although coal, the largest non-renewable energy resource, is estimated to have over 100 years of reserves left, the rate of global energy consumption is expected to continue to increase, jeopardizing economical access to sufficient energy supply for future generations if renewable energy sources are not developed.
- *Increased electricity rates.* As a result of aging infrastructure and high energy demand, residential and commercial customers are facing rising electricity rates, creating economic pressures for consumers and businesses alike.
- *Pollution and climate change concerns.* Non-renewable, fossil fuel-based energy sources, including coal, create environmental pollution, and there is significant local resistance to new coal-fired power plants in populated areas. Concerns about climate change, global warming and greenhouse gas emissions have resulted in international efforts to reduce such emissions, and various states have enacted stricter emissions control laws or mandated that utilities comply with renewable portfolio standards, or RPS, which require the generation of a certain amount of power from renewable sources. We believe that increased concerns about climate change is likely to result in increased focus on alternative energy sources.

Because the solar energy industry offers solutions to these challenges, we believe it has extremely large growth potential. Currently, less than one percent of the world's power is generated from solar energy sources.

### Drivers of Solar Energy Industry Growth

We expect a number of factors will contribute to growth in the solar energy industry, including the following:

- *Legislative initiatives.* A number of initiatives have been enacted by the federal government and various states, municipalities and utilities that encourage or require the installation of grid-tied solar energy systems. In 1996, the state of California enabled individual energy systems to tie into the conventional utility grid and began to require that various rebates and incentives be provided to support the use of solar energy systems, making California the focus for the development of the solar energy market in the United States. By early 2010, California had over 50,000 installed residential solar energy systems and accounted for approximately two-thirds of the U.S. residential market for solar energy systems. California is the largest market in the United States, accounting for more than 50% of total installations. The California Solar Initiative (CSI) provides for the expenditure of up to \$3.4 billion in incentives for installation of solar energy systems with generation capacity of 3 GW of electricity by 2017. California has also mandated an increase in the percentage of renewable energy retail sales by certain utilities by at least 1% per year to reach at least 20% by the end of 2010, with a goal of 33% by 2020. Colorado has enacted an RPS goal of 20% for investor-owned utilities and 10% for electric cooperatives and municipal utilities serving more than 40,000 customers by 2020. In some jurisdictions, such as Colorado, operation of a solar energy system that is located on the property of a utility customer can satisfy a portion of the utility's RPS requirements.
- *Financial incentives.* As these RPS programs are implemented, it is common for financial incentives to be made available, making the purchase of solar energy systems more affordable and opening additional solar markets in the United States.
  - *Rebates.* Rebates offered to customers or integrators reduce the initial cost of solar energy systems. Several states, including California and Colorado, require certain utilities to offer rebates that can substantially reduce the costs of installing solar energy systems. California's residential rebate is currently \$1.10 to \$1.85 per watt, and Colorado currently offers a total effective rebate of \$2.55 per watt. These rebates, coupled with tax credits, typically reduce the customer's out-of-pocket cost for purchasing a solar energy system by 40% to 60%.
  - *Tax credits.* There is currently a 30% federal tax credit for residential and commercial solar energy systems, and in October 2008 Congress extended the availability of this credit for both residential and commercial solar installations for another eight years and eliminated the \$2,000 cap on the tax credit for residential installations.

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- *Other incentives.* Other incentives, such as net metering, time-of-use credits and performance-based incentives, are provided to consumers based on the amount of electricity their solar energy systems generate. Currently, three quarters of the states have required some of their utility providers to accept net metering, and four additional states have partial net metering administered by individual utilities within such states. Net metering allows residential and small-scale commercial solar energy producers to sell excess power generated by their systems to their utility companies, through existing electric meters, at standard retail prices. Time-of-use metering allows customers to sell solar power to their utility for higher rates during peak times when traditional loads are at their highest demand. These customers can then buy back electricity from the utilities during off-peak times at a much lower rate, providing them an additional financial benefit for solar installations. Performance-based incentives, or PBIs, reward customers based on the generation of their solar energy over time, as opposed to through an initial rebate. The CSI currently requires that residential customers who choose not to accept the purchase rebate be provided a PBI of \$0.15 to \$0.26 per kilowatt-hour for a period of five years. This PBI amount declines in steps as the aggregate number of residential solar energy systems increases.
- *Renewable energy credits.* In many states, the installation of a solar energy system generates a renewable energy credit, or REC, which is marketable in certain states. These RECs are of little value in the hands of individual solar energy system owners because of the limited market for RECs and the associated transaction costs, which are high relative to the value of RECs typically available to an individual residential user. In some cases, we will retain the RECs that result from our integration projects, and we expect additional revenues may be generated from the sale of these aggregated RECs in the future if a market for RECs develops.
- *Property tax exemptions.* In certain jurisdictions, such as California, assessors are prohibited from increasing a solar energy system owner's property tax assessment as a result of the added value of qualified solar energy systems.
- *Benefits of solar energy systems.* Solar energy as a source of electrical power offers the following benefits compared to conventional energy sources:
  - *Lower energy prices.* The cost of electricity generated by a solar energy system is essentially fixed at the time of installation, providing a hedge against utility electricity price increases and inflation. Solar energy systems generate much of their electricity during the afternoon when the sun's rays are strongest and when the greatest demand for electricity for air conditioning occurs. Customers can use their solar energy systems' energy to replace peak time conventional electricity, which can be more expensive and less reliable than electricity purchased during non-peak times. In addition, solar energy systems typically have low operating expenses because the systems require minimal maintenance over their expected lives.
  - *Versatility and ease of installation.* Solar energy systems can generate electricity in any location that receives sunlight, while relatively fewer locations have both the infrastructure and natural resources required to support other forms of renewable energy, including hydroelectric, wind and geothermal. Solar energy systems can be installed directly at sites where power is needed, reducing conventional electrical transmission and distribution costs.
  - *Security.* The use of solar energy systems improves energy security by reducing fossil fuel purchases from hostile or politically or economically unstable countries and by reducing power strains on local electrical transmission and distribution systems.

## **Challenges to the Solar Energy Industry**

We believe growth in the solar energy industry faces the following challenges:

- *Customer economics and financing.* The decision to install a solar energy system represents a significant investment of approximately \$10,000 to \$30,000 or more (net of rebates and federal tax credits) for the typical home. In addition, financing sources specifically for solar energy systems, including loans and system leases, are currently limited. The return on each customer's investment in a solar energy system will occur over a different period or at a different rate depending upon individual circumstances. A potential purchaser has to weigh the initial investment decision against the longer-term utility cost reductions, increased property value and low system maintenance costs provided by a solar energy system.
- *Evolving regulatory landscape.* The solar energy industry is significantly driven by federal, state and local regulations and incentives, which are continually changing. Changes in regulations and incentives could adversely affect the economic viability of solar energy systems.

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- *Supply of solar PV modules.* The manufacture of solar PV modules depends on the availability of silicon, an essential raw material. At times in recent years, there has been a global shortage of silicon, which has resulted in some price increases and limited availability for solar PV modules.
- *Cost of traditional energy sources.* The cost of solar power generation is often compared by customers to the cost of traditional sources of electricity generation such as coal. Traditional power plants are cheap to build but expensive to operate when the true price of their environmental impact is considered. Solar power plants are more expensive to build but cheaper to operate over the long-term, with minimal environmental impact. The growth of the solar power industry is dependent on how consumers weigh the relative importance of construction costs relative to the operating costs for both types of electricity production and the extent to which government mandates require traditional power plants to incorporate environmental costs.
- *Challenging economic environment.* The recent recession has created a challenging business climate for the purchase of solar systems. We believe that many customers remain interested in solar but are electing to postpone their decision to purchase a system until they have better visibility into the economy and their own personal financial situation.

## **Services**

We offer turnkey solar energy services, including design, procurement, permitting, build-out, grid connection, financing referrals and warranty and customer satisfaction activities. We install residential and small commercial systems that are generally between 1 kW and 250 kW output, with the average residential installation being approximately 5 kW output. We also on occasion install larger commercial projects of up to 5MW output.

We design and build our solar energy systems to meet each customer's individual needs and circumstances. We assess a customer's annual power requirements and average daily consumption rates in different seasons of the year to size the solar energy system and engineer its wiring. We assess the customer's roof size, configuration, and composition to determine the optimum location for the solar PV modules. We factor in information about the customer's electrical service territory and its rate structures, and we identify the customer's budget and preferred financing method, as well as the customer's aesthetic preferences. We also identify the relevant federal, state and local regulations, including building codes, which are important to the cost, operation and return on investment of the customer's solar energy system, as well as relevant tax rates and various other factors. We assess this data using solar monitoring tools and analytical calculations, which enable us to design a solar energy system to a size and configuration that maximizes energy efficiency for each customer's circumstances.

We prepare final construction plans to obtain a building permit which is necessary for rebate processing. We also provide customers with a return on investment analysis and determine the rebates and performance-based incentives that are available to each customer. As soon as the building permit is approved, our installation professionals begin the installation by placing metal racking on the customer's roof (or by building a ground mount if indicated), followed by installation of the solar PV modules, inverter(s) and the balance of systems components and safety equipment. We do not custom manufacture solar PV modules or inverters. Rather, we purchase these manufactured components for incorporation into our constructed solar energy systems.

After the solar PV modules and inverter(s) are installed on the customer's home or business, we obtain a final inspection of the installation by the local building department, prepare and submit all rebate applications to the appropriate rebating jurisdiction and at the same time apply for the local utility company to interconnect the customer's solar energy system to the utility grid. The entire process from signing of the contract through final inspection by the local building department typically takes between 60 to 90 days, with the actual installation work usually requiring two to three days.

### *Solar Energy Systems*

A basic solar energy system has no moving parts and consists of a number of solar PV modules wired together and mounted on a metal framing structure, an inverter and the balance of systems and safety equipment necessary to connect the system to the customer's existing utility service.

- *Solar PV modules.* We source solar PV modules from several primary manufacturers: Sharp, Kyocera, Sanyo, and SunPower. These modules range in conversion efficiency from 12% to 19%. Solar PV modules can be manufactured using different semiconductor materials, including mono- and poly-crystalline silicon, amorphous silicon, gallium arsenide, copper indium gallium selenide, or CIGS, and cadmium telluride. Developments in solar PV technology have generated advances in the conversion efficiency of solar PV cells, reductions in manufacturing costs and improvements in manufacturing yields.
- *Inverters.* An inverter is an electronic device that converts the low-voltage DC power that is generated by solar PV modules to conventional 120-volt AC power that is used by standard household lights and appliances. While an inverter may need to be replaced approximately 15 years after installation, other system components typically do not require

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replacement during the 20- to 25-year warranty period applicable to solar PV modules. Individual solar energy systems are connected to the utility grid by an inverter, which also allows the excess electricity produced to flow into the grid, causing the customer's electric meter effectively to run backwards, to the credit of the customer's utility account, sometimes at standard retail prices. A customer that has a grid-connected solar energy system draws energy from the grid through the conventional local utility when the sun is not shining, or when household energy consumption exceeds the solar energy system's energy generation capacity.

### *Warranty Terms*

Most manufacturers of solar PV modules currently offer a 20- to 25-year transferable warranty of their products. We offer a 10-year parts and labor warranty, which may also involve claims of property damage arising from the installation. We generally handle manufacturer warranty claims for solar PV modules as part of our customer service offerings and are reimbursed by the manufacturers for our labor and materials. Historically, our costs associated with warranty claims have been minimal.

### *Financing*

While many of our customers choose to purchase their solar energy systems without the use of financing, we connect our customers with preferred third-party financing sources as requested. We handle some of the administrative processing for our customers that choose to use third-party financing. Loss of preferred third-party financing sources for our customers could adversely affect our business as it would reduce financing alternatives available to homeowners seeking to install a solar system.

### **Sales and Marketing**

Our conventional marketing program includes presentation booths at tradeshow and consumer shows, inserts or an advertising page in our catalogs, Internet search engine optimization, pay-per-click ad words, affiliate marketing programs, community involvement initiatives and customer referral programs.

To enhance our solar energy integration business by generating leads of potential solar energy system customers and promoting our brand awareness, we operate our Solar Living Center, distribute our catalog nationally and maintain our website. Our mail order catalog and website provide pricing tools, media programming, in-depth articles and product information, how-to instructional content, and a broad array of products focused on renewable energy and sustainable living. These products include solar PV modules, inverters, books and DVDs on renewable energy and sustainable living, products for solar and other water heating, green building products and systems, air purification products and water conservation and purification products. We believe that certain of these channels provide a significant cross-marketing advantage by providing us access to a highly targeted group of potential customers who have likely purchased other renewable energy and sustainable living products and resources in the past. We also receive new customer leads from the referrals of our satisfied customers, through our customer rewards and affinity programs, from designers and architects with whom we have worked on previous projects, and through the strength and longevity of our Real Goods brand name and reputation. We believe that these attractive sources of leads lower our customer acquisition costs to below what we estimate they would be if we were to rely solely on traditional marketing methods such as print, radio, television and Internet search words.

After we receive these high-quality leads, our sales representatives conduct an extensive telephone interview of the potential customer during which we determine, among other things, information about the customer's site, location, and solar exposure, and that the customer and any relevant family member or co-owner is genuinely interested in and able to finance the purchase of a solar energy system. We use this focused customer qualification process to identify which potential customers are most likely to respond positively to our direct sales efforts before we make a site visit to the customer's location. We then utilize our direct sales force to pursue these qualified leads. This qualification process further lowers our customer acquisition costs because it narrows our customer leads and allows us to focus our direct sales efforts on highly targeted customers.

We own a 12-acre campus located in Hopland, California, approximately 95 miles north of San Francisco, called the Real Goods Solar Living Center. The Solar Living Center is a demonstration site for the technology and culture of solar living and serves as a very effective source of qualified leads for solar installations. In 2009, the Solar Living Center had over 200,000 visitors. Since it opened in 1996, more than 2 million people have visited the Solar Living Center, and it has become one of the largest tourist attractions in Northern California throughout the year.

### **Customers**

Our residential customers have historically shared a number of characteristics. They tend to be college-educated homeowners, 30 to 65 years in age, high-income earners who are generally motivated both by environmental and economic reasons to install a solar energy system. Our residential solar energy systems are generally 10kW or smaller in size, and our commercial solar energy systems are generally no larger than 250 kW in size. Our typical residential customer is connected to the utility grid. Our commercial customers have included wineries, schools, apartment buildings, low income housing communities, churches and retail facilities.

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### **Suppliers**

We do not manufacture solar PV modules, inverters or other components used in our solar energy systems, but purchase those components directly from manufacturers or, in some cases, from third-party distributors. We purchase solar PV modules manufactured by Sharp, Kyocera, Sanyo, and SunPower and others. Silicon is one of the primary materials used in the manufacture of solar PV modules. The worldwide market for silicon from time to time experiences a shortage of supply, primarily because of demand for silicon by the semiconductor industry. Shortages of silicon could adversely affect the availability and cost of the solar PV modules we use in our solar energy systems. We purchase inverters manufactured by, SMA, Enphase and others. We currently purchase the components we use in our solar energy systems on a purchase order basis from a select group of manufacturers or suppliers. If we are unable to purchase from any of these sources in the future, we do not believe we would have difficulty in securing alternative supply sources, because all of the components we use in our solar energy systems are readily available from a number of different sources.

### **Competition**

The solar energy industry is in its early stages of development and is highly fragmented, consisting of many small, privately held companies with limited resources and operating histories but some of which benefit from operating efficiencies or low overhead requirements. A number of competitors exist in the California market, including companies such as REC Solar and Solar City. Several of our competitors have expanded their market share in the California market by opening multiple offices within the state. We estimate that we are currently in the top three residential solar energy system installers in California. In Colorado our competitors include Namaste Solar Electric, REC Solar and Solar City, but we are not aware of published data regarding competitive positions in Colorado. We compete on factors such as brand recognition, quality of services and products, pricing, speed and quality of installation.

### **Regulations**

Solar integrator services are subject to oversight and regulation by national and local ordinances, including building, zoning and fire codes, environmental protection regulations, utility interconnection requirements for metering and other rules and regulations. Our design and engineering teams design and install solar energy systems to comply with these varying standards as well as to minimize the installation and operating costs of each system. Our operations are also subject to generally applicable laws and regulations relating to discharge of materials into the environment and protection of the environment; however, because our operations do not typically involve any such discharge, there are no material effects on our business relating to our compliance with such environmental laws and regulations.

### **Intellectual Property**

Our tradename Real Goods Solar and various other names are subject to trademark or pending trademark applications of Real Goods Solar or a Real Goods Solar company. We believe these trademarks are significant assets to our business. These trademark registrations are each valid for ten years and we endeavor to maintain such registrations as valid and current by filing all required renewal forms when due. In addition, we hold the copyright for most of the contents of the "Solar Living Sourcebook."

### **Seasonality**

We have historically experienced seasonality in our business, with the first quarter representing our slowest quarter of the year. Additionally, the fourth quarter can be impacted by unfavorable weather in certain geographic regions. Much of the seasonality in the business in previous quarters has been offset by changes in government activities as well as strong organic growth.

### **Employees**

As of March 3, 2010, we had approximately 200 full-time employees, including installation personnel.

## **Item 1A. Risk factors**

We wish to caution you that there are risks and uncertainties that could cause our actual results to be materially different from those indicated by forward looking statements that we make from time to time in filings with the Securities and Exchange Commission, news releases, reports, proxy statements, registration statements and other written communications as well as oral forward looking statements made from time to time by our representatives. These risks and uncertainties include, but are not limited to, those risks described below of which we are presently aware. Additional risks and uncertainties that we currently deem immaterial may also impair our business operations, and historical results are not necessarily an indication of the future results. The cautionary statements below discuss important factors that could cause our business, financial condition, operating results and cash flows to be materially adversely affected.

### **Risk Factors Related to our Business and Industry**

*Adverse general economic conditions could have a material impact on our business.*

Adverse overall economic conditions that impact consumer spending could impact our results of operations. Future economic conditions affecting disposable income such as employment levels, consumer confidence, credit availability, business conditions, stock market volatility, weather conditions, acts of terrorism, threats of war, and interest and tax rates could reduce consumer spending or cause consumers to shift their spending away from our products. If the economic conditions continue to be adverse or worsen, we may experience material adverse impacts on our business, operating results and financial condition.

*Our business prospects could be harmed if solar energy is not widely adopted or sufficient demand for solar energy systems does not develop or takes longer to develop than we anticipate.*

The solar energy market is at a relatively early stage of development, and the extent to which solar energy will be widely adopted and the extent to which demand for solar energy systems will increase are uncertain. If solar energy does not achieve widespread adoption or demand for solar energy systems fails to develop sufficiently, we may be unable to grow our business at the rate we desire. In addition, demand for solar energy systems in our targeted markets may not develop or may develop to a lesser extent or more slowly than we anticipate. Many factors may affect the demand for solar energy systems, including the following:

- fluctuations in economic and market conditions that affect the viability of conventional and non-solar renewable energy sources, such as changes in the price of oil and other fossil fuels;
- availability of government subsidies and incentives to support the development of the solar energy industry;
- cost-effectiveness, performance and reliability of solar energy systems compared with conventional and other non-solar renewable energy sources and products;
- success of other renewable energy generation technologies, such as hydroelectric, wind, geothermal, solar thermal, concentrated solar and biomass;
- availability of financing with economically attractive terms;
- fluctuations in expenditures by purchasers of solar energy systems, which tend to decrease in slower economic environments and periods of rising interest rates and tighter credit; and
- deregulation of the electric power industry and the broader energy industry.

*A drop in the retail price of conventional energy or non-solar renewable energy sources may negatively impact our business.*

The demand for our solar energy systems depends in part on the price of conventional energy, which affects return on investment resulting from the purchase of solar energy systems. Fluctuations in economic and market conditions that impact the prices of conventional and non-solar renewable energy sources could cause the demand for solar energy systems to decline, which would have a negative impact on our business. Inexpensive prices for oil and other fossil fuels and electricity could also have a negative effect on our business.

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*The reduction, elimination or expiration of government subsidies and economic incentives for solar energy systems could reduce the demand for our products.*

Government subsidies are an important economic factor in the determination to purchase a solar energy system. Certain states, including California and Colorado, and certain localities and utilities offer incentives to offset a portion of the cost of qualified solar energy systems. These incentives can take many forms, including direct rebates, state tax credits, system performance payments and renewable energy credits, or RECs. The reduction or elimination of such incentives or delays or interruptions in the implementation of favorable federal or state laws could substantially increase the cost of our systems to our customers, resulting in a significant reduction in demand for our solar energy systems, which would negatively impact our business.

*Existing regulations, and changes to such regulations, may present technical, regulatory and economic barriers to the installation of solar energy systems, which may significantly reduce demand for our solar energy systems.*

The installation of solar energy systems is subject to oversight and regulation under local ordinances; building, zoning and fire codes; environmental protection regulation; utility interconnection requirements for metering; and other rules and regulations. We attempt to keep up-to-date about these requirements on a national, state and local level and must design and install our solar energy systems to comply with varying standards. Certain cities may have ordinances that prevent or increase the cost of installation of our solar energy systems. In addition, new government regulations or utility policies pertaining to the installation of solar energy systems are unpredictable and may result in significant additional expenses or delays, which could cause a significant reduction in demand for solar energy systems.

*Existing regulations and policies pertaining to electricity pricing and technical interconnection of customer-owned electricity generation and changes to these regulations and policies may deter the purchase and use of solar energy systems and negatively impact development of the solar energy industry.*

The market for solar energy systems is heavily influenced by foreign, federal, state and local government regulations and policies concerning the electric utility industry, as well as policies adopted by electric utilities. These regulations and policies often relate to electricity pricing and technical interconnection of customer-owned electricity generation. For example, metering caps currently exist in certain jurisdictions, which limit the aggregate amount of power that may be sold by solar power generators into the electric grid. These regulations and policies have been modified in the past and may be modified in the future in ways that could deter purchases of solar energy systems and investment in the research and development of solar energy technology. Another example is that without a mandated regulatory exception for solar energy systems, utility customers are often charged interconnection or standby fees for putting distributed power generation on the electric utility grid. Such fees could increase the cost to our customers of using solar energy systems and make them less desirable, thereby harming our business, operating results and financial condition. Changes in net metering policies could also deter the purchase and use of solar energy systems. In addition, electricity generated by solar energy systems competes primarily with expensive peak hour electricity rates rather than with the less expensive average price of electricity. Modifications to the peak hour pricing policies of utilities, such as to a flat rate, would require solar energy systems to achieve lower prices in order to compete with the price of electricity.

*Our inability to respond to changing technologies and issues presented by new technologies could harm our business.*

The solar energy industry is subject to technological change. If we rely on products and technologies that are not attractive to customers, or if we are unable to respond appropriately to changing technologies and changes in product function and quality, we may not be successful in capturing or retaining a significant market share. In addition, any new technologies utilized in our solar energy systems may not perform as expected or as desired, in which event our adoption of such products or technologies may harm our business.

*We derive all of the revenue from our solar energy integration services from sales in two states.*

We currently derive all of the revenue from our solar energy integration services from projects in California and Colorado. This geographic concentration exposes us to growth rates, economic conditions, and other factors that may be specific to those states to which we would be less subject if we were more geographically diversified. The growth of our business will require us to expand our operations in California and Colorado and to commence operations in other states. Any geographic expansion efforts that we may make may not be successful, which would limit our growth opportunities.

*Our success may depend in part on our ability to continue to make successful acquisitions.*

As part of our business strategy, we plan to expand our operations through strategic acquisitions in our current markets and in new geographic markets. We acquired several businesses over the last few years. We cannot accurately predict the timing, size and success of our acquisition efforts. Our acquisition strategy involves significant risks, including the following:

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- limitations on our cash available for acquisitions,
- market prices of our Class A common stock, to the extent we elect to use stock as all or part of the consideration for acquisitions,
- our ability to identify suitable acquisition candidates at acceptable prices,
- our ability to complete successfully the acquisitions of candidates that we identify,
- our ability to compete effectively for available acquisition opportunities,
- increases in asking prices by acquisition candidates to levels beyond our financial capability or to levels that would not result in the returns required by our acquisition criteria,
- diversion of management's attention to expansion efforts,
- unanticipated costs and contingent liabilities associated with acquisitions,
- failure of acquired businesses to achieve expected results,
- our failure to retain key customers or personnel of acquired businesses and
- difficulties entering markets in which we have no or limited experience.

These risks, as well as other circumstances that often accompany expansion through acquisitions, could inhibit our growth and negatively impact our operating results. In addition, the size, timing and success of any future acquisitions may cause substantial fluctuations in our operating results from quarter to quarter. Consequently, our operating results for any quarter may not be indicative of the results that may be achieved for any subsequent quarter or for a full fiscal year. These fluctuations could adversely affect the market price of our Class A common stock.

*Our failure to integrate the operations of acquired businesses successfully into our operations or to manage our anticipated growth effectively could materially and adversely affect our business and operating results.*

In order to pursue a successful acquisition strategy, we must integrate the operations of acquired businesses into our operations, including centralizing certain functions to achieve cost savings and pursuing programs and processes that leverage our revenue and growth opportunities. The integration of the management, operations, and facilities of acquired businesses with our own could involve difficulties, which could adversely affect our growth rate and operating results. We may be unable to complete effectively the integration of the management, operations, facilities and accounting and information systems of acquired businesses with our own; to manage efficiently the combined operations of the acquired businesses with our operations; to achieve our operating, growth and performance goals for acquired businesses; to achieve additional revenue as a result of our expanded operations; or to achieve operating efficiencies or otherwise realize cost savings as a result of anticipated acquisition synergies. Our rate of growth and operating performance may suffer if we fail to manage acquired businesses profitably without substantial additional costs or operational problems or to implement effectively combined growth and operating strategies.

*We may require significant additional funds, the amount of which will depend upon our working capital and general corporate needs and the size, timing and structure of future acquisitions.*

Our operations may not generate sufficient cash to enable us to operate or expand our business and adequate financing may not be available if and when we need it or may not be available on terms acceptable to us. Any borrowings made to finance future acquisitions or for operations could make us more vulnerable to a downturn in our operating results, a downturn in economic conditions or increases in interest rates on future borrowings. If our cash flow from operations is insufficient to meet our debt service requirements, we could be required to sell additional equity securities, refinance our obligations or dispose of assets in order to meet our debt service requirements. In addition, our operations may not generate sufficient cash for our acquisition plans. The extent to which we would be able or willing to use our equity to consummate future acquisitions will depend on the market price of our equity from time to time and the willingness of potential sellers to accept our equity as full or partial payment. Using our equity for this purpose also may result in significant dilution to our shareholders. To the extent that we are unable to use our equity to make future acquisitions, our ability to grow through acquisitions may be limited by the extent to which we are able to raise capital for this purpose through debt or equity financings. The failure to obtain sufficient financing on favorable terms and conditions could have a material adverse effect on our business, financial condition, operating results and growth prospects.

*The loss of or failure to hire additional personnel could materially and adversely affect our business, operating results and our ability to expand.*

The expansion of our business could place a significant strain on our managerial, financial and personnel resources, particularly given our current reliance on our Chairman, Jirka Rysavy, who also is the Chairman of Gaiam. To reach our goals, we must successfully recruit, train, motivate and retain additional employees, including management and technical personnel, integrate new employees into our overall operations and enhance our financial and accounting systems, controls and reporting systems. While we believe we have

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personnel sufficient for the current requirements of our business, expansion of our business could require us to employ additional personnel. The loss of personnel or our failure to hire additional personnel could materially and adversely affect our business, operating results and our ability to expand.

*Our success depends on the value of our Real Goods brand.*

We depend on the name recognition of our Real Goods brand in our marketing efforts. Maintaining and building recognition of our brand are important to expanding our customer base. If the value of our brand were adversely affected, our ability to attract customers would be negatively impacted and our growth could be impaired.

*We depend upon a limited number of suppliers for the components used in our solar energy systems.*

We rely on third-party suppliers for components used in our solar energy systems. During 2009, Sharp, Kyocera, Sanyo, and SunPower accounted for over 90% of our purchases of solar PV modules; and SMA and Enphase accounted for over 90% of our purchases of inverters. The failure of our suppliers to supply us with components in a timely manner or on commercially reasonable terms could result in lost orders, delay our project schedules and harm our operating results and business expansion efforts. Our orders with certain of our suppliers may represent a very small portion of their total business. As a result, these suppliers may not give priority to our business, leading to potential delays in or cancellation of our orders. If any of our suppliers were to fail to supply our needs on a timely basis or to cease providing us key components we use, we would be required to secure alternative sources of supply. We may have difficulty securing alternative sources of supply in a timely manner and on commercially reasonable terms. If this were to occur, our business would be harmed.

*Shortages in the supply of silicon could adversely affect the availability and cost of the solar PV modules used in our solar energy systems.*

Shortages of silicon could adversely affect the availability and cost of the solar PV modules we use in our solar energy systems. Manufacturers of solar PV modules depend upon the availability and pricing of silicon, one of the primary materials used in the manufacture of solar PV modules. The worldwide market for silicon from time to time experiences a shortage of supply, primarily because of demand for silicon by the semiconductor industry. Shortages of silicon cause the prices for solar PV modules to increase and supplies to become difficult to obtain. While we have been able to obtain sufficient supplies of solar PV modules to satisfy our needs to date, this may not be the case in the future. Future increases in the price of silicon could result in an increase in costs to us, price increases to our customers or reduced margins.

*Because the solar energy system installation market is highly competitive and has low barriers to entry, we may face the loss of market share or reduced margins.*

The solar energy system installation market is highly competitive and fragmented with low barriers to entry. We currently compete with a large number of relatively small installers and integrators, some of which do not have extensive industry experience and may lack adequate systems and capital, but some of which benefit from operating efficiencies or from having lower overhead, which enables them to offer lower prices. As the solar energy industry expands and industry consolidation occurs, we are more likely to encounter competition from larger companies, some of which may have greater financial, technical and marketing resources and greater name recognition than we do.

We believe that our ability to compete depends in part on a number of factors outside of our control, including the following:

- the ownership by competitors of proprietary tools to customize solar energy systems to the needs of particular customers,
- the price at which competitors offer comparable products,
- the extent of our competitors' responsiveness to customer needs and
- integrator technologies.

Competition in the solar energy system installation market may increase in the future as a result of low barriers to entry. Increased industry competition could result in reductions in price, margins, and market share and in greater competition for qualified personnel. Our business and operating results would be adversely affected if we are unable to compete effectively.

*Our failure to meet customer expectations in the performance of our services, and the risks and liabilities associated with placing our employees and technicians in our customers' homes and businesses could give rise to claims against us.*

Our failure or inability to meet customer expectations in the performance of our services could damage our reputation or result in claims against us. In addition, we are subject to various risks and liabilities associated with our employees and technicians providing installation services in the homes and businesses of our customers, including possible claims of errors and omissions, harassment, theft of customer property, criminal activity and other claims.

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*Product liability claims against us could result in adverse publicity and potentially significant monetary damages.*

As a seller of consumer products, we may face product liability claims in the event that use of our solar energy systems results in injuries. Because solar energy systems produce electricity, it is possible that our products could result in injury, whether by product malfunctions, defects, improper installation or other causes. If such injuries or claims of injuries were to occur, we could incur monetary damages and our business could be adversely affected by any resulting negative publicity. The successful assertion of product liability claims against us also could result in potentially significant monetary damages and, if our insurance protection is inadequate to cover these claims, could require us to make significant payments from our own resources.

*We may be subject to unexpected warranty expenses or service claims that could reduce our profits.*

As a result of the length of the warranty periods we provide, we bear the risk of warranty claims long after we have completed the installation of a solar energy system. Our current standard warranty for our installation services includes a 10-year warranty period for defects in material and workmanship. In addition, most manufacturers of solar PV modules offer a 25-year warranty period for declines in power performance. Although we maintain a warranty reserve for potential warranty or service claims and we have not had material warranty claims in the past, claims in excess of our reserve could adversely affect our operating results. Our failure to predict accurately future warranty claims could result in unexpected volatility in our financial condition.

*We rely on communications and shipping networks to deliver our products.*

Given our emphasis on customer service, the efficient and uninterrupted operation of order-processing and fulfillment functions is critical to our catalog and Internet business. To maintain a high level of customer service, we rely on a number of third-party service providers, such as delivery companies, telecommunications companies and printers. Any interruption in services from our principal third-party service providers, including delays or disruptions resulting from labor disputes, power outages, human error, adverse weather conditions or natural disasters, could materially and adversely affect our business. In addition, products that we source overseas must be shipped to our distribution center by freight carriers, and a work stoppage or political unrest could adversely affect our ability to fulfill our customer orders.

*An increase in interest rates or tight credit markets could make it difficult for customers to finance the cost of solar energy systems and could reduce demand for our services and products.*

Some of our prospective customers may depend on debt financing, such as home equity loans, or leasing to fund the initial capital expenditure required to purchase a solar energy system. Third-party financing sources specifically for solar energy systems are currently limited. The lack of financing sources, limitations on available credit or an increase in interest rates could make it difficult or more costly for our potential customers to secure the financing necessary to purchase a solar energy system on favorable terms, or at all, thus lowering demand for our services and products and negatively impacting our business.

*The market price of our Class A common stock may be volatile, which could result in substantial losses for investors.*

The market price of our Class A common stock may be volatile and could fluctuate widely in response to various factors, many of which are beyond our control, including the following:

- actual or anticipated changes in our operating results;
- regulatory, legislative or other developments affecting us or the solar energy industry generally;
- changes in expectations relating to our services and products, plans and strategic position or those of our competitors or customers;
- market conditions and trends within the solar energy industry;
- acquisitions or strategic alliances by us or by our competitors;
- litigation involving us, our industry or both;
- introductions of new technological innovations, new services or products or new pricing policies by us or by our competitors;
- the gain or loss of significant customers;

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- recruitment or departure of key personnel;
- our ability to execute our business plan;
- volume and timing of customer orders;
- price and volume fluctuations in the overall stock market from time to time;
- changes in investor perception;
- the level and quality of any research analyst coverage of our Class A common stock;
- changes in earnings estimates or investment recommendations by analysts;
- the financial guidance we may provide to the public, any changes in such guidance or our failure to meet such guidance;
- trading volume of our Class A common stock or the sale of such stock by Gaiam, our management team or directors; and
- economic and other external factors that impact purchasing decisions of our potential customers.

In addition, the stock market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies and industries. These fluctuations may include a so-called “bubble market” in which investors temporarily raise the price of the stocks of companies in certain industries, such as the renewable energy industry, to unsustainable levels. These market fluctuations may significantly affect the market price of our Class A common stock.

*We do not expect to pay any cash dividends on our Class A common stock for the foreseeable future.*

We do not anticipate paying any cash dividends on our Class A common stock for the foreseeable future. Accordingly, shareholders would have to sell some or all of their stock in order to generate cash flow from their investment. Any determination to pay dividends in the future on our Class A common stock will be made at the discretion of our board of directors and will depend on our results of operations, financial conditions, contractual restrictions, restrictions imposed by applicable law, capital requirements and other factors that our board of directors deems relevant.

*Our business is subject to reporting requirements that continue to evolve and change, which could continue to require significant compliance effort and resources.*

Because our common stock is publicly traded, we are subject to certain rules and regulations of federal, state and financial market exchange entities charged with the protection of investors and the oversight of companies whose securities are publicly traded. These entities, including the Public Company Accounting Oversight Board, the SEC and the NASDAQ, periodically issue new requirements and regulations and legislative bodies also review and revise applicable laws such as the Sarbanes-Oxley Act of 2002. As interpretation and implementation of these laws and rules and promulgation of new regulations continues, we will continue to be required to commit significant financial and managerial resources and incur additional expenses.

### Risk Factors Related to our Relationship with Gaiam

*Gaiam controls Real Goods, and Gaiam’s interests may conflict with or differ from interests of other shareholders.*

Gaiam holds approximately 55% of the currently outstanding shares of our common stock, consisting of 7,846,707 shares of our Class A common stock and 2,153,293 shares of our Class B common stock. The holders of our Class A common stock and our Class B common stock have substantially similar rights, preferences, and privileges except with respect to voting and conversion rights and other protective provisions. Each share of Class B common stock has ten votes per share, and each share of Class A common stock has one vote per share. Each share of Class B common stock is convertible at any time into one share of Class A common stock. In addition, if Gaiam transfers shares of our Class B common stock, it must elect whether or not to transfer the shares as Class B common stock or convert those shares into Class A common stock. The Class A common stock is not convertible. Because of Gaiam’s voting control of our stock, Gaiam will be able to exert substantial influence over our company and control matters requiring approval by our shareholders, including the election of directors, increasing our authorized capital stock, financing activities, a merger or sale of our assets and the number of shares available for issuance under our Incentive Plan. Our articles of incorporation provide that our board of directors may authorize the issuance of preferred stock, subject only to the approval of holders of our Class B common stock. As a result of Gaiam’s control, no change of control of our company can occur without Gaiam’s consent. Our Chairman, Jirka Rysavy, who is also the Chairman of Gaiam, currently owns approximately 27% of the outstanding equity, and in excess of 50% of the voting power, of Gaiam.

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Gaiam's and Mr. Rysavy's voting control may discourage transactions involving a change of control of our company, including transactions in which a holder of our Class A common stock might otherwise receive a premium for our shares over the then current market price. Gaiam is not prohibited from selling a controlling interest in our company to a third party and may do so without shareholder approval and without providing for a purchase of other shares of Class A common stock. Accordingly, shares of Class A common stock may be worth less than they would be if Gaiam did not maintain voting control over us.

*Our historical financial information as a business conducted by Gaiam may not be representative of our results as an independent public company.*

Our historical financial information for periods prior to our initial public offering do not reflect what our financial position, operating results or cash flows would have been had we been an independent entity during the historical periods presented. The historical costs and expenses reflected in our consolidated financial statements include amounts for certain corporate functions historically provided by Gaiam, including costs of fulfillment, systems, finance and other administrative services, and income taxes. These expense allocations were developed on the basis of what we and Gaiam considered to be reasonable prices for the utilization of services provided or the benefits received by us. The historical financial information in our audited and unaudited consolidated financial statements may not be indicative of what our results of operations, financial position, changes in equity and cash flows would have been had we been a separate stand-alone entity during the periods presented or will be in the future. We have not made adjustments to reflect many significant changes that occurred in our cost structure, funding and operations as a result of our separation from Gaiam, including changes in our employee base, changes in our tax structure, potential increased costs associated with reduced economies of scale and increased costs associated with being a publicly traded, stand-alone company, such as audit fees, directors and officers insurance costs and compliance costs.

*Our ability to operate our business effectively may suffer if we or Gaiam terminate our intercorporate services agreement, or if we are unable to establish on a cost-effective basis our own administrative and other support functions in order to operate as a stand-alone company after the expiration or termination of our intercorporate services agreement with Gaiam.*

In connection with our initial public offering, we entered into an intercorporate services agreement to retain the ability for specified periods to use certain Gaiam resources. This agreement automatically renews on a quarterly basis. Any decision by us to terminate this agreement would be approved by disinterested members of our management and board of directors under our procedures regarding related party transactions. In connection with the expiration or termination of this agreement, we will need to create our own administrative and other support systems or contract with third parties to replace Gaiam's services. These services may not be provided at the same level as when we were a wholly owned subsidiary of Gaiam, and we may not be able to obtain the same benefits that we received prior to the separation. These services may not be sufficient to meet our needs, and after our agreement with Gaiam expires or is terminated, we may not be able to replace these services at all or obtain these services at prices and on terms as favorable as we currently have with Gaiam. Any failure or significant downtime in our own administrative systems or in Gaiam's administrative systems during the transitional period could result in unexpected costs, impact our results or prevent us from paying our suppliers or employees and performing other administrative services on a timely basis.

*Our inability to resolve any disputes that arise between us and Gaiam with respect to our past and ongoing relationships may result in a reduction of our revenue, and such disputes may also result in claims for indemnification.*

Disputes may arise between Gaiam and us in a number of areas relating to our past and ongoing relationships, including the following:

- labor, tax, employee benefit, indemnification and other matters arising from our separation from Gaiam;
- employee retention and recruiting;
- business combinations involving us;
- pricing for shared and transitional services;
- sales or distributions by Gaiam of all or any portion of its ownership interest in us;
- the nature, quality and pricing of services Gaiam has agreed to provide us; and
- business opportunities that may be attractive to both Gaiam and us.

We may not be able to resolve any potential conflicts, and even if we do, the resolution may be less favorable than if we were dealing with an unaffiliated party. In addition, we have indemnification obligations under the tax, intercorporate services and registration rights agreements with Gaiam, and disputes between us and Gaiam may result in claims for indemnification. However, we do not currently expect that these indemnification obligations will materially affect our potential liability compared to what it would be if we did not enter into these agreements with Gaiam.

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*Some of our directors and executive officers may have conflicts of interest because of their ownership of Gaiam common stock, options to acquire Gaiam common stock and positions with Gaiam.*

Some of our directors and executive officers own Gaiam common stock and options to purchase Gaiam common stock. In addition, some of our directors are also directors and/or executive officers of Gaiam. Ownership of Gaiam common stock and options to purchase Gaiam common stock by our directors and officers and the presence of directors and executive officers of Gaiam on our board of directors could create, or appear to create, conflicts of interest with respect to matters involving both us and Gaiam. For example, corporate opportunities may arise that are applicable or complementary to both of our businesses and that each business would be free to pursue, such as the potential acquisition of a particular business or technology focused on environmental sustainability including renewable energy sources, energy efficiency or energy use reduction. However, we understand that Gaiam does not intend to acquire businesses that are focused on solar energy. We have not established at this time any procedural mechanisms to address actual or perceived conflicts of interest of these directors and officers and expect that our board of directors, in the exercise of its fiduciary duties, will determine how to address any actual or perceived conflicts of interest on a case-by-case basis. If any corporate opportunity arises and if our directors and officers do not pursue it on our behalf, we may not become aware of, and may potentially lose, a significant business opportunity.

*Possible future sales of shares by Gaiam could adversely affect the market price of our Class A common stock, even if our business is doing well.*

Gaiam may sell any or all of the shares of common stock owned by it from time to time for any reason. Under a registration rights agreement between us and Gaiam, Gaiam has the right to require us to register the shares of Class A common stock it owns and the shares it may acquire upon conversion of its shares of Class B common stock to facilitate the possible sale of such shares. Although we cannot predict the effect, if any, that future sales of shares of Class A common stock by Gaiam would have on the market price prevailing from time to time, sales of substantial amounts of Class A common stock or the availability of such shares for sale could adversely affect prevailing market prices.

### **Item 1B. Unresolved staff comments**

None

### **Item 2. Properties**

We own a 12-acre campus in Hopland, California, which includes offices, our retail store, and the Solar Living Center. We sublease office space from Gaiam in Louisville, Colorado, from which we manage our Colorado solar energy integration business and perform other management and customer service functions. We also lease an office and warehouse facility in San Rafael, CA; an office and warehouse facility in Murrieta, CA; an office and warehouse facility in Santa Cruz, CA; an office and warehouse facility in Campbell, CA; an office and warehouse facility in Fresno, CA; a warehouse facility in Louisville, CO; a warehouse facility in Santa Rosa, CA; a warehouse facility in Richmond, CA; and a warehouse facility in Hopland, California.

### **Item 3. Legal proceedings**

From time to time, we are involved in legal proceedings that we consider to be in the normal course of business. We do not believe that any of these proceedings will have a material adverse effect on our business.

### **Item 4. Reserved**

## Part II

### Item 5. Market for registrant's common equity, related stockholder matters and issuer purchases of equity securities

#### Stock Price History

Our Class A common stock is listed on the NASDAQ Global Market under the symbol "RSOL". On March 11, 2010, we had 15 shareholders of record and 16,136,299 shares of \$.0001 par value Class A common stock outstanding. We have 2,153,293 shares of \$.0001 par value Class B common stock outstanding, held by one shareholder.

The following table sets forth certain sales price and trading volume data for our Class A common stock for the periods indicated:

	<u>High</u>	<u>Low</u>	<u>Close</u>	<u>Average Daily Volume</u>
Fiscal 2009:				
Fourth Quarter	\$3.68	\$1.95	\$3.23	24,842
Third Quarter	\$3.14	\$2.11	\$2.61	39,900
Second Quarter	\$4.40	\$1.50	\$2.59	87,392
First Quarter	\$4.25	\$1.42	\$2.01	102,718
Fiscal 2008:				
Fourth Quarter	\$6.00	\$2.81	\$3.65	17,028
Third Quarter	\$6.79	\$3.29	\$4.14	23,277
Second Quarter (commencing May 8, 2008)	\$9.25	\$5.70	\$6.15	258,259

#### Dividend Policy

We have not declared or paid any cash dividends on our Class A common stock, and we do not anticipate doing so in the foreseeable future. We currently intend to retain future earnings, if any, to operate our business and support our future growth strategies. Any future determination to pay dividends on our Class A common stock will be at the discretion of our board of directors and will depend on our financial condition, results of operations, contractual restrictions, restrictions imposed by applicable law, capital requirements and other factors that our board of directors deems relevant.

#### Sale of Unregistered Securities

##### *Issuance of Unregistered Securities*

On May 1, 2009, we issued 363,504 of our Class A common shares as purchase price true-up and contingent consideration for our acquisition of Regrid Power. These shares were issued pursuant to an exemption from registration under Section 4(2) of the Securities Act of 1933 for sales not involving a public offering.

#### Equity Compensation Plan Information

The following table summarizes equity compensation plan information for our Class A common stock:

<u>Plan Category</u>	<u>Number of securities to be issued upon exercise of outstanding options, warrants and rights</u>	<u>Weighted average exercise price of outstanding options, warrants and rights</u>	<u>Number of securities remaining available for future issuance under equity compensation plans</u>
Equity compensation plans approved by security holders	370,000	\$ 3.09	578,591
Equity compensation plans not approved by security holders	—	—	—
Total	370,000	\$ 3.09	578,591

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**Item 6. Selected consolidated financial data**

You should read the following selected consolidated financial data together with our consolidated financial statements and the related notes appearing elsewhere in this Form 10-K and in “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

We derived the consolidated statements of operations data for each of the years ended December 31, 2009, 2008 and 2007 and the consolidated balance sheet data as of December 31, 2009 and 2008 from our audited consolidated financial statements included elsewhere in this Form 10-K. We derived the consolidated statements of operations data for the years ended December 31, 2006 and 2005 and the consolidated balance sheet data as of December 31, 2007, 2006 and 2005 from our unaudited financial statements, which are not included in this Form 10-K. The consolidated financial data for 2008 includes the effects of our acquisitions from the date of the transaction.

Our audited and unaudited consolidated financial statements include allocations of certain Gaiam expenses, including costs of fulfillment, customer service, financial and other administrative services, and income taxes. The expense allocations are based on what we and Gaiam considered to be reasonable reflections of the utilization of services provided or the benefits received by us. Income tax expenses were calculated on the separate return approach. The historical financial data in our audited and unaudited consolidated financial statements may not be indicative of what our results of operations, financial position, changes in equity and cash flows will be in the future, or, with respect to periods prior to our IPO, what such results would have been had we been a separate stand-alone entity during the periods presented.

(in thousands, except per share data)	Years ended December 31,				
	2009	2008	2007	2006	2005
<b>Consolidated Statements of Operations Data:</b>					
Net revenue	\$64,328	\$ 39,221	\$18,922	\$16,812	\$12,114
Cost of goods sold	<u>48,371</u>	<u>28,779</u>	<u>12,426</u>	<u>10,862</u>	<u>7,763</u>
Gross profit	<u>15,957</u>	<u>10,442</u>	<u>6,496</u>	<u>5,950</u>	<u>4,351</u>
Expenses:					
Selling and operating	16,213	12,526	5,990	4,964	3,464
General and administrative	2,340	1,525	320	567	492
Impairment loss	—	27,192	—	—	—
Total expenses	<u>18,553</u>	<u>41,243</u>	<u>6,310</u>	<u>5,531</u>	<u>3,956</u>
Income (loss) from operations	(2,596)	(30,801)	186	419	395
Interest income (expense)	(2)	261	—	—	—
Income (loss) before income taxes and noncontrolling interest	(2,598)	(30,540)	186	419	395
Income tax expense (benefit)	<u>(1,021)</u>	<u>(2,590)</u>	<u>84</u>	<u>169</u>	<u>159</u>
Net income (loss)	(1,577)	(27,950)	102	250	236
Net (income) attributable to noncontrolling interest	—	(5)	—	—	—
Net income (loss) attributable to Real Goods Solar, Inc.	<u>\$ (1,577)</u>	<u>\$ (27,955)</u>	<u>\$ 102</u>	<u>\$ 250</u>	<u>\$ 236</u>
Net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders					
(a):					
Basic and diluted	<u>\$ (0.09)</u>	<u>\$ (1.86)</u>	<u>\$ 0.01</u>	<u>\$ 0.03</u>	<u>\$ 0.02</u>
Weighted average shares outstanding (a):					
Basic and diluted	<u>18,181</u>	<u>15,014</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>

(a) Net income per share for 2007, 2006, and 2005 is calculated as if Gaiam transferred our business assets and operations to us in return for 10,000,000 shares of our Class B common stock on January 1, 2005. We did not exist as a separate company during those historical periods presented. We computed earnings per share based on the shares outstanding following this contribution as if such shares were outstanding from the beginning of the periods presented.

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(in thousands)	As of December 31,				
	2009	2008	2007	2006	2005 (unaudited)
<b>Consolidated Balance Sheet Data:</b>					
Cash and cash equivalents	\$12,206	\$12,339	\$ 542	\$ 248	\$ 214
Working capital (deficit)	20,583	22,330	(11,266)	(8,126)	(8,871)
Total assets	43,294	40,065	20,986	16,041	13,643
Payable to Gaiam	1,636	1,111	16,286	13,919	11,794
Total liabilities	12,957	9,147	19,336	14,493	12,345
Total shareholders' equity	30,337	30,918	1,650	1,548	1,298

## **Item 7. Management's discussion and analysis of financial condition and results of operations**

*The following discussion and analysis provides information that we believe is relevant to an assessment and understanding of our results of operation and financial condition. You should read this analysis in conjunction with our audited consolidated financial statements and related footnotes. This discussion and analysis contains statements of a forward-looking nature relating to future events or our future financial performance. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results, level of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements, including those set forth in this Form 10-K.*

### **Overview**

We are a leading residential solar energy integrator. We offer turnkey services to our solar energy system customers, including design, procurement, permitting, build-out, grid connection, financing referrals and warranty and customer satisfaction activities. Our solar energy systems use high-quality solar PV modules from manufacturers such as Sharp, Kyocera, Sanyo and SunPower. We use proven technologies and techniques to help customers achieve meaningful savings by reducing their utility costs. In addition, we help customers lower their emissions output and reliance upon fossil fuel energy sources.

We have over 30 years of experience in residential solar energy, beginning with our sale in 1978 of the first solar photovoltaic, or PV, panels in the United States. We have sold a variety of solar products to more than 30,000 customers since our founding and have installed over 5,000 systems.

Our focused customer acquisition approach and our efficiency in converting leads into customers enable us to have what we believe are low customer acquisition costs. We believe that our Real Goods brand has a national reputation for high quality customer service in the solar energy market, which leads to a significant number of word-of-mouth referrals and new customers. In addition, our majority shareholder, Gaiam, is a leader in the sustainable and renewable energy lifestyle market and has a base of over 10 million direct customers, providing us additional lead generation for potential solar energy customers. We also broaden our brand exposure by selling solar and other renewable energy and sustainable living products and resources through our nationally distributed catalog and website, including books and DVDs on renewable energy and sustainable living, products for solar, green building products and systems, air purification products, water conservation and purification products and other solar and sustainable living related products. Our Solar Living Center in Hopland, California features interactive demonstrations for renewable energy and environmentally sensible technologies and is the largest facility of its kind, with more than 2 million visitors since it opened in 1996.

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### **Mergers and Acquisitions**

#### *Marin Solar, Inc.*

On November 1, 2007, we purchased 100% ownership of Marin Solar for \$3.2 million in cash, plus direct acquisition costs of approximately \$0.2 million. As additional consideration we granted to the sellers warrants to purchase 40,000 shares of our Class A common stock at an exercise price of \$3.20 per share, which vested 50% upon our initial public offering. Following such initial vesting, 2% of the warrants will vest each month thereafter. The warrants have a seven year term.

#### *Carlson Solar*

On January 1, 2008, our 88.4% owned subsidiary acquired certain of the assets of and assumed certain liabilities from Carlson Solar for \$3.2 million in cash, plus direct acquisition costs of approximately \$0.2 million. As part of the acquisition, as additional consideration, we granted warrants to purchase 30,000 shares of our Class A common stock at an exercise price of \$3.20 per share, which vested 50% upon our initial public offering. Following such initial vesting, 2% of the warrants will vest each month thereafter. The warrants have a seven year term. The assets acquired were determined to have all inputs and processes necessary for the transferred assets to continue to conduct normal operations after acquisition; accordingly, the purchase price was treated as a business combination. On May 23, 2008, we exchanged 280,000 shares of our Class A common stock for our current Chief Financial Officer's 11.6% ownership in Real Goods Carlson Inc.

#### *Independent Energy Systems, Inc.*

On August 1, 2008, we acquired 100% ownership of IES for \$3.3 million in cash and \$0.3 million worth of our Class A common stock, plus direct acquisition costs of approximately \$0.2 million.

#### *Regrid Power, Inc.*

On October 1, 2008, we acquired 100% ownership of Regrid Power through a merger into one of our subsidiaries, for an aggregate of \$3.8 million in cash and 2,047,256 shares of our Class A common stock, plus the assumption of certain liabilities, subject to post closing adjustments, plus direct acquisition costs of approximately \$0.3 million. During 2009, as purchase price true-up and contingent consideration related to this acquisition, we issued 163,504 shares and 200,000 shares, respectively, of our Class A common stock with an estimated combined fair value of \$0.7 million.

### **Critical Accounting Policies and Estimates**

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We have identified the following to be critical accounting policies whose application have a material impact on our reported results of operations, and which involve a higher degree of complexity, as they require us to make judgments and estimates about matters that are inherently uncertain.

#### *Revenue Recognition*

Revenue consists of solar energy system installation fees and sales of renewable and sustainable energy products. We recognize revenue from fixed price contracts using either the completed or percentage-of-completion method, based on the size of the solar energy system installation. We recognize revenue from solar energy system installations of less than 110 kilowatts, or kW, when the installation is substantially complete, while we recognize revenue from solar energy system installations equal to or greater than 110 kW on a percentage-of-completion basis, measured by the percentage of contract costs incurred to date to total estimated costs for each contract. We recognize revenue from the sale of renewable and sustainable energy products when the following four basic criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the seller's price to the buyer is fixed and determinable; and (4) collectibility is reasonably assured.

#### *Allowances for Doubtful Accounts and Product Returns*

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We make estimates of the collectibility of our accounts receivable by analyzing historical bad debts, specific customer creditworthiness, and current economic trends. If the financial condition of our customers were to deteriorate such that their ability to make payments to us was impaired, additional allowances could be required.

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### *Inventory*

Inventory consists primarily of solar energy system components (such as solar panels and inverters) and finished goods held for sale at our Solar Living Center located in Hopland, California. We state our inventory at the lower of cost (first-in, first-out method) or market. We identify the inventory items to be written down for obsolescence based on the item's current sales status and condition. We write down discontinued or slow moving inventories based on an estimate of the markdown to retail price needed to sell through our current stock level of the inventories.

### *Goodwill*

Goodwill represents the excess of the purchase consideration over the estimated fair value of assets acquired less liabilities assumed in a business acquisition. Goodwill is reviewed for impairment annually or more frequently if impairment indicators arise. We compare the estimated fair value of a reporting unit with its carrying amount, including goodwill. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying amount of a reporting unit exceeds its estimated fair value, the goodwill impairment test is performed to measure the amount of impairment loss. Since we operate in only one business segment, we assess impairment at the enterprise level. The annual process of evaluating the potential impairment of goodwill is highly subjective and requires significant judgment at many points during the analysis. In assessing our goodwill for impairment, we use a combination of factors, including comparable company market values and multiples of revenue to the extent the information is available. If comparable market information is insufficient, we expect to supplement our assessment with other approaches, such as present value techniques, which will require us to make estimates and judgments about our future cash flows. These cash flow forecasts will be based on assumptions that are consistent with the plans and estimates we use to manage our business. Application of alternative assumptions could yield significantly different results.

### *Purchase Accounting*

We account for the acquisition of a controlling interest in a business using the purchase method. In determining the estimated fair value of certain acquired assets and liabilities, we make assumptions based upon historical and other relevant information and, in some cases, independent expert appraisals. Assumptions may be incomplete, and unanticipated events and circumstances may occur that could affect the validity of such assumptions, estimates, or actual results.

### *Stock-Based Compensation*

We recognize compensation cost for share-based awards based on the estimated fair value of the award on date of grant. We measure compensation cost at the grant date based on the estimated fair value of the award and recognize compensation cost upon the probable attainment of a specified performance condition or over a service period. We use the Black-Scholes option pricing model to estimate the fair value for purposes of accounting and disclosures. In calculating this fair value, there are certain highly subjective assumptions that we use, as disclosed in note 6 of the notes to our consolidated financial statements, consisting of estimated market value of our stock, the expected life of the option, risk-free interest rate, dividend yield, and volatility. The use of a different estimate for any one of these components could have a material impact on the amount of calculated compensation expense. We do not recognize share-based compensation expense unless the vesting of performance condition options is probable. Prior to our initial public offering, we determined the estimated fair value of our common stock at the date of grant of stock awards based on the combination of two factors: an independent offer to purchase a portion of us in exchange for preferred stock and the value of recent acquisitions.

### *Income Taxes*

For financial reporting purposes, income tax expense and deferred income tax balances are calculated as if we were a separate entity and had prepared our own separate tax return during all applicable periods. We provide for income taxes pursuant to the liability method. The liability method requires recognition of deferred income taxes based on temporary differences between financial reporting and income tax bases of assets and liabilities, using current enacted income tax rates and regulations. These differences will result in taxable income or deductions in future years when the reported amount of the asset or liability is recovered or settled, respectively. Considerable judgment is required in determining when these events may occur and whether recovery of an asset, including the utilization of a net operating loss carryforward prior to its expiration, is more likely than not.

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Effective January 1, 2007, we adopted the FASB's guidance on accounting for uncertain tax positions. Under the FASB's guidance, we must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. We measure the tax benefits recognized in the consolidated financial statements from such a position based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. The application of income tax law is inherently complex. Laws and regulations in this area are voluminous and are often ambiguous. As such, we are required to make many subjective assumptions and judgments regarding our income tax exposures. Interpretations of and guidance surrounding income tax law and regulations change over time and may result in changes to our subjective assumptions and judgments which can materially affect amounts recognized in our consolidated financial statements.

### **Results of Operations**

#### ***Year Ended December 31, 2009 Compared to Year Ended December 31, 2008***

*Net revenue.* Net revenue increased \$25.1 million, or 64.0%, to \$64.3 million during 2009 from \$39.2 million during 2008. This increase in net revenue is primarily the result of organic growth and our acquisitions during 2008.

*Gross profit.* Gross profit increased \$5.5 million, or 52.8%, to \$16.0 million during 2009 from \$10.4 million during 2008. As a percentage of net revenue, gross profit decreased to 24.8% during 2009 from 26.6% during 2008. The decrease in gross profit percentage is primarily the result of an increased mix of lower margin commercial installations and the inclusion of acquisitions which have traditionally produced lower gross profit margins.

*Selling and operating expenses.* Selling and operating expenses increased \$3.7 million, or 29.4%, to \$16.2 million during 2009 from \$12.5 million during 2008. As a percentage of net revenue, selling and operating expenses decreased to 25.2% during 2009 from 31.9% during 2008. The increase in selling and operating expenses primarily reflects the support of our revenue growth. The decrease in selling and operating expenses percentage is primarily due to integration costs incurred in 2008 related to our acquisitions, a reduction in work force in early 2009, and leveraging of costs.

*General and administrative expenses.* General and administrative expenses increased \$0.8 million, or 53.4%, to \$2.3 million during 2009 from \$1.5 million during 2008. As a percentage of net revenue, general and administrative expenses decreased to 3.6% during 2009 from 3.9% during 2008. The increase in general and administrative expenses primarily reflects an increase in our infrastructure to support our 2008 acquisitions and a full year of incremental costs associated with being a public company.

*Net loss attributable to Real Goods Solar, Inc.* As a result of the above factors, net loss attributable to Real Goods Solar, Inc. was \$1.6 million during 2009 compared to \$28.0 million during 2008. Net loss per share attributable to our common shareholders was \$0.09 per share compared to \$1.86 per share during 2008. Excluding the non-cash goodwill impairment charge, net of tax, of \$25.9 million, net loss for the year ended December 31, 2008 would have been \$2.1 million, or \$0.14 per share.

#### ***Year Ended December 31, 2008 Compared to Year Ended December 31, 2007***

*Net revenue.* Net revenue increased \$20.3 million, or 107.3%, to \$39.2 million during 2008 from \$18.9 million during 2007. This increase in net revenue primarily reflects additional revenue recognized as a result of the acquisition of Marin Solar in November 2007, the acquisition of Carlson Solar in January 2008, the acquisition of IES in August 2008, and the acquisition of Regrid Power in October 2008.

*Gross profit.* Gross profit increased \$3.9 million, or 60.8%, to \$10.4 million during 2008 from \$6.5 million during 2007. As a percentage of net revenue, gross profit decreased to 26.6% during 2008 from 34.3% during 2007. The decrease in gross profit percentage primarily reflects a shift in business towards solar installations and the acquisitions of Marin Solar, Carlson Solar and IES, which historically have produced lower margins.

*Selling and operating expenses.* Selling and operating expenses increased \$6.5 million, or 109.1%, to \$12.5 million during 2008 from \$6.0 million during 2007. As a percentage of net revenue, selling and operating expenses increased to 31.9% during 2008 from 31.7% during 2007. The increase in selling and operating expenses resulted primarily from investments in personnel to support the revenue increases described above and the addition of costs associated with the acquisitions of Marin Solar, Carlson Solar, IES and Regrid Power.

*General and administrative expenses.* General and administrative expenses increased \$1.2 million, or 376.6%, to \$1.5 million during 2008 from \$0.3 million during 2007. As a percentage of net revenue, general and administrative expenses increased to 3.9% during 2008 from 1.7% during 2007, primarily reflecting the costs associated with being a public company.

*Impairment loss.* Impairment loss of \$27.2 million during 2008 represents a non-cash charge related to the impairment of goodwill and other intangible assets recorded as part of historical acquisitions. The impairment, resulting from the application of GAAP, was driven by the decline in the market price of our common shares and changes in the business climate for solar installations experienced in the fourth quarter.

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*Net loss attributable to Real Goods Solar, Inc.* As a result of the above factors, net loss attributable to Real Goods Solar, Inc. was \$28.0 million during 2008 compared to net income of \$0.1 million during 2007. Net loss per share attributable to our common shareholders was \$1.86 per share compared to net income of \$0.01 per share during 2007. Excluding the non-cash goodwill impairment charge, net of tax, of \$25.9 million, net loss for the year ended December 31, 2008 would have been \$2.1 million, or \$0.14 per share.

### Quarterly and Seasonal Fluctuations

The following table sets forth our unaudited quarterly results of operations during each of the quarters in 2009 and 2008. We believe this unaudited financial information includes all adjustments, consisting solely of normal recurring accruals and adjustments, necessary for a fair presentation of the results of operations for the quarters presented. This financial information should be read in conjunction with our consolidated financial statements and related notes included elsewhere in this Form 10-K. The results of operations for any quarter are not necessarily indicative of future results of operations.

(in thousands, except per share data)	Fiscal Year 2009 Quarters Ended			
	March 31	June 30	September 30	December 31
Net revenue	\$ 9,531	\$12,713	\$ 22,966	\$ 19,118
Gross profit	2,302	3,278	5,014	5,363
Income (loss) before income taxes	(2,252)	(939)	259	334
Net income (loss)	(1,371)	(581)	158	217
Net income (loss) attributable to Real Goods Solar, Inc.	(1,371)	(581)	158	217
Diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	\$ (0.08)	\$ (0.03)	\$ 0.01	\$ 0.01
Weighted average shares outstanding-diluted	17,890	18,270	18,273	18,364

(in thousands, except per share data)	Fiscal Year 2008 Quarters Ended			
	March 31	June 30	September 30	December 31
Net revenue	\$ 6,568	\$ 8,841	\$ 10,333	\$ 13,479
Gross profit	1,837	2,638	2,806	3,161
Income (loss) before income taxes and noncontrolling interest	(489)	(48)	(363)	(29,640)(a)
Net loss	(297)	(31)	(226)	(27,396)
Net income (loss) attributable to Real Goods Solar, Inc.	(306)	(27)	(226)	(27,396)
Diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	\$ (0.03)	\$ 0.00	\$ (0.01)	\$ (1.53)
Weighted average shares outstanding-diluted	10,000	13,085	15,816	17,889

- (a) During the fourth quarter of 2008, we recognized a \$27.2 million charge for impaired goodwill and other intangibles. See Note 11, Asset Impairment.

Our quarterly net revenue and operating results for solar energy system installations are difficult to predict and have in the past and may in the future fluctuate from quarter to quarter as a result of changes in state, federal, or private utility company subsidies, as well as weather, the timing of contracts, and other factors. With regards to our renewable and sustainable energy products sold through catalogs and the Internet, sales tend to peak during the spring and end of year holiday seasons.

### Liquidity and Capital Resources

Our capital needs arise from working capital required to fund our purchases of solar PV modules and inverters, capital related to acquisitions of new businesses, development of renewable energy products, replacements, expansions and improvements to our infrastructure, and future growth. These capital requirements depend on numerous factors, including business acquisitions, the ability to attract new solar energy system installation customers, market acceptance of our product offerings, the cost of ongoing upgrades to our product offerings, the level of expenditures for sales and marketing, the level of investment in support systems and facilities and other factors. The timing and amount of these capital requirements are variable and cannot accurately be predicted. We did not have any material commitments for capital expenditures as of December 31, 2009, and we do not presently have any plans for future material capital expenditures. During 2007 and 2008, we acquired four solar energy system installation businesses. We plan to continue to pursue business acquisition and other opportunities to expand our sales territories, technologies, and products and increase our sales and marketing programs as needed.

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### *Cash Flows*

The following table summarizes our primary sources (uses) of cash during the periods presented:

(in thousands)	Years ended December 31,		
	2009	2008	2007
Net cash provided by (used in):			
Operating activities	\$ 151	\$ (8,653)	\$ 270
Investing activities	(284)	(9,652)	(3,378)
Financing activities	—	30,102	3,402
Net (decrease) increase in cash and cash equivalents	<u>\$(133)</u>	<u>\$11,797</u>	<u>\$ 294</u>

*Operating activities.* Our operating activities provided net cash of \$0.2 million during 2009 and used net cash of \$8.7 million during 2008. Our net cash provided by operating activities during 2009 was primarily attributable to decreased inventory of \$4.4 million and income taxes receivable of \$0.2 million, increased accounts payable and accrued liabilities of \$3.7 million, and increased payable to Gaiam of \$0.5 million, partially offset by increased accounts receivable of \$6.3 million, net loss of \$1.6 million, and non-cash adjustments to our net loss and decrease deferred revenue of \$0.4 million each. Our net cash used in operating activities during 2008 was primarily attributable to a net loss, adjusted for non-cash items, of \$2.7 million, cash used by increases in accounts receivable of \$1.8 million, inventory of \$3.7 million, other current assets of \$1.1 million, and decreases in accrued liabilities of \$1.5 million and deferred revenue of \$2.5 million, partially offset by cash provided by increases in accounts payable of \$1.8 million, deferred costs on uncompleted contracts and advertising of \$1.1 million, and payable to Gaiam of \$1.6 million. Approximately \$8.6 million of the uses of cash are due to the consolidation of liabilities assumed in business acquisitions.

*Investing activities.* Our investing activities used net cash of \$0.3 million and \$9.7 million during 2009 and 2008, respectively. Our cash used in investing activities during 2009 was used to acquire property and equipment. Our cash used in investing activities during 2008 was used primarily to acquire Carlson Solar on January 1, 2008, Independent Energy Systems on August 1, 2008 and Regrid Power on October 1, 2008.

*Financing activities.* Our financing activities provided net cash of \$30.1 million during 2008. The cash provided by financing activities during 2008 primarily reflects net proceeds from our IPO of \$48.2 million, partially offset by cash used to repay borrowings from Gaiam of \$16.8 million that we used to initially capitalize our Company and to acquire additional businesses.

We believe our available cash and cash expected to be generated from operations should be sufficient to fund our business for the foreseeable future. However, our projected cash needs may change as a result of possible acquisitions, unforeseen operational difficulties, or other factors.

In the normal course of our business, we investigate, evaluate and discuss acquisition, joint venture, noncontrolling investment, strategic relationship and other business combination opportunities in the solar energy markets. For any future investment, acquisition, or joint venture opportunities, we may consider using then-available liquidity, issuing equity securities, or incurring additional indebtedness.

### **Contractual Obligations**

We have commitments under operating leases and various service agreements with Gaiam (see note 10 to our notes to consolidated financial statements), but do not have any outstanding commitments under long-term debt obligations or purchase obligations. The following table shows our commitments to make future payments under our operating leases:

(in thousands)	Total	< 1 year	1-3 years	3-5 years	> 5 yrs
Operating lease obligations	\$960	\$ 495	\$ 465	\$ —	\$ —

To the extent we become entitled to utilize loss carryforwards from our separate tax returns, we will distribute to Gaiam the tax effect (estimated to be 34% for federal income tax purposes) of the amount of such tax loss carryforwards so utilized. Accordingly, we recognized a valuation allowance against all of our deferred tax assets as of the effective date of our tax sharing agreement with Gaiam, May 13, 2008. These net operating loss carryforwards expire beginning in 2018 if not utilized. Due to Gaiam's step acquisitions of our company, we experienced "ownership changes" as defined in Section 382 of the Internal Revenue Code. Accordingly, our use of the net operating loss carryforwards is limited by annual limitations described in Sections 382 and 383 of the Internal Revenue Code. As of December 31, 2009, we expect approximately \$2.8 million of these net operating loss carryforwards to be realizable, meaning that potential future payments to Gaiam, which would be made over a period of several years, would therefore aggregate to approximately \$1.0 million.

**Off-Balance Sheet Arrangements**

We do not participate in transactions that generate relationships with unconsolidated entities or financial partnerships, such as special purpose entities or variable interest entities, which have been established for the purpose of facilitating off-balance sheet arrangements or other limited purposes.

**Item 7A. Quantitative and qualitative disclosures about market risk**

We are exposed to market risks, which include changes in U.S. interest rates and foreign exchange rates. We do not engage in financial transactions for trading or speculative purposes.

We purchase a significant amount of renewable energy and organic product inventory from vendors outside of the United States in transactions that are primarily U.S. dollar denominated transactions. Since the percentage of our international purchases denominated in currencies other than the U.S. dollar is small, any currency risks related to these transactions are immaterial to us. However, a decline in the relative value of the U.S. dollar to other foreign currencies could lead to increased purchasing costs. In order to mitigate this exposure, we make virtually all of our purchase commitments in U.S. dollars.

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**Item 8. Financial statements and supplementary data**

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## **Report of independent registered public accounting firm**

To the Board of Directors and Shareholders of  
Real Goods Solar, Inc.  
Louisville, Colorado

We have audited the accompanying consolidated balance sheets of Real Goods Solar, Inc. and subsidiaries as of December 31, 2009 and 2008, and the related consolidated statements of operations, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2009. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Real Goods Solar, Inc. and subsidiaries as of December 31, 2009 and 2008, and the consolidated results of their operations and their cash flows for each of the three years in the period ended December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

/s/ Ehrhardt Keefe Steiner & Hottman PC

March 12, 2010  
Denver, Colorado

# REAL GOODS SOLAR, INC.

## Consolidated balance sheets

(in thousands, except share and per share data)	As of December 31,	
	2009	2008
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 12,206	\$ 12,339
Accounts receivable, net	13,996	7,711
Inventory, net	4,769	9,170
Deferred costs on uncompleted contracts	1,024	970
Deferred advertising costs	114	251
Receivable and deferred tax assets	833	704
Other current assets	598	332
Total current assets	33,540	31,477
Property and equipment, net	5,145	5,298
Goodwill	732	—
Deferred tax assets	3,064	2,239
Other assets	813	1,051
Total assets	<u>\$ 43,294</u>	<u>\$ 40,065</u>
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$ 8,821	\$ 6,501
Accrued liabilities	2,500	1,135
Deferred revenue on uncompleted contracts	—	400
Payable to Gaiaam	1,636	1,111
Total current liabilities	<u>12,957</u>	<u>9,147</u>
Commitments and contingencies		
Shareholders' equity:		
Preferred stock, par value \$.0001 per share; 50,000,000 shares authorized; no shares issued and outstanding	—	—
Class A common stock, par value \$.0001 per share; 150,000,000 shares authorized; 16,136,299 and 15,736,683 shares issued and outstanding at December 31, 2009 and 2008, respectively	1	1
Class B common stock, par value \$.0001 per share; 50,000,000 shares authorized; 2,153,293 shares issued and outstanding at December 31, 2009 and 2008	—	—
Additional paid-in capital	60,368	59,372
Accumulated deficit	<u>(30,032)</u>	<u>(28,455)</u>
Total shareholders' equity	<u>30,337</u>	<u>30,918</u>
Total liabilities and shareholders' equity	<u>\$ 43,294</u>	<u>\$ 40,065</u>

See accompanying notes to consolidated financial statements.

# REAL GOODS SOLAR, INC.

## Consolidated statements of operations

(in thousands, except per share data)	Years ended December 31,		
	2009	2008	2007
Net revenue	\$ 64,328	\$ 39,221	\$ 18,922
Cost of goods sold	48,371	28,779	12,426
Gross profit	15,957	10,442	6,496
Expenses:			
Selling and operating	16,213	12,526	5,990
General and administrative	2,340	1,525	320
Impairment loss	—	27,192	—
Total expenses	18,553	41,243	6,310
Income (loss) from operations	(2,596)	(30,801)	186
Interest income (expense)	(2)	261	—
Income (loss) before income taxes and noncontrolling interest	(2,598)	(30,540)	186
Income tax expense (benefit)	(1,021)	(2,590)	84
Net income (loss)	(1,577)	(27,950)	102
Net (income) attributable to noncontrolling interest	—	(5)	—
Net income (loss) attributable to Real Goods Solar, Inc.	<u>\$ (1,577)</u>	<u>\$ (27,955)</u>	<u>\$ 102</u>
Net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders:			
Basic and diluted	<u>\$ (0.09)</u>	<u>\$ (1.86)</u>	<u>\$ 0.01</u>
Weighted average shares outstanding:			
Basic and diluted	<u>18,181</u>	<u>15,014</u>	<u>10,000</u>

See accompanying notes to consolidated financial statements.

**REAL GOODS SOLAR, INC.****Consolidated statement of changes in shareholders' equity**

(in thousands, except share data)	Class A Common Stock		Class B Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount			
Balance at December 31, 2006	—	\$ —	—	\$ —	\$ 2,150	\$ (602)	\$ 1,548
Net income	—	—	—	—	—	102	102
Balance at December 31, 2007	—	—	—	—	2,150	(500)	1,650
Establishment and conversion of Class B common stock to Class A common stock	7,846,707	—	2,153,293	—	—	—	—
Initial public offering of Class A common stock, net	5,500,000	1	—	—	48,153	—	48,154
Issuance of common stock and other equity changes related to acquisitions, compensation and affiliate transactions	2,389,976	—	—	—	11,446	—	11,446
Noncash deemed dividend to Gaiam due to tax sharing agreement	—	—	—	—	(2,377)	—	(2,377)
Net loss	—	—	—	—	—	(27,955)	(27,955)
Balance at December 31, 2008	15,736,683	1	2,153,293	—	59,372	(28,455)	30,918
Issuance of common stock and other equity changes related to acquisitions and compensation	399,616	—	—	—	996	—	996
Net loss	—	—	—	—	—	(1,577)	(1,577)
Balance at December 31, 2009	<u>16,136,299</u>	<u>\$ 1</u>	<u>2,153,293</u>	<u>\$ —</u>	<u>\$ 60,368</u>	<u>\$ (30,032)</u>	<u>\$ 30,337</u>

See accompanying notes to consolidated financial statements.

# REAL GOODS SOLAR, INC.

## Consolidated statements of cash flows

(in thousands)	Years ended December 31,		
	2009	2008	2007
<b>Operating activities:</b>			
Net income (loss)	\$ (1,577)	\$(27,950)	\$ 102
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation	438	245	94
Amortization	—	202	7
Share-based compensation expense	282	172	—
Impairment loss	—	27,192	—
Deferred income tax expense (benefit)	(1,115)	(2,590)	218
Changes in operating assets and liabilities, net of effects from acquisitions:			
Accounts receivable, net	(6,285)	(1,845)	(35)
Income taxes receivable	163	202	—
Inventory, net	4,401	(3,654)	243
Deferred costs on uncompleted contracts and advertising	84	1,071	(500)
Other current assets	(49)	(1,110)	(38)
Accounts payable	2,320	1,812	690
Accrued liabilities	1,365	(1,452)	(96)
Deferred revenue on uncompleted contracts	(400)	(2,523)	621
Payable to Gaiam	524	1,575	(1,036)
Net cash provided by (used in) operating activities	<u>151</u>	<u>(8,653)(a)</u>	<u>270</u>
<b>Investing activities:</b>			
Purchase of property and equipment	(284)	(282)	(7)
Proceeds from sale of property and equipment	—	—	6
Purchase of acquisitions, net of cash acquired	—	(9,370)	(3,377)
Net cash used in investing activities	<u>(284)</u>	<u>(9,652)</u>	<u>(3,378)</u>
<b>Financing activities:</b>			
Proceeds from initial public offering, net	—	48,154	—
Proceeds (payment) from (to) borrowings from Gaiam	—	(16,749)	3,402
Net payments on acquired business' line of credit	—	(1,303)	—
Net cash provided by financing activities	<u>—</u>	<u>30,102</u>	<u>3,402</u>
Net (decrease) increase in cash and cash equivalents	(133)	11,797	294
Cash and cash equivalents at beginning of year	<u>12,339</u>	<u>542</u>	<u>248</u>
Cash and cash equivalents at end of year	<u>\$12,206</u>	<u>\$ 12,339</u>	<u>\$ 542</u>
<b>Supplemental cash flow information:</b>			
Liabilities assumed from acquisitions	\$ —	\$ 8,638	\$ 1,287
Common stock issued for acquisitions	732	11,082	—

(a) Cash used in 2008's operating activities includes \$8.6 million of liabilities assumed in business acquisitions which are shown in operating activities in accordance with GAAP. The remaining purchase price for these acquisitions is shown in investing activities.

See accompanying notes to consolidated financial statements.

## Notes to consolidated financial statements

### 1. Principles of Consolidation, Organization and Nature of Operations

We are a leading residential solar energy integrator. We were incorporated in Colorado on January 29, 2008 under the name Real Goods Solar, Inc. (“Real Goods”, “we”, “us”, or “our”). As of December 31, 2009, we were 54.7% owned by Gaiam, Inc. (“Gaiam”). Our initial public offering of common stock occurred on May 7, 2008. The accompanying consolidated financial statements represent the solar energy business of Gaiam and its subsidiaries as though the transfer of such business and the related net assets occurred on January 1, 2006.

Until our initial public offering, we were not operating as a separate business within Gaiam. Accordingly, the consolidated financial statements prior to our initial public offering have been prepared on a “carve-out” basis. The “carve-out” consolidated financial statements have been prepared in accordance with standards established by the Securities and Exchange Commission. The accompanying consolidated financial statements include allocations of certain Gaiam expenses, including costs of fulfillment, customer service, financial, and other administrative services. The expense allocations have been determined on bases that Gaiam and we consider to be reasonable reflections of the utilization of services provided or the benefits received by us.

The consolidated financial statements include the accounts of Real Goods and its majority-owned or otherwise controlled subsidiaries. We have prepared the accompanying consolidated financial statements in accordance with accounting principles generally accepted in the United States, or GAAP, and they include our accounts and those of our subsidiaries. Intercompany transactions and balances have been eliminated. Noncontrolling interests in operations of consolidated subsidiaries represents the noncontrolling holders’ percentage share of income or losses from the subsidiaries in which we hold a majority, but less than 100 percent, ownership interest and consolidate the subsidiaries’ results in our consolidated financial statements. We have included the results of operations of acquired companies from the effective date of acquisition.

The consolidated financial position, results of operations and cash flows for the years disclosed in this report are not necessarily indicative of future financial results.

### 2. Significant Accounting Policies

No changes were made to our significant accounting policies during the year ended December 31, 2009, except for the adoption of the Financial Accounting Standards Board, or FASB, Accounting Standards Codification, which does not change any existing accounting principles, and new pronouncements related to business combinations, fair value measurements, noncontrolling interests in consolidated financial statements, and disclosures about derivatives and hedging activities. The business combination changes require an acquirer to recognize all assets acquired and liabilities assumed in a transaction at the acquisition-date fair value with limited exceptions, and changes the accounting treatment for certain specific items. The fair value measurement guidance defines fair value, establishes a framework for measuring fair value in GAAP, and expands disclosures about fair value measurements. The noncontrolling interests guidance establishes new accounting and reporting standards for a noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary and directs that gains from the issuance of subsidiary stock must be recognized in additional paid-in capital. The derivatives guidance enhances required disclosures regarding derivatives and hedging activities. We have applied the noncontrolling interests guidance by reclassifying amounts formerly referred to as minority interests in our consolidated statements of operations. Aside from this presentation change, the implementation of these pronouncements did not have a material impact on our consolidated financial statements for the year ended December 31, 2009.

Additionally, in May 2009, the FASB issued subsequent events guidance, which defines further disclosure requirements for events which occur after the balance sheet date but before financial statements are issued. This was effective for us beginning on April 1, 2009. We have evaluated events subsequent to December 31, 2009 and concluded that no material event has occurred which either would impact the results reflected in this report or our results going forward.

#### *Cash and Cash Equivalents*

Cash and cash equivalents include demand deposit accounts with financial institutions and highly liquid investments, which mature within three months of date of purchase. The fair value of the cash and cash equivalents approximates their carrying value because of their short maturities.

#### *Concentration of Risk and Allowance for Doubtful Accounts*

We have a potential concentration of credit risk in our accounts receivable in that two public utility companies who fund rebates a financing company who purchases and then leases installed solar energy system to host users, and another large customer accounted for 19.2%, 16.2%, and 16.1%, respectively, of our accounts receivable as of December 31, 2009. We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. We make estimates of the collectibility of our accounts

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receivable by analyzing historical bad debts, specific customer creditworthiness and current economic trends. The allowance for doubtful accounts was \$0.3 million as of December 31, 2009 and 2008. If the financial condition of our customers or the public utilities or financing companies were to deteriorate such that their ability to make payments to us was impaired, additional allowances could be required.

Sales to our largest two customers for 2009 accounted for approximately 21.6% and 11.3%, respectively, of our total net revenue.

### *Inventory*

Inventory consists primarily of solar energy system components (such as solar panels and inverters) located at our various warehouses and finished goods held for sale at our Solar Living Center located in Hopland, California. We state our inventory at the lower of cost (first-in, first-out method) or market. We identify the inventory items to be written down for obsolescence based on the item's current sales status and condition. We write down discontinued or slow moving inventories based on an estimate of the markdown to retail price needed to sell through our current stock level of the inventories. As of December 31, 2009 and 2008, we estimated obsolete or slow-moving inventory to be \$0.2 million and nil, respectively. Gaiam fulfills approximately 80% of our catalog and Internet sales through its central distribution center. We pay Gaiam supplier product costs, order fulfillment fees, and freight charges to drop-ship these sales to our customers, which payments are made through our intercorporate services agreement. We determine the selection of products to be offered and set the sales price. We are responsible for the selling, marketing, and providing of these products to our customers and have our own customer service department to ensure the acceptability of our products. We bear the credit risk for the amount being billed to our customer. We leverage our multichannel distribution (catalog and web promotions, and our retail outlet located at the Solar Living Center) to market slow-moving or obsolete products.

### *Deferred Advertising Costs*

Deferred advertising costs relate to the preparation, printing, advertising and distribution of catalogs. We defer such costs for financial reporting purposes until the catalogs are distributed, then amortize such costs over succeeding periods on the basis of estimated direct relationship sales. We amortize seasonal catalogs within seven months and our annual catalogs within one year. Forecasted sales statistics are the principal factor used in estimating the amortization rate. We expense other advertising and promotional costs as incurred. Amounts recorded as advertising expense were \$2.3 million, \$2.5 million and \$1.1 million for the years ended December 31, 2009, 2008 and 2007, respectively, and are included in selling and operating expense in the consolidated statements of operations.

### *Property and Equipment*

We state property and equipment at cost less accumulated depreciation and amortization. We compute depreciation of property and equipment on the straight-line method over estimated useful lives, generally three to twenty years. We amortize leasehold and building improvements over the shorter of the estimated useful lives of the assets or the remaining term of the lease or remaining life of the building, respectively.

### *Goodwill and Other Intangibles*

Goodwill represents the excess of the purchase consideration over the estimated fair value of assets acquired less liabilities assumed in a business acquisition. Goodwill is reviewed for impairment annually or more frequently if impairment indicators arise. We compare the estimated fair value of a reporting unit with its carrying amount, including goodwill. If the estimated fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. If the carrying amount of a reporting unit exceeds its estimated fair value, the goodwill impairment test is performed to measure the amount of impairment loss. Since we operate in only one business segment, we assess impairment at the enterprise level. The annual process of evaluating the potential impairment of goodwill is highly subjective and requires significant judgment at many points during the analysis. In assessing our goodwill for impairment, we use a combination of factors, including comparable company market values and multiples of revenue to the extent the information is available. If comparable market information is insufficient, we expect to supplement our assessment with other approaches, such as present value techniques, which will require us to make estimates and judgments about our future cash flows. These cash flow forecasts will be based on assumptions that are consistent with the plans and estimates we use to manage our business. Application of alternative assumptions could yield significantly different results.

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The following table sets forth the changes in goodwill for the period December 31, 2007 through December 31, 2009.

<u>(in thousands)</u>	<u>Goodwill</u>
Balance at December 31, 2007	\$ 5,927
Acquisitions	20,474
Impairment losses recognized	<u>(26,401)</u>
Balance at December 31, 2008	—
Acquisitions	<u>732</u>
Balance at December 31, 2009	<u>\$ 732</u>

### *Purchase Accounting*

We account for the acquisition of a controlling interest in a business using the purchase method. In determining the estimated fair value of certain acquired assets and liabilities, we make assumptions based upon historical and other relevant information and, in some cases, reports of independent experts. Assumptions may be incomplete, and unanticipated events and circumstances may occur that could affect the validity of such assumptions, estimates, or actual results.

### *Revenue Recognition*

Revenue consists of solar energy system installation contract fees and sales of renewable and sustainable energy products. We recognize revenue from fixed price contracts using either the completed contract or percentage-of-completion method, based on the energy size of the solar energy system installation project. We recognize revenue from solar energy system installations of less than 110 kilowatts when the installation is substantially complete, determined based on departure from the job site following completion of the installation or passing of building inspection, while we recognize revenue from solar energy system installations equal to or greater than 110 kilowatts on a percentage-of-completion basis, measured by the percentage of contract costs incurred to date to total estimated costs for each contract. We recognize revenue from the sale of renewable and sustainable energy products when the following four basic criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the seller's price to the buyer is fixed and determinable; and (4) collectibility is reasonably assured. We recognize amounts billed to customers for postage and handling as revenue at the same time that the revenues arising from the product sale are recognized. We include postage and handling costs, which were approximately \$0.2 million each year for 2009 and 2008 and \$0.3 million for 2007, in selling and operating expense along with other fulfillment costs.

The current asset "Deferred costs on uncompleted contracts" represents contract costs incurred but not recognizable until recognition of the related contract revenue. The current liability "Deferred revenue on uncompleted contracts" represents billings in excess of revenue recognized. We bill our large installation customers for contract performance progress according to milestones defined in their respective contracts. The prerequisite for billing is the completion of an application and certificate of payment form as per the contract, which is done after each month end. As a result, the accounts receivable on our consolidated balance as of December 31, 2009 included \$2.3 million of revenues in excess of amounts billed on uncompleted contracts accounted for under the percentage-of-completion method. Revenues in excess of billings were immaterial at December 31, 2008 and we had no contracts accounted for under the percentage-of-completion method for 2007.

### *Allocation of Costs*

Gaiam provides us with management, financial, audit, accounting, tax, treasury, human resources, payroll, technical, fulfillment, inventory management, customer service and certain occupancy and related office services under an intercorporate services agreement. Our accompanying financial statements include an allocation of these expenses. The allocation is based on a combination of factors, including revenue, order counts, and operating expenses. We believe the allocation methodologies used are reasonable and result in an appropriate allocation of costs incurred by Gaiam and its subsidiaries on our behalf. However, these allocations may not be indicative of the cost of future services.

### *Share-Based Compensation*

We recognize compensation cost for stock-based awards based on the estimated fair value of the award on date of grant. We measure compensation cost at the grant date based on the fair value of the award and recognize compensation cost upon the probable attainment of a specified performance condition or over a service period. We use the Black-Scholes option valuation model to estimate the fair value for purposes of accounting and disclosures. In estimating this fair value, there are certain assumptions that we use, as disclosed in Note 6, Share-Based Compensation, consisting of the expected life of the option, risk-free interest rate, dividend yield, volatility and forfeiture rate. The use of a different estimate for any one of these components could have a material impact on the amount of calculated compensation expense. We did not grant any stock-based awards until 2007. Prior to our initial public offering,

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we determined the estimated fair value of our common stock at the date of grant of stock awards based on the combination of two factors: an independent offer to purchase a portion of us in exchange for preferred stock and the value of recent acquisitions. See Note 6, Share-Based Compensation.

### *Income Taxes*

For financial reporting purposes, we calculated income tax expense and deferred income tax balances as if we were a separate entity and had prepared our own separate tax return during all applicable periods. We provide for income taxes pursuant to the liability method. The liability method requires recognition of deferred income taxes based on temporary differences between financial reporting and income tax bases of assets and liabilities, using current enacted income tax rates and regulations. These differences will result in taxable income or deductions in future years when the reported amount of the asset or liability is recovered or settled, respectively. Considerable judgment is required in determining when these events may occur and whether recovery of an asset is more likely than not. Our effective tax rate remains fairly consistent. We have significant NOL carryforwards and more likely than not expect our deferred tax assets to be fully recoverable through the reversal of taxable temporary differences in future years as a result of normal business activities. We have agreed under our tax sharing agreement with Gaiam to make payments to Gaiam as we utilize certain of our NOLs in the future. See Note 8, Income Taxes.

We must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. We measure the tax benefits recognized in the consolidated financial statements from such a position based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. The application of income tax law is inherently complex. Laws and regulations in this area are voluminous and are often ambiguous. As such, we are required to make many subjective assumptions and judgments regarding our income tax exposures. Interpretations of and guidance surrounding income tax law and regulations change over time and may result in changes to our subjective assumptions and judgments which can materially affect amounts recognized in our consolidated balance sheets and statements of operations. The result of the reassessment of our tax positions did not have a material impact on our consolidated financial statements.

### *Net Income (Loss) Per Share Attributable To Real Goods Solar, Inc. Common Shareholders*

We compute net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders by dividing our net income (loss) attributable to Real Goods Solar, Inc. by the weighted average number of common shares outstanding for the period. Diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders reflects the potential dilution that could occur if options or warrants to issue our Class A common shares were exercised. Common share equivalents of 517,000, 221,000 and 340,000 shares have been omitted from net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders for 2009, 2008 and 2007, respectively, as they are anti-dilutive. Net income per share for 2007 is calculated as if the 10,000,000 shares of Class B common stock, which were issued by us to Gaiam on January 29, 2008, were issued on January 1, 2007.

The following table sets forth the computation of basic and diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders:

<b>(In thousands, except per share data)</b>	<b>For the Years Ended December 31,</b>		
	<b>2009</b>	<b>2008</b>	<b>2007</b>
Numerator for basic and diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	\$ (1,577)	\$ (27,955)	\$ 102
Denominator:			
Weighted average shares for basic net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	18,181	15,014	10,000
Effect of dilutive securities:			
Weighted average of common stock, stock options and warrants	—	—	—
Denominators for diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	<u>18,181</u>	<u>15,014</u>	<u>10,000</u>
Net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders - basic	<u>\$ (0.09)</u>	<u>\$ (1.86)</u>	<u>\$ 0.01</u>
Net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders - diluted	<u>\$ (0.09)</u>	<u>\$ (1.86)</u>	<u>\$ 0.01</u>

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### *Use of Estimates and Reclassifications*

The preparation of financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the amounts reported in the accompanying financial statements and disclosures. Although these estimates are based on our best knowledge of current events and actions that we may undertake in the future, actual results may be different from the estimates. We have made certain reclassifications to prior period amounts to conform to the current period presentations.

### **3. Property and Equipment**

Property and equipment, stated at lower of cost or estimated fair value, consists of the following as of December 31:

<u>(in thousands)</u>	<u>2009</u>	<u>2008</u>
Land	\$ 3,100	\$ 3,100
Buildings and leasehold improvements	1,894	1,882
Furniture, fixtures and equipment	451	434
Website development	140	69
Vehicles and Machinery	905	730
	<u>6,490</u>	<u>6,215</u>
Accumulated depreciation and amortization	<u>(1,345)</u>	<u>(917)</u>
	<u>\$ 5,145</u>	<u>\$ 5,298</u>

### **4. Payable to Gaiam**

From 1999 until our initial public offering in May 2008, our business had been funded by intercompany borrowings from Gaiam and through our operating income. Historically, Gaiam never charged us interest on the intercompany borrowings and still does not as the borrowings are short-term (less than a month). Prior to our initial public offering, the transactions that generated the intercompany borrowings consisted of virtually all activities conducted by Gaiam on our behalf, including allocation of product and sales fulfillment costs, allocation of payroll costs, and funding used for and costs related to our business acquisitions, including the purchase of Marin Solar and Carlson Solar. The average balance due to Gaiam on the intercompany payables was \$1.4 million, \$8.7 million and \$15.1 million for the years ended December 31, 2009, 2008 and 2007.

### **5. Leases**

We lease office and warehouse space through operating leases. Some of the leases have renewal clauses, which range from three to five years. We lease our Campbell facility from DTTC Properties, LLC, a limited liability company partially owned by our former chief executive officer, who is also a beneficial shareholder of Real Goods. The lease agreement, which expires in July 2011, requires monthly base payments of \$10,080 plus common area operating expenses. Under this lease, we incurred expense of \$158,000 and \$39,000 for the years ended December 31, 2009 and 2008, respectively. The following schedule represents the annual future minimum payments of all our leases as of December 31, 2009:

<u>(in thousands)</u>	<u>Operating</u>
2010	\$ 495
2011	306
2012	159
Total minimum lease payments	<u>\$ 960</u>

We incurred rent expense of \$0.6 million, \$0.3 million and \$0.1 million for the years ended December 31, 2009, 2008 and 2007, respectively.

### **6. Share-Based Compensation**

Our share-based compensation program is a long-term retention program that is intended to attract, retain and provide incentives for talented employees, officers, and directors and to align shareholder and employee interests. Our predecessor granted options in 2007 at \$0.20 per share that we assumed on January 31, 2008 as options granted under the Real Goods 2008 Long-Term Incentive Plan (the "Incentive Plan"), which provides for the granting of options to purchase up to 1,000,000 of our Class A common shares. Both incentive stock options and nonqualified stock options may be issued under the provisions of the Incentive Plan. These options vested 50% on May 13, 2008 when our initial public offering was consummated (see Note 7, Shareholders' Equity and Warrants) and this

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vested portion was recorded as an offering cost. The remaining options vest 2% each month after May 2008. Employees, members of the board of directors, consultants, business partners, and certain key advisors are eligible to participate in the Incentive Plan, which terminates upon the earlier of a board resolution terminating the Incentive Plan or ten years after the effective date of the Incentive Plan. Options under the Incentive Plan are generally granted with an exercise price equal to the closing market price of our stock on the date of the grant. Options vest based on performance (attainment of a certain amount of pre-tax income for a given year) or service conditions, or some combination thereof. Grants typically expire seven years from the date of grant.

Expected volatilities are based on a value calculated using the historical volatility of comparable public companies in our industry or, since our initial public offering, our stock price volatility. Expected life is based on the specific vesting terms of the option and anticipated changes to market value and expected employee exercise behavior. The risk-free interest rate used in the option valuation model is based on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term on the options. We do not anticipate paying any cash dividends on our Class A common stock in the foreseeable future and, therefore, an expected dividend yield of zero is used in the option valuation model. We are required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. We currently have minimal forfeiture history and presently, due to the limited number of outstanding grants, expect only a small portion of the options to be forfeited.

The following are the variables we used in the Black-Scholes option pricing model to determine the estimated grant date fair value for options granted under our Incentive Plan for each of the years presented:

	<u>2009</u>	<u>2008</u>	<u>2007</u>
Expected volatility	81%	63% - 76%	67%
Weighted-average volatility	81%	74%	67%
Expected dividends	0%	0%	0%
Expected term (in years)	5.0	5.0	4.0
Risk-free rate	1.88%	3.13% - 3.50%	4.88%

The table below presents a summary of option activity under the Incentive Plan as of December 31, 2009, and changes during the year then ended:

	<u>Shares</u>	<u>Weighted-Average Exercise Price</u>	<u>Weighted-Average Remaining Contractual Term</u>	<u>Aggregate Intrinsic Value</u>
Outstanding at January 1, 2009	488,000	\$ 5.69		
Granted	499,500	1.92		
Exercised	—	—		
Forfeited or expired	(617,500)	3.46		
Outstanding at December 31, 2009	<u>370,000</u>	<u>\$ 3.07</u>	<u>4.8</u>	<u>\$ 98,550</u>
Exercisable at December 31, 2009	<u>35,200</u>	<u>\$ 3.27</u>	<u>5.1</u>	<u>\$ 2,745</u>

During 2009, for options previously granted under our Incentive Plan to 3 employees, including our president, we reset the exercise price to \$2.92 per share and suspended option exercises for six months from the date of modification. The options continue to vest over their remaining original vesting periods. These modifications will result in total incremental share-based compensation cost of approximately \$20,000 over the next 3 years.

The weighted-average grant-date fair value of options granted during the years 2009, 2008 and 2007 was \$1.25, \$4.07 and \$3.20, respectively. The total fair value of shares vested during the years ended December 31, 2009 and 2008 was \$0.6 million each year and none for 2007. Our share-based compensation cost charged against income was \$0.3 million, \$0.2 million and none during 2009, 2008 and 2007, respectively, and is shown in general and administrative expenses. The total income tax benefit recognized for share-based compensation was \$0.1 million each year for 2009 and 2008 and none for 2007. For the performance based stock options granted during 2009, the performance condition was not attained and, therefore, no compensation expense for those grants was recorded. As of December 31, 2009, there was \$0.3 million of unrecognized cost related to nonvested share-based compensation arrangements granted under the Plan. We expect that cost to be recognized over a weighted-average period of 2.64 years.

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**7. Shareholders' Equity and Warrants**

During 2009, we issued 36,112 of our Class A common shares valued at \$80,000 to our independent directors, in lieu of cash compensation, for services rendered during 2009 and issued 163,504 of our Class A common shares as purchase price true-up and 200,000 of our Class A common shares as contingent consideration at a combined value of \$0.7 million for a business acquired in 2008 (see Note 9. Mergers and Acquisitions). Following these transactions, Gaiam owned 54.7% of our outstanding common stock.

During 2008, we consummated our initial public offering of 5.5 million of our Class A common shares which we sold at \$10 per share for total net offering proceeds of \$48.2 million after underwriters' commissions and offering costs. We also issued 280,000 of our Class A common shares valued at \$1.9 million to acquire a noncontrolling interest in one of our subsidiaries, issued 2,094,679 of our Class A common shares valued at \$9.2 million as partial consideration to acquire 100% ownership of two businesses (see Note 9, Mergers and Acquisitions), issued an additional 15,297 of our Class A common shares valued at \$94,000 to compensate independent board members for services rendered, and made other non-share related equity transactions. We used a period beginning two days before and two days after the date that the terms of the acquisition were agreed to and announced in determining the estimated fair value of the securities issued for business combinations. Following these transactions, Gaiam owned 55.9% of us as of December 31, 2008. Our shares are generally valued based upon the closing price of our Class A common shares, which ranged from \$2.89 to \$8.84 per share during the period from May 8, 2008 to December 31, 2008.

Additionally, upon consummation of our initial public offering on May 13, 2008, we ceased to be a member of Gaiam's consolidated group for federal income tax purposes and, under our tax sharing agreement with Gaiam, we will distribute to Gaiam the tax effect (estimated to be 34% for federal income tax purposes) of the amount of certain tax loss carryforwards we utilize from our separate tax returns. Accordingly, we recognized a valuation allowance of \$2.4 million against certain of our tax loss carryforwards as of the effective date of the tax sharing agreement. The valuation allowance charge, which did not require tax affecting, is reported in our additional paid-in capital on our consolidated balance sheet as of December 31, 2008.

On March 21, 2008, Gaiam converted 7,846,707 of our Class B common shares into Class A common shares.

As part of the contingent consideration for the acquisition of Carlson Solar on January 1, 2008 we issued seven-year warrants to purchase 30,000 of our Class A common shares at an exercise price of \$3.20 per share. On November 1, 2007, as part of the contingent consideration for the acquisition of Marin Solar, we issued seven-year warrants to purchase 40,000 of our Class A common shares at an exercise price of \$3.20 per share. See Note 9, Mergers and Acquisitions.

As of December 31, 2009, we had the following Class A common shares reserved for future issuance:

Conversion of Class B common shares	2,153,293
Stock options under the Incentive Plan	370,000
Warrants outstanding	70,000
Total shares reserved for future issuance	<u>2,593,293</u>

Each holder of our Class A common shares is entitled to one vote for each share held on all matters submitted to a vote of shareholders. Each Class B common share is entitled to ten votes on all matters submitted to a vote of shareholders. There are no cumulative voting rights. All holders of Class A common shares and Class B common shares vote as a single class on all matters that are submitted to the shareholders for a vote. Accordingly, Gaiam, as the holder of a majority of the Class A common shares and Class B common shares entitled to vote in any election of directors, may elect all of the directors who stand for election. 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.

Our Class A common shares and Class B common shares are entitled to receive dividends, if any, as may be declared by the board of directors out of legally available funds. In the event of a liquidation, dissolution or winding up of Real Goods, our Class A common shares and Class B common shares are entitled to share ratably in our assets remaining after the payment of all of our debts and other liabilities. Holders of our Class A common shares and Class B common shares have no preemptive, subscription or redemption rights, and there are no redemption or sinking fund provisions applicable to our Class A common shares and Class B common shares.

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Prior to our initial public offering we calculated income tax expense and deferred income tax balances as if we were a separate entity from Gaiam and had prepared our own separate tax returns. Prior to our initial public offering, the resulting income taxes were settled through the Payable to Gaiam.

Our provision for income tax expense (benefit) is comprised of the following:

(in thousands)	Years ended December 31,		
	2009	2008	2007
Current:			
Federal	\$ —	\$ —	\$ (114)
State	—	—	(20)
	<u>—</u>	<u>—</u>	<u>(134)</u>
Deferred:			
Federal	(875)	(2,224)	186
State	(146)	(366)	32
	<u>(1,021)</u>	<u>(2,590)</u>	<u>218</u>
	<u>\$ (1,021)</u>	<u>\$ (2,590)</u>	<u>\$ 84</u>

Variations from the federal statutory rate are as follows:

(in thousands)	2009	2008	2007
Expected federal income tax expense (benefit) at statutory rate of 34%	\$ (883)	\$ (10,383)	\$ 67
Effect of permanent impairment differences	—	9,256	—
Effect of permanent other differences	(8)	244	5
Other	18	—	—
State income tax expense (benefit), net of federal benefit	(148)	(1,707)	12
Income tax expense (benefit)	<u>\$ (1,021)</u>	<u>\$ (2,590)</u>	<u>\$ 84</u>

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Deferred income taxes reflect net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The components of the net accumulated deferred income tax asset as of December 31, 2009 and 2008 are as follows:

(in thousands)	2009	2008
Deferred tax assets (liabilities):		
Current:		
Provision for doubtful accounts	\$ 109	\$ 130
Inventory-related expense	134	87
Accrued liabilities	604	382
Prepaid and deferred catalog costs	(42)	(84)
Total current deferred tax assets	<u>\$ 805</u>	<u>\$ 515</u>
Non-current:		
Depreciation and amortization	\$ (27)	\$ (208)
Net operating loss carryforward	3,067	2,687
Other	24	(240)
Total non-current deferred tax assets	<u>\$ 3,064</u>	<u>\$ 2,239</u>
Total net deferred tax assets	<u>\$ 3,869</u>	<u>\$ 2,754</u>

At December 31, 2009, we had \$0.5 million in tax effected state net operating loss carryforwards. These operating loss carryforwards, if unused, will begin to expire in 2010. Additionally, we had \$2.6 million in tax effected federal net operating loss carryforwards. These operating loss carryforwards, if unused, begin to expire in 2018. The Internal Revenue Code contains provisions that limit the net operating loss available for use in any given year upon the occurrence of certain events, including significant changes in ownership interest. A change in ownership of a company of greater than 50% within a three-year period results in an annual limitation on the utilization of net operating loss carryforwards from tax periods prior to the ownership changes. Certain of our net operating loss carryforwards as of December 31, 2009 are subject to annual limitations due to changes in ownership.

Additionally, upon consummation of our initial public offering on May 13, 2008, we ceased to be a member of Gaiam's consolidated group for federal income tax purposes and to the extent we become entitled to utilize loss carryforwards from our separate tax returns, we will distribute to Gaiam the tax effect (estimated to be 34% for federal income tax purposes) of the amount of such tax loss carryforwards so utilized. Accordingly, we recognized a valuation allowance of \$2.4 million against all of our tax loss carryforwards as of the effective date of the tax sharing agreement. The valuation allowance charge, which did not require tax affecting, is reported in our additional paid-in capital on our consolidated balance sheet as of December 31, 2008. As of December 31, 2009, we expect approximately \$2.8 million of these net operating loss carryforwards to be realizable, meaning that potential future payments to Gaiam, which would be made over a period of several years, would therefore aggregate to approximately \$1.0 million.

We expect the remainder of our deferred tax assets at December 31, 2009 to be fully recoverable through the reversal of taxable temporary differences in future years as a result of normal business activities. Accordingly, no other valuation allowances for deferred tax items were considered necessary as of December 31, 2009.

## 9. Mergers and Acquisitions

During 2009, as purchase price true-up and contingent consideration related to the Regrid Power acquisition, we issued 163,504 and 200,000 of our Class A common shares, respectively, with an estimated combined fair value of \$0.7 million and allocated the additional consideration to goodwill, which is not expected to be tax deductible. We used a period beginning two days before and two days after the date that the consideration became payable in determining the estimated fair value of the securities issued. The securities were issued to a trust benefiting the former owners of Regrid Power, one of whom served as our chief executive officer for eleven months after the acquisition.

On October 1, 2008, we acquired 100% ownership of Regrid Power, a northern California designer and installer of residential and commercial solar electric systems, for \$3.8 million in cash, \$8.9 million worth of our Class A common shares, \$1.3 million of assumed liabilities and \$0.3 million of estimated direct acquisition costs. The purchase cost includes \$72,000 of direct acquisition costs incurred by the selling shareholder that were reimbursed to the Company. In addition, this acquisition had purchase price true-up and contingent share consideration up to a maximum of 800,000 shares of our Class A common shares, based on Regrid Power's revenue and earnings performance over its first 12 months following acquisition. We issued shares related to this purchase price true-up and contingency during 2009. We acquired Regrid Power because it was an established local market leader with a good reputation and compatible geography. We realized synergies from this acquisition by leveraging our existing infrastructure as well as by taking advantage of its existing operational systems.

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The following table summarizes the estimated fair values of the Regrid Power assets acquired and liabilities assumed at the date of acquisition. Goodwill was not deductible for tax purposes.

(in thousands)	October 1, 2008
Current assets	\$ 6,543
Property and equipment	699
Goodwill and intangible assets	13,038
Total assets acquired	20,280
Current liabilities	5,967
Net assets acquired	<u>\$ 14,313</u>

On August 1, 2008, we acquired 100% ownership of Independent Energy Systems, Inc. ("IES"), a leading solar energy integrator in Santa Cruz and Monterey counties in California, for \$3.3 million in cash and \$0.3 million worth of our Class A common shares, plus direct acquisition costs of \$0.2 million. We recorded \$3.7 million of goodwill in connection with this transaction, which is not tax deductible. We acquired IES because they were an established local market leader with a strong reputation and compatible geography. We realized synergies from this acquisition by leveraging our existing infrastructure.

On May 23, 2008, we exchanged 280,000 of our Class A common shares for our current Chief Financial Officer's 11.6% ownership in Real Goods Carlson. This resulted in the recognition of \$1.5 million of goodwill, which was not deductible for tax purposes.

On January 1, 2008, our Real Goods Carlson subsidiary acquired certain assets of and assumed certain liabilities from Carlson Solar for \$3.2 million in cash, plus direct acquisition costs of approximately \$0.2 million. Simultaneously, on the same date, we sold 11.6% of our Real Goods Carlson subsidiary for \$0.4 million at the same valuation. We acquired Carlson Solar in order to expand our geographic presence and establish a sales office in the sizable southern California solar installation market. The Carlson Solar assets acquired were determined to have all inputs and processes necessary for the transferred assets to continue to conduct normal operations after acquisition; accordingly, the purchase price was treated as a business combination. As additional contingent consideration, we granted to the sellers warrants to purchase 30,000 of our Class A common shares for a total estimated cost of \$0.1 million, which, along with the 40,000 contingent warrants granted to the sellers of Marin Solar at a total cost of \$0.1 million, vested 50% on May 13, 2008 when our initial public offering was consummated (see Note 7, Shareholders' Equity and Warrants). Accordingly, we recognized these warrants as additions to their respective purchase prices and allocated their costs to goodwill. The remaining warrants vest 2% each month after May 2008.

The following table summarizes the estimated fair values of the Carlson Solar assets acquired and liabilities assumed at the date of acquisition. Goodwill was deductible for tax purposes.

(in thousands)	January 1, 2008
Current assets	\$ 1,465
Property and equipment	75
Goodwill and intangible assets	2,775
Total assets acquired	4,315
Current liabilities	787
Net assets acquired	<u>\$ 3,528</u>

On November 1, 2007, we purchased 100% ownership of Marin Solar for \$3.2 million in cash, plus direct acquisition costs of approximately \$0.2 million. We acquired Marin Solar in order to expand our penetration into the northern California solar energy market and enter the large installations market.

The following is supplemental unaudited pro forma information for the Marin Solar, Carlson Solar and Regrid Power acquisitions as if we had acquired these businesses on January 1, 2007. The pro forma adjustments are based on currently available information and upon assumptions that we believe are reasonable in order to reflect, on a pro forma basis, the impact of these acquisitions on our historical financial information.

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(in thousands, except per share data)	Pro Forma	
	Year ended	
	December 31,	
	2008	2007
	(unaudited)	
Net revenue	\$ 50,679	\$ 46,459
Income (loss) before income taxes and noncontrolling interest	(31,355)	1,477
Net income (loss) attributable to Real Goods Solar, Inc.	\$ (28,319)	\$ 817
Net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders:		
Basic and diluted	\$ (1.59)	\$ 0.07

We include results from operations of acquired companies in our consolidated financial statements from their respective effective acquisition dates.

#### 10. Transactions With Gaiam

During 2008, we completed the installation of a solar energy system at Gaiam's headquarters in Colorado and recognized \$0.8 million of revenue from this transaction in our consolidated statement of operations for the year ended December 31, 2008.

We have and will have a need for certain management and other services to be provided by Gaiam under our intercorporate services agreement. These services may include, but are not limited to, executive, management, financial, audit, accounting, tax, treasury, human resources, payroll, technical, fulfillment, inventory management, customer service and certain occupancy and related office services as required from time to time. We have determined that it is not cost effective to obtain and separately maintain the personnel and infrastructure associated with these services, particularly the costs associated with maintaining on our payroll on a full time basis with a full complement of skilled employees.

Services performed under this agreement have and will be provided under the direction of us, and Gaiam has no power to act independently on our behalf other than as specifically authorized under the agreement or from time to time, by us. Gaiam and we have and will agree on the aggregate annual amount for a particular year for the services based upon a good faith estimate of the services required for that year and the estimated fees for such services. Upon a change to the annual amounts for a particular year, the parties have and will make appropriate payments to reflect such change. The annual amount and formula for various services making up the annual amount, as well as any quarterly changes, have and must be approved in writing by each of Gaiam's and our board of directors.

#### 11. Asset Impairment

During 2008, as a result of changes in the business climate for solar installations, we impaired \$26.4 million of goodwill and \$0.8 million of other intangibles. The impairment of goodwill, resulting from the application GAAP, was primarily driven by adverse financial market conditions. The impairment took into account the deteriorating macro-economic environment, the reduced accessibility to the credit markets for customers, and the high degree of uncertainty about the eventual return to normalcy. These charges were noncash and partially tax deductible (those related to our Carlson Solar acquisition). We estimated the fair value of each impaired asset category using a traditional present value technique, relying upon various sources of information for our assumptions, such as estimated future sales, internal budgets and projections, and judgment. These asset impairment losses are reflected in impairment loss on our consolidated statement of operations for the year ended December 31, 2008.

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### 12. Quarterly Results of Operations (Unaudited)

The following is a summary of the quarterly results of operations for the years ended December 31, 2009 and 2008:

(in thousands, except per share data)	Fiscal Year 2009 Quarters Ended			
	March 31	June 30	September 30	December 31
Net revenue	\$ 9,531	\$ 12,713	\$ 22,966	\$ 19,118
Gross profit	2,302	3,278	5,014	5,363
Income (loss) before income taxes	(2,252)	(939)	259	334
Net income (loss)	(1,371)	(581)	158	217
Net income (loss) attributable to Real Goods Solar, Inc.	(1,371)	(581)	158	217
Diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	\$ (0.08)	\$ (0.03)	\$ 0.01	\$ 0.01
Weighted average shares outstanding-diluted	17,890	18,270	18,273	18,364

  

(in thousands, except per share data)	Fiscal Year 2008 Quarters Ended			
	March 31	June 30	September 30	December 31
Net revenue	\$ 6,568	\$ 8,841	\$ 10,333	\$ 13,479
Gross profit	1,837	2,638	2,806	3,161
Income (loss) before income taxes and noncontrolling interest	(489)	(48)	(363)	(29,640)(a)
Net loss	(297)	(31)	(226)	(27,396)
Net income (loss) attributable to Real Goods Solar, Inc.	(306)	(27)	(226)	(27,396)
Diluted net income (loss) per share attributable to Real Goods Solar, Inc. common shareholders	\$ (0.03)	\$ 0.00	\$ (0.01)	\$ (1.53)
Weighted average shares outstanding-diluted	10,000	13,085	15,816	17,889

- (a) During the fourth quarter of 2008, we recognized a \$27.2 million charge for impaired goodwill and other intangibles. See Note 11, Asset Impairment.

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

None.

### Item 9A. Controls and Procedures.

#### Evaluation of Disclosure Controls and Procedures

Our president and chief financial officer conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rules 13a-15(e) and Rule 15d-15(e) under the Exchange Act. Based upon their evaluation as of December 31, 2009, they have concluded that those disclosure controls and procedures are effective.

#### Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the quarter ended December 31, 2009 that have materially affected, or are reasonably likely to affect, our internal control over financial reporting.

#### Management's Report on Internal Control over Financial Reporting

We are responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

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We assessed the effectiveness of our internal control over financial reporting as of December 31, 2009. In making the assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in “*Internal Control-Integrated Framework*.” Based on that assessment, we concluded that, as of December 31, 2009, our internal control over financial reporting is effective based on those criteria.

**Item 9B. Other Information**

None.

## **PART III**

### **Item 10. Directors, Executive Officers and Corporate Governance**

We incorporate herein the information required by this Item by reference to our Proxy Statement for our Annual Meeting of Shareholders, to be held on May 12, 2010, to be filed with the Commission pursuant to Regulation 14A.

#### *Code of Ethics*

We have adopted a Code of Ethics applicable to our employees, including our principal executive officer, principal financial officer, principal accounting officer and persons performing similar functions. We have posted a copy of our Code of Ethics on the investor relations section of our Internet website at [www.realgoodssolar.com](http://www.realgoodssolar.com). Our full Board of Directors must approve in advance any waivers of the Code of Ethics. We will post any amendments or waivers from our Code of Ethics that apply to our executive officers and directors on the “Code of Ethics” section of our Internet website located at [www.realgoodssolar.com](http://www.realgoodssolar.com).

### **Item 11. Executive Compensation**

We incorporate herein the information required by this Item by reference to our Proxy Statement for our Annual Meeting of Shareholders, to be held on May 12, 2010, to be filed with the Commission pursuant to Regulation 14A.

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

We incorporate herein the information required by this Item by reference to our Proxy Statement for our Annual Meeting of Shareholders, to be held on May 12, 2010, to be filed with the Commission pursuant to Regulation 14A.

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

We incorporate herein the information required by this Item by reference to our Proxy Statement for our Annual Meeting of Shareholders, to be held on May 12, 2010, to be filed with the Commission pursuant to Regulation 14A.

### **Item 14. Principal Accountant Fees and Services**

We incorporate herein the information required by this Item by reference to our Proxy Statement for our Annual Meeting of Shareholders, to be held on May 12, 2010, to be filed with the Commission pursuant to Regulation 14A.

## PART IV

### Item 15. Exhibits and Financial Statement Schedules

Documents filed as part of this report are as follows:

1. Consolidated Financial Statements.

See listing of Consolidated Financial Statements included as part of this Form 10-K in Item 8 of Part II.

2. Exhibits:

The following exhibits are incorporated by reference or are filed or furnished with this report as indicated below:

<u>Exhibit No.</u>	<u>Description</u>
3.1	Articles of Incorporation of Real Goods Solar, Inc. (1)
3.2	Bylaws of Real Goods Solar, Inc. (1)
4.1	Form of Real Goods Class A Common Stock Certificate (1)
10.1	Amended and Restated Real Goods Solar, Inc. 2008 Long-Term Incentive Plan (1)*
10.2	Form of Real Goods Solar, Inc. Employee Stock Option Agreement (2)*
10.3	Agreement and Plan of Merger among Darlene J. and D. Thompson McCalmont, Regrid Power, Inc. and Real Goods Solar, Inc. (3)
10.4	Stock Purchase Agreement by and among Marin Solar, Inc., Roy Phillips, Jan Phillips and Real Goods Marin, Inc. (2)
10.5	Asset Purchase Agreement among Carlson Solar, Mary Carlson, Scott Carlson, Brittany Carlson, Brandon Carlson and Real Goods Carlson, Inc. (2)
10.6	Registration Rights Agreement between Real Goods Solar and Gaiam (2)
10.7	Intercompany Services Agreement between Real Goods Solar and Gaiam (2)
10.8	Tax Sharing and Indemnification Agreement between Real Goods Solar and Gaiam (2)
10.9	Agreement made as of October 14, 2008 by and between Real Goods Solar and D. Thompson McCalmont (4)*
10.10	Agreement made as of February 27, 2008, by and between Real Goods Solar and Erik Zech (2)*
21.1	Subsidiaries of the Registrant (filed herewith).
23.1	Consent of Ehrhardt Keefe Steiner & Hottman PC (filed herewith).
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934 (filed herewith).
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934 (filed herewith).
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).
32.2	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith).

(1) Incorporated by reference to Exhibits A of Real Goods Solar's Definitive Proxy Statement for its annual shareholders' meeting held May 20, 2009

(2) Incorporated by reference to Exhibits to Real Goods Solar's Registration Statement on Form S-1, No. 149092

(3) Incorporated by reference to Exhibit 2.1 to Real Goods Solar's Current Report on Form 8-K filed October 21, 2008

(4) Incorporated by reference to Exhibit 10.9 to Real Goods Solar's Annual Report on Form 10-K filed March 31, 2009

\* Indicates management contract or compensatory plan or arrangement.

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## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized

Real Goods Solar, Inc.

/s/ John Schaeffer  
By: John Schaeffer  
President

March 12, 2010

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Jirka Rysavy</u> Jirka Rysavy	Chairman of the Board	March 12, 2010
<u>/s/ John Schaeffer</u> John Schaeffer	President and Director	March 12, 2010
<u>/s/ James Argyropoulos</u> James Argyropoulos	Director	March 12, 2010
<u>/s/ Scott Lehman</u> Scott Lehman	Director	March 12, 2010
<u>/s/ Barbara Mowry</u> Barbara Mowry	Director	March 12, 2010
<u>/s/ Lynn Powers</u> Lynn Powers	Director	March 12, 2010
<u>/s/ Erik Zech</u> Erik Zech	Chief Financial Officer (Principal Accounting Officer)	March 12, 2010

**Real Goods Solar, Inc.**

<b>Subsidiaries</b>	<b>State or Country of Incorporation or Registration</b>
Real Goods Energy Tech, Inc. <sup>(1)</sup>	Colorado
Regrid Power, Inc. <sup>(1)</sup>	California
Independent Energy Systems <sup>(2)</sup>	California
Real Goods Trading Corporation <sup>(2)</sup>	California
Real Goods Marin, Inc. <sup>(2)</sup>	California
Marin Solar, Inc. <sup>(2)</sup>	California
Real Goods Carlson, Inc. <sup>(2)</sup>	California

(1) Owned by Real Goods Solar, Inc.

(2) Owned by Real Goods Energy Tech, Inc.

This list may omit subsidiaries which, considered in the aggregate, would not constitute a significant subsidiary.

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We hereby consent to the incorporation by reference in the Registration Statement (on Form S-8, Registration No. 333-153642) pertaining to the Real Goods Solar, Inc. 2008 Long-Term Incentive Plan of our report dated March 12, 2010, with respect to the consolidated financial statements of Real Goods Solar, Inc. and subsidiaries included in the Annual Report on Form 10-K for the year ended December 31, 2009.

*/s/ Ehrhardt Keefe Steiner & Hottman PC*

March 12, 2010  
Denver, Colorado

## CERTIFICATION

I, John Schaeffer, certify that:

1. I have reviewed this annual report on Form 10-K of Real Goods Solar, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) [Paragraph omitted pursuant to Rule 13a-14(a)];
  - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 12, 2010

/s/ John Schaeffer

John Schaeffer  
President

## CERTIFICATION

I, Erik Zech, certify that:

1. I have reviewed this annual report on Form 10-K of Real Goods Solar, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:
  - (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) [Paragraph omitted pursuant to Rule 13a-14(a)];
  - (c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 12, 2010

/s/ Erik Zech

Erik Zech  
Chief Financial Officer

**CERTIFICATION OF CEO PURSUANT TO**

**18 U.S.C. SECTION 1350**

**As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the report of Real Goods Solar, Inc. (the "Company") on Form 10-K for the year ended December 31, 2009, as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), I, John Schaeffer, President of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 12, 2010

/s/ John Schaeffer

John Schaeffer  
President

**CERTIFICATION OF CFO PURSUANT TO**

**18 U.S.C. SECTION 1350**

**As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the report of Real Goods Solar, Inc. (the "Company") on Form 10-K for the year ended December 31, 2009, as filed with the U.S. Securities and Exchange Commission on the date hereof (the "Report"), I, Erik Zech, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 12, 2010

/s/ Erik Zech

Erik Zech  
Chief Financial Officer