

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

***Consideration of Hi-Shear Corporation’s Request to Approve a Time Extension for the Three  
Year Term of the Master Regulatory Agreement<sup>1</sup>***

**Hi-Shear Corporation  
Application No. 15-SM008**

**Tuesday, July 17, 2018**

Prepared By: *Xee Moua, Analyst*

**SUMMARY**

**Applicant** – Hi Shear Corporation

**Location** – Torrance, Los Angeles County

**Industry** – Specialty Aerospace Fastener Manufacturing

**Project** – Upgrade of Specialty Aerospace Fastener Manufacturing Facility (Advanced  
Manufacturing)

**Value of Qualified Property** – \$39,385,000

**Estimated Sales and Use Tax Exclusion Amount<sup>2</sup>** – \$3,316,217

**Amount of Time Requested** –

- One year, five months, and 10 days, until December 31, 2019, for the Term of the Master Regulatory Agreement (four years, five months, and 10 days from the date of initial CAEATFA Board approval)

**REQUEST**

In July 2015, the CAEATFA Board approved a sales and use tax exclusion (“STE”) for Hi-Shear Corporation (“Hi-Shear” or the “Applicant”) for the purchase of up to \$39,385,000 in Qualified Property to upgrade infrastructure and specialty aerospace fastener manufacturing equipment at its Torrance 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>

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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> 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 December 31, 2017, Hi-Shear has used the STE to purchase \$27,817,779 of Qualified Property (71% of the total Qualified Property approved). Hi-Shear is requesting to extend the Agreement initial term by one year, five months, and 10 days to accommodate Project delays due to capital constraints following a short-term decline in business. Hi-Shear represents that it had not anticipated a change in the component consumption of its main customer, thereby generating less capital and affecting business objectives. However, as of March 2018, Hi-Shear states that business has increased, enabling the STE award to continue being utilized to meet Project goals. In resuming Project plans, Hi-Shear states that it has created a new timeline for Qualified Property to be purchased; all remaining purchases are scheduled to be ordered by Q4 2018 and put to use Q4 2019.

**About the Applicant**

Hi Shear Corporation, a Delaware corporation established in 1973, is a wholly owned subsidiary of Lisi Aerospace, a worldwide manufacturer of aerospace fasteners and structural components. Lisi Aerospace represents the aeronautics division of its parent company, Lisi Group, a publicly traded company on the Paris Stock Exchange. Hi Shear produces specialty aerospace fasteners for customers such as Boeing, Airbus, Bombardier, and Embraer.

The Monadnock Company, a subsidiary of Hi Shear Corporation, was approved by the CAEATFA Board for an STE award for the purchase of up to \$6,475,000 in Qualified Property to expand its specialty aerospace fastener manufacturing on June 16, 2015, and was granted an extension on May 15, 2018 to use the STE award through December 15, 2018.

**Project Description**

The Applicant is upgrading infrastructure and equipment at its Torrance facility. Investment is being made in sophisticated technology, including a new plating line, high speed headers (used for forging), and grinders. The new equipment will employ Single Minute Exchange of Die (SMED) programs to reduce set up time, Total Productive Maintenance (TPM) programs to improve machine behavior, and Computer Numerically Controlled apparatuses to improve precision and quality. Additionally, the Project will take advantage of microelectronic sensors and extensive robotics. These technologies will be deployed to machine various advanced materials, such as titanium and aluminum alloys, into fasteners that will used throughout the aerospace industry.

Facility upgrades are part of a company-wide initiative to adopt lean manufacturing practices. This initiative, known as the Lisi Excellence Achievement Plan (LEAP), is aimed at increased efficiency and improved employee training. The LEAP program was initially piloted in a small section of the Hi Shear facility, where Collars (threaded fasteners) are manufactured. New equipment and infrastructure were installed and over 5,000 hours of training for employees undertaken. According to the Applicant, the investment resulted in a 30% increase in production, while simultaneously decreasing the footprint taken up by machinery. Hi Shear intends to utilize this newly freed space to install additional equipment.

With the success of the pilot program, the Applicant intends to use their STE award to expand LEAP to larger areas of the facility. The Project is anticipated to result in a sustainable manufacturing system that reduces energy consumption and water use. For example, the Project has already installed a new wastewater treatment plant which recycles plating process rinse water. This upgrade has lowered the site water use 45% relative to usage recorded by the Applicant in 2013.

**Agreement Term Extension Request**

Hi-Shear has requested that the initial term of the Agreement be extended from July 21, 2018 to December 31, 2019 to accommodate business declines and lack of capital that affected its Project timeline. However, the Applicant represents that as a result of increased business, it has been able to resume Qualified Property purchases, and anticipates completing all purchases by the end of 2018.

**Staff Evaluation**

Hi-Shear has indicated that although their Project experienced a decline in business, the impact was short-term. According to the Applicant, demands from its main customer has increased over the last several months and estimates that approximately \$32,685,000 of Qualified Property (83% of the total Qualified Property approved) will be purchased by the end of July 2018. Hi-Shear represents that the remainder of the Qualified Property will be acquired by year end 2018 and expects all equipment to be in use by the end of 2019. It is also the Applicant's understanding that business, including production and job growth will resume as planned. Based on this information, Staff believes that extending the term of the Agreement will allow for the Project to be completed, 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.

**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.

**RECOMMENDATION**

Staff recommends the Board approve Hi-Shear Corporation's request to extend the initial term of the Agreement by one year, five months, and 10 days to December 31, 2019 as it is in the public interest and advances the purpose of the Program.

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

**Attachments**

Attachment A: Hi-Shear Corporation’s letter requesting waiver (May 11, 2018)

Attachment B: Hi-Shear Corporation’s staff summary at the time of approval

**RESOLUTION APPROVING A TIME EXTENSION FOR  
HI-SHEAR CORPORATION’S INITIAL TERM FOR  
THE MASTER REGULATORY AGREEMENT**

**July 17, 2018**

WHEREAS, on July 21, 2015 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 \$39,385,000 of Qualified Property for **Hi-Shear 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)); and

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)); and

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 one year, five months and 10 days to December 31, 2019; 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 December 31, 2019.

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

Attachment A: Hi-Shear Corporation's Letter Requesting Waiver (May 11, 2018)



LINK SOLUTIONS FOR INDUSTRY

HI-SHEAR CORPORATION

May 11, 2018

CAEATFA  
915 Capitol Mall Room 538  
Sacramento, CA 95814

Re: Formal Request for Time Extension

Lisi Aerospace is requesting a time extension to complete the purchase of the qualified property as previously submitted and approved. Lisi will need till the end of December 2019 to complete these purchases as outlined below.

Approved Amount for Leap Project	\$39,385,000
Estimated accumulated completion by July 21,2018	\$32,685,000
Remaining to be completed by December 31, 2019	\$6,700,000

The reason for the delays was due to a slowdown of incoming business. Boeing component consumption was significantly reduced causing lower than expected demand. The reduced statement of work lead to a much slower than expected capital spend. We needed to adjust the amount of spend to be in line with business requirements.

Over the last several months we have seen an increase in Boeing demand and business. The increased demand has created the opportunity to further invest the remaining balance the tax exclusion award. The additional spend in required to meet the ramp up of new business demands that were previously reduced.

Best Regards,

A handwritten signature in blue ink, appearing to read "Christian Darville", written over a blue ink scribble.

Christian Darville  
Executive Vice President of Strategic development

2600 Skypark Drive - TORRANCE - CALIFORNIA 90505 - U.S.A.  
Tel.: 1 (310) 326-8110 - Fax : 1 (310) 784-4144  
www.lisi-aerospace.com

**Attachment B: Hi-Shear Corporation’s Staff Summary at the 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>*

**Hi Shear Corporation  
Application No. 15-SM008**

**Tuesday, July 21, 2015**

Prepared By: *James Shimp*

**SUMMARY**

**Applicant** – Hi Shear Corporation

**Location** – Torrance, Los Angeles County

**Industry** – Specialty Aerospace Fastener Manufacturing

**Project** – Upgrading of Manufacturing Facility (Advanced Manufacturing)

**Value of Qualified Property** – \$39,385,000

**Estimated Sales and Use Tax Exclusion Amount<sup>6</sup>** – \$3,316,217

**Application Score** –

Fiscal Benefits Points:	1,035
<u>Environmental Benefits Points:</u>	<u>40</u>
<b>Net Benefits Score:</b>	<b>1,075</b>

<u>Additional Benefits Points:</u>	<u>69</u>
<b>Total Score:</b>	<b>1,144</b>

**Staff Recommendation** – Approval

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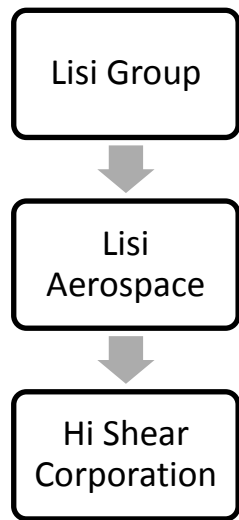
<sup>5</sup> All capitalized terms not defined in this document are defined in the Program’s statute and regulations.

<sup>6</sup> This amount is calculated based on the average statewide sales tax rate of 8.42%.

**THE APPLICANT**

Hi Shear Corporation (“Hi Shear” or the “Applicant”), a Delaware corporation established in 1973, is a wholly owned subsidiary of Lisi Aerospace, a worldwide manufacturer of aerospace fasteners and structural components. Lisi Aerospace represents the aeronautics division of its parent company, Lisi Group, a publicly traded company on the Paris Stock Exchange. Hi Shear produces specialty aerospace fasteners for customers such as Boeing, Airbus, Bombardier, and Embraer.

The chain of ownership of Hi Shear Corporation is as follows:



The corporate officers of Hi Shear Corporation are:

Christian Darville, CEO  
Mark Lindbloom, CFO

The Monadnock Company, a subsidiary of Hi Shear Corporation, was approved by the CAEATFA Board for a Sales and Use Tax Exclusion on June 16, 2015. The Project included \$6,475,000 in Qualified Property, for the purposes of relocating its facility and upgrading machinery. The Monadnock Company also manufactures specialty aerospace fasteners, and uses much of the same technology represented in the Hi Shear Project.

**THE PROJECT**

The Applicant is requesting a Sales and Use Tax Exclusion in order to upgrade infrastructure and equipment at their Torrance facility (the “Project”). Investment is being made in highly sophisticated technology, including a new plating line, high speed headers (used for forging), and grinders. The new equipment will employ Single Minute Exchange of Die (SMED) programs to reduce set up time, Total Productive Maintenance (TPM) programs to improve machine behavior, and Computer Numerically Controlled apparatuses to improve precision and quality. Additionally, the Project will take advantage of microelectronic sensors and extensive robotics. These technologies will be deployed to machine various advanced materials, such as titanium and aluminum alloys, into fasteners that will used throughout the aerospace industry.



Facility upgrades are part of a company-wide initiative to adopt lean manufacturing practices. This initiative, known as the Lisi Excellence Achievement Plan (LEAP), is aimed at increased efficiency and improved employee training. The LEAP program was initially piloted in a small section of the Hi Shear facility, where Collars (threaded fasteners) are manufactured. New equipment and infrastructure were installed and over 5,000 hours of training for employees undertaken. According to the Applicant, the investment resulted in a 30% increase in production, while simultaneously decreasing the footprint taken up by machinery. Hi Shear intends to utilize this newly freed space to install additional equipment.

With the success of the pilot program, the Applicant now intends to use their STE award to expand LEAP to larger areas of the facility. If approved, the Project is anticipated to result in a sustainable manufacturing system that reduces energy consumption and water use. For example, the Project has already installed a new wastewater treatment plant which recycles plating process rinse water. This upgrade has lowered the site water use 45% relative to usage recorded by the Applicant in 2013.



*Figure 1: The newly installed plating line*

**ANTICIPATED COSTS OF QUALIFIED PROPERTY**

The anticipated Qualified Property purchases are listed below:

Facility Structural Improvements according to Lisi Excellence Achievement Program (LEAP)	\$ 1,200,000
Supporting Equipment – Central oil filtration system	400,000
Lighting/plumbing/electrical	400,000
High Speed Headers	4,300,000
Computer Numerical Control (CNC) Grinders	5,000,000
Oil Mist Collectors	250,000
Fillet Roller	375,000
Software for Lab Tester	40,000
Salt Spray Test Chamber Large Capacity	45,000
Torque Test Unit	50,000
Davenport Multi-Spindle Machine	1,500,000
Toolings and Support Parts	15,300,000
Inspection and Precision Equipment	1,000,000
New Furnace	1,000,000
Nut Former	2,200,000
Hardware and Software New and Upgrade	375,000
Spare parts for maintaining existing 1,298 pieces of equipment	<u>5,850,000</u>
	<b><u>\$ 39,385,000</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 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**

Upgrades to the facility were started in 2013 with the collar factory pilot. In 2014, refitting of the nut factory followed, and is now 50% complete. Facility upgrades will continue in the pin factory over the next three years, with an estimated completion date for the Project slated for 2018.

## **PROJECT EVALUATION**

### **NET BENEFITS**

The total cost of the Qualified Property purchases is anticipated to be \$39,385,000. The Project received a Total Score of 1,144 points, which exceeds the required 1,000 point threshold and a total Environmental Benefits Score of 40 points, which exceeds the 20 point threshold.

- A. **Fiscal Benefits (1,035 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 \$3,432,623 resulting in a Fiscal Benefits score of 1,035 points for the Project.
  
- B. **Environmental Benefits (40 points)**. The Project will result in an Environmental Benefits Score of 40 points. The Applicant received points in the following categories:
  1. **Energy Consumption (10 of 30 points)**. The Applicant’s manufacturing process will result in a 10% reduction in energy consumption relative to the industry standard manufacturing process.
  
  2. **Water Use (30 of 30 points)**. The Applicant’s manufacturing process will result in a 57% reduction in water use relative to the industry standard manufacturing process.
  
- C. **Additional Benefits (69 points)**. Applicants may earn additional points for their Total Score. The applicant submitted information and received 69 additional points.
  1. **Permanent Jobs (60 of 75 points)**. The Applicant’s Project will support a total of 1,109 permanent jobs at its Facility. CAEATFA estimates that approximately 43 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 60 points for the Project.
  
  2. **Construction Jobs (0 of 75 points)**. The Applicant’s Project will support a total of eight construction jobs at its Facility. CAEATFA estimates that none 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 approximately 110% of the statewide average annual unemployment

rate which is currently 7.5% resulting in an Unemployment Score of nine points for this Project.

**STATUS OF PERMITS/OTHER REQUIRED APPROVALS**

The Applicant represents that they will begin pulling construction and equipment installation permits in August of 2015.

**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 \$10,000 and will pay CAEATFA an Administrative Fee up to \$157,540.

**RECOMMENDATION**

Staff recommends approval of Resolution No. 15-SM008 for Hi Shear Corporation’s purchase of Qualified Property in an amount not to exceed \$39,385,000 anticipated to result in an approximate sales and use tax exclusion value of \$3,316,217.

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

**RESOLUTION APPROVING AND AUTHORIZING EXECUTION OF A MASTER REGULATORY AGREEMENT WITH HI SHEAR CORPORATION**

July 21, 2015

WHEREAS, the California Alternative Energy and Advanced Transportation Financing Authority (the “Authority” or “CAEATFA”) has received the Application of **Hi Shear 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 \$39,385,000 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.

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.