

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

***Consideration of NuvoSun Incorporated’s Request to Approve a Time Extension for the Three  
Year Initial Term of the Title Conveyance Agreement***

**Tuesday, October 15, 2013**

Prepared By: *Alejandro Ruiz*

**Applicant** – NuvoSun Incorporated

**Location** – Milpitas, Santa Clara County

**Industry** – Solar: thin film CIGS PV

**Project** – Two additional CIGS manufacturing lines

**Value of Qualified Property** – \$20,000,000

**Estimated Sales and Use Tax Exclusion Amount**<sup>1</sup> – \$1,820,000

**Amount of Time Requested:**

- 24 months (November 17, 2015) for the Term of the Title Conveyance Agreement (5 years from the date of initial CAEATFA Board approval)

**SUMMARY**

In November 2010, the CAEATFA Board approved a sales and use tax exclusion (“STE”) for NuvoSun Incorporated (“NuvoSun” or the “Applicant”) for the purchase of \$20,000,000 of Qualified Property for the expansion of its facility to include two additional manufacturing lines used for the production of thin-film Copper Indium/Gallium di-Selenide (CIGS) solar photovoltaic modules (“Project”). The Master Regulatory and Title Conveyance Agreement (“Agreement”) initial term provides the Applicant with three years from the date of Board Approval to utilize its STE award. The initial term of the Agreement can be extended by the Board upon a finding that an extension is in the public interest and advances the purposes of the Program.<sup>2</sup>

As of October 1, 2013, NuvoSun has conveyed \$12,682,920.83 (64%) of Qualified Property. In August 2013, CAEATFA staff sent the Applicant a courtesy reminder of the end of the three-year Agreement. NuvoSun responded by requesting a 24-month extension of the Agreement to November 17, 2015 to accommodate a slower capital expenditure schedule than what was originally anticipated due to the increased competition and demand decline in the solar market.

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<sup>1</sup> As presented in the staff summary from November 17, 2010, equivalent to a sales tax rate of 9.1%.

<sup>2</sup> Regulation Section 10035(b)(1)(A)

The Applicant has not made any previous waiver requests. NuvoSun met the 25% purchase requirement where Applicants are required to purchase 25% of the approved Qualified Property within one year of Board approval.

### **About the Applicant**

NuvoSun was incorporated on January 7, 2008 in California and is headquartered in Milpitas, California. NuvoSun is a second generation manufacturer of thin-film solar photovoltaic (“PV”) cells and modules based on flexible CIGS technology.

### **Project Description**

The Project includes expansion of NuvoSun’s existing manufacturing facility by adding two additional manufacturing lines. NuvoSun is focused on CIGS thin film solar cell and module development and manufacturing efforts to develop a complete CIGS solar module exhibiting 10 to 11 percent efficiency. These solar cells are sold to solar developers and installers.

### **Agreement Term Extension Request**

NuvoSun has requested that the initial term of the Agreement be extended from November 17, 2013 to November 17, 2015 in order to allow the company to continue the expansion of its manufacturing facility. The Applicant has not made its Qualified Property purchases at the pace it initially anticipated, and has adopted a more cautious schedule in response to changes in the solar market. According to the Applicant, the solar market has been dramatically impacted by Chinese solar manufacturer competition which has led to an overall decrease in demand in the solar market.

Although NuvoSun is facing difficult market conditions, the Applicant still intends to utilize the full award amount awarded in November 2010. NuvoSun has already constructed its first manufacturing line and will make further improvements to its CIGS manufacturing process before completing its second manufacturing line in early 2015.

### **Staff Evaluation**

NuvoSun has indicated that the requested time extension will allow for the full purchase of Qualified Property as approved on November 17, 2010. Extending the initial term of the Agreement will allow NuvoSun to purchase the remaining Qualified Property to expand its existing manufacturing facilities. Moreover, the Applicant, while not purchasing equipment as originally scheduled, has conveyed Qualified Property each of the past three years. Based on the information presented, staff believes that extending the term of the Agreement is in the public interest and advances the purpose of the original award.

**Staff Recommendation**

Staff recommends that the Board approve NuvoSun’s request to extend the initial term of the Agreement to November 17, 2015 as it is in the public interest and advances the purpose of the original award.

**Attachments**

Attachment A: NuvoSun’s Letter Requesting Waiver (September 24, 2013)

Attachment B: Staff Summary on November 17, 2010

**A RESOLUTION OF THE  
CALIFORNIA ALTERNATIVE ENERGY AND ADVANCED TRANSPORTATION  
FINANCING AUTHORITY APPROVING A TIME EXTENSION FOR  
NUVOSUN INCORPORATED’S INITIAL TERM FOR THE MASTER REGULATORY  
AND TITLE CONVEYANCE AGREEMENT**

**October 15, 2013**

WHEREAS, on November 17, 2010 the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority”), a public instrumentality of the State of California, approved a Sales Tax Exclusion (“STE”) in the amount of \$20,000,000 of Qualified Property for **NuvoSun Incorporated** (the “Applicant”); and

WHEREAS, within three years of the approval by the Authority, the Applicant must make all purchases of the total amount of Qualified Property listed in the approval resolution (Regulations Section 10035(c)(1));

WHEREAS, upon a finding that it is in the public interest and advances the purposes of the Program, the Authority may waive the requirement that all purchases of Qualified Property be made within three years of Application approval (Regulations Section 10035(c)(1)(B));

WHEREAS, the Applicant has requested a waiver of the requirement to purchase all of the Qualified Property within three years, due to unstable solar market conditions, and requests extension of the term from November 17, 2013 to November 17, 2015; and

WHEREAS, granting the waiver will allow the Project to proceed and the state to receive the anticipated environmental and economic benefits that justified the initial approval of the Project in accordance with the law, thereby advancing both the public interest and the purposes of the Program.

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

Section 1. The Authority finds that it is in the public interest and advances the purposes of the Authority to extend the initial term of the Agreement to November 17, 2015.

Section 2. This resolution shall take effect immediately upon its passage.

**Attachment A: NuvoSun's Letter Requesting Waiver**



July 30, 2013

Attention: Saúl Acosta Gómez

California Alternative Energy and Advanced Transportation Financing Authority

915 Capitol Mall, Room 457

Sacramento, California 95814

Re: SB71 Approved Qualified Property waiver request for a time extension.

Dear Mr. Gómez:

NuvoSun Inc. ("NuvoSun or Company") hereby request for a time extension of another 24 (twenty four) months of its un-conveyed and approved Qualified Property which is due to expire on November 17, 2013. We are requesting another 24 months because NuvoSun has slowed down some of its capital purchases and new hires reflecting our current solar market condition. As you know the solar market has been dramatically impacted by Chinese competition and the overall solar market demand slow down. The additional 24 months will allow the company to continue its manufacturing expansion including new capital purchases and new hiring in Milpitas, California and at the same time allow the company to submit conveyance on a timely basis. The additional capital purchases are expected to occur starting in December 2013 and into the later part of year 2015.

We would also like to inform you that NuvoSun Inc. is now a 100% or wholly owned subsidiary of DOW Chemical Company and as such has the financial backing and resources to continue its expansion in Milpitas, California. DOW ([www.dow.com](http://www.dow.com)) is publicly trade (DOW-NYSE) global company and in 2012 posted annual sales of \$57 billion.

Thank you for your time and we look forward to hearing from you.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Thompson".

Kirk Thompson

President

**Attachment B: Staff Summary at Board Approval**

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

*Request to Approve Project for SB 71 Sales and Use Tax Exclusion<sup>3</sup>*

**NUVOSUN INCORPORATED  
Application No. 10-SM013**

**Wednesday, November 17, 2010**

Prepared By: *Heather Williams*

**SUMMARY**

**Applicant** – NuvoSun Incorporated

**Location** – Milpitas, Santa Clara County

**Industry** – Solar: Thin film CIGS PV

**Project** – Two additional CIGS manufacturing lines

**Value of Qualified Property** – \$20,000,000

**Estimated Sales and Use Tax Exclusion Amount<sup>4</sup>** – \$1,820,000

**Application Score** –

Fiscal Benefits Points:	1,426
<u>Environmental Benefits Points:</u>	<u>1,174</u>
<b>Net Benefits Score:</b>	<b>2,600</b>

<u>Additional Benefits Points:</u>	<u>60</u>
<b>Total Score:</b>	<b>2,660</b>

**Staff Recommendation** – Approval

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**THE APPLICANT**

NuvoSun Incorporated (“NuvoSun”) was incorporated on January 7, 2008 in California and is headquartered in Milpitas, California. NuvoSun is a second generation manufacturer of thin-film

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<sup>3</sup> All capitalized terms not defined in this document are defined in the Program’s statute and regulations.

<sup>4</sup> This amount is calculated based off of the average statewide sales tax rate of 9.1%.

solar photovoltaic (“PV”) cells and modules based on flexible Copper Indium/Gallium di-Selenide (“CIGS”) technology. NuvoSun’s mission is to redefine the cost point for PV cells and modules and to become the lowest cost producer of these products by 2012.

The major shareholders (10.0% or greater) of NuvoSun are:

David Pearce  
The Dow Chemical Company

The corporate officers of NuvoSun are:

David Pearce – President & CEO  
Dennis Hollars – CTO  
Bruce Hatchmann – SVP Engineering  
Leroy Luo – Managing Director  
Art Wall – Vice President Process Development  
Tom Valeri – Vice President

**THE PROJECT**

NuvoSun is planning to expand its current manufacturing location in Milpitas, California to add two additional manufacturing lines. NuvoSun is focused on CIGS thin film solar cell and module development and manufacturing efforts to develop a complete CIGS solar module exhibiting ten to eleven percent efficiency. The combination of second generation CIGS thin films and what the Applicant describes as an “ultra low cost proprietary manufacturing process and equipment” will enable NuvoSun to produce solar cells and modules in high volume at cost points that are, according to the Applicant, “below Silicon and other thin film providers.” These modules are sold to solar developers and installers.

NuvoSun considered alternate sites overseas for expansion however decided to instead expand the current manufacturing facility in California. CAEATFA has not evaluated this documentation further, as the Applicant has already obtained the minimum point threshold necessary to qualify, thus no additional points were awarded in this category.

**ANTICIPATED COSTS OF QUALIFIED PROPERTY**

The anticipated Qualified Property purchases are listed below:

Vacuum systems	\$ 8,000,000
Substrate cleaning systems	600,000
Chemical plating equipment	1,000,000
Module assembly equipment	8,500,000
Reliability and test equipment	500,000
Water systems	500,000
Waste treatment systems	<u>900,000</u>
<b>Total</b>	<b><u>\$20,000,000</u></b>

*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**

The various tenant improvements, upgrades and one half of the equipment installation are scheduled to take place during the first two quarters of 2011, with production scheduled to commence in the third quarter of 2011. The second half of the equipment installations is expected to occur between July 1, 2011 and June 30, 2012.

## **PROJECT EVALUATION**

### **NET BENEFITS**

The total cost of the Qualified Property purchases is anticipated at \$20,000,000 and the total net benefits are valued at \$2,911,741 for the Project. The Project received a Final Score of 2,660, which exceeds the required 1,000 point threshold and a total Environmental Benefits Score of 1,174 which exceeds the 100 point threshold.

- A. **Fiscal Benefits (1,426 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, firm taxes on profits, property taxes and other indirect fiscal benefits of the Applicant which amounts to \$2,594,509 resulting in a Fiscal Benefits Score of 1,426 points for the Project.
- B. **Environmental Benefits (1,174 points)**. The Project results in \$2,137,232 of total pollution benefits over the life of the Facility resulting in an Environmental Benefits Score of 1,174 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 Benefits (60 of 200 points)**. Applicants may earn up to 200 additional points for their Total Score. The applicant submitted information and received 60 additional points.
  - a. **Permanent Jobs (20 of 40 points)**. The Applicant's Project will support a total of 150 permanent jobs at their Facility. CAEATFA estimates that approximately 17 of these jobs will be attributable to a marginal increase in

jobs created due to the approved STE resulting in a Permanent Jobs Score of 20 points for the Project.

- b. Construction Jobs (0 of 20 points).** The Applicant’s Project will support a total of 10 construction jobs at their Facility. CAEATFA estimates that approximately 1 of these jobs will be attributable to a marginal increase in jobs created due to the approved STE. 0 points were awarded because the marginal increase in jobs created does not meet the required threshold.
  
- c. Non-CA Environmental Benefits (40 of 40 points).** The Applicant’s total value of out-of-state non-greenhouse gas pollution benefits are valued at \$491,494 resulting in a Non-CA Environmental Benefits Score of 40 points for the Project.

### **STATUS OF PERMITS/OTHER REQUIRED APPROVALS**

NuvoSun has obtained the required permits.

### **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,<sup>5</sup> the Applicant has paid CAEATFA an Application Fee of \$5,000 and will pay CAEATFA an Administrative Fee of up to \$80,000.

### **RECOMMENDATION**

Staff recommends approval of Resolution No. 10-SM013 for NuvoSun Incorporated’s purchase of Qualified Property in an amount not to exceed \$20,000,000 anticipated to result in an approximate sales and use tax exclusion value of \$1,820,000.

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<sup>5</sup> California Code of Regulations Title 4, Division 13, Article 3, Section 10036.

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A TITLE  
CONVEYANCE AGREEMENT WITH NUVOSUN INCORPORATED**

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority”) has received the application of **NuvoSun Incorporated** (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 an cost not to exceed \$20,000,000 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, 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).

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.