California Energy Commission
June 11, 2025 Business Meeting
Backup Materials for City of Oakland

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: 25-0611-03I

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: City of Oakland

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 ARV-24-023 with City of Oakland for a $2,300,000 grant. This project will install at least 88 Level 2 EV charging ports and at least 12 DCFC EV charging ports across approximately five sites that will power fleet vehicles for three targeted departments and offices; 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 June 11, 2025.

AYE:
NAY:
ABSENT:
ABSTAIN:

Dated:

_____
Kim Todd
Secretariat

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

CEC-270 (Revised 01/2024)

GRANT REQUEST FORM (GRF)

A. New Agreement Number

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

New Agreement Number: ARV-24-023

B. Division Information

1. Division Name: Fuels and Transportation
2. Agreement Manager: Julianne Lea
3. MS-:"Not Applicable"
4. Phone Number: (916) 252-9747

C. Recipient's Information

1. Recipient's Legal Name: City of Oakland
2. Federal ID Number: 94-6000384

D. Title of Project

Title of project: Installing Electric Vehicle Infrastructure to Serve the City of Oakland's Light Duty Fleet

E. Term and Amount

1. Start Date: 6/11/2025
2. End Date: 6/30/2028
3. Amount: $2,300,000

F. Business Meeting Information

1. Are the ARFVTP agreements $75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 6/11/2025
3. Consent or Discussion? Consent
4. Business Meeting Presenter Name: N/A
5. Time Needed for Business Meeting: N/A
6. The email subscription topic is: Clean Transportation Program

Agenda Item Subject and Description:

City of Oakland. Proposed resolution approving agreement ARV-24-023 with City of Oakland for a $2,300,000 grant, and adopting staff's recommendation that this action is exempt from CEQA. This project will install at least 88 Level 2 electric vehicle (EV) charging ports and at least 12 EV direct current fast charging ports across approximately five sites that will power fleet vehicles for three targeted departments and offices. (Clean Transportation Program Funding). Contact: Jeff Fletcher

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:

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 and 15303

Cal. Code Regs., tit. 14, Section 15301 provides that the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment or topographical features which involve negligible or no expansion of use beyond that existing at the time of the responsible agency's determination, are categorically exempt from the provisions of the California Environmental Quality Act. The proposed project activities consist of minor alterations to existing public facilities. Specifically, this project involves installation of approximately 88 Level 2 charging ports and approximately 12 Direct Current Fast Charger (DCFC) charging ports to serve municipal fleets vehicles from approximately 5 properties to accelerate the transition of the City's light-duty fleet from internal combustion engine (ICE) vehicles to electric vehicles (EV). Approximately 3 to 13 dual port Level 2 (L2) charging pedestals or wall mount chargers and 0 to 2 dual port DCFC charging pedestals will be installed at each location. Minor trenching and modification of existing electrical panels may be necessary. Therefore, this project is exempt under California Code of Regulations, title 14, section 15301 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, Section 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. This project consists of installation of new, small equipment to existing sites. The charging equipment to be installed is approximately 88 L2 charging ports with an approximate size of 11.5"L x 11.5"W x 98.5"H for pedestals, 5.5"L x 10.6"W x 14.1"H for wall mount chargers, and approximately 12 DCFC charging ports with an approximate size of 29.5"L x 27.5"W x 68.9"H. Minor trenching and modification of existing electrical panels may be necessary. In addition, the electric vehicle charging stations will be

installed at existing, paved parking spaces. Therefore, the project falls within section 15303 and will not have a significant effect on the environment.

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".

Additional Documents	Applies
Initial Study	No
Negative Declaration	No
Mitigated Negative Declaration	No
Environmental Impact Report	No
Statement of Overriding Considerations	No
None	Yes

H. **Is this project considered "Infrastructure"?**

Yes

I. 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

J. 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
InCharge Energy, Inc. (L2 pedestal mount chargers (dual port) Incharge 19.2 kW ICE-80 w/core pedestal RA-DCP-D1-A)	**$**268,275	$95,475
InCharge Energy, Inc. (L2 wall mount chargers (dual port) Incharge 19.2 kW ICE-80)	$102,900	$35,000
InCharge Energy, Inc. (DCFC fast chargers (dual port) InCharge 180 kW ICE-180)	$727,560	$307,908
California Department of Transportation (Fair market value from rented parking spaces – PAB site)	$0	$302,400
TC II 7200 Bancroft, LLC (Fair market value from rented parking spaces – Eastmont OPD site)	$0	$52,080
TBD (Permitting for 5 sites)	$0	$37,000
TBD (Shipping for all chargers)	$0	$32,500
InCharge Energy, Inc. (Designer, supplier, contractor for EVSE purchase, design, construction,	$0	$276,221
InCharge Energy, Inc. (Construction and Installation)	$1,201,205	$1,375,396

K. 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
No key partners to report

L. Budget Information

Include all budget information. Insert additional rows if needed. If no budget information to report, enter "N/A" for "Not Applicable" and "0" to Amount. **Delete** any unused rows from the table.

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
ARFVTF	22/23	601.118O	$2,300,000

TOTAL Amount: $2,300,000

R&D Program Area: N/A

Explanation for "Other" selection N/A

Reimbursement Contract #: N/A

Federal Agreement #: N/A

M. Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Richard Battersby

Address: 250 Frank Ogawa Plaza #4313

City, State, Zip: Oakland, CA 94612

Phone: 510-615-5856

E-Mail: rbattersby@oaklandca.gov

2. Recipient's Project Manager

Name: Joey Williams

Address: 250 Frank Ogawa Plaza #4313

City, State, Zip: Oakland, CA 94612

Phone: 510-615-5489

E-Mail: jwilliams2@oaklandca.gov

N. Selection Process Used

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

Selection Process	Additional Information
Competitive Solicitation #	GFO-23-606
First Come First Served Solicitation #	Not Applicable
Other	Not Applicable

O. 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

Item Number	Item Name	Attached
5	Awardee CEQA Documentation	No

Approved By

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

Agreement Manager: Julianne Lea

Approval Date: 4/14/2025

Office Manager: Corey Permann

Approval Date: 4/24/2025

Deputy Director: Jennifer Kalafut

Approval Date: 4/30/2025

Exhibit A
SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Site Plan and Preparation for Construction
3		Procure Equipment
4		Construction and Installation
5	X	Site Energization and Commissioning
6		Operations, Maintenance, Recordkeeping, Reporting and Data Collection
7		Final Report

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Richard Battersby (Oakland Public Works), Joseph Williams (Oakland Public Works)		
2	Richard Battersby (Oakland Public Works), Tony Vargas (Oakland Public Works)		
3	Richard Battersby (Oakland Public Works), Tony Vargas (Oakland Public Works)		
4	Richard Battersby (Oakland Public Works), Tony Vargas (Oakland Public Works)		

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
5	Richard Battersby (Oakland Public Works), Tony Vargas (Oakland Public Works)		
6	Richard Battersby (Oakland Public Works), Tony Vargas (Oakland Public Works)		
7	Richard Battersby (Oakland Public Works), Tony Vargas (Oakland Public Works)		

GLOSSARY

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

Term/ Acronym	Definition
AB	Assembly Bill
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.
Battery Energy Storage	Technology that stores electrical energy in batteries for later use, helping to stabilize the electric grid by balancing supply and demand, integrating renewable energy sources, and providing backup power during outages or peak demand periods.
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 multifamily 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.
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.
Commissioning	The final check or run-through of a charger or site to ensure effective operation before being made available to EV drivers.
Connector	The device that attaches an EV to a charging port in order to transfer electricity.
Corrective maintenance	Maintenance that 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).
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 5.4.
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.
Energization	Power is provided to a charger or site by the utility.
Excluded downtime	Downtime that is caused by events pursuant to Task 6.
Failed charging session	Following a charge attempt, the criteria for a successful charging session were not met.
Fleet Domicile	The vehicle’s “home base” or deployment location, where the vehicle normally stays overnight, returns after its route, or is parked when not in use.
FTD	Fuels and Transportation Division
Government entity	A California county government, a California city government, and/or a tribal government within California

Government fleet	A fleet of vehicles used to directly or indirectly serve the public
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.
L2	Level 2 electric vehicle service equipment
Light-duty vehicles	On-road vehicles with a gross vehicle weight rating of 10,000 pounds or less.
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.
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.
Primary Vehicle Type	A vehicle type depending on the GVWR such as "light duty" or "LD" (GVWR <= 10,000), "medium duty" or "MD" (10,000 < GVWR <= 26,000), "heavy duty" or "HD" (GVWR > 26,000).

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.
Recipient	City of Oakland
RSA	Registered Service Agency. An entity that repairs a commercial device that is registered with the California Department of Food and Agriculture Division of Measurement Standards.
SB	Senate Bill
SCAR	Successful Charge Attempt Rate
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 multifamily 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 charging port uptime percentage for the reporting period, excluding downtime pursuant to Task 6.

Background
Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007) created the Clean Transportation Program (CTP) to help achieve California's climate change policies and support projects that reduce greenhouse gas emissions from the transportation sector. AB 8 (Perea, Chapter 401, Statutes of 2013) extended the program through January 1, 2024, and AB 126 (Reyes, Chapter 319, Statutes of 2023) extended the program through July 1, 2035 and focused the program on zero-emission transportation.

The CTP has an annual budget of approximately $100 million and provides financial support for projects that, among other goals:

- Develop and deploy zero-emission technology and fuels in the marketplace where feasible and near-zero-emission technology and fuels elsewhere.
- Produce alternative and renewable low-carbon fuels in California.
- Deploy zero-emission fuel infrastructure, fueling stations, and equipment where feasible and near-zero-emission fuel infrastructure, fueling stations, and equipment elsewhere.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

On December 21, 2023, the CEC released a Grant Funding Opportunity (GFO) entitled "Charging Infrastructure for Government Fleets." This competitive grant solicitation was to fund projects that provide electric vehicle charging infrastructure for light-duty government fleets. In response to GFO-23-606, the Recipient submitted application #9 which was proposed for funding in the CEC's Notice of Proposed Awards on September 18, 2024. GFO-23-606 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:

Approximately 50% of California's greenhouse emissions come from transportation. The Recipient's greenhouse gas inventory mirrors this, with approximately two-thirds of its local emissions coming from cars and trucks. It has committed to transitioning 56% of its vehicles from fossil fuel dependence by 2030. While it has made headway in this transition, one of the primary barriers to accelerating this transition has been a lack of charging infrastructure, which is directly related to a lack of local funding.

A significant portion of the Recipient's population lives in low-income and disadvantaged communities adjacent to major transit corridors, including Interstates 580, 80, and 880. These communities experience some of the highest rates of exposure to diesel particulate matter and asthma in the state. Expanding electric vehicle (EV) infrastructure will decrease the number of fossil-fuel-powered vehicles on these roads, which will decrease the amount of harmful pollutants in these communities and across Oakland.

Goals of the Agreement:

The goal of this Agreement is to ensure that electric vehicle supply equipment (EVSE) infrastructure is available to serve the ongoing transition of the Recipient's light duty fleet vehicles from internal combustion engines to electric. The project will result in a plan for a staggered build out of the EVSE, the installation of this infrastructure, and ultimately an increase in the number of EVs in the city's fleet.

Objectives of the Agreement:

The objectives of this Agreement are to:

- Create a plan for the staggered installation of EV charging ports throughout the city of Oakland at fleet domiciles.
- Install at least 88 Level 2 and at least 12 DCFC charging ports across approximately five sites.
- Serve fleet vehicles across three targeted departments and offices: Public Works, the Police Department (PD), and Administration Offices.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication, procedures and data requests 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 CAM shall:

- Send the Recipient the *kick-off meeting agenda*.

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.
- Discuss the following administrative and technical aspects of this Agreement:

- Agreement Terms and Conditions
- Critical Project Review (Task 1.3)
- Match fund documentation (Task 1.5) No reimbursable work may be done until this documentation is in place.
- Permit documentation (Task 2.1)
- Subawards needed to carry out project (Task 1.6)
- 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 1.7)
- Program Management Data Report (Appendix E)
- EV Utilization Data Report (Appendix F)
- GHG Intensity Report (Appendix G)
- Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Project Fact Sheet (Task 1.2)
- Final Report (Task 7)

- Submit to CAM within 10 working days after the Kick-Off Meeting an *Updated Schedule of Products and Due Dates*
- Submit to CAM within 10 working days after the Kick-Off Meeting a *Written Statement of Match Activities* that describes 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.
    - The statement should include the following project activities: key milestone dates, site specific charger information and any other equipment to be included at the site(s).

CAM Product:

- Kick-Off Meeting Agenda

Recipient Products:

- Updated Schedule of Products and Due Dates
- Written Statement of Match Share Activities

Task 1.2 Project Fact Sheet

The goal of the Project Fact Sheet is to develop a concise document that describes the CEC-funded project and the predicted benefits of the project for the public and key decision makers.

The Recipient shall:

- Prepare and submit to CAM within 60 days of Agreement execution a *Project Fact Sheet* that describes the project and the predicted benefits of the project. Use the format provided by the CAM. The Recipient is expected to update the Project Fact Sheet as needed throughout the project to reflect the most current project details and benefits.
- At the conclusion of the project, the *Project Fact Sheet* will include, but is not limited to: a description of the project; the actual benefits resulting from the project; lessons learned from implementing the project; data on potential job creation, economic development, and increased state revenue as a result of expected future expansion; a comparison of any project performance and expectations provided in the grant application to CEC with actual project performance and accomplishments. Use the format provided by the CAM.

Recipient Product:

- Project Fact Sheet

Task 1.3 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.

At least two CPR meetings will occur during the Agreement. The CAM may schedule additional CPR meetings as necessary. Meeting costs will be borne by the Recipient. The two standard CPR meetings are scheduled after the site plan(s) are completed (end of Task 2) and after commissioning of the EVSE (end of Task 5).

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. Meetings may take place at the CEC, another location or remotely.
- Send the Recipient the *meeting 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.

- 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.
- Inform the Recipient when the CAM expects to send a written determination.
- Provide the Recipient with a *written determination*. The written determination 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
- Written determination

Recipient Product:

- CPR Report(s)

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 and explain Program Management Data Report Template during the first monthly call and review with Recipient during subsequent 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.
- Complete the Program Management Data Report following the first monthly call and review and update with CAM during subsequent monthly calls as needed (see Appendix E)
- Provide verbal answers to the CAM during the call.
- Send an email to CAM concurring with call summary notes within 5 working days of receipt.

Product:

- Email to CAM concurring with call summary notes.

Task 1.5 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.

- Submit to the CAM at least 2 working days prior to the kick-off meeting 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.
- If during the course of the Agreement additional match funds are received, submit to the CAM within 10 working days additional match fund commitment letter(s).
- If during the course of the Agreement existing match funds are reduced, submit to the CAM within 10 working days a letter describing the reduction in match funds. 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 1.6 Obtain and Execute Subawards and Agreements with Site Hosts

The goal of this task is to ensure quality products and to execute subrecipient and site host agreements, as applicable, required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement and contracting policies and procedures.

The Recipient shall:

- Execute and manage subawards and coordinate subrecipient activities.
- Execute and manage site host agreements and ensure the right to use the project site throughout the term of the Agreement, as applicable. A site host agreement is not required if the Recipient is the site host.
- Notify the CEC in writing immediately, but no later than five calendar days, if there is a reasonable likelihood the project site cannot be acquired or can no longer be used for the project.
- Submit a *letter* to the CAM at least 2 working days prior to the kick-off meeting describing the subawards and any site host agreements needed or stating that no subawards or site host agreements are required.
- If requested by the CAM, submit a *draft of each subaward and any site host agreement* 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 and any site host agreement*.
- If Recipient intends to add new subrecipients or change subrecipients. Then the recipient shall notify the CAM.

Products:

- Letter describing the subawards and any site host agreements needed, or stating that no subawards or site host agreements are required
- Draft subaward (if requested)
- Final subaward (if requested)
- Draft site host agreement (if requested)
- Final site host agreement (if requested)

Task 1.7 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 by the end 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.

Products:

- Quarterly Progress Reports

Task 1.8 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
- Provide to the CAM within 10 working days after the Final Meeting *written documentation of meeting agreements*.
- Provide to the CAM within 10 working days after the Final Meeting a *schedule for completing the closeout activities* for this Agreement.

Products:

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

TECHNICAL TASKS

TASK 2 SITE PLAN(S) AND PREPARATION FOR CONSTRUCTION

The goal of this task is to take all necessary steps to ensure that the site(s) have adequate design and planning to support the charger installation(s) in addition to preparing the site(s) for construction.

Task 2.1 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:

- Submit to the CAM at least 2 working days before the Kick-Off Meeting a *list of all permits* required to complete the project that identifies each type of permit and the names, addresses and telephone numbers of the permitting jurisdictions or lead agencies requiring the permits. If no permits are required, submit a letter indicating no permits are required.
- Submit to the CAM at least 2 working days before the Kick-Off Meeting a schedule for applying for and obtaining all permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting. 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 an updated list of permits and an updated schedule to the CAM within 10 working days of identifying additional permits.
- As permits are obtained, submit a copy of each final approved permit to the CAM within 10 working days.
- 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 actions available to the CEC under this Agreement, such as an additional CPR.

Products:

- List of all permits or letter stating that no permits are required
- Schedule for applying for and obtaining all permits
- 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 2.2 Site Plan(s) and Preparation for Construction

The goal of this task is to ensure the site(s) are prepared for charger installations. This shall include site surveys, assessing power capacity, and site designs across approximately five sites.

The Recipient shall:

- Coordinate and perform walk-throughs of each site in order to:
  - Review existing electrical distribution equipment and assess existing electrical capacity
  - Determine locations for EVSE at each site considering factors such as visibility, accessibility, and proximity to power sources
- Submit to CAM a *Site Survey Report*, including but not limited to
  - Site analysis findings
  - Historical utility data and assessment of existing electrical capacity
  - Summary of site walk-through of each site including observations of geographic challenges, entrances and exit locations, determine possible placement of charging station, create a timeline of installation, and analyze other site-specific challenges
  - Initial EVSE placement designs and corresponding narrative regarding the factors considered, including visibility, accessibility, and proximity to power sources
  - Photos
- Ensure adequate support for EVSE charging sites, including but not limited to:
  - Working with site staff and utility to confirm feasibility, costs of installing EVSE at specific sites, and load management strategies that can utilize existing power in the interim if the utility expects delays on utility-side improvements
  - Conduct ongoing coordination with the utility to schedule the installation of any new electrical equipment, such as transformers or meters, if a site's electrical utility capacity is found inadequate to support proposed EVSE installation.
  - Coordinate arrangements for temporary service interruptions or shutdowns as needed to facilitate the installation and connection of new electrical infrastructure
  - Secure new electrical service applications, if required.
- Submit to CAM an *Electrical Utility Capacity Report,* with findings from the utilities' studies
- Submit to CAM a copy of *Site Plan(s)* for each project site which identify the proposed location of charging infrastructure.
- Prepare design plans for charging sites, including but not limited to:

- Work with contractor to complete design drawings for EVSE projects at each site based on the existing conditions, number and type of chargers, EVSE capabilities, and EVSE location
- Submit *stamped final construction drawings* for completion for individual sites

Products:

- Site Survey Report
- Electrical Utility Capacity Report
- Copies of Site Plan(s)
- Stamped final construction drawings
- **[CPR WILL OCCUR DURING THIS TASK. See TASK 1.3 for details]**

TASK 3 PROCURE EQUIPMENT

The goal of this task is to procure the necessary equipment to successfully complete the construction and installation of the project, which will include the procurement of at least 88 L2 charging ports and at least 12 DCFC charging ports.

The Recipient shall:

- Procure the necessary equipment needed to complete the project, including but not limited to, at least 88 L2 charging ports and at least 12 DCFC charging ports, the appropriate EVSE and any materials needed for the construction and installation of the project. Submit to the CAM *copies of invoices or proof of procurement* for all equipment items as they are procured.

Products:

- Copies of invoices or proof of procurement

TASK 4 CONSTRUCTION AND INSTALLATION

The goal of this task is to complete any construction necessary at the project site(s) as needed in accordance with the project goals and install all proposed EVSE at their proposed site(s).

The Recipient shall:

- Install at least 88 Level 2 charging ports across project sites. Each L2 port must be capable of outputting at least 6.2 kilowatts (kW) of power. L2 dual-port chargers must be capable of outputting at least 6.2 kW of power from each port simultaneously.
- Install at least 12 DCFC charging ports across project sites. Each DCFC port must be capable of outputting at least 150 kW of power. DCFC dual-port chargers must be capable of outputting at least 150 kW of power from each port simultaneously.

- Prepare charging sites for EVSE installation, including but not limited to:
    - Install electrical conduits, wiring, and other components needed to connect the EV charging stations to the power source.
    - Ensuring proper grounding and bonding of electrical equipment to meet safety requirements.
    - Pouring concrete pads or foundations for the mounting of EV charging stations, ensuring they are level, stable, and properly aligned.
    - Installing bollards or protective barriers around charging stations to prevent damage from vehicle impacts.
- Install EVSE charging, including but not limited to:
    - Mounting and installing EV charging stations according to manufacturer specifications and industry standards.
    - Connecting charging stations to the electrical infrastructure, following wiring diagrams and installation guidelines.
- Submit to the CAM an *AB 841 Certification* that certifies the project has complied with all AB 841 (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.
- Submit to the CAM *EVITP Certification Numbers* of each Electric Vehicle Infrastructure Training Program 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.
- Ensure all electric vehicle supply equipment (EVSE) installed for commercial use has a type approval certificate issued through the California Type Evaluation Program (CTEP) administered by the California Department of Food and Agriculture Division of Measurement Standards or Certificate of Conformance issued by the National Type Evaluation Program (NTEP) administered through the National Conference on Weights and Measures. California accepts NTEP certificates so long as the device also meets CCR Title 4, Section 4002.11.
- Unless otherwise updated by the California Division of Measurement Standards, ensure installation, repair, and/or maintenance on commercial EVSE is performed by a Registered Service Agency (RSA) and after the device is placed in service, the RSA must report this information to the county within 24 hours. Device owners are responsible for registering their device with the county.
- Install signage and markings to designate EV charging spaces within the parking lot, including signage indicating the availability of charging stations and any associated usage fees or time limits if applicable.
- Develop and submit to CAM a *EVSE Installation Report* that will include but is not limited to: a summary of all installation activities completed, progress at each individual site, photo documentation of installed EVSE, and photos of signage and markings for EVSE.

Products:

- AB 841 Certification
- EVITP Certification Numbers for all EVSE
- EVSE Installation Report

TASK 5 SITE ENERGIZATION AND COMMISSIONING

The goal of this task is to energize and commission all of the installed EVSE in the project, which include at least 88 L2 charging ports and at least 12 DCFC charging ports at approximately five sites.

The Recipient shall:

- Energize all EVSE in the project
- Commission all EVSE in the project
- Conduct thorough testing and commissioning of the installed EV infrastructure to ensure proper functionality, safety, and compliance with specifications.
- Verify that charging stations are communicating effectively with network systems (if applicable) and that payment systems are functioning correctly.
- Develop and submit to CAM a Commissioning Report that will include but is not limited to: a summary of testing and commissioning activities done under this task.

Products:

- Confirmation of discussion and progress with AHJ responsible for commissioning (submitted to CAM via email)
- Confirmation of energization and commissioning (submitted to CAM via email)
- Commissioning Report
- **[CPR WILL OCCUR DURING THIS TASK. See TASK 1.3 for details]**

TASK 6 OPERATIONS, MAINTENANCE, RECORDKEEPING, REPORTING AND DATA COLLECTION

The goal of this task is to ensure this Agreement complies with the reliability performance standards, recordkeeping, reporting, maintenance, data collection and analysis requirements (Requirements) for EV chargers installed as part of this Agreement.

The Recipient shall:

- Comply with all the requirements set forth in the appendices below. 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.
  - Appendix A for Operations and Reliability
  - Appendix B for Recordkeeping and Transmittal
  - Appendix C for Reporting
  - Appendix D for Semi-Annual Electric Vehicle Charger Inventory Report
  - Appendix E for Data Collection and Analysis
  - Appendix F for Utilization
  - Appendix G for GHG Reporting
  - Appendix I for Data Sharing Agreement

Products:

- Remote Monitoring Records (as specified in Appendix B)
  - Within 10 business days of request
- Maintenance Records (as specified in Appendix B)
  - Within 10 business days of request
- Data Dictionary (as specified in Appendix B)
  - Submitted with Remote Monitoring Records or Maintenance Records
- Quarterly Report on Charger and Charging Port Reliability and Maintenance (as specified in Appendix C)
  - Submitted with each Quarterly Progress Report once chargers are operational
- Electric Vehicle Charger Inventory Report (as specified in Appendix D)
  - Within 30 days of Agreement execution and then each calendar half-year thereafter, due by the end of July and the end of January
- Program Management Data Report (as specified in Appendix E)
  - Following the first monthly call then reviewed and updated during subsequent monthly calls as needed (Task 1.4)
- EV Utilization Data Report (as specified in Appendix F)
  - By the end of each January, April, July, and October once chargers are operational
- GHG Intensity Report (as specified in Appendix G)
  - By the end of July and the end of January
- Dually Signed Data-sharing Agreement (as specified in Appendix I)
  - Within 30 calendar days of selecting a charging network provider or if the charging network provider changes

Task 7 Final Report

The goal of the Final Report is to assess the project's success in achieving the Agreement's goals and objectives, providing products specified in this Scope of Work, 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 Final Report must include 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. 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
- High Quality Digital Photographs

APPENDIX A: OPERATIONS AND RELIABILITY

Recipient shall comply with the reliability performance standards, recordkeeping, reporting, and maintenance requirements (Requirements) for EV chargers installed as part of this Agreement, excluding any charger used solely for private use at a single-family residence or a multifamily housing unit with four or fewer units. In the event the CEC adopts regulations that include Requirements, for example as required by AB 2061 (Chapter 345, Statutes of 2022) and/or AB 126 (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.

The Recipient shall:

- **Operational requirement for all chargers:** The Recipient shall operate charging ports installed as part of this Agreement during the term of this Agreement.
- **Uptime requirement for all chargers:** The Recipient shall ensure that the charging port 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.
- **Successful charge attempt rate (SCAR) requirement for networked chargers:** The Recipient shall ensure that the charging port SCAR for each charging port installed in the project is at least 90 percent for each year for six years after the beginning of operation.
- **Maintenance requirements for all chargers:** The Recipient shall:
    - Conduct preventive maintenance, as specified by the charger manufacturer, on the charger hardware by a certified technician annually. The time interval between consecutive preventive maintenance visits to any charger shall be no more than 13 months.
    - Complete corrective maintenance within 5 business days of the beginning of a time when the charger or charging port is inoperative or exhibiting failures that result in an inability to charge.
- **OCPP requirements for networked chargers:** The Recipient shall retain the services of a charging network provider that meets the bulleted criteria below to record, retain, and transmit the Remote Monitoring data for networked chargers specified in Appendix B: Recordkeeping and Transmittals.
    - The charging network provider must have an API of the CEC's choosing to permit the charging network provider to transfer the data required in this section directly to the CEC or the CEC's designee within 60 minutes of the record's generation.
    - The charging network provider must have Subset Certification of the Charging Station Management System in the Open Charge Alliance OCPP Certification Program for OCPP version 2.0.1, published May 24, 2023, or a subsequent version of OCPP for Core, Advanced Security, and ISO 15118 Support functionalities.
    - The charging network provider's central system must have connection to the chargers using OCPP version 2.0.1 or a subsequent version of OCPP. This does not preclude the additional use of other communication protocols.

- The charging network provider and chargers must transmit the following protocol data units between the Central Management System and the charger(s) as specified in OCPP version 2.0.1 or a subsequent version of OCPP:
    - AuthorizeRequest shall be transmitted to the Central Management System by the charger.
    - BootNotificationResponse shall be transmitted by the Central Management System to the charger in response to any received BootNotificationRequest.
    - HeartbeatRequest shall be transmitted to the Central Management System by the charger on a set interval.
    - HeartbeatResponse shall be transmitted to the charger by the Central Management System in response to any received HeartbeatResponse.
    - RequestStartTransactionRequest shall be transmitted by the Central Management System to the charger as specified in OCPP 2.0.1 or a subsequent version of OCPP.
    - StatusNotificationRequest shall be transmitted by the charger to the Central Management System any time the charger or an associated charging port's operative status changes.
    - TransactionEventRequest shall be transmitted to the Central Management System by the charger as specified in OCPP 2.0.1 or a subsequent version of OCPP.
        - The optional field meterValue must be populated when the eventType field is set to either "Started" or "Ended."
        - When populated, the sub-subfield Value of the subfield SampledValue of the field meterValue shall be transmitted in Watt-hours (Wh).
        - When populated, the sub-sub-subfield unit of the sub-subfield unitOfMeasure of the subfield SampledValue of the field meterValue shall be set to the default string, "Wh."
        - When populated, the sub-sub-subfield multiplier of the sub-subfield unitOfMeasure of the subfield SampledValue of the field meterValue shall be set to the default integer, 0 (zero).
        - When the meterValue field is populated, the measurand sub-subfield of the SampledValueType subfield, of the field meterValue shall be populated as specified in OCPP 2.0.1 or a later version.

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 the beginning of operation 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.

APPENDIX B: RECORDKEEPING AND TRANSMITTALS

The goal of this requirement is to collect, maintain, and transmit records of charging port operation and reliability to the CEC.

The Recipient shall:

- **For networked chargers,** ensure the charging network provider collects and retains the Remote Monitoring data below from each charging port installed and operated as part of this Agreement.
- **For networked chargers,** ensure the charging network provider automatically transmits the Remote Monitoring data below to the CEC, via API, within 60 minutes of the Remote Monitoring data's generation. Transmittals must begin within one month of the charger becoming operational.
- **For networked chargers,** ensure the charging network provider retains the Remote Monitoring data below for 2 years from the date of each record's generation. Provide *Remote Monitoring records* to the CEC within 10 business days of request.
    - Provide digital records in a comma separated values file unless another file format is approved by the CEC for the request.
    - Provide a clear and understandable *Data Dictionary* that describes each data element and any associated units with all digital records.
    - **Remote monitoring data for networked chargers,** which will serve as the foundation for the *Remote Monitoring records* that must be submitted include:
        - All instances of the following Protocol Data Units, specified in OCPP 2.0.1, that are transmitted between the charger and the central system.
            1. AuthorizeRequest
            2. AuthorizeReponse
            3. BootNotificationRequest
            4. HeartbeatResponse
            5. RequestStartTransactionRequest
            6. StatusNotificationRequest
            7. TransactionEventRequest
- **For all chargers,** collect and retain the maintenance records specified below for each charging port installed and operated as part of this Agreement for 6 years from the date the charging port begins operation. Provide *Maintenance Records* to the CEC within 10 business days of request.
    - **Maintenance Records, for all chargers, Recipient shall collect and retain:**
        - Reports of inoperative charging ports or charging port failures resulting in inability to charge, such as a customer complaint, internal diagnostics, or inspection.
        - Records of any maintenance conducted on charging ports 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 charging port was in an inoperative state prior to maintenance.
(D) Whether the charging port was in an operative state following maintenance.

APPENDIX C: REPORTING

The goal of this requirement is to provide reports on charger reliability and maintenance

The Recipient shall:

- For **each charger**, after the charger becomes operational**,** prepare and submit to the CEC *Quarterly Reports on Charger and Charging Port Reliability and Maintenance*. This report must conform to a format approved by the CEC. Each report must include:
    - A summary of charging port 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 shall be determined on a per charging port basis by summing the durations of all downtime events during the reporting period. The duration of a downtime event shall be the longest of the following periods:
        - **For networked charging ports,** the time after the charger has transmitted a StatusNotificationRequest indicating that the charging port associated with that charger is in a “faulted” or “unavailable” state until a subsequent StatusNotificationRequest is transmitted by that charger indicating that the charging port has transitioned to an “available,” “occupied,” or “reserved” state. The timestamps in each StatusNotificationRequest shall be used to quantify downtime.
        - **For networked chargers,** the time between a BootNotificationResponse transmitted by the Central Management System and the last HeartbeatResponse transmitted by the Central Management System prior to the BootNotificationResponse. The timestamps in the relevant BootNotificationResponse and HeartbeatResponse shall be used to quantify downtime.
        - **For all charging ports,** the time between the earliest record that a charging port is not capable of successfully dispensing electricity or otherwise not functioning as designed and the time it is available to deliver a charge. First record that a charger is not capable of successfully dispensing electricity or otherwise not functioning as designed includes, but is not limited to, consumer notification, internal diagnostics, or inspection, whichever is earliest.
    - 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:
        - **Before Initial Installation:** Downtime before the charging port was initially installed.

- **Grid Power Loss:** Downtime during which power supplied by a third-party provider is not supplied at levels required for minimum function of the charging port. This may include, but is not limited to, service outages due to utility equipment malfunction or public safety power shutoffs. This does not include power generation or storage equipment installed to serve the charger(s) exclusively. Documentation from power provider detailing outage is required to claim this as excluded downtime.
- **Outage for Preventative Maintenance or Upgrade:** Downtime caused by any preventative maintenance or upgrade work that takes the charging port offline. This must be scheduled at least two weeks in advance of the charger being placed in an inoperative state. The maximum downtime that can be excluded for preventative maintenance or upgrade work is 24 hours for any 12-month period.
- **Vandalism or Theft:** Downtime caused by any physical damage to the charger or station committed by a third party. This may include, but is not limited to, theft of charging cables, damage to connectors from mishandling, or damage to screens. A maximum of 5 days may be claimed as excluded downtime for each vandalism or theft event. A police report or similar third-party documentation is required to claim this as excluded time.
- **Natural Disasters:** Downtime caused by any disruption of the charging port due to a natural event such as a flood, earthquake, or wildfire that causes great damage. Third party documentation such as news reporting must be provided along with a narrative of the direct impacts to the charger(s) to claim this as excluded downtime.
- **Communication Network Outages:** Downtime caused by loss of communication due to cellular or internet service provider system outages. A Communication Network Outage can be claimed as excluded downtime provided the chargers default to a free charge state during communication losses. A free charge state is when the charger is operational and dispenses energy free of charge to any consumer.
- **Operating Hours:** Hours in which the charging port is in an operative state but that are outside of the identified hours of operation of the charging station.

o A summary and calculation of uptime. Each report shall include the uptime percentage of each charging port (Uptime) installed and operated as part of this Agreement for the reporting period. Charging port uptime shall be calculated as:

$$U = \frac{T - D + E}{T} * 100\%$$

U = Charging Port Uptime

T =

Q1 reporting period = 129,600 minutes, except for a leap year, which is 131,040 minutes.

Q2 reporting period = 131,040 minutes.

Q3 and Q4 reporting periods = 132,480 minutes.

D = Total charging port downtime for the reporting period, in minutes.

E = Total charging port excluded downtime in the reporting period, in minutes.

- **For networked charging ports,** a charge attempt summary for each charging port. The charge attempt summary shall include, as defined below, the total number of charge attempts, the total number of successful charge attempts, the total number of failed charge attempts, and the successful charge attempt rate for the reporting period.
  - **Charge Attempt.** A charge attempt occurs upon transmission of one or more of the protocol data units identified in following subsections A. through G. below between the Central Management System and the charger as specified in OCPP Version 2.0.1 or a subsequent version of OCPP. Any number of the Protocol Data Units described in A. through G. of this subsection below timestamped within a three-minute interval shall be counted as one charge attempt. Any number of TransactionEventRequest described in D. through G. of this subsection below transmitted with identical identifier strings in the transactionId subfield of the transactionInfo field shall be counted as one charge attempt.
    A. An AuthorizeRequest message transmitted by the charger to the Central Management System.

       The AuthorizeRequest message shall not count as a charge attempt if the Central Management System responds with an AuthorizeResponse message with the status subfield of the idTokenInfo field set to any of the following responses:
       - “Blocked”
       - “ConcurrentTx”
       - “Expired”
       - “Invalid”
       - “NoCredit”
       - “NotAllowedTypeEVSE”
       - “NotAtThisLocation”
       - “NotAtThisTime”
       - Unknown

    B. A RequestStartTransactionRequest message transmitted by the Centreal Management System to the charger.

C. A StatusNotificationRequest message transmitted by the charger to the Central Management System with the connectorStatus field set to “Occupied”.
D. A TransactionEventRequest message transmitted by the charger to the Central Management System with the eventType field set to ”Started”
E. A TransactionEventRequest message transmitted by the charger to the Central Management System with the triggerReason field set to ”CablePluggedIn”.
F. A TransactionEventRequest message transmitted by the charger to the Central Management System with the chargingState subfield of the transactionInfo field set to “EVConnected”.
G. A TransactionEventRequest message transmitted by the charger to the Central Management System with the chargingState subfield of the transactionInfo field set to “Charging”.

- **Charging Session.** A charging session begins and ends as follows:
    A. A charging session begins when the charger transmits TransactionEventRequest to the Central Management System with the chargingState subfield of the transactionInfo field set to “Charging.”
        - In the event that multiple TransactionEventRequest protocol data units are transmitted with the chargingState subfield of the transactionInfo field set to 'Charging' AND identical identifier strings in the transactionId subfield of the transactionInfo field, the charging session shall begin when the first of those protocol data units are sent. Which protocol data unit was sent first shall be determined based on the lowest value in the seqNo field.
    B. A charging session ends when the charger transmits a subsequent TransactionEventRequest to the Central Management System with the chargingState subfield of the transactionInfo field set to any of the following values:
        - “EVConnected”
        - “SuspendedEV”
        - “SuspendedEVSE”
        - “Idle”
    C. The identifier string contained in the transactionId subfield of the transactionInfo field must be identical in the messages described in A. and B. of this subsection above.

D. The date and time found in the timestamp field of the messages described in A and B of this subsection above shall be used to determine the start and stop time of charing session.

- **Successful Charge Attempt.** A successful charge attempt is a charge attempt that is followed by either A. or B. of this subsection below prior to another charge attempt.
  A. A charging session that lasts for 5 minutes or longer as determined by the timestamps described above
  B. The stoppedReason subfield of the transactioninfo field of the TranscationEventRequest protocol data unit ending the charging session is set to one of the following values:
     - "EnergyLimitReached"
     - "Local"
     - "Remote"
     - "SOCLimitReached"
  - **Failed Charge Attempt.** A failed charge attempt is any charge attempt that is not followed by a successful charge attempt prior to a subsequent charge attempt.
  - **Successful Charge Attempt Rate.** The successful charge attempt rate for a charging port shall be calculated using the following formula:

$$SCAR = \frac{CA - FCA}{CA} * 100\%$$

Where:

SCAR = Successful Charge Attempt Rate

CA = Total Charge Attempts for the reporting period

FCA = Total failed charge attempts for the reporting period

- **For all chargers,** a summary of 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. Include details of all excluded downtime and a narrative description of events that caused the excluded downtime. Include the summary in each Quarterly Report on Charger and Charging Port Reliability and Maintenance.

APPENDIX D: SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS

The goal of this requirement is to provide information on the total 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 multifamily housing unit with four or fewer units. In the event the CEC adopts regulations that include Requirements, for example as required by AB 2061 (Chapter 345, Statutes of 2022) and/or AB 126 (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.

The Recipient shall:

- Prepare an *Electric Vehicle Charger Inventory Report,* in a template provided by the CAM, on the total number of chargers in the Recipient's charging network in California 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.

APPENDIX E: DATA COLLECTION AND ANALYSIS

The goal of this requirement is to collect operational and programmatic data from the project. In the event the CEC adopts regulations that include Requirements, for example as required by AB 2061 (Chapter 345, Statutes of 2022) and/or AB 126 (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.

The Recipient shall:

- Prepare and provide a monthly *Program Management Data Report* in a format chosen by the CEC.
- Collect and provide the following programmatic data for all electric vehicle chargers and include in the monthly *Program Management Data Report*. The programmatic data shall include, but not be limited to the following:
    - Electric Vehicle Charger Information:
        - Funding
            - The subsidy from a federal program, utility program, and private funding
        - Vehicles
            - Primary Vehicle Type served such as light duty (GVWR <= 10,000), medium duty (10,000 < GVWR <= 26,000), heavy duty (GVWR > 26,000)
        - Milestone Dates
            - Key milestone dates, such as permit request and received date, charger energization date, charger operational date, and other dates as requested by the CAM
        - Location
            - Primary site access type such as publicly available, shared private, private
            - Location/site use type, such as hotel, restaurant, or multi-unit housing
            - Charger station address
            - Parking location type, such as street, parking lot or parking garage
        - Other Equipment
            - Battery Energy Storage CEC cost and kWh capacity
            - Non-battery Distributed Generation CEC cost, kW capacity and type
    - ZEV Infrastructure Information:
        - Charger Information
        - Charger make and model, serial number, level (Level 1, Level 2, DCFC, MCS), nameplate capacity (kW), number ports per charger

APPENDIX F: UTILIZATION

The goal of this requirement is to collect and provide utilization data for the charging stations installed for this project.

The Recipient shall:

- Collect and provide to the CAM, at minimum, quarterly utilization data from the project for all installed chargers in an EV Utilization Data Report in the format of the CEC's choosing, including, but not limited to:
    - EV Charging Port:
        - Charging network provider name
        - Charger site address, city, zip code
        - Charger make, model, and manufacturer serial number
        - EV service equipment charger and charging port ID
        - Peak Power (kW)
        - Charging session start/end date and times
        - Charging session energy consumed (kW)
        - Plug in/un-plugged timestamp Coordinated Universal Time (UTC)
        - Charging interval peak demand
        - Charging interval start/end times
        - Charging interval energy consumed
        - If a bidirectional charger, energy (kWh) discharged back to grid or facility
        - Total transacted amount
        - Payment method

APPENDIX G: GHG INTENSITY REPORTING

The goal of this requirement is to collect and report the source and greenhouse gas emission intensity of this project.

The Recipient shall:

For electric vehicle chargers: collect and report 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 semiannually in the *GHG Intensity Report* specified by the CAM.

APPENDIX I: DATA SHARING AGREEMENT

The goal of this requirement is to ensure a data sharing agreement with the parameters outlined below, is in place for the purposes of facilitating data collection and reporting.

The Recipient shall:

- Enter into a data-sharing agreement with a charging network provider that shall include the following:
    - Recipient maintains responsibility for ensuring all data collection and reporting requirements of this agreement are met.
    - Recipient designates the charging network provider to fulfill the data collection and reporting responsibilities related to Appendix B: Recordkeeping and Transmittals (excluding Maintenance Records), Appendix C: Reporting, Appendix D: Semi-Annual Electric Vehicle Charger Inventory Reports, and Appendix F: Utilization on behalf of Recipient.
    - The charging network provider submits all required reports, per the requirements stated, from Appendix B: Recordkeeping and Transmittals (excluding Maintenance Records), Appendix C: Reporting, Appendix D: Semi-Annual Electric Vehicle Charger Inventory Reports, and Appendix F: Utilization directly to the CEC.
    - The charging network provider's reports adhere to CEC-approved formatting, report templating, and delivery methods.
- Submit the *dually signed data-sharing agreement* to the CEC within 30 calendar days of selecting a charging network provider.
- Notify the CEC within 30 calendar days if Recipient changes its selected charging network provider.
- If a new charging network provider is selected, the new dually signed data-sharing agreement shall be submitted to the CEC within 30 calendar days of the charging network provider's hiring.
- Collect and provide at least 6 years of throughput, usage, and operations data from each charging port, including but not limited to the requirements stated in Appendix B: Recordkeeping and Transmittals (excluding Maintenance Records), Appendix C: Reporting, Appendix D: Semi-Annual Electric Vehicle Charger Inventory Reports, and Appendix F: Utilization.