

**CALIFORNIA ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION FINANCING AUTHORITY**

Request to Approve Project for SB 71 Sales and Use Tax Exclusion¹

**NANOSOLAR, INC.
Application No. 10-SM009**

Wednesday, November 17, 2010

Prepared By: *Heather Williams*

SUMMARY

Applicant – Nanosolar, Inc.

Location – San Jose, Santa Clara County

Industry – Solar: Thin-Film CIGS PV

Project – Expansion of Current Solar Cell Production Manufacturing Facility

Value of Qualified Property – \$140,187,900

Estimated Sales and Use Tax Exclusion Amount² – \$12,757,099

Application Score –

Fiscal Benefits Points:	548
<u>Environmental Benefits Points:</u>	<u>825</u>
Net Benefits Score:	1,373

<u>Additional Benefits Points:</u>	<u>40</u>
Total Score:	1,413

Staff Recommendation – Approval

THE APPLICANT

Nanosolar Inc. (“Nanosolar”) is a C-corporation, founded in 2001 and located in San Jose, California. Nanosolar designs and manufactures thin-film photovoltaic solar cells and panels utilizing Copper Indium Gallium de-Selenide (“CIGS”) technology.

¹ All capitalized terms not defined in this document are defined in the Program’s statute and emergency regulations.

² This amount is calculated based off of the average statewide sales tax rate of 9.1%.

The major shareholders (at 10% or greater) of Nanosolar are:

Benchmark Capital,
Mohr Davidow Ventures,

The corporate officers are:

Geoff Tate, CEO
John McDoo, CFO
Eugenia Corrales, EVP Operations
Brian Sager, VP Corporate Development
Ali Zamanpour, VP Quality & Reliability

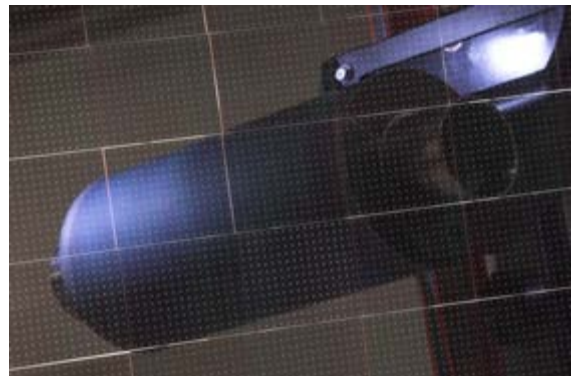
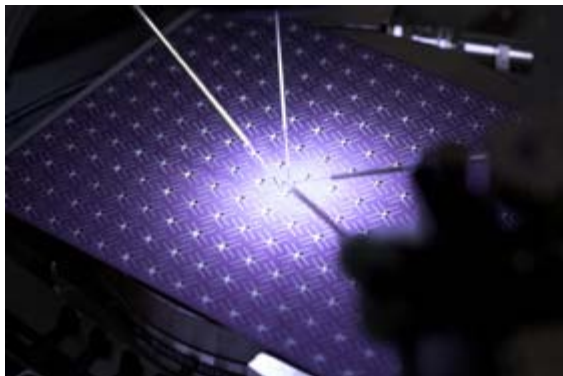
Dave Jackrel, VP Research & Development
Olaf Dany, VP Operations
Brian Stone, VP Sales and Marketing
Backy Baybrook, VP Human Resources

THE PROJECT

Nanosolar has a fully functioning cell production facility located in San Jose, California where high-volume production lines are co-located with a pilot line, and research and development laboratories.

Nanosolar solar cells utilize the CIGS semiconductor, which is a photovoltaic thin-film semiconductor that is recognized as having amongst the highest energy-conversion and durability potential compared to existing thin-film semiconductors. According to the Applicant, the proprietary cell innovations have been focused on developing and demonstrating better ways of processing this device technology, in particular through the use of scalable process technology with higher intrinsic deposition throughput, yield, and uniformity.

Nanosolar has another manufacturing facility located in Lukewalde, state of Brandenburg, Germany. Brandenburg offered a 30 percent capital grant to Nanosolar to expand its facility there; however, with the passage of SB 71, Nanosolar has justified the expansion of the San Jose facility where it plans to stay for the foreseeable future. CAEATFA staff did not evaluate this alternative site documentation further as the Applicant already obtained the minimum point threshold necessary to qualify; thus no additional points were awarded in this category.



Solar Cells

ANTICIPATED COSTS OF QUALIFIED PROPERTY

The anticipated Qualified Property purchases are listed below:

Bottom Electode Deposition System, 3 @ \$10,740,000	\$ 32,220,000
Solar Cell Annealing Oven 3 @ \$3,776,300	11,328,900
Solar Cell Thermal Processing System A, 3 @ 3,100,000	9,300,000
Solar Cell Thermal Processing System B, 3 @ 3,100,000	9,300,000
Solar Cell Thermal Processing System C, 3 @ 3,100,000	9,300,000
Solar Cell Chemical Bath Deposition Sys 3 @ 2,743,000	8,229,000
Solar Cell Transparent Electrode Deposition System A 3 @ 10,635,000 ea.	31,905,000
Solar Cell Transparent Electrode Deposition System B 3 @ 1,635,000 ea.	5,025,000
Solar Cell Lamination Processing system, 3@ 1,250,000	3,750,000
Solar Cell Back Contact Architecture Deposition System 3 @ 4,660,000 ea.	13,980,000
Solar Cell Singulation System, 3 @ \$450,000 ea.	1,350,000
Solar Cell Testing and Sorting System, 3 @ \$1,500,000 ea.	4,500,000
Total	<u>\$140,187,900</u>

Note: The Qualified Property purchases reported in the Application and shown here in staff's report are estimated costs. At the termination of the conveyance/reconveyance agreement a finalized project equipment list will be prepared detailing the value of the Project equipment conveyed and reconveyed and detailing the actual tax benefit realized pursuant to Revenue and Tax Code Section 6010.8. Variations from the costs shown in the Application and in this report may occur prior to the closing due to increased costs of certain components of the Project from original estimates, and other reasons. In addition, such costs may vary after closing due also to increased costs, as well as common design and equipment modifications during construction, differences in equipment due to future changes in law or regulation or for other reasons.

TIMELINE

Nanosolar has completed all the permitting and is ready to install the Qualified Property identified in the application. According to the company, this process will take approximately six months to install the production tools.

PROJECT EVALUATION

NET BENEFITS

The total cost of the Qualified Property purchases is anticipated at \$140,187,900 and the total net benefits are estimated at \$4,763,045 for the Project. The Project received a Total Score of 1,413

which exceeds the required 1,000 point threshold and a total Environmental Benefits Score of 825 which exceeds the 100 point threshold.

- A. Fiscal Benefits (548 points).** The net present value of the total fiscal benefits over the lifetime of the Qualified Property is derived from the company's sales taxes, personal income taxes paid by the firm's employees, firm taxes on profits, property taxes and other indirect fiscal benefits of the Applicant which amounts to \$6,992,728 resulting in a Fiscal Benefits Score of 548 points for the Project.
- B. Environmental Benefits (825 points).** CAEATFA staff estimated that the Project will result in an environmental benefits value of \$10,527,415 over the life of the Facility resulting in an Environmental Benefits Score of 825 points for the Project. These benefits derive from an additional result in generation of MWh of electricity from alternative sources by manufacturing solar panels.
- C. Additional Points (40 of 200 points).** Applicants may earn up to 200 additional points for their final score. The Applicant submitted supplemental information and received 40 additional points.

 - 1) Permanent Jobs (0 of 40 points).** The Applicant's Project will support a total of 400 permanent jobs at the Facility. CAEATFA estimates that approximately 35 of these jobs will be attributable to a marginal increase in jobs created due to the approved sales and use tax exclusion. 0 points were awarded because the marginal increase in jobs created does not meet the required threshold.
 - 2) Construction Jobs (0 of 20 points).** The Applicant's Project will support a total of 10 construction jobs at the Facility. CAEATFA estimates that approximately 1 if these jobs will be attributable to a marginal increase in jobs created due to the approved sales and use tax exclusion. 0 points were awarded because the marginal increase in jobs created does not meet the required threshold.
 - 3) Non-CA Environmental Benefits (40 of 40 points).** The Applicant's total out-of-state non-greenhouse gas pollution benefits are valued at \$6,052,096 resulting in a Non-CA Environmental Benefits Score of 40 points for the Project.

STATUS OF PERMITS/OTHER REQUIRED APPROVALS

Nanosolar has successfully completed all the permitting and is ready to install the Qualified Property identified in the application.

LEGAL QUESTIONNAIRE

Staff reviewed the Applicant's responses to the questions contained in the Legal Status portion of the Application. The responses did not disclose any information that raises questions concerning the financial viability or legal integrity of this Applicant.

CAEATFA FEES

In accordance with CAEATFA regulations,³ the Applicant has paid CAEATFA an Application Fee of \$5,000 and will pay CAEATFA an Administrative Fee of \$350,000.

RECOMMENDATION

Staff recommends approval of Resolution No. 10-SM009 for Nanosolar, Inc.'s purchase of \$140,187,900 of Qualified Property anticipated to result in an approximate sales and use tax exclusion value of \$12,757,099.

³ California Code of Regulations Title 4, Section 10036

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A TITLE
CONVEYANCE AGREEMENT WITH NANOSOLAR, INC.**

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority”) has received the Application of **NanoSolar, Inc.** (the “Applicant”), for financial assistance in the form of a conveyance/reconveyance of title agreement (the “Agreement”) regarding tangible personal property for the design, manufacture, production or assembly of Advanced Transportation Technologies or Alternative Source products, components, or systems (“Qualified Property”) as more particularly described in the staff summary and in the Applicant’s Application to the Authority (collectively, the “Project”); and

WHEREAS, the Applicant has requested the Authority to enter into the Agreement transferring title of Project equipment with a cost not to exceed \$140,187,900 over a period of three years; and

WHEREAS, the Agreement will provide that the Applicant will, prior to any use of the Qualified Property, transfer title at no cost to the Authority from time to time as purchases of Qualified Property are made and the Authority will then transfer title back to the Applicant without having taken possession of the Qualified Property; and

WHEREAS, the Applicant believes that this form of financial assistance will enable it to avail itself of the benefits of an exclusion from sales and use taxes relative to the Qualified Property pursuant to California Revenue and Taxation Code Section 6010.8; and

WHEREAS, approval of the terms of the Agreement and authority for the Executive Director, Deputy Executive Director or Chair of the Authority, to execute the necessary documents to effectuate the Agreement is now sought.

NOW, THEREFORE, BE IT RESOLVED by the California Alternative Energy and Advanced Transportation Financing Authority, as follows:

Section 1. The Project constitutes a “project” within the meaning of Public Resources Code Section 26003(g)(2).

Section 2. The requested conveyance agreement constitutes “financial assistance” within the meaning of Public Resources Code Section 26003(e)(2).

Section 3. The Applicant is a “participating party” within the meaning of Public Resources Code Section 26003(f).

Agenda Item -- 4.B.8
Resolution No. 10-SM009
Application No. 10-SM009

Section 4. The Executive Director, Deputy Executive Director, or Chair of the Authority (the “Authorized Signatories”) are hereby authorized for and on behalf of the Authority to approve any changes to the Project as the Executive Director shall deem appropriate, provided that the amount of the Qualified Property to be purchased may not be increased above the amount approved by the Authority.

Section 5. The proposed form of the Agreement between the Applicant and the Authority, as filed with the Authority prior to this meeting, is hereby approved. The Authorized Signatories are hereby authorized and directed, for and on behalf and in the name of the Authority, to execute, acknowledge and deliver to the Applicant the Agreement in substantially the form filed with or approved by the Authority, with such insertions, deletions or changes therein as the Authorized Signatory executing the same, may require or approve, and with particular information inserted therein in substantial conformance with the staff summary and in the Applicant’s Application to the Authority, such approval to be conclusively evidenced by the execution and delivery thereof. The Authority understands and agrees that pursuant to the terms of the Agreement, the obligations of the Applicant may, under some circumstances be carried out or assumed by a successor or assignee entity, or by an affiliate of the Applicant.

Section 6. Each of the Authorized Signatories, acting alone, is hereby authorized and directed to do any and all ministerial acts, including (without limitation) the execution and delivery of any and all documents and certificates they may deem necessary or advisable in order to consummate the Agreement and otherwise effectuate the purposes of this resolution.

Section 7. The Applicant shall assure CAEATFA that all Qualified Property conveyance pursuant to the Agreement shall be installed, maintained and operated in compliance with all applicable local, state and federal laws.

Section 8. The Agreement shall only apply to Qualified Property that the Applicant certifies will be installed, maintained and operated at facilities within the State of California.

Section 9. The adoption by the Authority of this Resolution for the Applicant shall not be referred to in any application before any governmental agency as evidence of the feasibility, practicality or suitability of the Project or in any application for any required permission or authority to acquire, construct or operate the Project.

Section 10. This Resolution is effective immediately and will remain in full force and effect unless the Regulatory Agreement, as defined in CAEATFA Regulations Section 10035(A), is not executed within thirty (30) days of the date of this Resolution. The Executive Director may extend the thirty days if necessary.