

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

***Consideration of Enovix Corporation's Request to Approve a Time Extension for the Three Year Initial Term of the Title Conveyance Agreement<sup>1</sup>***

**Enovix Corporation  
Application No. 14-SM001**

**January 17, 2017**

Prepared By: *Ellen Hildebrand, Analyst*

**SUMMARY**

**Applicant** – Enovix Corporation

**Location** – Fremont, Alameda County

**Industry** – Lithium Ion Battery Production

**Project** – New Lithium Ion Battery Production Facility (Advanced Manufacturing)

**Value of Qualified Property** – \$16,234,215

**Estimated Sales and Use Tax Exclusion Amount<sup>2</sup>** – \$1,358,804

**Amount of Time Requested:**

- Two years, until February 18, 2019, for the Term of the Master Regulatory Agreement (two years from the date of initial CAEATFA Board approval)

**SUMMARY**

In February 2014, the CAEATFA Board approved a sales and use tax exclusion (“STE”) for Enovix Corporation (“Enovix” or the “Applicant”) for the purchase of \$16,234,215 of Qualified Property for the construction of a lithium ion battery production facility (the “Project”). The Master Regulatory Agreement (“Agreement”) initial term provided 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>3</sup>

---

<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 8.37%.

<sup>3</sup> The provision of the regulations allowing CAEATFA to waive the requirement that all purchases of Qualified Property be made within three years of Application approval is in Regulation Section 10035(b)(1)(A).

As of January 5<sup>th</sup>, 2017, Enovix has used the STE on the purchase of \$3,003,686 of Qualified Property (19% of the total Qualified Property approved). Enovix requested an extension of the Agreement initial term by two years to accommodate delays in the achievement of technical milestones. The Applicant states that the pilot production project experienced delays when additional development work was required on the anode and cathode in the battery under development. To achieve the required milestones, Enovix had to modify its battery and transition to a new cathode material that was only recently made available. The Applicant represents that they have made significant progress in the last six months and have achieved their most recent milestone. Enovix expects that in roughly three months, they will achieve another milestone, allowing them to resume purchases and complete the Project by February 2019.

### **About the Applicant**

Enovix Corporation is a California corporation founded in 2006. Enovix is focused on developing and manufacturing lithium ion batteries.

### **Project Description**

Enovix has been in the process of building a pilot scale manufacturing line to produce lithium ion batteries using its patented 3D wave architecture. The manufacturing process will utilize advanced materials that will result in a substantial advancement over traditional lithium ion battery manufacturing. Specifically, Enovix claims that using silicon wafer and silicon manufacturing methods to produce batteries on wafers, rather than traditional jellyroll manufacturing, will result in a battery with twice the energy density of commercially available batteries today. Since Enovix has created a new way of manufacturing batteries, the high-precision tools and equipment required for the process are being co-developed with suppliers from more traditional industries such as semiconductor, PCB (printed circuit board), and solar.

### **Agreement Term Extension Request**

Enovix has requested that the initial term of the Agreement be extended from February 18, 2017 to February 18, 2019 to accommodate technical development delays in the Project timeline.

### **Staff Evaluation**

Enovix has indicated that though their Project initially experienced development delays, they have since overcome the technical issues causing the delays. The Applicant represents that now that they have overcome the technical issues, they have a clear path forward and expect to resume purchasing equipment in mid-2017. Because Enovix's Project involves the development of new cutting edge technology, some delay in the development timeline can be expected. Enovix has laid out a new timeline and is continuing to work to achieve milestones in the timeline. Based on this information, staff believes that extending the term of the Agreement will allow for continued success, and is therefore in the public interest and advances the purpose of the program.

**Fees**

In accordance with CAEATFA Regulations,<sup>4</sup> the Applicant will pay an Additional Administrative Fee of \$500 because extending the initial term requires a modification to the Applicant's Master Regulatory Agreement.

**Staff Recommendation**

Staff recommends that the Board approve Enovix Corporation's request to extend the initial term of the Agreement by two years to February 18, 2019 as it is in the public interest and advances the purpose of the program.

**Attachments**

Attachment A: Enovix Corporation's Letter Requesting Waiver (January 5, 2017)

Attachment B: Enovix Corporation's Staff Summary at Time of Approval.

---

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

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

**January 17, 2017**

WHEREAS, on February 18, 2014 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 \$16,234,215 of Qualified Property for **Enovix Corporation** (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(b)(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(b)(1)(A));

WHEREAS, the Applicant has requested a waiver of the requirement to purchase all of the Qualified Property within three years, due to unexpected delays in the Project timeline, extending the term by two years to February 18, 2019;

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 February 18, 2019.

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

Attachment A: Enovix Corporation's Letter Requesting Waiver (January 5, 2016)



3501 W. Warren Ave, Fremont CA 94538 Ph:510-687-1330

January 5<sup>th</sup>, 2017

Deana J. Carrillo  
Executive Director  
California Alternative Energy and Advanced Transportation Financing Authority

**Re: Extension of Alternative Source Transportation Manufacturing Sales and Use Tax Exclusion  
for Enovix - Resolution #14-SM001**

Dear Deanna,

On February 14<sup>th</sup>, 2014, Enovix Corporation was granted a Sales and Use Tax Exclusion under SB71 for the fit out and purchase of pilot production equipment for our Fremont California facility, to produce proprietary Li-ion batteries using the company's technology. To date we have claimed sales and use tax exemptions on \$3,003,686 of purchases against an authorized amount of \$16,234,215. The reasons for this underage are delays in the achievement of key technical milestones that were prerequisites to the full pilot line project. The two key milestones in question were the energy density of our batteries and its cycle life. We have made significant progress over the last 6 months and have hit the pilot production milestone on energy density and are roughly 3 months away from achieving the cycle life milestone. Upon achieving this we will resume ordering of pilot production equipment and are hereby requesting a two (2) year extension on our Sales and Use Tax Exclusion to February 18<sup>th</sup>, 2019.

Sincerely,

A handwritten signature in black ink, appearing to read "Harold J. Rust".

Harold J. Rust, Chief Executive Officer

**Addendum to Extension of Alternative Source Transportation Manufacturing Sales and Use Tax  
Exclusion for Enovix - Resolution #14-SM001**

In the reference document we mentioned that we were requesting an extension to our sales and use tax exemption due to schedule delays in our pilot production project caused not achieving all the necessary milestones to complete the project. Specifically these delays were caused by additional development work required on the anode and cathode in our battery. To achieve the required milestones we had to modify the geometry of our battery, the type of Silicon we use and transition to a new cathode material that was only recently made available.

**Attachment B: Enovix Corporation's Staff Summary at Time of Approval**

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

***Request to Approve Project for Sales and Use Tax Exclusion (STE)<sup>5</sup>***

**Enovix Corporation  
Application No. 14-SM001**

**Tuesday, February 18, 2014**

Prepared By: *Alejandro Ruiz*

**SUMMARY**

**Applicant** – Enovix Corporation

**Location** – Fremont, Alameda County

**Industry** – Lithium Ion Battery Production

**Project** – New Lithium Ion Battery Production Facility (Advanced Manufacturing)

**Value of Qualified Property** – \$16,234,215

**Estimated Sales and Use Tax Exclusion Amount<sup>6</sup>** – \$1,358,804

**Application Score –**

Fiscal Benefits Points:	1,413
<u>Environmental Benefits Points:</u>	<u>90</u>
<b>Net Benefits Score:</b>	<b>1,503</b>
<u>Additional Benefits Points:</u>	<u>105</u>
<b>Total Score:</b>	<b>1,608</b>

**Staff Recommendation** – Approval

---

<sup>5</sup> All capitalized terms not defined in this document are defined in the Program's statute and regulations.

<sup>6</sup> This amount is calculated based on the average statewide sales tax rate of 8.37%.

## **THE APPLICANT**

Enovix Corporation (“Enovix” or the “Applicant”) is located in Fremont, California and was founded in 2006. Enovix is focused on developing and manufacturing lithium ion batteries that have twice the energy density of traditional batteries available today.

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

Doll Corporation  
Soffinova Ventures  
Cypress Semiconductor  
Rockport Capital

The corporate officers of Enovix Corporation are:

Harrold Rust – President and CEO

## **THE PROJECT**

Enovix will build a pilot scale manufacturing line to produce lithium ion batteries using Enovix’s patented 3D wave architecture (the “Project”). The manufacturing process will utilize advanced materials that will result in a substantial advancement over traditional lithium ion battery manufacturing. Specifically, Enovix claims that using silicon wafer and silicon manufacturing methods to produce batteries on wafers, rather than traditional jellyroll manufacturing, will result in a battery with twice the energy density of commercially available batteries today. Since Enovix has created a new way of manufacturing batteries, the high-precision tools and equipment required for the process are being co-developed with suppliers from more traditional industries such as semiconductor, PCB (printed circuit board), and solar.

## **ANTICIPATED COSTS OF QUALIFIED PROPERTY**

The anticipated Qualified Property purchases are listed below:

Wafer Processing	\$11,078,190
Building Retrofits	2,821,025
Electrical and Lighting Improvements	260,000
Dry Room	500,000
Specialty Chemical and Gas Processing and Handling	10,000
Water and Wastewater Treatment	1,515,000
Make-up Air System	50,000
<b>Total</b>	<b><u>\$16,234,215</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**

Enovix expects to move into its new facility, establish its manufacturing line and begin production by the end of 2014.

## **PROJECT EVALUATION**

### **NET BENEFITS**

The total cost of the Qualified Property purchases is anticipated to be \$16,234,215. The Project received a Total Score of 1,608 points, which exceeds the required 1,000 point threshold; and a total Environmental Benefits Score of 90 points, which exceeds the 20 point threshold.

- A. **Fiscal Benefits (1,413 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, and amounts to \$1,920,567, resulting in a Fiscal Benefits score of 1,413 points for the Project.
- B. **Environmental Benefits (90 points)**. The Project will result in an Environmental Benefits Score of 90. The Applicant received points in the following categories:
  1. **Energy Consumption (30 of 30 points)**. The Applicant's manufacturing process will result in a 50% reduction in energy consumption relative to the industry standard manufacturing process.
  2. **Solid Waste (30 of 30 points)**. The Applicant's manufacturing process will result in a 50% reduction in solid waste produced relative to the industry standard manufacturing process.
  3. **Hazardous Waste (30 of 30 points)**. The Applicant's manufacturing process will result in a 50% reduction in hazardous waste produced relative to the industry standard manufacturing process.
- C. **Additional Benefits (105 of 200 points)**. Applicants may earn up to 200 additional points for their Total Score. The applicant submitted information and received 105 additional points:
  1. **Permanent Jobs (35 of 75 points)**. The Applicant's Project will support a total of 55 permanent jobs at its Facility. CAEATFA estimates that approximately 4 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 35 points for the Project.

2. **Construction Jobs (20 of 75 points)**. The Applicant's Project will support a total of 20 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 approved STE, resulting in a Construction Jobs Score of 23 points for the Project.
3. **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 the development of lithium ion batteries.
4. **Workforce Partnerships (25 points)**. The Applicant has a partnership with Lawrence Berkeley National Labs for the purpose of training the workers at the Facility.

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

Enovix will apply for the following permits in 2014: Wastewater Treatment Discharge Permit from the Union Sanitation District, Hazardous Materials Storage Permit from the Fremont Fire Department, Operating Permit(s) from the Bay Area Air Quality Management District, and a Hazardous Waste Generator ID form the Department of Toxic Substances Control.

## **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>7</sup> the Applicant has paid CAEATFA an Application Fee of \$8,117.11 and will pay CAEATFA an Administrative Fee of up to \$64,936.86.

## **RECOMMENDATION**

Staff recommends approval of Resolution No. 14-SM001 for Enovix Corporation's purchase of Qualified Property in an amount not to exceed \$16,234,215, anticipated to result in an approximate sales and use tax exclusion value of \$1,358,804.

## **RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A MASTER REGULATORY AGREEMENT WITH THE ENOVIX CORPORATION**

---

<sup>7</sup> California Code of Regulations Title 4, Division 13, Section 10036

**February 18, 2014**

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority” or “CAEATFA”) has received the Application of **Enovix 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 \$16,234,215 over a period of 3 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.

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.