



STATE OF CALIFORNIA

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

A) New Agreement # ZVI-21-003

B) Division	Agreement Manager:	MS-	Phone
Fuels and Transportation	Matt Alexander		916-805-7481

C) Recipient's Legal Name	Federal ID #
ConnectMyEV, Inc.	26-4429174

D) Title of Project
Robotic Charging Station for Electric Vehicles

E) Term and Amount

Start Date	End Date	Amount
11 / 10 / 2021	12 / 29 / 2023	\$ 998,950

F) Business Meeting Information

☐ ARFVTP agreements \$75K and under delegated to Executive Director
Proposed Business Meeting Date 11 / 10 / 2021 ☐ Consent ☒ Discussion
Business Meeting Presenter Kyle Corrigan Time Needed: 5 minutes
Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description:

CONNECTMYEV, INC. Proposed resolution approving Agreement ZVI-21-003 with ConnectMyEV, Inc. for a \$998,950 agreement to develop and demonstrate an automated, robotic parking and charging interface for electric vehicles, and adopting staff's determination that this action is exempt from CEQA. Contact: Kyle Corrigan (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:



☐ Statutory Exemption. List PRC and/or CCR section number:



☐ Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section:

Cal. Code Regs., tit. 14, Section 15301 provides that the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing structures, facilities, mechanical equipment or topographical features involving negligible or no expansion of use beyond that existing are categorically exempt

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from the provisions of CEQA. This project will develop and deploy a robotic charger for electric vehicles and a mechanized trolley to move vehicles around within four parking spaces at an existing parking garage which constitutes a minor alteration of the existing structures, facilities, and mechanical equipment. There will be negligible or no expansion beyond the existing use as a parking garage. Therefore, this project is exempt under California Code of Regulations, title 14, sections 15301.

Cal. Code Regs., tit. 14, sect. 15306 consists of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource. The Project will develop and deploy a robotic parking and charging solution and will involve testing validating robotic charging. This work will not result in a serious or major disturbance to an environmental resource. For these reasons, the proposed project will have no significant effect on the environment and is categorically exempt under section 15306.

- 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: (attach additional sheets as necessary)

Legal Company Name:	Budget
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I) List all key partners: (attach additional sheets as necessary)

Legal Company Name:
Parkworks Mechanical Systems dba Parkworks
City of San Jose
TBD (printed circuit board assembly designer for hardware electronics)

J) Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
General Funds	2021-22	601.129ZEV	\$998,950

R&D Program Area: Select Program Area TOTAL: \$



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Explanation for “Other” selection

Reimbursement Contract #:

Federal Agreement #:

CALIFORNIA ENERGY COMMISSION



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CALIFORNIA ENERGY COMMISSION

K) Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Satyajit Patwardhan

Address: 48834 Kato Road, #114A

City, State, Zip: Fremont, CA 94538

Phone: 510-364-8280

E-Mail: satyajit@connectmyev.com

2. Recipient's Project Manager

Name: Satyajit Patwardhan

Address: 48834 Kato Road, #114A

City, State, Zip: Fremont, CA 94538

Phone: 510-364-8280

E-Mail: satyajit@connectmyev.com

L) Selection Process Used

☒ Competitive Solicitation Solicitation #: GFO-20-605

☐ 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 | | 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 |

Matt Alexander

Agreement Manager

9/24/2021

Date

Paul Thayer

Office Manager

9/28/21

Date

John Butler II

Deputy Director

10/1/2021

Date

Exhibit A SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Robotic Charger Redesign
3	X	Bench Test and Analyze Redesigned Robotic Charger
4		Project Site Design and EV Transport Trolley Customization and Testing
5		Integrated System Deployment and Demonstration
6		Large-Scale Deployment Readiness Plan
7		Project Fact Sheet
8		Data Collection and Analysis

GLOSSARY

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

Term/ Acronym	Definition
Clean Transportation Program	Formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program
CAM	Commission Agreement Manager
CPR	Critical Project Review
FTD	Fuels and Transportation Division
Recipient	ConnectMyEV Inc.
EV	Electric Vehicle

Background

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Clean Transportation Program, formerly known as the Alternative and Renewable Fuel and Vehicle Technology Program. The statute authorizes the California Energy Commission (CEC) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change, clean air, and alternative energy policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the Clean Transportation Program through January 1, 2024. The Clean Transportation

Program has an annual budget of approximately \$100 million and provides financial support for projects that:

- Reduce California's use and dependence on petroleum transportation fuels and increase the use of alternative and renewable fuels and advanced vehicle technologies.
- Produce sustainable alternative and renewable low-carbon fuels in California.
- Expand alternative fueling infrastructure and fueling stations.
- Improve the efficiency, performance and market viability of alternative light-, medium-, and heavy-duty vehicle technologies.
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets to alternative technologies or fuel use.
- Expand the alternative fueling infrastructure available to existing fleets, public transit, and transportation corridors.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

On August 7, 2020, the CEC released a Grant Solicitation and Application Package entitled "BESTFIT Innovative Charging Solutions" under the Clean Transportation Program. This competitive grant solicitation offered to fund projects that demonstrate transformative technology solutions and work to accelerate the successful commercial deployment of electric vehicle (EV) charging for both light-duty (LD) and medium- and heavy-duty (MD/HD) applications. In response to GFO-20-605, the Recipient submitted application #7 which passed but was not proposed for funding in the CEC's original Notice of Proposed Awards on April 16, 2021. Subsequently, general funds were added to this grant solicitation, and this application was proposed for funding in the CEC's Revised Notice of Proposed Awards on September 8, 2021. GFO-20-605 and the 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 Commission's Award, the Commission'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:

As transportation electrification continues to accelerate, a key challenge lies in how to effectively charge electric vehicles (EVs) under space and budget constraints. This will be critical for applications such as fleet electrification and for apartments in dense cities that are beginning to invest in mechanized parking structures.

This project aims to address these barriers by combining parking automation and robotic charging as a critical step towards developing automated charging. This technology would create a high throughput and compact charging solution enabling further EV adoption.

Goals of the Agreement:

The goal of this Agreement is to develop and demonstrate an automated, robotic parking and charging interface for electric vehicles.

Objectives of the Agreement:

The objectives of this Agreement are to:

- Develop an EV robotic charger.
- Demonstrate system integration of the robotic charger in a mechanized parking site in San Jose.
- Develop manufacturing best practices for the assembly and testing of the robotic charger.
- Develop best practices for the installation and maintenance of robotic chargers (site layout and hardware) through actual field deployment.

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 Energy Commission 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.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)

- Subcontracts needed to carry out project (Task 1.8)
- The CAM's expectations for accomplishing tasks described in the Scope of Work
- An updated Schedule of Products and Due Dates
- Monthly Progress Reports (Task 1.4)
- Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits

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 Energy Commission and the Recipient. The goal of this task is to determine if the project should continue to receive Energy Commission 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 Commission Agreement Officer, the Fuels and Transportation Division (FTD) program lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- 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 Energy Commission 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, the Commission Grants Office Officer, and the Commission Agreement Manager. 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 Commission Agreement Manager.

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 Commission Agreement Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:

- What to do with any equipment purchased with Energy Commission funds (Options)
- Energy Commission's 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 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 Monthly 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. Each progress report is due to the Commission Agreement Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.

- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 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. If the Recipient has obtained confidential status from the Energy Commission 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.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.
- Prepare a Final Report 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 bound copy of the Final Report with the final invoice.

Products:

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

Task 1.6 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 Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. 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 Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission 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 Energy Commission 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 Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager 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 1.7 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 Energy Commission budget for this task will be zero dollars, the Recipient shall 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 Commission Agreement Manager 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 Commission Agreement Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Agreement Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Agreement Manager 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 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors 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. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the Commission Agreement Manager for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Products:

- Letter describing the subcontracts needed, or stating that no subcontracts are required
- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 ROBOTIC CHARGER REDESIGN

The goal of this task is to redesign the current robotic charging interface to make improvements that will enhance the ease of integration with charging infrastructure and increase reliable performance.

The Recipient shall:

- Identify hardware operational requirements for the redesigned robotic charger including:
 - Ensure reliability and ease of charger connection under high duty cycles.
 - Deliver higher contact force per charger engagement.
 - Modularize the end effector for ease of replacement at end of life.
 - Incorporate electrical upgrades to controller hardware to support WiFi communications to integrate with the transport trolley.
- Identify software operational requirements for the redesigned robotic charger, including:
 - Implement command-response protocol to coordinate actions of the robot and transport trolley.
 - Improve robot vision system.
 - Develop communication protocol over secure WiFi.
- Prepare a Summary of Hardware and Software Operational Requirements for Redesigned Robotic Charger and submit to the CAM.
- Prepare a Redesign Implementation Plan to identify gaps between the current prototype robot and design solutions to meet the requirements outlined in the Summary of Hardware and Software Operational Requirements for Redesigned Robotic Charger. Submit to the CAM.
- Procure necessary materials and redesign and assemble the robotic charger according to the Redesign Implementation Plan.
- Submit Photographic Proof of Redesign and Assembly to the CAM.

Products:

- Summary of Hardware and Software Operational Requirements
- Redesign Implementation Plan
- Photographic Proof of Redesign and Assembly

TASK 3 BENCH TEST AND ANALYZE REDESIGNED ROBOTIC CHARGER

The goal of this task is to successfully test the redesigned robotic charger in a controlled environment.

The Recipient shall:

- Prepare a Bench Testing Plan, which will include details such as the number of hours of operation, the type of monitoring to be performed, and the manner in which data will be validated, analyzed, and reported to confirm the successful operation of the redesigned robotic charger. Submit to the CAM.
- Test calibration and efficacy of vision system.
- Test functionality, capabilities, and safety of redesigned robotic charger.
- Test software communications.
- Prepare a Bench Test Report and Engineer Analysis, including but not limited to the tests completed, test results, and analysis and takeaways of the results. Submit to the CAM.

Products:

- Bench Testing Plan
- Bench Test Report and Engineer Analysis

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 4 PROJECT SITE DESIGN AND EV TRANSPORT TROLLEY CUSTOMIZATION AND TESTING

The goal of this task is to design and select the parking spaces within the project site where an EV transport trolley for automated parking will be installed and then test the trolley system.

The Recipient shall:

- Select the specific parking spaces within the parking structure and design the layout to enable successful project execution.

- Identify the EV transport trolley customization and hardware components needed to successfully operate at the selected project site.
- Prepare a Summary of Project Site Design and Requirements and submit to the CAM.
- Procure the EV transport trolley and required hardware components.
- Customize the EV transport trolley and prepare the project site, as identified, to enable successful project demonstration.
- Test the EV transport trolley system at the project site to confirm successful operation.
- Prepare a Summary of EV Transport Trolley Operation and submit to the CAM.

Products:

- Summary of Project Site Design and Requirements
- Summary of EV Transport Trolley Operation

TASK 5 INTEGRATED SYSTEM DEPLOYMENT AND DEMONSTRATION

The goal of this task is to integrate and deploy the robotic charging and EV transport trolley system at the project site.

The Recipient shall:

- Design a Use Case Sequence Plan to verify complete system functionality during the demonstration period. Submit to the CAM.
- Install robotic charger at project site and integrate with EV transport trolley. Submit Photographic Proof of System Integration to the CAM.
- Conduct operations according to the Use Case Sequence Plan.
- Troubleshoot operational issues during the demonstration period as necessary. If issues are encountered, submit a short Description of Operational Issue that identifies the problem and resolution to the CAM.
- Submit an AB 841 Certification that certifies the project has complied with all AB 841 (Ting, Chapter 372, Statutes of 2020) requirements specified in Exhibit C or describes why the AB 841 requirements do not apply to the project. The certification shall be signed by Recipient's authorized representative. Although AB 841 becomes effective January 1, 2022, as a policy matter the CEC is applying the EVITP certification requirements to project work funded under this Agreement, regardless of whether it might be performed prior to January 1, 2022, unless an exception applies.
- Submit Electric Vehicle Infrastructure Training Program (EVITP) Certification Numbers of each EVITP-certified electrician that installed

electric vehicle charging infrastructure or equipment. EVITP Certification Numbers are not required to be submitted if AB 841 requirements do not apply to the project.

Products:

- Use Case Sequence Plan
- Photographic Proof of System Integration
- Description(s) of Operational Issue as needed
- AB 841 Certification signed by Recipient's authorized representative
- EVITP Certification Numbers of each EVITP certified electrician

TASK 6 LARGE-SCALE DEPLOYMENT READINESS PLAN

The goal of this task is to identify the requirements for large scale deployment of the automated robotic charger in mechanized parking structures.

The Recipient shall:

- Prepare and submit to the CAM a Production Readiness Overview that includes:
 - Bill of materials for volume production of a robotic charger.
 - Potential sources of volume suppliers and components.
 - Cost estimates for robotic charger production in volume, based on the conditions and requirements of the project demonstration site.
 - Assembly and test procedures with sufficient detail to provide information on expenditures required for large scale deployment.
 - Required robot calibration and test procedures, based on project demonstration, for volume production.
 - Detailed installation and maintenance manual based on data from project demonstration.
- Prepare and submit a Wide-Scale Deployment Readiness Overview based on the estimated requirements to deploy a fully commercial product at the scale needed to meet anticipated demand.

Products:

- Production Readiness Overview
- Wide-Scale Deployment Readiness Overview

TASK 7 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) from the project.

Products:

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

Task 8 DATA COLLECTION AND ANALYSIS

The goal of this task is to collect operational data from the project, to analyze that data for economic and environmental impacts, and to include the data and analysis in regular progress reports and the Final Report.

The Recipient shall:

- Develop data collection test plan for deployed charging equipment.
- Troubleshoot any issues identified.
- Collect a minimum of 12 months of data on charging events for the deployed infrastructure including, but not limited to:
 - Number of charging or refueling sessions
 - Average session duration
 - Average kWh or kg dispensed
 - Average charger or refueling station downtime
 - Charge and session duration
 - Energy delivered (kWh)
 - Peak power delivered (kW)

- Applicable price for charging, including but not limited to: electric utility tariff, EVSP service contract, or public charger price
- Payment method for public charging
- Types of vehicles using the charging equipment
- Number of unique vehicles and frequency of “repeat vehicles”
- Energy delivered back to grid or facility if a bidirectional charging use case (kWh)
- Maximum capacity of the new fueling system
- Normal operating hours, up time, downtime, and explanations of variations
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
- Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
- Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions
- Submit the data described above electronically in a quarterly progress report throughout the duration of the data collection period.
- Develop a plan to provide other relevant data and information throughout the duration of the funding agreement including, but not limited to:
 - Number, type, date, and location of chargers or hydrogen refueling stations installed
 - Nameplate capacity of the installed equipment, in kW for chargers and kg/day for hydrogen
 - Number and type of outlets per charger
 - Location type, such as street, parking lot, hotel, restaurant, or multi-unit housing
 - Total cost per charger or refueling station, the subsidy from the CEC per charger or refueling station, federal subsidy per charger or refueling station, utility subsidy per charger or refueling station, and privately funded share per charger or refueling station
 - Lessons learned

- Best practices (e.g., permitting and installation processes)
 - Job creation
 - Economic development
 - Increased state revenue
- Submit the data described above electronically in a quarterly progress report throughout the duration of the agreement.
- Identify any planned use of renewable energy in the project.
- Compare any project performance and expectations provided in the proposal to the CEC with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.

Products:

- Data collection on charging events will be submitted electronically in a quarterly progress report.
- Data collection on other relevant data and information described above will be submitted electronically in a quarterly progress report.
- Data collection information and analysis will be included in the Final Report.

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: CONNECTMYEV, INC.

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-21-003 with ConnectMyEV Inc. for a \$998,950 agreement to develop and demonstrate an automated, robotic parking and charging interface for electric vehicles; 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 November 15, 2021.

AYE:

NAY:

ABSENT:

ABSTAIN:

Liza Lopez
Secretariat