

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

*Request to Approve Project for Sales and Use Tax Exclusion (STE)<sup>1</sup>*

**Millennium Space Systems, Inc.  
Application No. 15-SM020**

**Tuesday, December 15, 2015**

Prepared By: *Ashley Bonnett, Analyst*

**SUMMARY**

**Applicant** – Millennium Space Systems, Inc.

**Location** – El Segundo, Los Angeles County

**Industry** – Aerospace

**Project** – Expansion of Existing Manufacturing Facility (Advanced Manufacturing)

**Value of Qualified Property** – \$4,284,672

**Estimated Sales and Use Tax Exclusion Amount<sup>2</sup>** – \$360,769

**Application Score<sup>3</sup>** –

Fiscal Benefits Points:	3,850
<u>Environmental Benefits Points:</u>	<u>180</u>
<b>Net Benefits Score:</b>	<b>4,030</b>
<u>Additional Benefits Points:</u>	<u>159</u>
<b>Total Score:</b>	<b>4,190</b>

**Staff Recommendation** – Approval

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<sup>1</sup> All capitalized terms not defined in this document are defined in the Program’s statute and regulations.  
<sup>2</sup> This amount is calculated based on the average statewide sales tax rate of 8.42%.  
<sup>3</sup> Point values in the staff summary may not add up correctly due to rounding in the Application worksheet.

**THE APPLICANT**

Millennium Space Systems, Inc. (“Millennium” or the “Applicant”), established in 2001, is a Delaware corporation based in El Segundo, where Millennium produces high-performance satellites for military, national security, and civil space applications for customers including NASA and the Department of Defense. Millennium’s services include space system and mission concept development; spacecraft design, analysis, modeling, simulation, software development and verification testing; and mission operations training, simulation, and vehicle check-out operations.

The major shareholders (10.0% or greater) of Millennium Space Systems, Inc. are:

Stan Dubyn  
Alex Lushtak  
Selim Day

The corporate officers of Millennium Space Systems, Inc. are:

Stan Dubyn, Chief Executive Officer  
Alex Lushtak, Treasurer  
Selim Day, Secretary  
Vince Deno, President

**THE PROJECT**

The Applicant plans to build out 30,000 square feet of space at its El Segundo facility, which the Applicant represents will increase its capacity to design, manufacture, assemble, integrate, and test satellites and component parts (the “Project”). The Applicant represents the manufacturing process will utilize advanced science, engineering, and information technologies enabling a more efficient automated manufacturing process to meet production goals.

The Project will include a Surface Mount Technology soldering line, a machine that uses linear motors and vacuum pressure to pick up electronic parts and place them on a printed circuit board within 55 micrometers of accuracy at a rate of up to 30,000 components per hour, and a vapor phase solder reflow machine that the Applicant represents provides a more reliable solder result. The Applicant also represents the Project will use advanced materials including titanium alloys, composite thermoplastics, carbon fiber/graphic, and Invar, a nickel-iron alloy, and additive manufacturing to create component parts for reaction wheels, star trackers, and satellite buses.

The Applicant represents the Project will produce products that are up to 80% smaller in a significantly smaller facility with fewer people compared to industry standard, providing a corresponding reduction in its environmental impact. For example, the Applicant represents the Project will use 30% less water compared to industry standard through the use of high efficiency electric fan driven air chillers instead of water cooling towers, as used by competitors. The Applicant also represents the Project will use 80% less energy compared to industry standard because of the smaller facility size of 70,000 total square feet compared to more than 1 million square feet at competitor facilities, the use of LED lighting, high efficiency air conditioning, and insulation throughout, as well as the manufacturing process requiring fewer electronics.

**ANTICIPATED COSTS OF QUALIFIED PROPERTY**

The anticipated Qualified Property purchases are listed below:

Concrete	\$ 41,120
Masonry	65,450
Metals	374,500
Woods and Plastics	212,167
Thermal and Moisture Protection	51,450
Doors and Windows	164,750
Finishes	715,279
Conveying Systems	78,000
Mechanical (Fire Sprinklers, Plumbing, HVAC)	486,598
Electrical (Power Infrastructure, Lighting)	745,608
Component Storage – Inovaxe Cart	50,000
Solder Paste Application	125,000
Stencil Cleaner	26,000
Pick and Place - Samsung SM482	150,000
Vapor Phase Reflow Oven	236,000
Automated Inspection System	60,000
Real Time X-ray with CT Capability	200,000
In-line Circuit Board Cleaner	77,000
Ionic Cleanliness Testing	14,000
Plated Through Hole Soldering	160,000
Surface Mount Technology Rework Station	23,000
Component Processing	4,000
Conformal Coat	100,000
Manual Inspection Microscopes	14,000
Storage Racks and Cabinets	14,250
Electrostatic Discharge Work Station / Benches	45,000
Curing Ovens	22,000
Refrigerator / Freezer	1,000
Electrostatic Discharge Carts and Storage Totes	12,500
Cross Section Analysis	16,000
<b>Total</b>	<b><u>\$4,284,672</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 master regulatory agreement a finalized project equipment list will be prepared detailing the value of the Project equipment acquired and detailing the actual tax benefit realized pursuant to Revenue and Tax Code Section 6010.8. Variance 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) over 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 Applicant represents Project design began in July 2015 and construction will begin in February 2016. The anticipated placed in service date is June 2016.

## **PROJECT EVALUATION**

### **NET BENEFITS**

The total cost of the Qualified Property purchases is anticipated to be \$4,284,672. The Project received a Total Score of 4,190 points, which exceeds the required 1,000 point threshold and a total Environmental Benefits Score of 180 points, which exceeds the 20 point threshold.

- A. Fiscal Benefits (3,850 points).** The net present value of the total fiscal benefits over the lifetime of the Qualified Property is derived from the Applicant'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 \$1,389,088 resulting in a Fiscal Benefits score of 3,850 points for the Project.
  
- B. Environmental Benefits (180 points).** The Project will result in an Environmental Benefits Score of 180. The Applicant received points in the following categories:
  - 1. Energy Consumption (30 of 30 points).** The Applicant represents that its manufacturing process will result in an 80% reduction in energy consumption relative to the industry standard manufacturing process.
  
  - 2. Water Use (30 of 30 points).** The Applicant represents that its manufacturing process will result in a 30% reduction in water use relative to the industry standard manufacturing process.
  
  - 3. Solid Waste (30 of 30 points).** The Applicant represents that its manufacturing process will result in an 80% reduction in solid waste produced relative to the industry standard manufacturing process.
  
  - 4. Hazardous Waste (30 of 30 points).** The Applicant represents that its manufacturing process will result in an 80% reduction in hazardous waste produced relative to the industry standard manufacturing process.
  
  - 5. Air Pollutants (30 of 30 points).** The Applicant represents that its manufacturing process will result in an 80% reduction in air pollutants produced relative to the industry standard manufacturing process.

6. **Other Pollutants (30 of 30 points)**. The Applicant represents that its manufacturing process will result in an 80% reduction in other pollutants produced relative to the industry standard manufacturing process.

C. **Additional Benefits (159 points)**. Applicants may earn additional points for their Total Score. The applicant submitted information and received 159 additional points.

1. **Permanent Jobs (40 of 75 points)**. The Applicant's Project will support a total of 25 permanent jobs at its Facility. CAEATFA estimates that approximately two 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 40 points for the Project.
2. **Construction Jobs (45 of 75 points)**. The Applicant's Project will support a total of 30 construction jobs at its Facility. CAEATFA estimates that approximately two of these jobs will be attributable to a marginal increase in jobs created due to the approved STE resulting in a Construction Jobs Score of 45 points for the Project.
3. **Unemployment (9 of 50 points)**. The Applicant's Project is located in Los Angeles County which has an average annual unemployment rate of 8.2%. This is above 110% of the statewide average annual unemployment rate which is currently 7.5% resulting in an Unemployment Score of 9 points for this Project.
4. **Research and Development Facilities (25 points)**. The Applicant has verified that it has a facility located in California that performs research and development functions related to satellite and component parts production.
5. **Industry Cluster (40 points)**. The industry associated with this Application has been identified by the Harvard Business School Institute for Strategy and Competitiveness as an industry cluster of the region of the Project's location.

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

The Applicant represents the Project will require permits including plan check and building permits from the City of El Segundo; electrical, mechanical, and plumbing permits; and fire sprinkler permits from El Segundo Fire Department, all of which the Applicant anticipates receiving by February 2016.

## **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>4</sup> the Applicant has paid CAEATFA an Application Fee of \$2,217 and will pay CAEATFA an Administrative Fee of up to \$17,138.69.

## **RECOMMENDATION**

Staff recommends approval of Resolution No. 15-SM020 for Millennium Space Systems, Inc.'s purchase of Qualified Property in an amount not to exceed \$4,284,672 anticipated to result in an approximate sales and use tax exclusion value of \$360,769.

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<sup>4</sup> California Code of Regulations Title 4, Division 13, Section 10036

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A MASTER  
REGULATORY AGREEMENT WITH MILLENNIUM SPACE SYSTEMS, INC.**

December 15, 2015

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority” or “CAEATFA”) has received the Application of **Millennium Space Systems, Inc.** (the “Applicant”), for financial assistance in the form of a master regulatory agreement (the “Agreement”) regarding tangible personal property utilized in an Advanced Manufacturing process or 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 to acquire Project equipment with an estimated cost not to exceed \$4,284,672 over a period of three years; 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(a)(8)(B).

Section 2. The requested master regulatory agreement constitutes “financial assistance” within the meaning of Public Resources Code Section 26003(a)(6).

Section 3. The Applicant is a “participating party” within the meaning of Public Resources Code Section 26003(a)(7).

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.

**Agenda Item – 4.A.2**  
**Resolution No. 15-SM020**  
**Application No. 15-SM020**

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 listed in the semi-annual reports 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.