

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

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

**Applied Materials, Inc.  
Application No. 20-SM008**

**Tuesday, March 17, 2020**

Prepared By: *Ashley Emery, Program Manager*

**SUMMARY**

**Applicant** – Applied Materials, Inc.

**Location** – Santa Clara and Sunnyvale, Santa Clara County

**Industry** – Semiconductor and Related Industries Fabrication Equipment Manufacturing

**Project** – Upgrade and Expansion of Existing Semiconductor and Related Industries Fabrication Equipment Manufacturing Facility (Advanced Manufacturing)

**Value of Qualified Property** – \$118,692,224

**Estimated Sales and Use Tax Exclusion Amount<sup>2</sup>** – \$9,922,670

**Competitive Criteria Score** – 70

**Application Score** –

Fiscal Benefits Points:	2,106
<u>Environmental Benefits Points:</u>	<u>54</u>
<b>Net Benefits Score:</b>	<b>2,160</b>

<u>Additional Benefits Points:</u>	<u>105</u>
<b>Total Score:</b>	<b>2,265</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 8.36%.

## **THE APPLICANT**

Applied Materials, Inc. (“Applied” or the “Applicant”), a Delaware corporation formed in 1967, is publicly traded on the Nasdaq stock exchange under the ticker symbol AMAT. According to the Applicant, over the decades, the company has transformed from a small start-up to a leader in materials engineering solutions that are used to produce virtually every advanced display and new microchip on the planet. Applied manufactures production equipment, related parts, support, and software to the display, semiconductor and related industries. Its customers include manufacturers of liquid crystal diode (“LCD”) and organic light-emitting diode (“OLED”) displays, semiconductor chips, and other electronic devices.



*Figure 1: One of Applied Material’s Products, the AKT PECVD System, which Processes LCD Displays*

The corporate officers of Applied Materials, Inc. are:

- Mr. Gary E. Dickerson, President & CEO
- Mr. Daniel J. Durn, SVP & CFO
- Mr. Ali Salehpour, SVP & GM - New Markets and Service Group
- Dr. Prabhu G. Raja, SVP - Semiconductor Products Group
- Mr. Steve Ghanayem, SVP - New Markets and Alliances
- Mr. Thomas F. Larkins, SVP, General Counsel
- Dr. Omkaram Nalamasu, SVP & CTO

## **THE PROJECT**

Applied is requesting a sales and use tax exclusion to upgrade and expand its existing display and semiconductor fabrication equipment manufacturing facilities located in Santa Clara and Sunnyvale (the “Project”). The Applicant explains the Project will include the upgrade of its

existing research and development, design, manufacturing and testing equipment, the build-out and improvement of its facilities, and upgrade of its sanitation equipment used to clean chemicals and gases used in the manufacturing process.

According to the Applicant, in order to produce the world’s most advanced microchips, its products must include advanced information technology systems and review processes. For example, the Applicant’s semiconductor manufacturing tools (equipment and systems used to produce microchips) have integrated systems with extensive data storage and full network capabilities, which the Applicant explains are used to collect and analyze immense volumes of data to detect irregular patterns or errors and provide data analytics to Applied’s engineers and manufacturing teams. The Applicant states its machine learning scientists analyze the data to design and build semiconductor manufacturing tools with sophisticated fault detection and predictive maintenance capabilities that can avoid performing functions that can lead to failures and errors, as opposed to only focusing on an actual error or failure event after it has happened.

The Project will also use advanced technologies to increase production efficiency. For example, Applied utilizes 3D printing to more quickly produce certain test and prototype parts and reduce waste. Additionally, the Applicant states it uses augmented /virtual reality (“AR/VR”) systems to train employees on how to build, assemble, and troubleshoot products, reducing the financial cost and time on building physical prototypes, as well as reducing errors during production. Applied explains that the AR/VR technology may also help reduce the risk of injury to its employees.

According to the Applicant, the Project will reduce the company’s energy consumption by utilizing LED lighting and installing solar panels. Additionally, the Project will use a reverse osmosis filtration systems that reclaims water used during the manufacturing process and reuses it in the facilities’ cooling towers to reduce the Applicant’s water use.

### **ANTICIPATED COSTS OF QUALIFIED PROPERTY**

The anticipated Qualified Property purchases are listed below:

Materials for Construction and Improvements to Real Property	\$ 25,317,224
Manufacturing and Production Equipment	20,125,000
IT, Computer, and Electronic Property	19,950,000
Metrology, Testing and Quality Control Equipment & Related Property	19,600,000
Lab Devices & Scientific Instruments	6,950,000
Research & Development, Design, Engineering Property	19,250,000
Storage Systems, Logistics and Related Property	<u>7,500,000</u>
<b>Total</b>	<b><u>\$118,692,224</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 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 states Qualified Property purchases will begin in Q1 of 2020 and construction will take place throughout 2020. The Applicant anticipates completing the Project by Q1 2022.

## **COMPETITIVE CRITERIA SCORE**

In the event that CAEATFA receives Applications in excess of the statutory \$100 million cap for that calendar year, the order in which the Applications shall be considered in the same month will be ranked based on five Competitive Criteria.

The Applicant received 70 Competitive Criteria points as follows:

1. **Environmental Benefits (0 points)**. The Applicant's Project did not earn any Total Pollution Benefits points (i.e. did not have environmental benefits that could be monetized and scored pursuant to the Program's regulations<sup>3</sup>), therefore no points are awarded.
2. **Unemployment (0 of 50 points)**. The Applicant's Project is located in Santa Clara County, which has an average annual unemployment rate of 2.5%. When compared to the statewide average annual unemployment rate, which was 4.1% in 2019, the dataset used in the Application, the Project location earned the Applicant an Unemployment Score of zero points.
3. **Job Creation (55 of 75 points)**. The Applicant represents that the Project will support a total of 3,154 production-related jobs at its Facility. CAEATFA estimates that approximately 66 of these jobs will be attributable to a marginal increase in jobs created due to the STE. Based on the amount of STE per estimated number of jobs created, the Applicant earned 55 points.
4. **California Headquarters (15 points)**. The Applicant has a California Corporate Headquarters, therefore 15 points are awarded.
5. **Natural Disaster Relief (0 points)**. The Project is not to rebuild or relocate the Applicant's Facility due to a fire, flood, storm, or earthquake identified in the state of emergency proclamation made by the California State Governor within two years of the time of application, therefore zero points are awarded.

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<sup>3</sup> California Code of Regulations Title 4, Division 13, Section 10033(c)(4)

## **PROJECT EVALUATION**

### **NET BENEFITS**

The Project received a Total Score of 2,265 points, which exceeds the required 1,000-point threshold, and a total Environmental Benefits Score of 54 points, which exceeds the 20-point threshold.

- A. Fiscal Benefits (2,106 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 \$20,897,003, resulting in a Fiscal Benefits score of 2,106 points for the Project.
- B. Environmental Benefits (54 points).** The Project earned an Environmental Benefits Score of 54. The Applicant received points in the following categories:

  - 1. Environmental Sustainability Plan (20 of 20 points).** The Applicant will implement an environmental sustainability plan for its Project that seeks to maximize energy efficiency, reduce greenhouse gas emissions, reduce waste, and conserve natural resources.
  - 2. Energy Consumption (20 of 30 points).** The Applicant represents that the Project will result in a 20% reduction in energy consumption compared to the Applicant’s previous manufacturing process/industry standard manufacturing process through the use of LED lighting and rooftop solar.
  - 3. Water Use (14 of 30 points).** The Applicant represents that the Project will result in a 14% reduction in water use relative to the Applicant’s previous manufacturing process through the use of reverse osmosis filtration systems that reclaims water used during the manufacturing process and reuses it in the facilities’ cooling towers.
- C. Additional Benefits (105 points).** Applicants may earn additional points for their Total Score. The Applicant submitted information and received 105 additional points.

  - 1. Production Jobs (55 of 75 points).** The Applicant represents that the Project will support a total of 3,154 production-related jobs at its Facility. CAEATFA estimates that approximately 66 of these jobs will be attributable to a marginal increase in jobs created due to the STE. Based on the amount of STE per estimated number of jobs created, the Applicant earned 55 points.
  - 2. Construction Jobs (0 of 75 points).** The Applicant represents that the Project will support a total of 45 construction jobs at its Facility. CAEATFA

estimates that approximately 1 of these jobs will be attributable to a marginal increase in jobs created due to the STE. Based on the amount of STE per estimated number of jobs created, the Applicant earned zero points.

3. **Unemployment (0 of 50 points)**. The Applicant’s Project is located in Santa Clara County, which has an average annual unemployment rate of 2.5 %. When compared to the statewide average annual unemployment rate, which was 4.1% in 2019, the dataset used in the Application, the Project location earned the Applicant an Unemployment Score of zero points.
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 its product development.
5. **Workforce Partnerships (25 points)**. The Applicant has partnerships with a variety of schools, including Stanford, UC Berkeley, UCLA, UCSD, San Jose State, and Santa Clara University for the purpose of for the purposes of assisting in the training of potential future workers. The Applicant also has a partnership with Caltech to enable its engineers to earn a Caltech Systems Engineering certificate through a customized program specifically designed around the company’s business, technologies and industry nomenclature.

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

According to the Applicant, all necessary permits, including building, installation, and operational permits from the cities of Santa Clara and Sunnyvale have been obtained.

## **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 \$10,000 and will pay CAEATFA an Administrative Fee of up to \$350,000.

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

**RECOMMENDATION**

Staff recommends approval of Resolution No. 20-SM008 for Applied Materials, Inc.'s purchase of Qualified Property in an amount not to exceed \$118,692,224, anticipated to result in an approximate sales and use tax exclusion value of \$9,922,670.

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A MASTER  
REGULATORY AGREEMENT WITH APPLIED MATERIALS, INC.**

March 17, 2020

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority” or “CAEATFA”) has received the Application of **Applied Materials, 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 \$118,692,224 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.F.16**  
**Resolution No. 20-SM008**  
**Application No. 20-SM008**

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.