



STATE OF CALIFORNIA

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

A) New Agreement # ZVI-22-019 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
Fuels and Transportation	Wendell Krell		916-805-7485

C) Recipient's Legal Name	Federal ID #
Zimeno Inc. DBA Monarch Tractor	83-3527214

D) Title of Project
ZEAT – Zero Emission Agricultural Tractors

E) Term and Amount

Start Date	End Date	Amount
1 / 25 / 2023	3/31/2026	\$ 13,060,660

F) Business Meeting Information

- ARFVTP agreements \$75K and under delegated to Executive Director
 Proposed Business Meeting Date 1 / 25 / 2023 Consent Discussion
 Business Meeting Presenter Wendell Krell Time Needed: 5 minutes
 Please select one list serve. Alt Fuels

Agenda Item Subject and Description:

Zimeno Inc. DBA Monarch Tractor. Proposed resolution approving Agreement ZVI-22-019 with Zimeno Inc. DBA Monarch Tractor for a \$ 13,060,660 grant to establish a flexible manufacturing line at their Livermore, California headquarters that can produce a range of equipment models for Zero Emission Monarch Tractor MK-V variants to supply off-road markets and adopting staff's determination that this action is exempt from CEQA. This project will abate 13,100 metric tons of CO2e and 105 metric tons NOx through product deployments per year at full capacity and will directly create over 50 jobs. (General Fund Funding)
 Contact: Wendell Krell (Staff Presentation: 5 minutes)

G) California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a "Project" under CEQA?
 Yes (skip to question 2) No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":

2. If Agreement is considered a "Project" under CEQA:

- a) Agreement **IS** exempt.
 Statutory Exemption. List PRC and/or CCR section number:
 Categorical Exemption. List CCR section number: Title 14, section 15301 "Existing Facilities". Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use.
 Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section:



GRANT REQUEST FORM (GRF)

b) Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)

Check all that apply

- Initial Study
- Negative Declaration
- Mitigated Negative Declaration
- Environmental Impact Report
- Statement of Overriding Considerations

H) List all subcontractors (major and minor) and equipment vendors, including those listed in the grant application: (attach additional sheets as necessary)

Legal Company Name:	Budget
Graco, Inc.	\$ 350,000
FANUC America Corporation	\$ 800,000
Savant Automation, Inc.	\$ 400,000
MAHLE GmbH	\$ 34,000
WEBASTO PRODUCT NORTH AMERICA, INC.	\$ 250,000
Business Systems & Consultants	\$ 12,500
Dyno Tech Dynamometer	\$ 36,000
Ergonomic Partners	\$ 72,000
ATLAS COPCO USA HOLDINGS INC.	\$ 180,000
Toyota Industries Corporation	\$ 84,000
DJ Products, Inc.	\$ 26,000
Hexagon Manufacturing Intelligence Inc.	\$ 285,493
Shars tool company	\$ 5,862
SCS Concept Americas, LLC	\$ 35,800

I) List all key partners, including those listed in the grant application: (attach additional sheets as necessary)

Legal Company Name:
N/A

J) Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
General Funds	2021/22	601.129 MGA	\$13,060,660

R&D Program Area: N/A TOTAL: \$13,060,660

Explanation for "Other" selection

Reimbursement Contract #:

Federal Agreement #:

K) Recipient's Contact Information



STATE OF CALIFORNIA

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

1. Recipient's Administrator/Officer

Name: Jake Winters

Address: 203 Lawrence Drive

City, State, Zip: Livermore, CA, 94551

Phone: 1 (833) 247-4797 ext. 704

E-Mail: jwinters@monarchtractor.com

2. Recipient's Project Manager

Name: Mike Livingston

Address: 203 Lawrence Drive

City, State, Zip: Livermore, CA, 94551

Phone: 1 (833) 247-4797 ext. 705

E-Mail: mlivingston@monarchtractor.com

L) Selection Process Used

Competitive Solicitation Solicitation #: GFO-21-605

First Come First Served Solicitation Solicitation #: - -

M) The following items should be attached to this GRF

- | | | |
|---|---|--|
| 1. Exhibit A, Scope of Work | <input checked="" type="checkbox"/> | Attached |
| 2. Exhibit B, Budget Detail | <input checked="" type="checkbox"/> | Attached |
| 3. CEC 105, Questionnaire for Identifying Conflicts | <input checked="" type="checkbox"/> | Attached |
| 4. Recipient Resolution | <input checked="" type="checkbox"/> N/A | <input type="checkbox"/> Attached |
| 5. CEQA Documentation | <input type="checkbox"/> N/A | <input checked="" type="checkbox"/> Attached |

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

Exhibit A SCOPE OF WORK

TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Flexible Manufacturing Line Equipment Installation, Commissioning, and Training
3	X	Flexible Manufacturing Line Validation Run
4		Data Collection and Analysis
5		Project Fact Sheet

KEY NAME LIST

Task #	Key Personnel
1	Jake Winters, Head of Impact Angela Richards, Gov. Engagement Specialist
2	Mark Schwager, President Glen Roeters, Head of Operations Chesley Austin, Head of Quality Jin-Won Kim, SVP Supply Chain
3	Mark Schwager, President Glen Roeters, Head of Operations Chesley Austin, Head of Quality Jin-Won Kim, SVP Supply Chain
4	Chesley Austin, Head of Quality Angela Richards, Gov. Engagement Specialist
5	Jake Winters, Head of Impact Angela Richards, Gov. Engagement Specialist Glen Roeters, Head of Operations Chesley Austin, Head of Quality

GLOSSARY

Specific terms and acronyms used throughout this scope of work are defined as follows:

Term/ Acronym	Definition
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CTP	Clean Transportation Program
CPR	Critical Project Review
FTD	Fuels and Transportation Division
Hp	Horsepower
Recipient	An applicant awarded a grant under a CEC solicitation

Background:

The Budget Act of 2021 (AB 128, Ting, Chapter 21, Statutes of 2021, as amended by Senate Bill (SB) 129, Skinner, Chapter 69, Statutes of 2021 and SB 170, Skinner, Chapter 240, Statutes of 2021) appropriated \$785,000,000 from the General Fund to support infrastructure deployments and manufacturing projects for zero-emission light-duty and medium- and heavy-duty vehicles. The Budget Act of 2022 (SB 154, Skinner, Chapter 43, Statutes of 2022, as amended by AB 178, Ting, Chapter 45, Statutes of 2022) appropriated an additional \$255,000,000 from the General Fund to support infrastructure deployments and manufacturing projects for zero-emission light-duty and medium- and heavy-duty vehicles.

On March 30, 2022, the California Energy Commission (CEC) released a Grant Funding Opportunity (GFO) entitled “Zero-Emission Transportation Manufacturing.” This competitive grant solicitation was to fund in-state manufacturing of zero-emission vehicles (ZEV), ZEV components and batteries, and ZEV charging or refueling equipment. In response to GFO-21-605, the Recipient submitted application #21 which was proposed for funding in the CEC’s Notice of Proposed Awards on August 24, 2022. GFO-21-605 and Recipient’s application are hereby incorporated by reference into this Agreement in their entirety.

In the event of any conflict or inconsistency between the terms of the Solicitation and the terms of the Recipient’s Application, the Solicitation shall control. In the event of any conflict or inconsistency between the Recipient’s Application and the terms of CEC’s Award, CEC’s Award shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient’s Application, the terms of this Agreement shall control.

Problem Statement:

Californians in low-income agricultural areas are subject to some of the worst air quality in the nation, driven by the necessity of agricultural operators producing the food we need to survive. The criticality of these operations combined with a historically risk adverse group of farmers have left off-road emissions reductions in this sector out of reach for decades. Monarch Tractor has proven that a powerful combination of fully electric and driver optional equipment, like the 40 horsepower (hp) Monarch MK-V, provides value to farmers and supports the transition to zero emission, precision agriculture.

Despite Monarch's success decarbonizing the compact tractor arena, agriculture's diversity of scale, crops, operations, and unique characteristics continue to make broad emissions reductions a challenge. Equipment with more specialized attributes, like varied track width, ride height, or specialized implement compatibility is required to meet the needs of California farmers. These equipment features need to be made available with variants of the fully electric Monarch Tractor MK-V platform at a price point that supports large scale adoption. A flexible manufacturing line would produce these off-road zero-emission vehicles (ZEVs) at commercial volumes resulting in more than 600 vehicles that generate at least 40 hp manufactured creating an estimated emission abatement of 13,100 metric tons of carbon dioxide equivalent (CO₂e) and 105 metric tons of nitrogen oxides (NO_x).

Goals of the Agreement:

The goal of this Agreement is to gain manufacturing capabilities at the Monarch Tractor headquarters in Livermore, California and accelerate the production and deployment of zero emission off-road equipment variants of the Monarch MK-V by installing a flexible manufacturing line that will enable the production and commercial sale of the Monarch Tractor Zero Emission Vehicle Platform with attribute updates, allowing this vehicle series to address adjacent off-road markets such as orchards, blueberries, other specialty crops.

Objectives of the Agreement:

The objectives of this Agreement are to:

- Abate emissions of 13,100 metric tons of CO₂e and 105 metric tons of NO_x through product deployments.
- Directly create over 50 jobs.
- Provide more than 700 hours of technical training to new hires.
- Achieve the flexible manufacturing line's target run rate.
- Minimize emissions generated by the California manufacturing facility.
- Perform the flexible manufacturing line installation, commissioning, and training on schedule.
- Perform the flexible manufacturing line production validation run.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

The Recipient shall:

- Attend a "Kick-Off" meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the CEC Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.

- Provide a written statement of project activities that have occurred after the notice of proposed awards but prior to the execution of the agreement using match funds. If none, provide a statement that no work has been completed using match funds prior to the execution of the agreement. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.7) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.8)
 - Subawards needed to carry out project (Task 1.9)
 - The CAM's expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Calls (Task 1.4)
 - Quarterly Progress Reports (Task 1.5)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
 - Final Report (Task 1.6)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits
- Written Statement of Match Share Activities

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

CPRs provide the opportunity for frank discussions between the CEC and the Recipient. The goal of this task is to determine if the project should continue to receive CEC funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

The CAM may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the CAO, the Fuels and Transportation Division (FTD) program lead, other CEC staff and Management as well as other individuals selected by the CAM to provide support to the CEC.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the CEC, but they may take place at another location or remotely.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.
- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

- Agenda and a list of expected participants
- Schedule for written determination
- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with CEC staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Recipient and the CAM. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the CAM.

The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The CAM will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the CAM about the following Agreement closeout items:

- What to do with any equipment purchased with CEC funds (Options)
 - CEC request for specific “generated” data (not already provided in Agreement products)
 - Need to document Recipient’s disclosure of “subject inventions” developed under the Agreement
 - “Surviving” Agreement provisions
 - Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Calls

The goal of this task is to have calls at least monthly between CAM and Recipient to verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to verbally summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, to verify match funds are being proportionally spent concurrently or in advance of CEC funds or are being spent in accordance with an approved Match Funding Spending Plan, to form the basis for determining whether invoices are consistent with work performed, and to answer any other questions from the CAM. Monthly calls might not be held on those months when a quarterly progress report is submitted, or the CAM determines that a monthly call is unnecessary.

The CAM shall:

- Schedule monthly calls.
- Provide questions to the Recipient prior to the monthly call.
- Provide call summary notes to Recipient of items discussed during call.

The Recipient shall:

- Review the questions provided by CAM prior to the monthly call
- Provide verbal answers to the CAM during the call.

Product:

- Email to CAM concurring with call summary notes.

Task 1.5 Quarterly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Quarterly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Progress reports are due to the CAM the 10th day of each January, April, July, and October. The Quarterly Progress Report template can be found on the ECAMS Resources webpage available at <https://www.energy.ca.gov/media/4691>.

Product:

- Quarterly Progress Reports

Task 1.6 Final Report

The goal of the Final Report is to assess the project's success in achieving the Agreement's goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the FTD project management processes.

The Final Report shall be a public document and limited to 25-pages. If the Recipient has obtained confidential status from the CEC and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

In addition to any other applicable requirements, the Final Report must comply with the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability; all applicable regulations and guidelines issued pursuant to the ADA; Cal. Gov. Code sects. 7405 and 11135; and Web Content Accessibility Guidelines 2.0, or a subsequent version, as published by the Web Accessibility Initiative of the World Wide Web Consortium at a minimum Level AA success criteria.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.

- Prepare a Final Report complying with ADA requirements and following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one copy of the Final Report with the final invoice.

Products:

- Outline of the Final Report, if requested
- Draft Final Report
- Final Report

Task 1.7 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the CEC budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the CEC awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the CEC awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
 - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.

- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the CAM if during the course of the Agreement additional match funds are received.
- Notify the CAM within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s) (if applicable)
- Letter(s) for new match funds (if applicable)
- Letter that match funds were reduced (if applicable)

Task 1.8 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the CEC budget for this task will be zero dollars, the Recipient may budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies the:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
 - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.

- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the CAM.
- As permits are obtained, send a copy of each approved permit to the CAM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each approved permit (if applicable)
- Updated list of permits as they change during the term of the Agreement (if applicable)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)
- A copy of each final approved permit (if applicable)

Task 1.9 Obtain and Execute Subawards

The goal of this task is to ensure quality products and to procure subrecipients required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures.

The Recipient shall:

- Manage and coordinate subrecipient activities.
- If requested by the CAM, submit a draft of each subaward required to conduct the work under this Agreement to the CAM for review.
- If requested by the CAM, submit a final copy of the executed subaward.
- If Recipient intends to add new subrecipients or change subrecipients, then the Recipient shall notify the CAM.

Products:

- Letter describing the subawards needed, or stating that no subawards are required
- Draft subcontracts (if requested)
- Final subcontracts (if requested)

TECHNICAL TASKS

TASK 2 FLEXIBLE MANUFACTURING LINE EQUIPMENT INSTALLATION, COMMISSIONING, AND TRAINING

The goal of this task is to build and install the flexible manufacturing line; identify and remedy any issues; and develop work instructions and assembly technician training in preparation for the production validation run. Manufacturing and quality technician leads will be trained in parallel with equipment arrival and installation.

The Recipient shall:

- Install and commission manufacturing equipment.
- Establish material handling processes, procedures, and training.
- Install and calibrate measurement and dimensional tools.
- Hire and conduct training for manufacturing and quality technicians.
- Generate detailed and easily accessible staff work instructions.
- Install and implement customizations to the manufacturing equipment system.
- Prepare a *Flex Line Work in Progress Report* that includes, but is not limited to:
 - The status of equipment installation.
 - Expected commissioning and training activities, including a stoplight progress chart.
 - A status assessment of remaining knowns and unknowns, potential impacts, and mitigation strategies.
- Prepare a *Flex Line Post Installation Report* after the completion of installation, commissioning, and training that includes, but is not limited to:
 - Documentation of post-installation equipment functionality.
 - Case studies showcasing technician leads' pre-training and post-training skillsets and capabilities.
 - A summary of challenges and how they were addressed to keep the project on schedule.
 - Calibration data expected compared to actual outcomes, where applicable.

Products:

- Flex Line Work in Progress Report
- Flex Line Post Installation Report

[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]

TASK 3 FLEXIBLE MANUFACTURING LINE VALIDATION RUN

The goal of this task is to confirm the manufacturing line is ready to produce vehicles at its intended rate while also meeting strict quality standards.

The Recipient shall:

- Prepare a *Production Validation Build Test Plan* that includes, but is not limited to:
 - Additional quality and process checkpoints to be instituted.
 - Methods of data collection and analysis.
 - Key metrics targets for flexible manufacturing line performance and product quality.
- Transfer manufacturing line operation from manufacturing engineering to manufacturing technician leads and managers through cross training.
- Hire and conduct training for manufacturing assembly technicians and material handlers.
- Execute a series of production validation builds totaling 115 vehicles.
- Prepare a *Production Validation Run Report* that includes, but is not limited to:
 - Expected run rate compared to actual run rate.
 - Documentation showcasing full line operational status.
 - Summary of manufacturing line optimizations and changes because of validation run learnings.
 - Case studies showcasing assembly technician pre-training versus post training skillsets and capabilities.

Products:

- Production Validation Run Test Plan
- Production Validation Run Report

[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]

TASK 4 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect operational data from the project and to analyze that data for economic and environmental impacts.

The Recipient shall:

- Develop a *Data Collection Outline and Plan*. The data and information to be collected and analyzed shall include, but is not limited to, the items described in the bullet point list below. The analysis of this data and information will be included in the Final Report.
- Identify key project issues encountered and resolution of the issues.
- Collect a minimum of 6 months of project and operations data.
- Identify the number and description of units produced from product beta testing and validation through commercial production. The Recipient shall also characterize the use of these products after the project.
- Describe the market(s) for the manufactured products and compare the market status from the time of the original project proposal to the time of the project's completion.
- Provide a projection of the number of units to be manufactured per year, for the products identified in the original application, 3 years after the completion of the project. The Recipient shall also provide assumptions for projected growth.
- Compare project performance and expectations provided in the original project proposal with actual project performance, results, and accomplishments.
- Provide data on specific jobs and economic impact as a direct result of the project, including, but not limited to:
 - Number and type of short-term jobs created or retained by the project
 - Number and type of sustained, long-term jobs created or retained by the project
 - Estimates and descriptions of future jobs resulting from the project
 - Estimates of local economic impacts and revenues to state and local governments
 - Number of employees participating in training programs, and types of training programs
 - Number of indirect jobs resulting from the project

Products:

- Data Collection Outline and Plan
- Data collection information and analysis will be provided to the CAM

TASK 5 PROJECT FACT SHEET

The goal of this task is to develop an initial and final project fact sheet that describes the CEC-funded project and the benefits resulting from the project for the public and key decision makers.

The Recipient shall:

- Prepare an *Initial Project Fact Sheet* at start of the project that describes the project and the expected benefits. Use the format provided by the CAM.

- Prepare a *Final Project Fact Sheet* at the project's conclusion that describes the project, the actual benefits resulting from the project, and lessons learned from implementing the project. Use the format provided by the CAM.
- Provide at least (6) six *High Quality Digital Photographs* (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project sites or related project photographs.

Products:

- Initial Project Fact Sheet
- Final Project Fact Sheet
- High Quality Digital Photographs

STATE OF CALIFORNIA
STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Zimeno Inc. DBA Monarch Tractor

RESOLVED, that the State Energy Resources Conservation and Development Commission (CEC) adopts the staff CEQA findings contained in the Agreement or Amendment Request Form (as applicable); and

RESOLVED, that the CEC approves Agreement ZVI-22-019 for a \$13,060,660 grant to establish a flexible manufacturing line at Monarch's Livermore headquarters that can produce a range of equipment models for Zero Emission Monarch Tractor MK-V variants to supply off-road markets. This project will abate 13,100 metric tons (MTs) of CO₂e and 105 MTs of NO_x through product deployments per year at full capacity and will create more than 50 jobs; and

FURTHER BE IT RESOLVED, that the Executive Director or their designee shall execute the same on behalf of the CEC.

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on January 25, 2023.

AYE:
NAY:
ABSENT:
ABSTAIN:

Dated:

Liza Lopez
Secretariat