Akeena Solar, Inc.
Form 10-K
March 16, 2009

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

FORM 10-K

(Mark one)

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

For the fiscal year ended December 31, 2008

or

o 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: 001-33695

AKEENA SOLAR, INC.
(Exact name of registrant as specified in its charter)

Delaware	90-0181035
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
16005 Los Gatos Boulevard Los Gatos, California	95032
(Address of principal executive offices)	(Zip Code)

(408) 402-9400
(Registrant's telephone number, including area code)

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

Common Stock, par value $0.001 per share	The NASDAQ Stock Market LLC
(Title of each class)	(Name of each exchange on which registered)

Securities registered pursuant to Section 12(g) of the Exchange Act:
None

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K 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 to Part III of this Form 10-K or any amendment to this Form 10-K. x

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

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

The aggregate market value of the Common Stock held by non-affiliates of the registrant, based on the closing sales price of the Common Stock as reported on The NASDAQ Capital Market on June 30, 2008, was approximately $119.2 million. For purposes of this computation, all officers and directors of the registrant are deemed to be affiliates.

As of March 5, 2009, 31,539,961 shares of common stock of the registrant were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Selected portions of the Registrant's definitive proxy statement for the 2009 annual meeting of stockholders are incorporated by reference into Part III of this Form 10-K.

AKEENA SOLAR, INC.
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PART I

As used in this Annual Report on Form 10-K, unless otherwise indicated, the terms “we,” “us,” “our” and “the Company” refe to Akeena Solar, Inc. and its subsidiaries.

Our Annual Report on Form 10-K for 2008, and information we provide in our Annual Report to Stockholders, press releases, telephonic reports and other investor communications, including those on our website, may contain forward-looking statements with respect to anticipated future events and our projected financial performance, operations and competitive position that are subject to risks and uncertainties that could cause our actual results to differ materially from those forward-looking statements and our expectations.

Forward-looking statements can be identified by the use of words such as “expects,” “plans,” “will,” “may,” “anticipate “believes,” “should,” “intends,” “estimates” and other words of similar meaning. These statements constitute forward-looking statements within the meaning of the Safe Harbor Provisions of the Private Securities Litigation Reform Act of 1995. These statements are subject to risks and uncertainties that may cause actual results to differ materially from those expressed or implied by these forward-looking statements. These forward-looking statements reflect our then current beliefs, projections and estimates with respect to future events and our projected financial performance, operations and competitive position.

Such risks and uncertainties include, without limitation, our ability to raise capital to finance our operations, the effectiveness, profitability and the marketability of our services, our ability to protect our proprietary information, general economic and business conditions, the impact of technological developments and competition, adverse results of any legal proceedings, the impact of current, pending or future legislation and regulation of the solar power industry, our ability to enter into acceptable relationships with one or more manufacturers for solar panel components and the ability of such contract manufacturers to manufacture products or components of an acceptable quality on a cost-effective basis, our ability to attract or retain qualified senior management personnel, including sales and marketing and technical personnel and other risks detailed from time to time in our filings with the SEC, including those described at the end of Item 1 below. We do not undertake any obligation to update any forward-looking statements.

Item 1. Business.

Overview

We are a designer, integrator and installer of solar power systems. We market, sell, design and install systems for residential and commercial customers, sourcing components (such as solar panels and inverters) from manufacturers such as Suntech, Kyocera Fronius and SMA. We have served customers in California, New York, New Jersey, Pennsylvania, Colorado and Connecticut. According to data compiled by the California Energy Commission, the Solar Electric Power Association and the New Jersey Clean Energy Program, over the past four years we have been one of the largest national integrators of residential and commercial solar electric power systems in the United States. We are a member of the Solar Energy Industry Association, the California Solar Energy Industries Association, the Northern California Solar Energy Association, the Independent Power Providers, the Solar Energy Business Association of New England, and the New York Solar Energy Industries Association. To date, we have installed over 3,000 solar power systems and since the commencement of our operations in 2001, our sales have steadily grown to approximately $40.8 million in 2008.

We were formed as a Nevada corporation on July 29, 2005, under the name Fairview Energy Corporation, Inc. (“Fairview”), and on August 4, 2006, were reincorporated in the State of Delaware. On August 11, 2006, we consummated a reverse merger (the “Merger”) with a privately-held company called Akeena Solar, Inc. (“Akeena-Private”), pursuant to which the privately-held company, renamed Akeena Corp., became a wholly-owned

subsidiary of ours and we renamed our company Akeena Solar, Inc. We had been in the development stage since our inception and had not commenced business operations prior to the Merger. Akeena-Private was incorporated in the State of California on February 23, 2001 under the name Akeena, Inc., and on June 2, 2006, was reincorporated in the State of Delaware under the name Akeena Solar, Inc. As a result of the Merger, we succeeded to Akeena-Private's line of business as our sole line of business.

As of March 5, 2009, we had nine offices. Our offices are located in Los Gatos, Fresno (Clovis), Lake Forest, Santa Rosa, Palm Springs, San Diego and Thousand Oaks (Westlake Village), California, as well as in Denver, Colorado and Milford, Connecticut. Our Corporate headquarters are located at 16005 Los Gatos Boulevard, Los Gatos, California 95032. Our telephone number is (408) 402-9400. Additional information about Akeena Solar is available on our website at http://www.akeena.com. The information on our web site is not incorporated herein by reference.

Strategy

Our philosophy is simple: “we believe that producing clean electricity directly from the sun is the right thing to do for our environment and economy.” Since our founding, we have concentrated on serving the solar power needs of residential and commercial customers tied to the electric power grid.

The solar power industry is still at an early stage of its growth and is highly fragmented. The prospects for long-term worldwide demand for solar power have attracted many new solar panel manufacturers, as well as a multitude of design/integration companies in our market segment. We expect the manufacturing segment of the industry to consolidate as more solar panel manufacturing capacity comes online. We also expect there to be consolidation in the design/integration segment of the industry based mostly on branding, development of new technology and business process improvements.

Accordingly, our growth strategy primarily includes:

- Developing and commercializing our solar panel technology optimized for the residential and commercial markets.

- Reducing installation costs and improving the aesthetics and performance of solar systems compared to ordinary, commercially available solar equipment.

- Promoting and enhancing our company's brand name and reputation.

- Developing and utilizing a process-driven approach to sell and install our solar power systems in diverse geographic markets.

Based on our experience as a solar power designer and integrator, we believe we understand certain areas in which costs for installations can be significantly reduced. We have introduced a new “plug and play” solar panel technology (“Andalay”) which we believe will significantly reduce the installation time, parts and costs, as well as provide superior reliability and aesthetics for customers, when compared to other solar panel mounting products and technology.

In February 2009, we announced a strategic partnership with Enphase Energy, a leading manufacturer of microinverter products, to develop and market Andalay solar panel systems with ordinary AC house current output instead of high voltage DC output. We expect to introduce Andalay AC panel products and to begin offering them to our customers in the second half of 2009. Andalay AC panels are expected to cost less to install and provide higher efficiency than ordinary DC panels.

Industry

Electric power is used to operate businesses, industries, homes, offices and provides the power for our communications, entertainment, transportation and medical needs. As our energy supply and distribution mix changes, electricity is likely to be used more for local transportation (electric vehicles) and space/water heating needs. According to the Edison Electric Institute, the electric power industry in the U.S. is over $218 billion in size, and will continue to grow with our economy.

According to the U.S. Department of Energy (DOE), electricity is generated from the following: coal - 51%, nuclear -21%, gas - 16%, hydro - 6%, and oil - 3%, with renewable energy contributing 3%. “Renewable Energy” typically refers to non-traditional energy sources, including solar energy. Due to continuously increasing energy demands, we believe the electric power industry faces the following challenges:

- Limited Energy Supplies. The primary fuels that have supplied this industry, fossil fuels in the form of oil, coal and natural gas, are limited. Worldwide demand is increasing at a time that industry experts have concluded that supply is limited. Therefore, the increased demand will probably result in increased prices, making it more likely that long-term average costs for electricity will continue to increase.

- Generation, Transmission and Distribution Infrastructure Costs. Historically, electricity has been generated in centralized power plants transmitted over high voltage lines, and distributed locally through lower voltage transmission lines and transformer equipment. As electricity needs increase, these systems will need to be expanded. Without further investments in this infrastructure, the likelihood of power shortages (“brownouts” and “blackouts”) may increase.

- Stability of Suppliers. Since many of the major countries who supply fossil fuel are located in unstable regions of the world, purchasing oil and natural gas from these countries may increase the risk of supply shortages and cost increases.

- Environmental Concerns and Climate Change. Concerns about global warming and greenhouse gas emissions has resulted in the Kyoto Protocol various states enacting stricter emissions control laws and utilities in several states being required to comply with Renewable Portfolio Standards, which require the purchase of a certain amount of power from renewable sources.

Solar energy is the underlying energy source for renewable fuel sources, including biomass fuels and hydroelectric energy. By extracting energy directly from the sun and converting it into an immediately usable form, either as heat or electricity, intermediate steps are eliminated. We believe, in this sense, solar energy is one of the most direct and unlimited energy sources.

Solar energy can be converted into usable forms of energy either through the photovoltaic effect (generating electricity from photons) or by generating heat (solar thermal energy). Solar thermal systems include traditional domestic hot water collectors (DHW), swimming pool collectors, and high temperature thermal collectors (used to generate electricity in central generating systems). DHW thermal systems are typically distributed on rooftops so that they generate heat for the building on which they are situated. High temperature thermal collectors typically use concentrating mirror systems and are typically located in remote sites.

According to SolarBuzz, a research and consulting firm, the global solar power market, as defined by solar power system installations, had an estimated $17.2 billion in revenue in 2007. The U.S. solar power installation market comprised approximately 8% of the total global market installations, reaching approximately 220 megawatts installed during 2007. According to Solarbuzz, the residential and small commercial market segments represent approximately 65% of the U.S. market and are expected to continue to do so through 2010.

Anatomy of a Solar Power System

Solar power systems convert the energy in sunlight directly into electrical energy within solar cells based on the photovoltaic effect. Multiple solar cells, which produce DC power, are electrically interconnected into solar panels. A typical 180 watt solar panel may have 72 individual solar cells. Multiple solar panels are electrically wired together. The number of solar panels installed on a building are generally selected to meet that building's annual electrical usage, or selected to fill available un-shaded roof or ground space. Solar panels are electrically wired to an inverter, which converts the power from DC to AC and interconnects with the utility grid. The following diagram schematically shows a typical solar power system:

Solar Electric Cells. Solar electric cells convert light energy into electricity at the atomic level. The conversion efficiency of a solar electric cell is defined as the ratio of the sunlight energy that hits the cell divided by the electrical energy that is produced by the cell. By improving this efficiency, we believe solar electric energy becomes competitive with fossil fuel sources. The earliest solar electric devices converted about 1%-2% of sunlight energy into electric energy. Current solar electric devices convert 5%-25% of light energy into electric energy (the overall efficiency for solar panels is lower than solar cells because of the panel frame and gaps between solar cells), and current mass produced panel systems are substantially less expensive than earlier systems. Effort is the industry is currently being directed towards the development of new solar cell technology to reduce per watt costs and increase area efficiencies.

Solar Panels. Solar electric panels are composed of multiple solar cells, along with the necessary internal wiring, aluminum and glass framework, and external electrical connections. Although panels are usually installed on top of a roof or on an external structure, certain designs include the solar electric cells as part of traditional building materials, such as shingles and rolled out roofing. Solar electric cells integrated with traditional shingles is usually most compatible with masonry roofs and, while it may offset costs for other building materials and be aesthetically appealing, it is generally more expensive than traditional panels.

Inverters. Inverters convert the DC power from solar panels to the AC power used in buildings. Grid-tie inverters synchronize to utility voltage and frequency and only operate when utility power is stable (in the case of a power failure these grid-tie inverters shut down to safeguard utility personnel from possible harm during repairs). Inverters

also operate to maximize the power extracted from the solar panels, regulating the voltage and current output of the solar array based on sun intensity.

Monitoring. There are two basic approaches to access information on the performance of a solar power system. We believe that the most accurate and reliable approach is to collect the solar power performance data locally from the inverter with a hard-wired connection and then transmit that data via the internet to a centralized database. Data on the performance of a system can then be accessed from any device with a web browser, including personal computers and cell phones. As an alternative to web-based remote monitoring, most commercial inverters have a digital display on the inverter itself that shows performance data and can also display this data on a nearby personal computer with a hard-wired or wireless connection.

Net Metering. The owner of a grid-connected solar electric system may not only buy, but may also sell, electricity each month. This is because electricity generated by the solar electric system can be used on-site or fed through a meter into the utility grid. Utilities are required to buy power from owners of solar electric systems (and other independent producers of electricity) under the Public Utilities Regulatory Policy Act of 1978 (PURPA). California's net metering law provides that all utilities must allow customers with solar electric systems rated up to 1.5 megawatts (" mW") to interconnect with the local utility grid and receive retail value for the electricity produced. When a home or business requires more electricity than the solar power array is generating (for example, in the evening), the need is automatically met by power from the utility grid. When a home or business requires less electricity than the solar electric system is generating, the excess is fed (or sold) back to the utility and the electric meter actually spins backwards. Used this way, the utility serves as a backup to the solar electric similar to the way in which batteries serve as a backup in stand-alone systems.

Solar Power Benefits

The direct conversion of light into energy offers the following benefits compared to conventional energy sources:

- Economic — Once a solar power system is installed, the cost of generating electricity is fixed over the lifespan of the system. There are no risks that fuel prices will escalate or fuel shortages will develop. In addition, cash paybacks for systems range from 5 to 25 years, depending on the level of state and federal incentives, electric rates, annualized sun intensity and installation costs. Solar power systems at customer sites generally qualify for net metering to offset a customer's highest electric rate tiers, at the retail, as opposed to the wholesale, electric rate.

- Convenience — Solar power systems can be installed on a wide range of sites, including small residential roofs, the ground, covered parking structures and large industrial buildings. Solar power systems also have few, if any, moving parts and are generally guaranteed to operate for 25 years resulting, we believe, in low maintenance and operating costs and reliability compared to other forms of power generation.

- Environmental — We believe solar power systems are one of the most environmentally friendly way of generating electricity. There are no harmful greenhouse gas emissions, no wasted water, no noise, no waste generation and no particulates. Such benefits continue for the life of the system.

- Security — Producing solar power improves energy security both on an international level (by reducing fossil energy purchases from hostile countries) and a local level (by reducing power strains on local electrical transmission and distribution systems).

- Infrastructure — Solar power systems can be installed at the site where the power is to be used, thereby reducing electrical transmission and distribution costs. Solar power systems installed and operating at customer sites may also save the cost of construction of additional energy infrastructure including power plants, transmission lines, distribution systems and operating costs.

We believe escalating fuel costs, environmental concerns and energy security make it likely that the demand for solar power systems will continue to grow. The federal government, and several states, have put a variety of incentive programs in place that directly spur the installation of grid-tied solar power systems, so that customers will "purchase" their own power generating system rather than "renting" power from a local utility. These programs include:

- Rebates — to customers (or to installers) to reduce the initial cost of the solar power system, generally based on the size of the system. California, New Jersey, New York, Connecticut, Colorado and other states have rebates that can substantially reduce initial costs.

- Renewable Energy Grants – the federal government will provide grants equal to 30% of the cost of commercial solar power systems placed in service in 2009 and 2010, and solar power systems that are not placed into service prior to December 31, 2010 qualify for the grants so long as construction begins prior to December 31, 2010 and they are placed into service by December 31, 2017.

- Tax Credits — federal and state income tax offsets directly reducing ordinary income tax. New York and California currently offer state tax credits. There is currently a 30% federal tax credit for residential and commercial solar power systems. Commercial customers can elect either a 30% cash payment from the federal grant program or the traditional tax credit. Effective from the beginning of 2009, the $2,000 cap on the federal tax credit for residential solar power systems has been removed, and that credit is now uncapped.

- Accelerated Depreciation — solar power systems installed for businesses (including applicable home offices) are generally eligible for accelerated depreciation.

- Net Metering — provides a full retail credit for energy generated.

- Feed-in Tariffs — are additional credits to consumers based on how much energy their solar power system generates. Feed-in Tariffs set at appropriate rates have been successfully used in Europe to accelerate growth.

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