**Attachment 02**

**Exhibit A**

**SCOPE OF WORK**

**TECHNICAL TASK LIST**

*<Insert the Task numbers and Task names for your Agreement. Applicants may leave the CPR column blank.>*

| **Task #** | **CPR** | **Task Name**  |
| --- | --- | --- |
| 1 |  | Administration |
| 2 |  | EVITP Certification and Type Approval Requirements (for charging infrastructure projects)  |
| 2 |  | Hydrogen Safety Pan (for hydrogen refueling station projects)  |
| 3 |  | <Insert Task Name> |
| *<Etc.>* |  | <Insert Task Name> |
| *<Etc.>* |  | <Insert Task Name> |
| *<Fourth to LastA Task>* |  | Operations and Reliability  |
| *<Third to Last Task>* |  | Semi-Annual Electric Vehicle Charger Inventory Reports (for charging infrastructure projects) |
| *<Second to Last Task>* |  | Other Data Collection and Analysis |
| *<Last Task>* |  | Project Fact Sheet |

**KEY NAME LIST**

*<Insert the Task numbers and the Key names for each Task in your Project. Include Key names only if the value of the project would significantly change without those personnel, subrecipients, or partners. Add additional lines as needed. Alternatively, you may delete this table if there are no key names.>*

| **Task #** | **Key Personnel** | **Key Subrecipient(s)** | **Key Partner(s)** |
| --- | --- | --- | --- |
| 1 | <Name> | <Name> | <Name> |
| 2 | <Name> | <Name> | <Name> |
| 3 | <Name> | <Name> | <Name> |
| *<Etc.>* | <Name> | <Name> | <Name> |

**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. |
| 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 |
| DCFC | Direct current fast charger. A charger that enables rapid charging by delivering direct-current (DC) electricity directly to an EV's battery. |
| 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). |
| 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 <Fourth to Last>.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. |
| Excluded downtime | Downtime that is caused by events pursuant to Task <Fourth to Last>.4. |
| 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. |
| Hydrogen Refueling Station | A facility that provides hydrogen as a fuel for fuel cell electric vehicles (FCEVs). |
| 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. |
|
| 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. |
| 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. |
| Recipient | An applicant awarded a grant under a CEC solicitation. |
| 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 <Fourth to Last>.4. |
|   | *<Insert additional rows as needed.>* |

*<Applicants* ***DO NOT*** *need to complete items listed under “Background.” This will be completed by the CAM during agreement development if proposal is recommended for funding.>*

**Background**

Assembly Bill (AB) 118 (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 (Chapter 401, Statutes of 2013) extended the program through January 1, 2024, and AB 126 (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.
* Produce alternative and renewable low-carbon fuels in California.
* Deploy zero-emission fueling infrastructure, fueling stations, and equipment.
* Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

On [***insert date***], the California Energy Commission (CEC) released a Grant Funding Opportunity (GFO) entitled “Implementation of Medium- and Heavy-Duty Zero-Emission Vehicle Infrastructure Blueprints 2.0.” This competitive grant solicitation was to fund projects that will implement medium- and heavy-duty (MDHD) zero-emission vehicle (ZEV) charging or hydrogen refueling infrastructure projects developed and identified in the final blueprint planning documents resulting from GFO-20-601. In response to GFO-24-611, the Recipient submitted application #XX which was proposed for funding in the CEC’s Notice of Proposed Awards on [***insert date***]. GFO-24-611 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:**

*<see instructions>*

**Goals of the Agreement:**

The goal of this Agreement is to… <see instructions>

**Objectives of the Agreement:**

The objectives of this Agreement are to… <see instructions>

**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.
* Provide a written statement of match share 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).
* Provide an updated Schedule of Products, updated list of match funds (Private, Utility, Federal), and updated list of permits.
* 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)
* Program Management Data Report (report template to be provided by CAM)
* EV Utilization Data Report (report template to be provided by CAM)
* Hydrogen Refueling Station Report (report template to be provided by CAM)
* GHG Intensity Report (report template to be provided by CAM)
* Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
* Final Report (Task 1.6)

**CAM Product:**

* Kick-Off Meeting Agenda

**Recipient Products:**

* Updated Schedule of Products
* Updated List of Match Funds (Private, Utility, Federal)
* Updated List of Permits
* Written Statement of Match Share Activities

**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 *CPR 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. 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:**

* CPR meeting 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
* Provide *written documentation of meeting agreements*.
* 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 Program Management Data Report Template
* 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 monthly, as needed. (Task X.X)
* Provide verbal answers to the CAM during the call.
* Send an *email to CAM concurring with call summary notes*.

**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, 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 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 calendar 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 Match 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, including but not limited to, a *letter of new match fund commitment* to the CAM if during the course of the Agreement additional match funds are received.
* Notify the CAM *written notification* 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 fund commitment (if applicable)
* Written notification 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 actions available to the CEC under this Agreement, such as an additional CPR.

Products:

* Letter documenting the permits or stating that no permits are required
* A copy of each final 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)

**Task 1.9 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 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)

**TECHNICAL TASKS**

**TASK 2 ELECTRIC VEHICLE INFRASTRUCTURE TRAINING PROGRAM (EVITP) CERTIFICATION AND TYPE APPROVAL REQUIREMENTS**
***for Charging Infrastructure Projects Only***

The goal of this task is to comply with AB 841 and type approval certification requirements.

**The Recipient shall:**

* Submit an *AB 841 Certification* that certifies the project has complied with all AB 841 (2020) requirements specified in the Agreement Terms and Conditions 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 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 (CDFA) Division of Measurement Standards (DMS), 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 CDFA DMS, 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.

**Products:**

* AB 841 Certification
* EVITP Certification Numbers for all electricians installing EVSE

**TASK 2 HYDROGEN SAFETY PLAN**

***for Hydrogen Refueling Station Projects Only***

The goal of this task is to develop a detailed hydrogen safety plan that the Recipient and any subrecipients or individuals involved in station construction, operation, and maintenance will follow throughout the project and as long as each station operates. The Recipient will collaborate with the Pacific Northwest National Laboratory (PNNL) Hydrogen Safety Panel (HSP) to ensure the plan is comprehensive and demonstrates a strong commitment to safety.

**The Recipient shall:**

* Submit the station design to the PNNL HSP for review.
* Submit a *Written Notification of Completion* of PNNL HSP design review to the CAM.
* Develop a Preliminary Hydrogen Safety Plan and submit it to PNNL HSP for review. Provide a *copy of PNNL HSP’s assessment* to the CAM.
* Discuss the PNNL HSP’s assessment with members of the PNNL HSP.
* Evaluate the PNNL HSP’s comments and determine how to address them in the final plan.
* Prepare a *memo* on how the PNNL HSP’s comments will be addressed and provide a copy to the CAM.
* Collaborate with the PNNL HSP and CAM to resolve any questions or issues pertaining to the Hydrogen Safety Plan.
* Prepare a Final Hydrogen Safety Plan.
* Submit the Final Hydrogen Safety Plan to the PNNL HSP.
* Submit a *Written Notification of Submission of the Final Hydrogen Safety Plan* to the PNNL HSP to the CAM

**Products:**

* Written notification of completion of PNNL HSP design review.
* A copy of the PNNL HSP’s assessment of the Preliminary Hydrogen Safety Plan for each station
* Memo describing how the PNNL HSP’s comments will be addressed in the Final Hydrogen Safety Plan for each station.
* Written notification of submission of the final Hydrogen Safety Plan to the PNNL HSP

**Task 2.1 Safety Inspections**

The goal of this task is to have members of the PNNL HSP and Recipient conduct an in-person inspection of the hydrogen refueling station between 6 and 12 months after becoming open retail.

**The Recipient shall:**

* Work directly with the PNNL HSP to schedule a time to conduct an in-person inspection of the open retail station.
* Hold the in-person inspection such that members of the PNNL HSP can inspect the installed station equipment.
* Prepare *Summary Notes* of the Safety Inspection, including, but not limited to, date, time, and participants in the inspection; elements of the inspection; feedback from the PNNL HSP and any resulting action items. Provide a copy to the CAM.

**Products:**

* Inspection summary notes

**TASK 3** *<insert task name using ALL CAPS>*

The goal of this task is ... *<Complete the sentence with a brief description of the goal(s)*. *Please be brief,* *two to three sentences maximum*. *See instructions.>*

**The Recipient shall:**

* *<Insert verb in active tense ... complete the sentence.>*
* *<Insert verb in active tense ... complete the sentence.>*
* *<Etc. See instructions>*

*<The following tasks shall be included within each task that includes Electric Vehicle Charger installations>*

**Products:**

*<Products incorporate the knowledge and understanding gained by performing the activities, and are* ***submitted to the CEC*** *for review, comment, and approval. Products include, but are not limited to, written reports that describe methods, test plans, results of testing, analysis of data, conclusions, and recommendations for future study, workshop agendas and summaries, description and photographs of equipment/product developed, summaries of advisory group meetings, computer software with written instructions for data input and use of the software, if intended for public or CEC use, and production prototypes. For each product there must be a bullet under “The Recipient Shall:” explaining it in more detail.>*

* *<Insert product (name only) and include draft and final versions as necessary>*
* *<Insert product (name only) and include draft and final versions as necessary>*
* *<Etc. See instructions>*

**<Add the appropriate number of tasks for the Agreement>**

**TASK *<Fourth to Last>* 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.

**Task *<Fourth to Last>*.1 Operations**

* ***(For hydrogen station projects only)*** Provide a *plan* explaining how hydrogen refueling stations will achieve 95% uptime. Uptime shall be calculated as a quarterly average percentage and defined as: (The total hours the station is available over the quarter / the total possible hours of operation over the quarter) x 100.
* **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 Task XX.2.
	+ 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.
		- AuthorizeResponse shall be transmitted by the Central Management System to 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.

**Products:**

* ***(For hydrogen station projects)*** A plan explaining how 95% uptime shall be achieved

**Task *<Fourth to Last>*.2 Recordkeeping and Transmittals**

The goal of this task 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:
		1. Date and time of the maintenance event.
		2. Whether maintenance was corrective or preventive in nature.
		3. Whether and for how long the charging port was in an inoperative state prior to maintenance.
		4. Whether the charging port was in an operative state following maintenance.

**Products:**

* Remote Monitoring Records
* Data Dictionary
* Maintenance Records

**Task *<Fourth to Last>*.3 Reporting**

The goal of this task 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.
	+ 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.
		1. 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”
		1. A RequestStartTransactionRequest message transmitted by the Central Management System to the charger.
		2. A StatusNotificationRequest message transmitted by the charger to the Central Management System with the connectorStatus field set to “Occupied”.
		3. A TransactionEventRequest message transmitted by the charger to the Central Management System with the eventType field set to ”Started”.
		4. A TransactionEventRequest message transmitted by the charger to the Central Management System with the triggerReason field set to ”CablePluggedIn”.
		5. A TransactionEventRequest message transmitted by the charger to the Central Management System with the chargingState subfield of the transactionInfo field set to “EVConnected”.
		6. 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:
		7. 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.
		8. 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”
		9. 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.
		10. 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 a charging 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.
		11. A charging session that lasts for 5 minutes or longer as determined by the timestamps described above
		12. The stoppedReason subfield of the transactionInfo field of the TransactionEventRequest protocol data unit ending the charging session is set to one of the following:
			- “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 ofall 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.

**Product:**

* Quarterly Report on Charger and Charging Port Reliability and Maintenance, submitted in a manner specified by the CEC

**TASK *<Third to Last>* SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS**

The goal of this task 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.

**Product:**

* Electric Vehicle Charger Inventory Report

**TASK *<Second to Last>* OTHER DATA COLLECTION AND ANALYSIS**

The goal of this task 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.
* Complete and submit the NREL Data Collection Tool (to be provided by the CAM) quarterly for each hydrogen refueling station in the project throughout the project term. See Task XX.1 Utilization.
* Complete and submit a Renewable Hydrogen Report every six months during the term of this agreement that include but is not limited to the percentage of renewable hydrogen dispensed at each hydrogen refueling station in the project, the carbon intensity of the renewable hydrogen, and the Low Carbon Fuel Standard pathway associated with the renewable hydrogen. See Task XX.2 GHG Intensity Reporting.
* Perform and submit *results of purity testing* using hydrogen collected at the nozzle for each hose at each hydrogen refueling station in the project:
	+ Annually during the term of this agreement.
	+ At any station when it changes from Retail: Unavailable to Retail: Open.
	+ As needed when the hydrogen lines are potentially exposed to contamination due to maintenance or other activity.

Hydrogen purity readings shall be collected according to CCR Title 4 Business Regulations, Division 9 Measurement Standards, Chapter 6 Automotive Products Specifications, Article 8 Specifications for Hydrogen Used in Internal Combustion Engines and Fuel Cells, Sections 4180 and 4181.

* Comply with the Petroleum Industry Information Reporting Act (PIIRA) and complete *CEC Form A15*, found at https://a15.energy.ca.gov/, on an annual basis for each hydrogen refueling station in the project. Submit the form to the CEC’s PIIRA Data Collection Unit per the instructions on the website.
* Collect and provide the following programmatic data for all electric vehicle chargers and hydrogen (H2) refueling stations and include in the monthly *Program Management Data Report*. The programmatic data shall include, but not be limited to the following:
	+ Electric Vehicle Charger & H2 Refueling Station 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 or hydrogen refueling station 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 or H2 refueling 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
		- Hydrogen Station Information
			* H2 equipment type, number of dispensers, number of fueling positions per dispenser
			* H2 equipment station developer, nozzle manufacturer, storage manufacturer
			* H2 equipment steam methane reformation (SMR) or electrolyzer, compressor or pump
			* H2 nameplate capacity kg per day
			* The number of LD, MD, HD vehicles fueled by a station

**Product:**

* Program Management Data Report
* Annual and as needed hydrogen purity test results
* Annual CEC A15 form

**TASK *<Second to Last >.1* Utilization**

**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* and/or hydrogen refueling stations in the NREL Data Collection Tool, 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
* Hydrogen Refueling Station:
	+ Number of refueling sessions
	+ Average refueling station downtime
	+ Average refueling session duration
	+ Average kilograms of hydrogen dispensed per refueling session
	+ Average retail price of hydrogen
	+ Normal operating hours, and explanations of variations
	+ Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
	+ Identify any current and planned use of renewable energy at the facility

**Products:**

* EV Utilization Data Report
* NREL Data Collection Tool

**TASK *<Second to Last>.2* GHG Intensity Reporting**

**The Recipient shall:**

* For H2 refueling stations: collect and report the source and carbon intensity of the hydrogen produced for, or dispensed by the stations, as measured by the methodology in the LCFS regulation (Subarticle 7 (commencing with Section 95480) of Article 4 of Subchapter 10 of Chapter 1 of Division 3 of Title 17 of the California Code of Regulations). Data must be reported to the CEC semiannually in the *Renewable Hydrogen Report* specified by the CAM.
* 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.

**Products:**

* Renewable Hydrogen Report
* GHG Intensity Report

**TASK *<Second to Last>.3* GGRF Reporting**

**The Recipient shall:**

* Provide program metrics and data reports consistent with the GGRF Special Terms and Conditions, as applicable, in a format provided by the CAM.

**Products:**

* Program metrics and data reports consistent with the GGRF Special Terms and Conditions (as applicable)

**TASK *<Second to Last>.4* Data Sharing Agreement [This task is only used when an EVSP / network provider is NOT the Recipient.]**

The goal of this task 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 TASK <Fourth to Last> Recordkeeping and Transmittals.2 (excluding Maintenance Records), Task <Fourth to Last>.3 Reporting, TASK <Third to Last> SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS, and TASK <Second to Last >.1 Utilization on behalf of Recipient.
	+ The charging network provider submits all required reports, per the requirements stated, from TASK <Fourth to Last> Recordkeeping and Transmittals.2 (excluding Maintenance Records), Task <Fourth to Last>.3 Reporting, TASK <Third to Last> SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS, and TASK <Second to Last >.1 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 TASK <Fourth to Last> Recordkeeping and Transmittals.2 (excluding Maintenance Records), Task <Fourth to Last>.3 Reporting, TASK <Third to Last> SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS, and TASK <Second to Last >.1 Utilization.

 **Products:**

* Dually signed data-sharing agreement

**TASK *<Last>*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 includes 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; and a comparison of any project performance and expectations provided in the proposal to CEC with actual project performance and accomplishments. 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