California Energy Commission
September 11, 2024 Business Meeting
Backup Materials for Ecology Action of Santa Cruz

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Grant Request Form
3. Scope of Work

[PROPOSED]

RESOLUTION NO: 24-0911-03cii

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Ecology Action of Santa Cruz

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-23-026 with Ecology Action of Santa Cruz for a $4,999,740 grant. The agreement will install at least 400 Level 2 EV charging ports and potentially up to 100 Level 1 EV charging ports at MFH communities and provide residents with EV purchase education and charging access support in Northern California; 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 September 11, 2024.

AYE:
NAY:
ABSENT:
ABSTAIN:

Dated:

_____
Kristine Banaag
Secretariat

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

CEC-270 (Revised 10/2022)

GRANT REQUEST FORM (GRF)

A. New Agreement Number

IMPORTANT: New Agreement # to be completed by Contracts, Grants, and Loans Office.

New Agreement Number: ZVI-23-026

B. Division Information

1. Division Name: Fuels and Transportation Division
2. Agreement Manager: Elizabeth Maya Muthirenty Varkey
3. MS-:
4. Phone Number: (916) 664-6602

C. Recipient's Information

1. Recipient's Legal Name: Ecology Action of Santa Cruz
2. Federal ID Number: 94-2584236

D. Title of Project

Title of project: Multi-Family Housing EV Accelerator 2.0

E. Term and Amount

1. Start Date: 09/11/2024
2. End Date: 3/30/2028
3. Amount: $4,999,740

F. Business Meeting Information

1. Are the ARFVTP agreements $75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 09-11-2024
3. Consent or Discussion?: Consent
4. Business Meeting Presenter Name: Elizabeth Maya Muthirenty Varkey
5. Time Needed for Business Meeting: N/A
6. The email subscription topic is: Clean Transportation Program

Agenda Item Subject and Description:

Ecology Action of Santa Cruz. Proposed resolution approving agreement ZVI-23-026 with Ecology Action of Santa Cruz for a $4,999,740 grant, and adopting staff's recommendation that this action is exempt from CEQA. The agreement will install at least 400 Level 2 EV charging ports and potentially up to 100 Level 1 EV charging ports at MFH communities and provide residents with EV purchase education and charging access support in Northern California. (Greenhouse Gas Reduction Fund Funding) Contact: Elizabeth Maya Muthirenty Varkey

G. California Environmental Quality Act (CEQA) Compliance

1. **Is Agreement considered a "Project" under CEQA?**
   Yes

   If yes, skip to question 2.

   If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a "Project":

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because: If Agreement is considered a "Project" under CEQA skip to question 2. Otherwise, provide explanation.

2. If Agreement is considered a "Project" under CEQA answer the following questions.

a) Agreement **IS** exempt?

Yes

Statutory Exemption?

No

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

Yes

If yes, list CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

CCR section number: Cal. Code Regs., tit. 14, sec. 15301, 15303 and 15304

Categorical Exemption. List CCR section number:

Cal. Code Regs., tit. 14, sec. 15301 provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of use beyond that existing at the time of the lead agency's determination, are categorically exempt from the provisions of the California Environmental Quality Act. This project involves installation of at least 400 Level 2 (L2) charging ports and potentially up to 100 Level 1 (L1) charging ports at existing sites/structures. All L1/L2 chargers will either be installed in existing parking lots and parking structures at multi-family housing properties that already have electrical infrastructure. The L2 charging ports have an approximate size of (12" x 6" x 20") and the L1 charging ports have an approximate size of (9" x 4" x 6"). This project involves negligible or no expansion of existing or former use of the sites. Therefore, the project falls within section 15301 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, sec. 15303 provides that projects which consist of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure, are categorically exempt from the provisions of CEQA. The proposed project will install L1/L2 chargers at existing multi-family housing properties that require minimal construction and/or trenching. At least 400 L2 charging ports with an approximate size (12" x 6" x 20") and potentially up to 100 L1 charging ports with an approximate size (9" x 4" x 6") will be installed at multi-family housing properties. Installation will take place at an existing

building in an existing parking lot that already has electrical infrastructure. Therefore, the project falls within section 15303 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, sect. 15304 provides that projects which consist of minor public or private alterations in the condition of land, water, and/or vegetation which do not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes are categorically exempt from the provisions of CEQA. This project involves installation of at least 400 L2 charging ports and potentially up to 100 L1 charging ports at existing multi-family housing properties. The L/L2 charger installations will be in existing, paved parking lots and structures, and the work will not involve the removal of any trees. Therefore, the project falls within section 15304 and will not have a significant effect on the environment.

Additionally, the project will not impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies; does not involve any cumulative impacts of successive projects of the same type in the same place that might be considered significant; does not involve unusual circumstances that might have a significant effect on the environment; will not result in damage to scenic resources within a highway officially designated as a state scenic highway; the project site is not included on any list compiled pursuant to Government Code section 65962.5; and the project will not cause a substantial adverse change in the significance of a historical resource. Therefore, none of the exceptions to categorical exemptions listed in CEQA Guidelines section 15300.2 apply to this project, and this project will not have a significant effect on the environment.

Common Sense Exemption? 14 CCR 15061 (b) (3)

No

If yes, explain reason why Agreement is exempt under the above section. If no, enter “Not applicable” and go to the next section.

Not applicable

b) Agreement **IS NOT** exempt.

IMPORTANT: consult with the legal office to determine next steps.

No

If yes, answer yes or no to all that applies. If no, list all as “no” and “None” as “yes”.

Additiona	**Applies**
Initial Study	No
Negative Declaration	No
Mitigated Negative Declaration	No
Environmental Impact Report	No
Statement of Overriding Considerations	No

None	Yes

H. Subcontractors

List all Subcontractors listed in the Budget (s) (major and minor). Insert additional rows if needed. If no subcontractors to report, enter "No subcontractors to report" and "0" to funds. **Delete** any unused rows from the table.

Subcontractor Legal Company Name	CEC Funds	Match Funds
No subcontractors to report	0	0

I. Vendors and Sellers for Equipment and Materials/Miscellaneous

List all Vendors and Sellers listed in Budget(s) for Equipment and Materials/Miscellaneous. Insert additional rows if needed. If no vendors or sellers to report, enter "No vendors or sellers to report" and "0" to funds. **Delete** any unused rows from the table.

Vendor/Seller Legal Company Name	CEC Funds	Match Funds
GRID Alternatives (installing EV Charging Stations)	$225,200	0
Low Power EV Charging, Inc. (installing EV Charging Stations)	$225,200	0
Synergy Companies (installing EV Charging Stations)	$225,200	0
Quantum Energy Services & Technologies, Inc. (installing EV Charging Stations)	$225,200	0
Macano Tech, LLC (installing EV Charging Stations)	$225,200	0
Electrical Contractors, TBD (installing EV Charging Stations)	$675,600	0
EV Education & Outreach Contractors (TBD)	$45,436	0
ChargerHelp Inc.	$320,000	0
EVSP Vendors TBD (L2 charging ports and networking hardware)	$764,000	0
EVSP Vendors TBD (L1 charging ports and networking hardware)	50,000	0
EVSP Vendors TBD (Software and cellular fees for networking, payment collection and utilization tracking)	$240,000	0

J. Key Partners

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter "No key partners to report." **Delete** any unused rows from the table.

Key Partner Legal Company Name
Bridge Housing Corporation
Burbank Housing Development Corporation
First Community Housing
Mercy Housing California
Eden Housing
Mutual Housing California
Greystar California, Inc.
EAH Community Housing Inc.
Avanath Realty, Inc.
Affordable Housing Community Development Corporation
MidPen Housing Corporation
Self-Help Enterprises
USA Properties Fund, Inc.

K. Budget Information

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
GGRF	2023-24	601.3EHC	$4,999,740

TOTAL Amount: $4,999,740

R&D Program Area: N/A

Explanation for “Other” selection: N/A

Reimbursement Contract #: N/A

Federal Agreement #: N/A

L. Recipient’s Contact Information

1. Recipient’s Administrator/Officer

Name: Jane McClellan

Address: 877 Cedar Street, STE 240

City, State, Zip: Santa Cruz, CA 95060

Phone: (831) 515-1397

E-Mail: jane.mcclellan@tapersolutions.com

2. Recipient’s Project Manager

Name: Sherry Bryan

Address: 877 Cedar Street, STE 240

City, State, Zip: Santa Cruz, CA 95060

Phone: (831) 515-1314

E-Mail: sherry.bryan@ecoact.org

M. Selection Process Used

There are three types of selection process. List the one used for this GRF.

Selection Process	Additional Information
Competitive Solicitation #	GFO-22-614
First Come First Served Solicitation #	Not Applicable
Other	Not Applicable

N. Attached Items

1. List all items that should be attached to this GRF by entering “Yes” or “No”.

Item Number	Item Name	Attached
1	Exhibit A, Scope of Work/Schedule	Yes
2	Exhibit B, Budget Detail	Yes
3	CEC 105, Questionnaire for Identifying Conflicts	Yes
4	Recipient Resolution	No
5	Awardee CEQA Documentation	Yes

Approved By

Individuals who approve this form must enter their full name and approval date in the MS Word version.

Agreement Manager: Elizabeth Maya Muthirenty Varkey

Approval Date: 3/14/2024

Office Manager: Mark Wenzel

Approval Date: 3/29/24

Deputy Director: Jen Kalafut

Approval Date:4/18/2024

Exhibit A
SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	x	Technical Assessment of Multi-Family Housing
3	x	Construction and Commissioning
4		Engagement and Outreach
5		Operations and Reliability
6		Semi-Annual Electric Vehicle Charger Inventory Reports
7		Data Collection and Analysis
8		Project Fact Sheet

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Sherry Bryan Mahlon Aldridge	None	None

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
2	Sherry Bryan Frank Deniz José Santillan Dylan Manning Brian Gonzales	None	MFH Property Operators: Bridge Housing Corporation, Burbank Housing Development Corporation, First Community Housing, Mercy Housing California, Eden Housing, Mutual Housing California, Greystar California, Inc., EAH Community Housing Inc., Avanath Realty, Inc., Affordable Housing Community Development Corporation, MidPen Housing Corporation, Self-Help Enterprises, USA Properties Fund, Inc..
3	Sherry Bryan Frank Deniz José Santillan Dylan Manning Brian Gonzales	None	MFH Property Operators (see above)
4	Sherry Bryan Dennis Lynch Jamie Alonzo	None	None
5	Sherry Bryan José Santillan	None	MFH Property Operators (see above)
6-8	Sherry Bryan Mahlon Aldridge	None	None

GLOSSARY

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

Term/ Acronym	Definition
AB	Assembly Bill

Term/ Acronym	Definition
AC Level 2	Alternating current. A charger that operates on a circuit from 208 volts to 240 volts and transfers AC electricity to a device in an electric vehicle (EV) that converts AC to direct current to charge an EV battery.
ADA	Americans with Disabilities Act
API	Application programming interface. A type of software interface that offers service to other pieces of software. An API allows two or more computer programs to communicate with each other.
Affordable Housing Unit	A housing unit is affordable if it has a rent or mortgage payment that is no more than 30 percent of the monthly household income for a “Low Income” Household per the State Income Limits for 2022 at https://www.hcd.ca.gov/docs/grants-and-funding/inc2k22.pdf.
At-home charging	Refers to parking areas that specifically serve the MFH building or are immediately adjacent to MFH building and are clearly identified as part of the MFH property (such as by address). Such housing would use the main utility service delivery associated with the MFH residential units.
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
Charge attempt	Any instance of an EV driver taking action to initiate a charging session by taking one or all of the following steps in any order: 1) attaching the connector to the EV appropriately or 2) attempting to authorize a charging session by use of radio frequency identification (RFID) technology, credit card, charging network provider smartphone application (app), screen input, or calling the charging network provider’s customer service number.
Charger	A device with one or more charging ports and connectors for charging EVs. Also referred to as electric vehicle supply equipment (EVSE). This definition excludes any charger used solely for private use at a single-family residence or a multi-family dwelling with four or fewer dwelling units.
Charging network	A collection of chargers located on one or more property(ies) that are connected via digital communications to manage the facilitation of payment, the facilitation of electrical charging, and any related data requests.

Term/ Acronym	Definition
Charging network provider	The entity that provides the digital communication network that remotely manages the chargers. Charging network providers may also serve as charging station operators and/or manufacture chargers.
Charging port	The system within a charger that charges one EV. A charging port may have multiple connectors, but it can provide power to charge only one EV through one connector at a time.
Charging session	The period after a charge attempt during which the EV is allowed to request energy. Charging sessions can be terminated by the customer, the EV, the charger, the charging station operator, or the charging network provider.
Charging station	The area in the immediate vicinity of one or more chargers and includes the chargers, supporting equipment, parking areas adjacent to the chargers, and lanes for vehicle ingress and egress. A charging station could comprise only part of the property on which it is located.
Charging station management system	A system that may be used to operate a charger, to authorize use of the charger, or to record or report charger data, such as by using OCPP.
Charging station operator	The entity that owns the chargers and supporting equipment and facilities at one or more charging stations. Although this entity may delegate responsibility for certain aspects of charging station operation and maintenance to subcontractors, this entity retains responsibility for operation and maintenance of chargers and supporting equipment and facilities. In some cases, the charging station operator and the charging network provider are the same entity.
Connector	The device that attaches an EV to a charging port in order to transfer electricity.
Corrective Maintenance	Maintenance which is carried out after failure detection and is aimed at restoring an asset to a condition in which it can perform its intended function.
CPR	Critical Project Review
CTP	Clean Transportation Program
Depot	Type of “home base” behind-the-fence location where a vehicle is typically kept when not in use (usually parked on a nightly basis).

Term/ Acronym	Definition
Disadvantaged Community	Community disproportionately burdened by multiple sources of pollution and with population characteristics that make them more sensitive to pollution. Disadvantaged communities are census tracts that score within the top 25th percentile of California Environmental Protection Agency CalEnviroScreen 4.0 scores and include areas of high pollution and low population, such as ports.
DCFC	Direct current fast charger. A charger that enables rapid charging by delivering direct-current (DC) electricity directly to an EV's battery.
Downtime	A period of time that a charger is not capable of successfully dispensing electricity or otherwise not functioning as designed. Downtime is calculated pursuant to Task 5
EV	Electric vehicle. A vehicle that is either partially or fully powered on electric power received from an external power source. For the purposes of this Agreement, this definition does not include golf carts, electric bicycles, or other micromobility devices
EVSE	Electric vehicle supply equipment. A charger as defined.
Excluded downtime	Downtime that is caused by events pursuant to Task 5
Failed charging session	Following a charge attempt, the criteria for a successful charging session were not met.
FTD	Fuels and Transportation Division
GFO	Grant Funding Opportunity
Hardware	The machines, wiring, and other physical components of an electronic system including onboard computers and controllers.
Inoperative state	The charger or charging port is not operational.
Installed	Attached or placed at a location and available for use for a charging session. The date a charger is installed is the date it is first available for use for a charging session.
Interoperability	Successful communication between the software, such as the software controlling charging on the EV and the software controlling the charger. Interoperability failures are communication failures between the EV and charger that occur while the software of each device is operating as designed. Interoperability failure leads to failed charging sessions.
Level 1 Charging	Electric vehicle charging at 110/120 volts
Level 2 Charging	Electric vehicle charging at 208/240 volts

Term/ Acronym	Definition
Low-income Community	Census tracts with median household incomes at or below 80 percent of the statewide median income or with median household incomes at or below the threshold designated as low income by the Department of Housing and Community Development's list of state income limits adopted under Section 50093. (Definition from AB 1550, Gomez, Chapter 369, Statutes of 2016)
Maintenance	Any instance in which preventive or corrective maintenance is carried out on equipment.
Networked	A charger can receive or send commands or messages remotely from or to a charging network provider or is otherwise connected to a central management system, such as by using OCPP 2.0.1, for the purposes of charger management and data reporting.
Nonnetworked charger	A charger that is not networked.
Multi-Family Housing (MFH)	Residential housing with multiple dwelling units excluding single-family dwellings (detached), duplexes, triplexes, townhomes, and mobile homes.
Near-home charging	Refers to any parking areas within ¼ miles of a MFH property that do not meet the definition for onsite, including any parking areas immediately adjacent to the MFH property that maintain a separate address and utility service.
OCPP	*Open Charge Point Protocol. An open-source communication protocol that specifies communication between chargers and the charging networks that remotely manage the chargers.*
Operational	Or "up." A charging port's hardware and software are both online and available for use, or in use, and the charging port is capable of successfully dispensing electricity.
Operative state	The charger is operational.
Preventative maintenance	Maintenance that is performed on physical assets to reduce the chances of equipment failure and unplanned machine downtime.
Private	Charging ports located at parking space(s) that are privately owned and operated, often dedicated to a specific driver or vehicle (for example, a charging port installed in a garage of a single-family home).
Public	Charging ports located at parking space(s) designated by the property owner or lessee to be available to and accessible by the public.

Term/ Acronym	Definition
Recipient	Ecology Action of Santa Cruz
Shared Private	Charging ports located at parking space(s) designated by a property owner or lessee to be available to, and accessible by, employees, tenants, visitors, and residents. Examples include workplaces and shared parking at multi-family residences.
Software	A set of instructions, data or programs used to operate computers and execute specific tasks.
Successful charging session	Following a charge attempt, a customer's EV battery is charged to the state of charge the customer desires and is disconnected manually by the customer or by the EV's onboard software system terminating the charging session, without an additional charge attempt.
Uptime	The time that a charger is installed during a reporting period excluding downtime pursuant to Task 5.

Background

The Budget Act of 2021 (Assembly Bill (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 and AB 179, Ting, Chapter 249, Statutes of 2022) and AB 211 (Committee on Budget, Chapter 574, Statutes of 2022) provided $1.129 billion from the General Fund to support infrastructure deployments, emerging opportunities, and manufacturing projects for zero-emission light-duty and medium- and heavy-duty vehicles. The program uses Greenhouse Gas Reduction Fund (GGRF) monies, as part of California Climate Investments, and General Fund monies to further the purposes of reducing GHG emissions, reducing energy use, and sustaining grid reliability. This program is part of California Climate Investments, a statewide initiative that puts billions of Cap-and-Trade dollars to work reducing greenhouse gas emissions, strengthening the economy, and improving public health and the environment — particularly in disadvantaged communities.

On April 26, 2023, the CEC released a Grant Funding Opportunity (GFO) entitled "Reliable, Accessible, and Equitable Charging for multi-family Housing 2.0."
This competitive grant solicitation was to demonstrate replicable and scalable business and technology models for large-scale deployment of EV charging infrastructure capable of maximizing access and EV travel for MFH resident. In response to GFO-22-

614, the Recipient submitted application #13 which was proposed for funding in the CEC's Notice of Proposed Awards on December 4, 2023. GFO-22-614 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 this Agreement, this Agreement shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Solicitation, the terms of this Agreement shall control.

Problem Statement:

Unlike energy or water retrofits, multi-family EV charging installations have little or no return on investment and therefore do not attract the time, money, and attention of the affordable for-profit multi-family property owner. This lack of return on investment, plus higher power needs, has resulted in negligible multi-family EV charging deployment and is why private-sector electric vehicle supply equipment (EVSE) companies have avoided the multi-family market. Consequently, the lack of convenient on-site charging options for renters has resulted in low EV adoption rates in apartment communities. Funded through REACH 1.0 and contracted in 2022, Ecology Action set out to prove the direct install model applied to Level 1 (L1) EVSE installation in MFH. This program is tracking to success. However, we found that we had to disqualify about 30% of committed housing due to complicated site conditions and subsequent higher installation costs.

Goals of the Agreement:

The goal of this project is to accelerate EV ownership among low-income multi-family housing residents by installing at least 400 Level 2 (L2) charging ports and potentially up to 100 L1 charging ports in multi-family parking areas (at-home and near-home) and providing residents with EV purchase guidance education and charging access support in Northern California. The project will demonstrate a direct installation, site-specific approach to constructing EV charging solutions that meet the operational needs of multi-family property operators while providing reliable and affordable EV charging opportunities for multi-family housing residents and staff in priority communities. We will expand and prove the effectiveness of the direct install model to include complicated site conditions and electrical capacity upgrades where necessary. Our proposed expansion to Multi-family Housing EV Accelerator 2.0 (Accelerator 2.0) builds on CEC's investment in the direct installation model, addresses lessons learned in Accelerator 1.0, and broadens the technical fit to reach 20–30% more of the market housing that would be disqualified under Accelerator 1.0. This expansion, along with Accelerator 1.0, will meet the needs of an estimated cumulative 50–60% of the affordable MFH market. We propose to install at least 400 L2 charging ports and potentially up to 100 L1 charging ports with at least 90% of the residential units to be served by the project in disadvantaged communities, low-income communities, and/or affordable housing units and at least 50% of EV charging ports within disadvantaged and/or low-income communities. This project will increase equitable access to EV charging at-home and near-home for low-income multi-family households and is also directly transferable to all other segments of the multi-family market—market-rate, premium, and luxury. The outcomes of this demonstration will be made publicly available for the benefit of all market participants and will likewise inform CEC's future investments.

Objectives of the Agreement:

The objectives of this Agreement are to:

- Install at least 400 L2 charging ports and potentially up to 100 L1 charging ports at multi-family housing communities (at-home and near-home), creating on-site EV charging opportunities for residents.

- Install at least 90% of EV charging ports at or within ¼ mile of affordable multi-family housing and/or multi-family housing communities serving low and moderate-income residents in disadvantaged communities, low-income communities, and/or affordable housing at no cost to the property owner.
- Install at least 50% of EV charging ports within disadvantaged and/or low-income communities.
- Educate residents about the benefits of EV ownership and how to access charging by canvassing dwelling units, coordinating in-person EV car shows and charging demonstrations, and offering affordable EV webinars.

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 that includes the CAM and may include 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, if applicable
- "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 is 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 *Draft 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 *Final Report* in Microsoft Word format or similar electronic format as approved by the CAM.

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.
- Submit a *letter* to the CAM describing the subawards needed or stating that no subawards are required.
- 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 each 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 subaward (if requested)
- Final subaward (if requested)

TECHNICAL TASKS

TASK 2 Technical Assessment of Multi-Family Housing

The goal of this task is to evaluate an estimated 70 multi-family housing for technical eligibility and cost-effective installation of at least 400 Level 2 (L2) charging ports and potentially up to 100 Level 1 (L1) charging ports in Northern California.

Task 2.1 Site Assessment

The goal of this task is to conduct site assessments for an estimated 70 multi-family housing for cost-effective installation of at least 400 L2 charging ports and potentially up to 100 L1 charging ports.

The Recipient shall:

- Analyze data from previous technical assessments to prioritize MFH housing for EV charging design and installation, in collaboration with project partners and electrical contractors.
- Conduct phone and online surveys of multi-family property operators to collect data that will be used to inform technical site assessments. For each multi-family housing that an owner or operator wants to prioritize for installation, the survey will capture:
    - The number of units
    - Number of existing residents who are EV owners

    - Number of previous inquiries from current and prospective residents about EV charging availability
    - Date of property construction
    - Availability of engineered line drawings and load calculations
    - Date and type of past or planned energy efficiency projects completed in common areas.
- Conduct virtual and in-person site assessments to identify barriers and opportunities for installation. For each property, prequalification activities will identify the following:
    - Parking spaces within a reasonable distance from a common area panel or subpanel(s) where dedicated circuits for EVSE could be installed.
    - Location, maximum bus rating, and main circuit feeder ratings of common-area panel or subpanel(s).
    - Loads on existing circuit breakers and number of circuit breaker spaces available.
    - Need for more extensive site work or expanded electrical capacity.
    - Utility meter(s) associated with house panels evaluated to supply power for EV charging.
- Prioritize multi-family housing sites for technical assessment services if they are at or near affordable multi-family housing or located in disadvantaged or low-income community.
- Select multi-family housing sites to receive technical site assessment services based on the following attributes, all of which affect a contractor's ability to install EVSE within the program's budget range:
    - Prior implementation of energy efficiency upgrades in common areas.
    - Physical characteristics of the parking area(s) including lighting, drainage, and safety hazards.
    - Trenching distance for conduit runs from common area panel(s) to parking area(s).
    - The condition of the property's existing electrical infrastructure.
- Maintain and update a database of multi-family housing selected for prequalification, ranking project sites in the following order:
    - Tier 1 Site: EV Ready and/or likely to have electrical capacity to install 5 or more EVSE with no barriers (recent energy efficiency project, electrical upgrades, newer construction) with or without load sharing.
    - Tier 2 Site: Is likely to have the capacity to install 2–4 EVSE with load sharing, or site has barriers that may increase costs.
    - Tier 3 Site: Site electrical infrastructure has no capacity for new loads and a new electrical service is required to support EVSE. These include sites that were disqualified under REACH 1.0, e.g., requiring greater site work and additional coordination with the utility to construct a new electrical service delivery point for separately metered electric vehicle (EV) charging stations.
    - Disqualified Site: Does not meet electrical code requirements or has significant barriers that will increase installation costs.

- Create a Site Assessment Report, that includes the following information for all project sites:
    - Property name and address
    - Status of prequalification (see tiers above)
    - Date of site assessment

Products:

- Site Assessment Report

Task 2.2 Electrical Load and Technical Assessments
The goal of this task is to analyze and determine the available power for EV charging from common-area electrical panels at tier 1-2 sites or power requirements for a new service from the utility for tier 3 sites.

The Recipient shall:

- Conduct electrical assessments of sites for tier 1-3 sites defined in task 2.1.
- Determine total kW available to power EV chargers by one of four methods:
    - Using original engineers' load calculations, approved by the authority with jurisdiction when available.
    - Using National Electrical Code values for existing loads.
    - Conducting a 30-day, 15-min interval load study with a power meter of one or more representative house/common area panels.
    - Using utility application programming interface (API) data to analyze one-year, 15-minute interval historical demand data.
- For selected sites that have no existing panel capacity to install EV chargers, determine cost estimates and logistics for new service drops with the electrical utility and AHJ.
- Qualify and finalize sites that meet the technical requirements for charger installations.
- Finalize a *project statement of work* for each qualified project site that will describe make-ready tasks, quantity and type of EVSE to be installed, location of EVSE, total maximum kW demand of load managed charger groups, and specifications for additional LED lighting (if necessary)**.**

Products:

- *Project statement of work* for each qualified project site.

Task 2.3 Secure Project Agreements
The goal of this task is to create installation proposals and secure an estimated 70 project agreements to install at least 400 L2 charging ports and potentially up to 100 L1 charging ports at multi-family housing in Northern California. At least 90% of executed EV charging projects will serve residential units in disadvantaged communities, low-income communities, and/or affordable housing, and at least 50% of EV charging ports will be within disadvantaged and/or low-income communities.

The Recipient shall:

- Schedule and conduct meetings with property operators and facility managers to present technical findings and discuss Ecology Action's recommendations for site-specific EV charging solutions that meet facility managers' operational needs and preferences.
- Obtain construction estimates for each MFH project site.
- Customize project agreement proposals for each MFH site. Each project agreement will include the following:
    - A map of EV charging port location(s)
    - Project statement of work finalized from task 2.2.
    - Total project cost from contractor construction quote for the statement of work.
- Present property operators with project agreement proposals and secure signatures from property owners.
- Submit to the CAM *signed project agreements* for each site.

Products:

- Signed project agreements.

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

TASK 3 Construction and Commissioning

The goal of this task is to install and commission at least 400 L2 charging ports and potentially up to 100 L1 charging ports at MFH housing in Northern California, with at least 90% of projects serving residential units in disadvantaged communities, low-income communities, and/or affordable housing.

Task 3.1 Construction

The goal of this task is to install at least 400 L2 charging ports and potentially up to 100 L1 charging ports at MFH housing in Northern California, with at least 90% of projects served in disadvantaged communities, low-income communities, and/or affordable housing.

The Recipient shall:

- Organize a preconstruction project planning meeting between facilities staff and direct installation program contractor(s) to identify project construction timelines, site and parking logistics during construction, and scheduling of resident notifications.
- Construct EV charging stations according to the statement of work in each final multi-family project installation agreement.
- Install charging ports so that at least 90% of residential units served are in disadvantaged communities, low-income communities, and/or affordable housing, and at least 50% of EV charging ports within disadvantaged and/or low-income communities.
- Submit an *AB 841 Certification* that certifies the project has complied with all AB 841 (2020) requirements specified in the CEC terms and conditions

(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.

- Submit *EVITP Certification Numbers* of each EVITP certified electrician that installed EV charging infrastructure or equipment. EVITP Certification Numbers are not required to be submitted if AB 841 requirements do not apply to the project.
- Develop a Construction Report that includes but is not limited to:
    - Proof of operational charging equipment including but not limited to:
        - Photographs of installed signage
        - Photographs of completed EV charging station installations at each multi-family property.
        - Proof of charger availability for any public chargers via the Alternative Fuels Data Center Station Locator tool
    - Table with project site name and location, permit sign-off date, and AB 841 certification and EVITP certification numbers of certified electricians for each project.

Products:

- Construction Report
- AB 841 Certification and EVITP Certification Numbers

TASK 3.2 Commissioning

The goal of this task is to ensure that the installed EV charging ports will function optimally and that facility managers will be knowledgeable about how to locate equipment components, activate charging, and perform basic equipment troubleshooting tasks.

The Recipient shall:

- Set up EVSP software admin accounts for the property management team at each site, define load management and charging user groups, and set pricing for EV charging.
- Test the functionality of each Level 1 or Level 2 EV charging port by initiating a charge with an EV and ensure each charging port is functioning optimally.
- Train at least one facility manager at each site how to locate equipment components, activate charging, and perform basic equipment troubleshooting tasks.
- Write and submit to the CAM a *Project Close-Out Report* for each site that includes, but may not be limited to:
    - Documentation of the serial number, parking space number or location, and utility meter number associated with each EV charging unit.
    - Documentation of labeled circuits dedicated to EV charging units and cellular modems.
    - EVSE warranty information provided to property operators.
    - Documentation of training provided to facility managers.

Products:

- Project Close-Out Report for each site

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

Task 4.0 Engagement and Outreach

The goal of this task is to inform and educate low-income MFH households about opportunities to access at home or near home EV charging as well as grants and rebates to lower the cost of EV ownership.

Task 4.1 Develop Outreach and Educational Materials

The goal of this task is to develop outreach materials like printed flyers and other EV educational materials to inform and educate MFH households about opportunities to access on-site EV.

The Recipient shall:

- Develop templates for printed *outreach flyers* that recognize CEC as the program funder and inform multi-family community residents of EV charging station availability, financial incentives for EV ownership, and EV educational events.
- Produce an online and print *resident survey form*. Residents may either request a printed survey at the community manager's office or complete a survey online by scanning a QR code or going directly to the survey URL link. The survey will allow the project team to collect the following data:
    - Contact information for existing and potential EV owners who would like access to charging stations installed, which can also be used to notify residents of future EV educational events.
    - Prior resident experience with electric vehicles.
    - Make and model of battery electric or plug-in hybrid vehicles currently owned by apartment residents.
    - Average daily commute of residents.
- Create a virtual "Affordable EV" *PowerPoint presentation* that provides an overview of EV models, EV charging, and EV incentives for each project region (Bay Area, Central Coast, and Central Valley) and demonstrates how residents can apply for down-payment assistance grants through the Access Clean California Benefits Finder.
- Draft template emails that community managers can send to residents (when email is available) announcing charging station availability and resident sign-up instructions.

Products:

- Final copies of outreach flyers.
- Resident survey form.
- Copy of PowerPoint presentation.

Task 4.2 MFH Canvassing
The goal of this task is to inform residents of the available chargers and EV educational events described in Task 4.3.

The Recipient shall:

- Coordinate with the community managers to access the property for canvassing.
- Canvass approximately 2,000 MFH residential dwelling units and common-area spaces, such as laundry rooms, community gathering rooms, mailbox areas, and management offices, at project sites.
- Conduct a door-to-door canvassing at MFH communities to inform residents about the EV charging installation and EV ownership incentives.
- Write and submit to the CAM an *Outreach Report* that includes:
    - A summary of resident survey results for all MFH projects.
    - MFH canvassing locations, number of dwelling units canvassed, and date(s) of canvassing events.
-

Products:

- Outreach Report.

Task 4.3 EV Educational Events
The goal of this task is to coordinate EV educational events for residents of project sites in affordable housing communities and disadvantaged and/or low-income communities.

The Recipient shall:

- Invite residents to events via flyers produced in Task 4.1.
- Conduct events, after EV charging stations are installed that will inform residents about how to sign up for and access the EV charging units installed in their community and expose residents to the benefits and features of EVs through webinars and in-person EV car show and charging demonstration events in apartment community parking lots.
- Produce an online (Zoom) “Affordable EV” clinic webinar at least once per quarter during EV charging installations. The online clinic will be open to residents and staff of all project sites and will explain the benefits of EV ownership, provide relevant consumer information on EVs, including available vehicles and total cost of ownership, and introduce the Access Clean California Benefits Finder. Webinar breakout groups will help residents understand the local incentives available in their region to reduce EV purchase costs, how to find public charging stations in their region, and how to request access to EV charging ports installed in their apartment community. Webinars will be recorded, and links will be provided via a QR code on flyers posted near EV charging ports.
- Respond to residents who could not participate in webinars or in-person events to inform them of how to create an account with an EVSP service provider to access EV charging ports.

- Write and submit to CAM an *Educational events report* that includes:
    - A table with a list of event dates, locations, and number of event participants.
    - The number of residents who were provided additional EV purchase guidance assistance via the Access Clean California Benefits Finder.
-

Products:

- Educational events report

TASK 5 OPERATIONS AND RELIABILITY

Recipients shall comply with the reliability performance standards, recordkeeping, reporting, and maintenance requirements (Requirements) in for EV chargers installed as part of this Agreement. In the event the CEC adopts regulations that include Requirements, for example as required by AB 2061 (Ting, Chapter 345, Statutes of 2022) and/or AB 126 (Reyes, Chapter 319, Statutes of 2023), those Requirements shall supersede the Requirements contained in this Scope of Work for this Agreement wherever, as determined by the CAM, they conflict or are redundant.

Task 5.1 Operations

The Recipient shall:

- Operate the installed chargers during the term of this agreement.
- For any charging station with fewer than 40 charging ports at which chargers are installed and operated under this agreement, ensure that the charger uptime for each charging port installed in the project is at least 97 percent of each year for six years after the beginning of operation for six years after the beginning of operation.
- For any charging station with 40 or more chargers at which chargers are installed and operated under this agreement, ensure that the charger uptime for each [charger] charging port installed in the project is operational at least 80 percent of a charging site's standard hours of operation of each year for six years after the beginning of operation, and ensure that station uptime is at least 97 percent.
- Without limitation to other rights and remedies which the CEC may have, including but not limited to survival provisions specified in the Terms and Conditions of this agreement, this requirement to ensure operationality for six years after commissioning shall survive the completion or termination date of this agreement. In addition to other requirements in the Terms and Conditions of this agreement, all CEC-reimbursable expenditures must be incurred within the agreement term.

Task 5.2 Recordkeeping

The goal of this task is to collect and maintain records of charger operation and reliability. The Recipient shall collect and retain the remote monitoring and maintenance records specified in this section. The Recipient shall collect and retain records for each

charger installed and operated as part of this agreement. The Recipient shall retain records for each charger for nine years from the date the charger begins operation. The Recipient shall collect records for each charger installed and operated as part of this agreement for six years after the chargers begin operation**.**

The Recipient Shall:

- Collect and retain the Remote Monitoring data below for each networked charger and Maintenance data below for each charger installed and operated as part of this Agreement.
- Retain the data below for nine years from the date the charger begins operation. Provide records provided to the CEC within 10 business days of request.
    1. Provide digital records in a comma separated values (CSV) file unless another file format is approved by the CEC for the request.
    2. Provide a clear and understandable data dictionary that describes each data element and any associated units with all digital records.

Remote Monitoring Data

The records described in items 1-3 of this section are only required to be collected for networked chargers.

1. Connector operative status and error codes on a 60-minute interval including charger identification number and date-time stamp.
    a. If the Recipient uses OCPP 1.6 to communicate between the charger and central system, the recipient shall collect the OCPP 1.6 Protocol Data Unit (PDU) Status Notification.
2. A record of each customer attempt to initiate a charge including charger identification number, transaction identification number, and date-time stamp.
3. A record of each failed attempt to charge including charger identification number, transaction identification number, and date-time stamps and reason for failure.

Maintenance Data

1. Reports of inoperative chargers or charger failures resulting in inability to charge, such as a customer complaint, internal diagnostics, or inspection.
2. Records of any maintenance conducted on chargers installed and operated as part of the agreement. Records should specify the following:
    a. Date and time of the maintenance event
    b. Whether maintenance was corrective or preventive in nature
    c. Whether and for how long the charger was in an inoperative state prior to maintenance.
    d. Whether the charger was in an operative state following maintenance

Products:

- Remote Monitoring Records
- Maintenance Records
- Data Dictionary

Task 5.3 Maintenance Requirements

The goal of this task is to increase reliability through timely and effective preventive and corrective maintenance. The Recipient shall conduct maintenance on each charger installed and operated as part of the Agreement as specified in this section.

The Recipient Shall:

- Conduct preventive maintenance, as specified by the charger manufacturer, on the charger hardware by a manufacturer-certified technician quarterly. The time interval between consecutive preventive maintenance visits to any charger shall be no more than 13 months.
- Complete corrective maintenance within 10 business days of the beginning of a time when the charger is inoperative or exhibiting failures that result in an inability to charge.
- Report on preventive and corrective maintenance in each quarterly reliability report described in Task 7.4.

Products:

- Maintenance section of Quarterly Report on Charger and Charging Port Reliability and Maintenance described in Task 5.4

Task 5.4 Reporting

The goal of this task is to provide a quarterly report on charger reliability and maintenance.

The Recipient shall:

- Write and submit to the CEC a quarterly report on charger reliability and maintenance. The report shall include:
    - A summary of charger downtime, including total downtime and the number and frequency of downtime events, the minimum, median, mean, and maximum duration, and the causes of downtime events. Downtime events include:
        a. For networked chargers, the time that the status or error codes returned by a charger indicate that it is in a state other than an operative state (inoperative). The duration of time counted as downtime based on remote monitoring will be the interval between the time of the first charger status record that the charger is inoperative, or the failure of the charger to send operational status on specified

interval, and the subsequent status record that the charger is operative.

b. The time that a charger is in an inoperative state or failing to deliver charge. This may be known by consumer notification, internal diagnostics, inspection, or other methods.

c. In the event there is a conflict between the sections (a) and (b), the operative state of the charger shall be determined by (b).

- A summary of Excluded Downtime, including total excluded downtime and the number and frequency of excluded downtime events, the minimum, median, mean, and maximum duration, and the causes of excluded downtime events. 'Excluded Downtime' includes:

  a. **Grid Power Loss:** Power supplied by third-party provider is not supplied at levels required to for minimum function of chargers. This may include, but is not limited to, service outages due to utility equipment malfunction or public safety power shut-offs. This does not include power generation or storage equipment installed to serve the station exclusively. Documentation from power provider detailing outage is required to claim this as excluded time.

  b. **Vandalism and/or Theft:** Any physical damage to the charger and / or station committed by a third-party. This may include, but is not limited to, theft of charging cables, damage to connectors from mishandling, damage to screens, etc. A maximum of 5 calendar days may be claimed as excluded downtime for each event. The CEC may authorize additional excluded downtime for extenuating circumstances on a case-by-case basis. A police report or similar third-party documentation is required to claim this as excluded time.

  c. **Communication Network Outages:** Loss of communication due to cellular or internet service provider system outages can be claimed as excluded downtime provided the chargers revert to a free charge state during communication losses. A free charge state is when the charger is operational and dispenses energy and free of charge.

  d. **Planned Outage for Maintenance and/or Upgrade:** Any planned maintenance or upgrade work that takes the charger offline. This must be scheduled in advance of the charger being placed in an inoperative state. The maximum downtime that can be excluded for planned maintenance and/or upgrade is 24 hours for any 12-month period.

  e. **Force Majeure:** Downtime caused by unforeseen events, not described in (a) – (d) above, that are outside of the control of the recipient may be treated as Excluded Downtime upon approval by

the CEC. For such downtime to be considered, the recipient shall include a narrative description of the event and why it was out of their control in their quaterly report for the CEC to review and make a determination. The CEC has sole discretion in approving downtime in this category.

- A summary and calculation of uptime. Each report shall include the quarterly uptime percentage of each charger (Charger Uptime) as well as the quarterly uptime percentage for each charging station (Station Uptime) installed and operated as part of this agreement. The quarterly uptime percentage for each charger shall be reported for the year ending on the most recent anniversary of the beginning of operation of the charger. The quarterly uptime percentage for each station shall be reported for the year ending on the most recent anniversary of the beginning of operation of the first charger operated as part of this agreement that is part of the station. Charger and station uptime shall be calculated as:

$$U_c = \frac{T_c - D_c + E_c}{T_c}$$

U_c = Charger Uptime
T_c = Total charger minutes in the reporting period
D_c = Total charger downtime for the reporting period, in minutes.
E_c = Total charger excluded downtime in the reporting period, in minutes.

$$U_s = \frac{T_s - D_s + E_s}{T_s}$$

U_s = Station Uptime
T_s = Total hours for all chargers associated with the charging station for the reporting period ($T_s = \sum T_c$) in minutes.
D_s = Total downtime for all chargers associated with the charging station for the reporting period ($D_s = \sum D_c$), in minutes.
E_s = Total excluded downtime for all chargers associated with the charging station for the reporting period ($E_s = \sum E_c$), in minutes.

- A summary of charge data, including:
  a. Total number of attempts to charge

b. Total number of failed attempts to charge
c. Failed attempts to charge by the following categories:
    i. Number of charge attempts that failed due to payment system failures
    ii. Number of charge attempts that failed due to interoperability failures
    iii. Number of charge attempts that failed due to charger hardware or software failures
    iv. Number of charge attempts that failed due to other reasons
d. A summary and explanation of “other reasons” for charge attempt failures
e. A description of steps taken to reduce the number of failed charge attempts, and the success rate of those steps

- The total number of maintenance dispatch events that occurred since the last report, the number of days to complete each maintenance event reported, and a narrative description of significant maintenance issues. Details of all excluded downtime and a narrative description of events that caused the excluded downtime.

Products:

- Quarterly Report on Charger and Charging Port Reliability and Maintenance

TASK 6 SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS

The goal of this task is to provide information on the number of chargers in the Recipient’s charging network in California, including both public and shared private, serving all vehicle sectors (light-, medium-, and heavy duty) excluding any charger used solely for private use at a single-family residence or a multi-family housing unit with four or fewer units.

The Recipient shall:

- Prepare an *Electric Vehicle Charger Inventory Report,* in a template provided by the CAM, that includes:
    - For chargers serving light-duty electric vehicles:
        - Number of public AC charging ports aggregated at the county level by charging network provider
        - Number of shared private AC charging ports aggregated at the county level by charging network provider
        - Number of public DC fast charging ports aggregated at the county level by charging network provider
        - Number of shared private DC fast charging ports aggregated at the county level by charging network provider
    - For chargers serving medium- and/or heavy-duty vehicles:
        - Number of public AC charging ports aggregated at the county level by charging network provider

- Number of shared private AC charging ports aggregated at the county level by charging network provider
- Number of public DC fast charging ports aggregated at the county level by charging network provider
- Number of shared private DC fast charging ports aggregated at the county level by charging network provider
- Number of other publicly available charging ports at the county level by charging network provider
- Number of other depot charging ports by power output (less than 50 kilowatts (kW), between 50 – 150 kW, 150 kW – 350 kW, 350 kW and above) at the county level by charging network provider (if applicable)

- Submit the *Electric Vehicle Charger Inventory Report* to the CAM, no later than 30 calendar days after the Agreement is executed and then each calendar half-year thereafter. Reports are due at the end of July and end of January.

Recipient Product:

- Electric Vehicle Charger Inventory Report

TASK 7 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:

- For all electric vehicle chargers and charging stations installed on or after January 1, 2024.
  - Comply with recordkeeping and reporting standards as described in CEC's regulations. These requirements are not applicable to those electric vehicle chargers and charging stations installed at residential real property containing four or fewer dwelling units.
  - Comply with all industry best practices and charger technology capabilities that are demonstrated to increase reliability, as described in CEC's regulations.
  - Without limitation to other requirements in this grant agreement, Recipient shall comply with any other regulatory requirements, including but not limited to uptime requirements and operation and maintenance requirements. Such regulatory requirements may, but will not necessarily, be enacted after execution of this grant agreement. Once regulations are final, they will apply to work under this grant agreement irrespective of when finalized. Any updates to regulations may also be applicable to work under this Agreement.

  - If the Recipient is an electric vehicle service provider or other third-party entity that is not the site host, the electric vehicle service provider or third-party entity shall provide a disclosure to the site host about the site host's right to designate the service provider or third party as the entity to report the data on behalf of the site host. The Recipient shall verify receipt by signing the disclosure.
- Collect and provide the following data. Please note that all data collection should be specified per charger and per charging port, where applicable:
  - For an electric vehicle charging station, the availability of operational charging plugs, whether the station was energized, the volume of electricity in kilowatt-hours used to charge by vehicles, the number of vehicles charged by a station, and any other data deemed necessary by the CEC to monitor reliability and accessibility of the charging infrastructure. This data shall be measured no less frequently than on a daily basis and reported electronically to the CEC no less frequently than quarterly in *AB 126 Data Reports* submitted with the quarterly reports described in Task 1.5.
  - For an electric vehicle charging station, the source and greenhouse gas emissions intensity, on an annual basis, of the electricity used and dispensed by the EV charging station(s) at the meter, consistent with the disclosure methodology set forth in Article 14 (commencing with Section 398.1) of Chapter 2.3 of Part 1 of Division 1 of the Public Utilities Code. Data must be reported to the CEC annually in a *AB 126 Data Report* specified by the CAM.
  - Number, type, date, and location of chargers installed
  - Nameplate capacity of the installed equipment, in kW for chargers.
  - Number and type of outlets per charger.
  - Location type, such as street, parking lot, hotel, restaurant, or multi-unit housing
  - Total cost per charger, the subsidy from the CEC per charger, federal subsidy per charger, utility subsidy per charger, and privately funded share per charger
  - Specify the cost per charging port and explain how the number of ports per charger impacts the data regarding cost per charger
  - Average charger downtime
  - Peak power delivered (kW)
  - Duration of active charging, hourly
  - Duration of charging session, hourly (e.g., vehicle parked but not actively charging)
  - Average session duration
  - Energy delivered (kWh)
  - Average kWh dispensed
  - Types of vehicles using the charging equipment
  - Details regarding charger usage including:
    - Number of unique users utilizing chargers, specifying the number of users overall (all EVSE in project)

        - Number of unique users per charging station
        - Number of unique users per charging port
        - Number of MFH units served by each charging station
        - Number of MFH units served that are within a low-income community or disadvantaged community or are located at affordable housing sites
    - Applicable price for charging, including but not limited to electric utility tariff, EVSP service contract, and public charger price
    - Payment method for public charging
    - Energy delivered back to grid or facility if a bidirectional charging use case (kWh)
    - Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
    - Expected air emissions reductions, for example:
        - Non methane hydrocarbons
        - Oxides of nitrogen
        - Particulate Matter
        - Formaldehyde
    - Compare any project performance and expectations provided in the proposal to CEC with actual project performance and accomplishments
- For networked chargers only, collect and provide 12 months of throughput, usage, and operations data from the project including, but not limited to:

Category	Field	Desired Data Type
Sites	Site ID	Hash key
Sites	Site Name	Varchar
Sites	Site Type	Varchar
Sites	EVSP	Varchar
Sites	Street Address	Varchar
Sites	City	Varchar
Sites	State	Varchar
Sites	Zip	Varchar
Sites	Latitude	Decimal
Sites	Longitude	Decimal
Sites	Number of EVSEs	Varchar
Sites	Number of Ports	Varchar
EVSE	EVSE ID	Hash key
EVSE	EVSE Manufacturer	Varchar
EVSE	EVSE Model Number	Varchar
EVSE	EVSE Maximum kW	Integer
EVSE	EVSE Number of Ports	Integer

EVSE	EVSE Power Level	Varchar
Ports	Port ID	Hash key
Ports	Port Maximum kW	Integer
Ports	Connector Type	Varchar
Sessions	Session ID	Hash key
Sessions	Charge Duration	Varchar (HH:MM:SS)
Sessions	Charge Session Start Date	Date
Sessions	Charge Session Start Time	Time
Sessions	Charge Session End Date	Date
Sessions	Charge Session End Time	Time
Sessions	Disconnect Reason	String
Sessions	Connection Duration	Varchar (HH:MM:SS)
Sessions	Idle Duration	Varchar (HH:MM:SS)
Sessions	Energy Consumed	Decimal
Sessions	Charge Peak Demand	Decimal
Sessions	Charge Average Demand	Decimal
Sessions	Total Transacted Amount (Driver)	Currency
Sessions	Payment method	Character
Sessions	Driver ID	Hash key
Sessions	Vehicle Make, if known	Varchar
Sessions	Vehicle Model, if known	Varchar
Sessions	Vehicle Year, if known	Integer
Sessions	Vehicle Type, if known	Character

- Submit the data described above electronically in a *quarterly progress report* throughout the duration of the agreement.
- Analyze and report on the benefits of the project, and submit to the CAM as part of the Final Report, including:
    - How the project achieved the purpose of this solicitation
    - An evaluation of the effectiveness of the business and technology model of EV charger deployment to specifically in serving MFH residents.
    - Cost effectiveness of charger installation and charging for MFH property owners and residents

    - Benefits to disadvantaged communities and/or low-income communities and/or residents of affordable housing units
    - The proposed project results in high benefit-cost score, defined as the ratio of grams of CO2 equivalent reduction per dollar of CEC investment for the proposed project term and six years of operation.
- Provide *program metrics and data reports* consistent with the GGRF Special Terms and Conditions, as applicable, in a format provided by the CAM upon request of the CAM within 15 working days of request.

Products:

- Quarterly data collected on charger installations and charger events, submitted with Quarterly Progress Reports described in Task 1.5.
- Analysis and reporting on the benefits of the project, included in the Final Report, described in Task 1.6
- AB 126 Data Reports
- GGRF Program Metrics and Data Reports (upon request)

TASK 8 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