

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

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

**Space Exploration Technologies Corporation  
Application No. 15-SM014**

**Tuesday, October 20, 2015**

Prepared By: *James Shimp, Analyst*

**SUMMARY**

**Applicant** – Space Exploration Technologies Corporation

**Location** – Hawthorne, Los Angeles County

**Industry** – Aerospace Engineering

**Project** – Expansion of an Existing Spaceship and Advanced Rockets Manufacturing Facility  
(Advanced Manufacturing)

**Value of Qualified Property** – \$360,169,639

**Estimated Sales and Use Tax Exclusion Amount<sup>2</sup>** – \$30,326,284

**Application Score** –

Fiscal Benefits Points:	1,337
<u>Environmental Benefits Points:</u>	<u>45</u>
<b>Net Benefits Score:</b>	<b>1,382</b>
<u>Additional Benefits Points:</u>	<u>119</u>
<b>Total Score:</b>	<b>1,501</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%.

**THE APPLICANT**

Space Exploration Technologies Corporation (“SpaceX” or “Applicant”) is a Delaware corporation, founded in 2002 by Elon Musk with the goal of revolutionizing space transportation. To that end, SpaceX designs, manufactures, and launches advanced rockets and spacecraft. SpaceX is contracted by the United States Government, private entities, and foreign agencies to provide space launch services transporting cargo and, in the future, human crew. SpaceX is headquartered in Hawthorne, California, and also has its design, production, and assembly facilities in California.

The major shareholders (10.0% or greater) of Space Exploration Technologies Corporation are:

Elon Musk Revocable Trust

The corporate officers of Space Exploration Technologies Corporation are:

Elon Musk, Chairman and CEO  
Gwynne Shotwell, President  
Bret Johnsen, CFO  
Tim Hughes, Asst. Secretary  
Kimbal Musk, Secretary

**THE PROJECT**

SpaceX is requesting a sales and use tax exclusion to upgrade and expand existing design, production, and assembly infrastructure for spacecraft and advanced rockets at its Hawthorne facility (the “Project”). Specifically, SpaceX is developing two advanced rockets (Falcon 9 and Falcon Heavy) and two spacecraft (Dragon Cargo and Dragon Crew). Falcon 9 is a two-stage rocket designed for transporting satellites and Dragon spacecraft. The rocket is unique in that it includes a simple two stage configuration that minimizes the number of separation events. Falcon Heavy is similar to Falcon 9, but has the capability to carry a significantly greater payload. Falcon Heavy is still in development and, when ready, is anticipated to be the most powerful operational launch vehicle in the world. The Applicant represents that the Falcon Heavy will be able to lift more than twice the payload of its closest competition for a fraction of the cost. The Applicant further represents that this technology, unrivaled since the Saturn V moon rocket last flown in 1973, will restore the possibility of flying missions with crew to Mars. To support these capabilities, SpaceX has developed a cargo carrying spacecraft, known as Dragon Cargo. The Applicant is also developing Dragon Crew, which will be capable of carrying humans to orbiting destinations such as the International Space Station.

In order to meet its ambitious goals, SpaceX is investing in highly sophisticated equipment and technology. For example, the Applicant will use 3D printers to manufacture component parts, for both rockets and spacecraft, capable of withstanding the pressures of launch and space travel. Additional technologies include Computer Numerically Controlled machining equipment, for added precision, and advanced material composites for increased strength and durability. SpaceX

states that these investments will allow it to improve beyond industry standards in the creation of reusable advanced rockets, larger rockets capable of carrying greater payloads, transportation of human crew, and use of new engines that use methane for fuel.



*Figure 1: Dragon Spacecraft*

**ANTICIPATED COSTS OF QUALIFIED PROPERTY**

The anticipated Qualified Property purchases are listed below:

3D Printers	\$ 4,909,800
Advanced Fiber Placement System (AFP)	10,409,000
Avionics Machinery and Equipment	22,667,516
Composite Machinery and Equipment	19,510,550
Computers and Software	20,598,589
Facility Upgrades	85,407,617
Lathes, Tables, and Stands	17,407,029
Linear Flow Improvements	3,172,000
Machinery and Equipment to Manufacture Specialized Tooling	7,019,572
Multi-Use Machinery and Equipment	30,871,289
Production Machinery and Equipment	7,815,330
Propulsion Machinery and Equipment	13,009,000
Quality Assurance Machinery and Equipment	9,766,915
Robots, Robotics, Automation Machinery and Equipment	21,249,258

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Shakers	4,423,800
Shipping System	6,722,218
Solar Panels and Backup Power	15,000,000
Specialized Tools	39,007,197
Tanks, Racks, and Storage	5,837,436
Transportation related Machinery and Equipment	8,640,803
Welding Equipment	<u>6,724,721</u>
<b>Total</b>	<b><u>\$360,169,639</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**

SpaceX is currently in the process of upgrading its facilities and equipment purchases have already begun. It plans on purchasing and installing additional property over the next three years.

## **PROJECT EVALUATION**

### **NET BENEFITS**

The total cost of the Qualified Property purchases is anticipated to be \$360,169,639. The Project received a Total Score of 1,501 points, which exceeds the required 1,000 point threshold and a total Environmental Benefits Score of 45 points, which exceeds the 20 point threshold.

- A. Fiscal Benefits (1,337 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 \$40,537,040 resulting in a Fiscal Benefits score of 1,337 points for the Project.
  
- B. Environmental Benefits (45 points).** The Project will result in an Environmental Benefits Score of 45. The Applicant received points in the following categories:
  - 1. Environmental Sustainability Plan (20 of 20 points).** The Applicant represents that they will implement an environmental sustainability plan for the Project that will monitor and reduce electrical consumption, utilizing alternative energy sources when possible. SpaceX also monitors its hazardous

waste, solid waste, and air pollution, with an aim to reduce overall environmental impact for the Project.

2. **Energy Consumption (5 of 30 points)**. The Applicant represents that their manufacturing process will result in a 5% reduction in energy consumption relative to the industry standard manufacturing process.
3. **Solid Waste (15 of 30 points)**. The Applicant represents that their manufacturing process will result in a 15% reduction in solid waste produced relative to the industry standard manufacturing process.
4. **Air Pollutants (5 of 30 points)**. The Applicant represents that their manufacturing process will result in a 5% reduction in air pollutants produced relative to the industry standard manufacturing process.

C. **Additional Benefits (119 points)**. Applicants may earn additional points for their Total Score. The applicant submitted information and received 119 additional points.

1. **Permanent Jobs (45 of 75 points)**. The Applicant's Project is anticipated to support a total of 4,150 permanent jobs at its Facility. CAEATFA estimates that approximately 180 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 45 points for the Project.
2. **Construction Jobs (0 of 75 points)**. The Applicant's Project is anticipated to support a total of 50 construction jobs at its Facility. CAEATFA estimates that approximately 2 of these jobs will be attributable to a marginal increase in jobs created due to the approved STE. Zero points were awarded because the marginal increase in jobs does not meet the required threshold.
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 advanced rocket and spacecraft manufacturing.
5. **Industry Cluster (40 points)**. The aerospace industry associated with this Application has been identified by the Los Angeles County Economic

Development Corporation as an industry cluster of the region of the Project's location.

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

Space X has obtained all relevant permits, such as building and equipment installation, necessary for the continuing work on the Project.

### **LEGAL QUESTIONNAIRE**

Staff has reviewed the Applicant's responses to the questions contained in the Legal Status portion of the Application. The Executive Director, in consultation with legal counsel, has determined that the legal issues disclosed do not affect the financial viability or legal integrity of the Applicant.

### **CAEATFA FEES**

In accordance with CAEATFA Regulations, the Applicant has paid CAEATFA an Application Fee of \$10,000 and will pay CAEATFA an Administrative Fee up to \$350,000<sup>3</sup>.

### **RECOMMENDATION**

Staff recommends approval of Resolution No. 15-SM014 for Space Exploration Technologies Corporation's purchase of Qualified Property in an amount not to exceed \$360,169,639 anticipated to result in an approximate sales and use tax exclusion value of \$30,326,284.

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

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A MASTER  
REGULATORY AGREEMENT WITH SPACE EXPLORATION TECHNOLOGIES  
CORPORATION**

October 20, 2015

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority” or “CAEATFA”) has received the Application of **Space Exploration Technologies Corporation** (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 \$360,169,639 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.

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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.