California Energy Commission
February 14, 2024 Business Meeting
Backup Materials for Sacramento Municipal Utility District (SMUD)

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

RESOLUTION NO: 24-0214-03g

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION: Sacramento Municipal Utility District (SMUD)

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

RESOLVED, that the CEC approves agreement ZVI-23-010 with SMUD for a $2,812,421 grant to deploy at least 15 direct current fast chargers to support the Sacramento region's access to charging infrastructure for high mileage on-demand transportation services, car sharing enterprises, car rental agencies, and the public; 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 February 14, 2024.

AYE:
NAY:
ABSENT:
ABSTAIN:

Dated:

_____
Kristine Banaag
Secretariat

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

CEC-270 (Revised 10/2022)

GRANT REQUEST FORM (GRF)

A. New Agreement Number

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

New Agreement Number: ZVI-23-010

B. Division Information

1. Division Name: Fuels and Transportation
2. Agreement Manager: Matthew Jumps
3. MS-: 27
4. Phone Number: 916-931-9918

C. Recipient's Information

1. Recipient's Legal Name: Sacramento Municipal Utility District
2. Federal ID Number: 94-6001157

D. Title of Project

Title of project: SACommunity EV Hubs

E. Term and Amount

1. Start Date: February 14, 2024
2. End Date: June 30, 2026
3. Amount: $2,812,421

F. Business Meeting Information

1. Are the ARFVTP agreements $75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 2-14-2024
3. Consent or Discussion? Consent
4. Business Meeting Presenter Name: Matthew Jumps
5. Time Needed for Business Meeting: 5 minutes
6. The email subscription topic is: Clean Transportation Program

Agenda Item Subject and Description:

Sacramento Municipal Utility District (SMUD). Proposed resolution approving agreement ZVI-23-010 with SMUD for a $2,812,421 grant to deploy at least 15 direct current fast chargers to support the Sacramento region's access to charging infrastructure for high mileage on-demand transportation services, car sharing enterprises, car rental agencies, and the public, and adopting staff's determination that this action is exempt from CEQA. (General Fund Funding) Contact: Matthew Jumps

G. California Environmental Quality Act (CEQA) Compliance

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

   If yes, skip to question 2.

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

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

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

a) Agreement **IS** exempt?

Yes

Statutory Exemption?

No

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

PRC section number: None

CCR section number: None

Categorical Exemption?

Yes

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

CCR section number: CCR section numbers 15301, 15303, 15304

Cal. Code Regs., tit. 14, sec. 15301 provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of use beyond that existing at the time of the lead agency's determination, are categorically exempt from the provisions of the California Environmental Quality Act. The project involves installation of at least 15 dual port direct current fast charger (DCFC) stations across existing facilities located at Sacramento International Airport, Sacramento Valley Station, and California State University Sacramento. The components for the DCFC stations will result in only minor alteration of the existing structures and facilities at the sites. The sites will require no infrastructure upgrades aside from the charger installations. Therefore, this project falls within section 15301 and will not have a significant effect on the environment.

Cal. Code Regs., tit. 14, sec. 15303 provides that projects which consist of construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of existing small structures from one use to another where only minor modifications are made in the exterior of the structure, are categorically exempt from the provisions of CEQA. The proposed project activities consist of minor alterations to existing facilities. Electric Vehicle Supply Equipment (EVSE) will be installed in existing parking lots. Existing electric infrastructure will be used to power EV charging. The sites will require no infrastructure upgrades aside from the charger installations. Therefore, the project falls within section 15303.

Cal. Code Regs., tit. 14, sec. 15304 provides that projects which consist of minor public or private alterations in the condition of land, water, and/or vegetation which do

not involve removal of healthy, mature, scenic trees except for forestry and agricultural purposes are categorically exempt from the provisions of CEQA. In this project, the EVSEs will be installed at fully developed sites. EVSEs will be installed in existing parking lots. These areas currently do not support riparian habitat, federally protected wetlands, or migratory corridors. Additionally, special status plants, animals, or natural communities are not expected to be found within close proximity to the affected facilities. The sites will require no infrastructure upgrades aside from the charger installations. Therefore, the project falls within section 15304.

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.

For these reasons, the proposed work will not have any significant effect on the environment and falls under sections 15301, 15303, and 15304.

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. 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
City of Sacramento	$0	$64,800
County of Sacramento	$0	$54,000
California State University, Sacramento	$0	$43,200

I. Vendors and Sellers for Equipment and Materials/Miscellaneous

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

Vendor/Seller Legal Company Name	CEC Funds	Match Funds
Arrow Construction	**$** 1,426,109	**$** 2,030,917
SWTCH Energy Inc.	**$** 36,525	**$** 0
ChargerHelp Inc.	**$** 245,540	**$**150,000
TBD	**$** 250,000	**$** 0
TBD	**$** 350,000	**$** 0

J. Key Partners

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

Key Partner Legal Company Name
No key partners to report

K. 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
General Fund	2021-22	601.129ZEV	$2,812,421

TOTAL Amount: $2,812,421

R&D Program Area: Not applicable

Explanation for “Other” selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: Not applicable

L. Recipient’s Contact Information

1. Recipient’s Administrator/Officer

Name: Obadiah J. Bartholomy

Address: 6301 S St., MS A353

City, State, Zip: Sacramento, CA 95817

Phone: (916) 732-6835

E-Mail: Obadiah.Bartholomy@smud.org

2. Recipient’s Project Manager

Name: Evan Speer

Address: 6201 S Street, MS B100

City, State, Zip: Sacramento, CA 95817

Phone: (530) 218-6214

E-Mail: evan.speer@smud.org

M. Selection Process Used

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

Selection Process	Additional Information
Competitive Solicitation #	GFO-22-611
First Come First Served Solicitation #	Not Applicable
Other	Not Applicable

N. Attached Items

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

Item Number	Item Name	Attached
1	Exhibit A, Scope of Work/Schedule	Yes
2	Exhibit B, Budget Detail	Yes
3	CEC 105, Questionnaire for Identifying Conflicts	Yes

Item Number	Item Name	Attached
4	Recipient Resolution	No
5	Awardee CEQA Documentation	Yes

Approved By

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

Agreement Manager: Matthew Jumps

Approval Date: 10/19/23

Branch Manager: Jaron Weston

Approval Date: 12/26/23

Deputy Director: Melanie Vail

Approval Date: 1/9/2024

Exhibit A
SCOPE OF WORK

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Workforce Development Plan
3	X	Design and Engineering
4		Procurement and Installation
5	X	App Development
6		Operations and Reliability
7		Semi-annual Electric Vehicle Charger Inventory Reports
8		Data Collection and Analysis
9		Project Fact Sheet

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Evan Speer		
2	Jacobe Caditz	ChargerHelp Inc. (ChargerHelp!)	
3	Louie Dias	City of Sacramento (Sacramento Valley Station), County of Sacramento (Sacramento International Airport), CSU Sacramento, Arrow Construction	
4	Louie Dias	City of Sacramento (Sacramento Valley Station), County of Sacramento (Sacramento International Airport), CSU Sacramento, Arrow Construction	
5	Mandar Nimkar		

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
6	Evan Speer	ChargerHelp!, Arrow Construction, SWTCH	
7	Evan Speer		
8	Evan Speer	ChargerHelp!, SWTCH	
9	Evan Speer		

GLOSSARY

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

Term/ Acronym	Definition
AC Charging	A charger that operates on a circuit greater than 200 volts and transfers alternating-current (AC) electricity to a device in an EV that converts alternating current to direct current to charge an EV battery.
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
Central System	Charge Point Management System: the central system that manages Charge Points and has the information for authorizing users for using its Charge Points.
Charge Point	The Charge Point is the physical system where an electric vehicle can be charged. A Charge Point has one or more connectors.
Charger	Any connector that can independently provide charge regardless of whether the other connectors associated with a Charge Point are simultaneously charging.
Charging Session	Part of a transaction during which the electric vehicle (EV) is allowed to request energy.
Charging Station	A physical location with any number of Charge Point(s) and Connector(s) with a unique address. For a charger to be part of a charging station, it must not be further than 0.125 miles (660 feet) from any other charger that is also considered to be part of the same charging station.
Connector	The term “Connector”, as used in this specification, refers to an independently operated and managed electrical outlet on a Charge Point. This usually corresponds to a single physical connector, but in some cases a single outlet may have multiple physical socket types and/or tethered cable/connector arrangements to facilitate different vehicle types (e.g. four-wheeled EVs and electric scooters).

Term/ Acronym	Definition
Corrective Maintenance	Maintenance which is carried out after failure detection and is aimed at restoring an asset to a condition in which it can perform its intended function.
CTP	Clean Transportation Program
CPR	Critical Project Review
Depot	A type of “home base” behind-the-fence location where a vehicle is typically kept when not in use (usually parked on a nightly basis).
Direct Current Fast Charger (DCFC)	A charger that enables rapid charging by delivering direct-current (DC) electricity directly to an EV's battery.
Downtime	Downtime is any period of time that a charger is not operational.
EVSE	Electric Vehicle Supply Equipment
Excluded Downtime	Excluded Downtime is downtime that is caused by events outside of the control of the funding recipient and is subtracted from total downtime when calculating uptime percentages.
FTD	Fuels and Transportation Division
Hardware	The machines, wiring, and other physical components of an electronic system including onboard computers and controllers.
Installed	Attached or placed at a location and available for use for a charging session.
Interoperability	Successful communication between 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.
Maintenance Event	Any instance in which preventive or corrective maintenance is carried out on equipment.
Operational	A charging port is considered operational or "up" when its hardware and software are both online and available for use, or in use, and the charging port successfully dispenses electricity as expected.
Operative	A state indicating the charger is operational and available to charge or currently charging.

Term/ Acronym	Definition
Operative Status	A status reported by the charger's onboard software indicating whether the charger is in an operative state. The status may directly report 'Operative' or some other status that indirectly indicates the charger is in an operative state. Conversely, the charger may report 'Inoperative' or some other status indicating that it is in not in an operative state.
Preventive Maintenance	Maintenance that is regularly and routinely performed on physical assets to reduce the chances of equipment failure and unplanned machine downtime.
Public	Charging ports located at parking space(s) designated by the property owner or lessee to be available to and accessible by the public.
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).
Recipient	Sacramento Municipal Utility District (SMUD)
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.
Uptime	A charging port is considered "up" when its hardware and software are both online and available for use, or in use, and the charging port successfully dispenses electricity in accordance with requirements for minimum power level. Uptime is the percentage of time a charging port is "up".

Background

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

On April 5, 2023, the California Energy Commission (CEC) released a Grant Funding Opportunity (GFO) entitled "FAST – Fast and Available Charging for All Californians." This competitive grant solicitation was to support electric vehicle (EV) charging infrastructure for high mileage on-demand transportation services, car sharing enterprises, or car rental agencies, and the public. In response to GFO-22-611, the

Sacramento Municipal Utility District (Recipient, also SMUD) submitted application #4 which was proposed for funding in the CEC's Notice of Proposed Awards on August 25, 2023. GFO-22-611 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:

Ride-share and food delivery drivers, car rental fleets, and individual drivers, especially in low-income communities (LICs) and disadvantaged communities (DACs), face barriers to the adoption and use of EVs and associated charging infrastructure (electric vehicle supply equipment, or EVSE). These barriers include lack of access to convenient and affordable public charging, lack of awareness about EV and EVSE technology operation, and lack of workforce investment in EVSE maintenance and operation, resulting in poorly maintained or unreliable infrastructure. Barriers to EV adoption are often exacerbated in urban and metropolitan areas where public charging infrastructure is limited due to spatial constraints. EV chargers and EVSE are commonly located in parking garages or spaces that require an additional payment to use/access. Within the on-demand transportation industry, there are numerous challenges to EV adoption:

- **High and Prohibitive Costs:** Public fast charging, which is necessary for drivers who offer a high volume of fares per shift, is expensive.
- **Limited Accessibility and Convenience:** Public fast charging stations are typically low power, inconveniently located, or require payment to access. This results in increased opportunity costs for drivers--drivers are forced to spend more time driving to stations and more time charging, resulting in less time working and earning money--and additional real costs, such as parking fees to access convenient fast charging. These costs are barriers to EV adoption for rideshare drivers.
- **Lack of Reliability:** Public fast charging stations are unreliable. Drivers need confidence that they will have access to public fast charging infrastructure while on duty.

Recognizing these barriers, SMUD will deploy public 150+kW fast chargers at the Sacramento International Airport, Sacramento Valley Amtrak Station, and California State University, Sacramento. These stations will offer public charging at an affordable rate for all users ($0.25/kWh), in addition to further discounts for ride-share drivers, ensuring access to public charging at rates comparable to home charging. These chargers will be located in areas where ride-share drivers already wait and queue for fares, reducing deadhead trips. Additionally, these rapid chargers will be high-powered

and conveniently located in free public lots, requiring no additional access fees. Through a robust Operations and Reliability Plan, SMUD will guarantee a 97 percent station uptime and provide workforce development and training opportunities to educate the local workforce in the service and maintenance of EV infrastructure.

Goals of the Agreement:

The goals of this Agreement are to:

Goal 1: Market Development. Develop the market for increased uptake of EVs in transportation hubs and under-resourced communities.
Goal 2: Model Innovation and Validation. Validate the business model for long-term EVSE utilization by offering targeted discounts to key demographics to increase station use, thus incentivizing EV adoption in areas suffering from prohibitive costs and unreliable service.
Goal 3: Demonstrate Reliability and Accessibility. Ensure that charging is available and openly accessible when needed to serve all manner of EV charging needs (rideshare, car rental, carpool, individual ownership).
Goal 4: Reduce Deadhead Miles and Opportunity Costs. Increase the availability of EVSE in highly trafficked areas and locations where ride-share drivers queue for fares to reduce miles traveled without a passenger or cargo, eliminating opportunity costs associated with charging.
Goal 5: Accelerate EV Adoption for Priority Populations. Minimize cost per driver, particularly for on demand transportation drivers, with a specific focus on historically disadvantaged and low-income communities (Priority Populations).

Objectives of the Agreement:

The objectives of this Agreement are to:

Objective 1: Affordable Fast Charging Corridor. Install at least fifteen (15) dual port direct current fast charger (DCFC) stations across Sacramento International Airport (SMF), Sacramento Valley Station (SVS), and California State University, Sacramento (CSUS) to create an affordable, convenient, reliable, and accessible charging corridor for on demand transportation service drivers and residents without access to home charging.
Objective 2: Education and Workforce Development. Increase local driver understanding of EV and EVSE technology and increase their likelihood to adopt these technologies, and provide workforce development and training opportunities for individuals to service and maintain EVSE.
Objective 3: Accessibility. Provide publicly accessible, affordable, and reliable charging opportunities by siting chargers in unrestricted locations that are available 24/7 with no additional parking fees. Develop a free app integrated with an e-Roaming platform to enable convenient access for customers to locate stations, activate sessions, and pay for charging.
Objective 4: Reliability. Maintain 97 percent uptime and driver satisfaction with the availability and affordability of EVSE supply.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

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

The Recipient shall:

- Attend a "Kick-Off" meeting that includes the CAM, and may include the Commission Agreement Officer (CAO), and a representative of the CEC Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
- Provide a written statement of project activities that have occurred after the notice of proposed awards but prior to the execution of the agreement using match funds. If none, provide a statement that no work has been completed using match funds prior to the execution of the agreement. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.
- Discuss the following administrative and technical aspects of this Agreement:
    - Agreement Terms and Conditions
    - Critical Project Review (Task 1.2)
    - Match fund documentation (Task 1.7) No reimbursable work may be done until this documentation is in place.
    - Permit documentation (Task 1.8)
    - Subawards needed to carry out project (Task 1.9)
    - The CAM's expectations for accomplishing tasks described in the Scope of Work
    - An *updated Schedule of Products* and Due Dates
    - Monthly Calls (Task 1.4)
    - Quarterly Progress Reports (Task 1.5)
    - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
    - Final Report (Task 1.6)

Recipient Products:

- Updated Schedule of Products

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

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

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

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

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

The CAM shall:

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

The Recipient shall:

- Prepare a *CPR Report* for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of

the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.

- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

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

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

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

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

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

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

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

- Prepare a *schedule for completing the closeout activities* for this Agreement.

Products:

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

Task 1.4 Monthly Calls

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

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

The CAM shall:

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

The Recipient shall:

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

Product:

- Email to CAM concurring with call summary notes.

Task 1.5 Quarterly Progress Reports

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

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

The Recipient shall:

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

Product:

- Quarterly Progress Reports

Task 1.6 Final Report

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

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

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

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

The Recipient shall:

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

- Submit *Final Report* in Microsoft Word format or similar electronic format as approved by the CAM.

Products:

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

Task 1.7 Identify and Obtain Matching Funds

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

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

The Recipient shall:

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

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

Products:

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

Task 1.8 Identify and Obtain Required Permits

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

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

The Recipient shall:

- Prepare a *letter documenting the permits* required to conduct this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
    - A *list of the permits* that identifies the:
        - Type of permit
        - Name, address and telephone number of the permitting jurisdictions or lead agencies
    - The schedule the Recipient will follow in applying for and obtaining these permits.

- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the a*ppropriate information on each permit and an updated schedule* to the CAM.
- As permits are obtained, send a *copy of each approved permit* to the CAM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 working days. Either of these events may trigger an additional CPR.

Products:

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

Task 1.9 Obtain and Execute Subawards

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

The Recipient shall:

- Manage and coordinate subrecipient activities.
- Submit a *letter* to the CAM describing the subawards needed or stating that no subawards are required.
- If requested by the CAM, *submit a draft of each subaward* required to conduct the work under this Agreement to the CAM for review.
- If requested by the CAM, submit a final copy of each executed subaward.
- If Recipient intends to add new subrecipients or change subrecipients, then the Recipient shall notify the CAM.

Products:

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

TECHNICAL TASKS

TASK 2 WORKFORCE DEVELOPMENT PLAN

The goal of this task is to develop a workforce education and training plan to engage the local workforce in EVSE operation, maintenance, and upkeep. SMUD, in collaboration with ChargerHelp! and the California Mobility Center (CMC) will create a workforce education and training plan that targets residents of Priority Populations.

The Recipient shall:

- Develop and provide a draft *Workforce Development Plan* that identifies key performance indicators related to outreach, recruitment, hiring, retention, and promotion throughout the term of the agreement.
- Identify engagement objectives, target audiences, appropriate outreach media, and an implementation schedule.
- Develop training materials on EVSE.
- Implement the *Workforce Development Plan* and provide interim updates in Quarterly Progress Reports described in Task 1.5.
- Develop and provide a draft *Workforce Development Evaluation Report* that evaluates key performance indicators related to outreach, recruitment, hiring, retention, and promotion throughout the term of the agreement.
- Develop and provide a final *Workforce Development Plan*.
- Develop and provide a final *Workforce Development Evaluation Report*.

Products:

- Draft Workforce Development Plan
- Final Workforce Development Plan
- Draft Workforce Development Evaluation Report
- Final Workforce Development Evaluation Report

TASK 3 DESIGN AND ENGINEERING

The goal of this task is to create stamped design and engineering drawings and related items for the EV infrastructure construction project.

The Recipient shall:

- For each site, create *draft designed engineering drawings* incorporating the civil and electrical design, specifying the type and location of EVSE and network service.
- Conduct engineering review of draft drawings.
- Issue *final stamped engineering drawings and related information*, including but not limited to certificates with a narrative summary.

Products:

- Final stamped engineering drawings and related information

[CPR WILL BE HELD IN THIS TASK. SEE TASK 1.2 FOR DETAILS]

TASK 4 PROCUREMENT AND INSTALLATION

The goal of this task is to procure and install at least fifteen dual port DCFC across Sacramento International Airport, Sacramento Valley Station, and CSU, Sacramento.

The Recipient shall:

- Procure EVSE for at least 15 dual port DCFC.
- Construct civil and electrical infrastructure for the installation of at least 15 DCFC EVSE, and document construction with *photos*.
- Install EVSE, and document installation with *photos*.
- Commission EVSE and network services.
    - Develop a *commissioning report* that includes, but is not limited to, details of installation of EVSE and confirmation of EVSE and network services commissioning.
- 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.

Products:

- Photos of civil and electrical infrastructure construction.
- Photos of EVSE installation.
- Commissioning report.
- AB 841 Certification and EVITP Certification Numbers or documentation that none is required.

TASK 5 APP DEVELOPMENT

The goal of this task is to develop an app that provides single account access to multiple public EV charging networks. This will be achieved through a SMUD-branded EV app that is integrated with a third-party "e-Roaming platform" vendor.

The Recipient shall:

- Develop an *app* with the following minimum requirements:
    - A dedicated SMUD-branded smartphone app for SMUD's EV driving customers integrated with an e-Roaming technology back-end.
    - Single account access to (and payment for use of) multiple charging points/stations operated by partner charging point/network owners and operators using reliable, secure, and scalable communication protocols.
    - Ability to find, activate, and pay for charging sessions across multiple networks.
    - Acceptance of major credit card types as form of payment.
    - Ability to offer varied rate structures by customer type/profile.
    - Transportation network driver verification via Application Programming Interface (API) with transportation network company systems.
    - SMUD customer verification via API with SMUD’s system.
- Develop a *written summary* of the app once the app is operational. The summary should include, but is not limited to, details on how to access the app, how to use the app, and functions that the app provides customers.

Products:

- Final operational app: SMUD public charging app that allows access to the SMUD fast charging sites and offers discounted rates to identified target customer groups.
- Written summary of the completed SMUD public charging app.

[CPR WILL BE HELD IN THIS TASK. SEE TASK 1.2 FOR DETAILS]

TASK 6 OPERATIONS AND RELIABILITY

This goal of this task is to operate and maintain the installed chargers during the term of this agreement, as expressed in the Operations and Reliability Plan.

Recipient shall comply with the reliability performance standards, recordkeeping, reporting, and maintenance requirements (henceforth, REQUIREMENTS) in this Scope of Work (SOW) for electric vehicles chargers installed as part of this Agreement. In the event the CEC adopts regulations that include REQUIREMENTS, for example as required by Assembly Bill 2061 (Ting, Chapter 345, Statutes of 2022) and/or Assembly Bill 126 (Reyes, Chapter 319, Statutes of 2023), those REQUIREMENTS shall supersede the REQUIREMENTS contained in this SOW for this Agreement wherever they are redundant or conflicting.

Task 6.1 Operations

The Recipient shall:

- Operate the installed chargers during the term of this agreement.
- Ensure that the charger uptime for each charger installed in the project is at least 97 percent of each year for six years after the beginning of operation.

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.

Task 6.2 Recordkeeping

The goal of this task is to collect and maintain records of charger operation and reliability. The Recipient shall collect and retain the remote monitoring and maintenance records specified in this section. The Recipient shall collect and retain records for each charger installed and operated as part of this agreement. The Recipient shall retain records for each charger for 9 years from the date the charger begins operation.

The Recipient Shall:

- Collect and retain the Remote Monitoring and Maintenance data below from each charger installed and operated as part of this Agreement.
- Retain the data below for 9 years from the date the charger begins operation. Provide *Remote Monitoring Records* and *Maintenance Records* to the CEC within 10 business days of request.
    1. Provide digital records in a comma separated values (CSV) file unless another file format is approved by the CEC for the request.
    2. Provide a clear and understandable *data dictionary* that describes each data element and any associated units with all digital records.

Remote Monitoring Data

1. Connector operative status and error codes on a 15-minute interval including charger identification number and date-time stamp.
    a. Recipient shall collect the OCPP 1.6 Protocol Data Unit (PDU) Status Notification.
2. A record of each customer attempt to initiate a charge including charger identification number, transaction identification number, date-time stamp, and status of the charge attempt (successful/failed).
3. A record of each failed attempt to charge including charger identification number, transaction identification number, and date-time stamps and reason for failure.

Maintenance Data

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

Products:

- Remote Monitoring Records
- Maintenance Records
- Data Dictionary

Task 6.3 Maintenance Requirements

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

The Recipient Shall:

- Conduct preventive maintenance, as specified by the charger manufacturer, on the charger hardware by a certified technician annually. The time interval between consecutive preventive maintenance visits to any charger shall be no more than 6 months.

- Complete corrective maintenance within 10 business days of the beginning of a time when the charger is inoperative or exhibiting failures that result in an inability to charge.
- *Report on preventive and corrective maintenance in each Quarterly Report on Charger Reliability and Maintenance* described in Task 6.4.

Products:

- Maintenance section of Quarterly Report on Charger Reliability and Maintenance described in Task 6.4

Task 6.4 Reporting

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

The Recipient shall:

- Prepare and submit to the CEC a *Quarterly Report on Charger Reliability and Maintenance*. Each report shall include:
    - A summary of charger downtime, including total downtime and the number and frequency of downtime events, the minimum, median, mean, and maximum duration, and the causes of downtime events. Downtime events include:
        a. The time that the status or error codes returned by a charger indicate that it is in a state other than an operative state (inoperative). The duration of time counted as downtime based on remote monitoring will be the interval between the time of the first charger status record that the charger is inoperative, or the failure of the charger to send operational status on specified interval, and the subsequent status record that the charger is operative.
        b. A charger is in an inoperative state or failing to deliver charge, which may be known by consumer notification, internal diagnostics, inspection, or other methods.
        c. In the event there is a conflict between the sections (a) and (b), the operative state of the charger shall be determined by (b).
    - A summary of Excluded Downtime, including total excluded downtime and the number and frequency of excluded downtime events, the minimum, median, mean, and maximum duration, and the causes of excluded downtime events. 'Excluded Downtime' includes:
        a. **Grid Power Loss:** Power supplied by third-party provider is not supplied at levels required to for minimum function of chargers. This may include, but is not limited to, service outages due to utility

equipment malfunction or public safety power shut-offs. This does not include power generation or storage equipment installed to serve the station exclusively. Documentation from power provider detailing outage is required to claim this as excluded time.

b. **Vandalism and/or Theft:** Any physical damage to the charger and / or station committed by a third-party. This may include, but is not limited to, theft of charging cables, damage to connectors from mishandling, damage to screens, etc. A maximum of 5 days may be claimed as excluded downtime for each event. The CAM may authorize additional excluded downtime for extenuating circumstances on a case-by-case basis. A police report or similar third-party documentation is required to claim this as excluded time.
c. **Communication Network Outages:** Loss of communication due to cellular or internet service provider system outages can be claimed as excluded downtime provided the chargers revert to a free charge state during communication losses. A free charge state is when the charger is operational and dispenses energy and free of charge.
d. **Planned Outage for Maintenance and/or Upgrade:** Any planned maintenance or upgrade work that takes the charger offline. This must be scheduled in advance of the charger being placed in an inoperative state. The maximum downtime that can be excluded for planned maintenance and/or upgrade is 24 hours for any 12-month period.
e. **Force Majeure:** Downtime caused by unforeseen events, not described in (a) – (d) above, that are outside of the control of the funding recipient may be treated as Excluded Downtime upon approval by the CEC. For such downtime to be considered, the recipient shall include a narrative description of the event and why it was out of their control in the *quarterly reports* for the CEC to review and make a determination. The CEC has sole discretion in approving downtime in this category.
f. **Operating Hours:** Hours in which the charger in in an operative state but are outside of the identified hours of operation of the charging station.

- A summary and calculation of uptime. Each report shall include, for the 12 months preceding the report, the monthly uptime percentage of each charger (Charger Uptime) installed and operated as part of this agreement. Charger uptime shall be calculated as:

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

U_c = Charger Uptime

T_c = Total charger minutes in the reporting period

D_c = Total charger downtime for the reporting period, in minutes.

E_c = Total charger excluded downtime in the reporting period, in minutes.

- A summary of charge data, including:
  a. Total number of successful attempts to charge
  b. Total number of failed attempts to charge
  c. Failed attempts to charge by the following categories:
     1. Number of charge attempts that failed due to payment system failures
     2. Number of charge attempts that failed due to interoperability failures
     3. Number of charge attempts that failed due to charger hardware or software failures
        i. Number of charge attempts that failed due to other reasons
  d. A summary and explanation of "other reasons" for charge attempt failures
  e. A description of steps taken to reduce the number of failed charge attempts, and the success rate of those steps
- The total number of maintenance dispatch events that occurred since the last report, the number of days to complete each maintenance event reported, and a narrative description of significant maintenance issues. Details of all excluded downtime and a narrative description of events that caused the excluded downtime.

Products:

- Quarterly Report on Charger Reliability and Maintenance, delivered with each Quarterly Progress Report, described in Task 1.5.

Task 7 SEMI-ANNUAL ELECTRIC VEHICLE CHARGER INVENTORY REPORTS

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

The Recipient shall:

- Prepare an *Electric Vehicle Charger Inventory Report*, in a template provided by the CAM, that includes:
  - For chargers serving light-duty electric vehicles:

        - Number of public AC charging ports aggregated at the county level by charging network provider
        - Number of shared private AC charging ports aggregated at the county level by charging network provider
        - Number of public DC fast charging ports aggregated at the county level by charging network provider
        - Number of shared private DC fast charging ports aggregated at the county level by charging network provider
    - For chargers serving medium- and/or heavy-duty vehicles:
        - Number of public AC charging ports aggregated at the county level by charging network provider
        - Number of shared private AC charging ports aggregated at the county level by charging network provider
        - Number of public DC fast charging ports aggregated at the county level by charging network provider
        - Number of shared private DC fast charging ports aggregated at the county level by charging network provider
        - Number of other publicly available charging ports at the county level by charging network provider
        - Number of other depot charging ports by power output (less than 50 kilowatts [kW], between 50 – 150 kW, 150 kW – 350 kW, 350 kW and above) at the county level by charging network provider (if applicable).
- Submit the *Electric Vehicle Charger Inventory Report* to the CAM no later than 30 calendar days after the Agreement is executed and then each calendar half-year thereafter. Reports are due at the end of July and end of January.

Recipient Product:

- Electric Vehicle Charger Inventory Report

Task 8 DATA COLLECTION AND ANALYSIS

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

The Recipient shall:

- For all electric vehicle chargers and charging stations installed on or after January 1, 2024:

- Comply with recordkeeping and reporting standards as described in CEC's regulations. These requirements are not applicable to those electric vehicle chargers and charging stations installed at residential real property containing four or fewer dwelling units.
- Comply with all industry best practices and charger technology capabilities that are demonstrated to increase reliability, as described in CEC's regulations.
- Without limitation to other requirements in this grant agreement, Recipient shall comply with any other regulatory requirements, including but not limited to uptime requirements and operation and reliability requirements. Such regulatory requirements may, but will not necessarily, be enacted after execution of this grant agreement. Once regulations are final, they will apply to work under this grant agreement irrespective of when finalized. Any updates to regulations may also be applicable to work under this grant agreement.
- If the Recipient is an electric vehicle service provider or other third-party entity that is not the site host, the electric vehicle service provider or third-party entity shall provide a disclosure to the site host about the site host's right to designate the service provider or third-party as the entity to report the data on behalf of the site host. The Recipient shall verify receipt by signing the disclosure.

- Collect and provide the following data:
  - Number, type, date and location of chargers.
  - Nameplate capacity of the installed equipment, in kW for chargers.
  - Number and type of outlets per charger.
  - Location type, such as street, parking lot, hotel, restaurant or multi-unit housing.
  - Total cost per charger, the subsidy from the CEC per charger, federal subsidy per charger, utility subsidy per charger, and privately funded share per charger.
- Collect and provide 12 months of throughput, usage, and operations data from the project including, but not limited to:
  - Number of charging or refueling sessions
  - Average charger or refueling station downtime
  - Peak power delivered per session (kW)
  - Average session duration
  - Energy delivered per session (kWh)
  - Average kWh or kg dispensed
  - Types of vehicles using the charging equipment

- If known, whether driver is associated with an on-demand transportation service, car sharing enterprises, or car rental agencies, or is a member of the public
- Summary information on any reservation system used, including:
  - Percentage of reservations that are completed as reserved, by category of user (e.g., on-demand transportation service, car sharing enterprises, or car rental agencies, or is a member of the public)
  - Percentage of a charging station's utilization that was reserved in advance
  - Percentage of reservations made by the 5 most frequent users, or users representing an entity
  - Percentage of operating hours of a site (defined as the daily operating hours multiplied by the number of chargers at a site) for which chargers were reserved
  - Time variation of any of the above over the 12-month period covered in this section
  - Other information needed to determine whether a reservation system was equally available to members of the public and to gig or commercial drivers
- Applicable price for charging, including but not limited to: electric utility tariff, EVSP service contract, or public charger price.
- Payment method for public charging
- Energy delivered back to grid or facility if a bidirectional charging use case (kWh)
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
- Expected air emissions reduction, for example:
  - Non-methane hydrocarbons
  - Oxides of nitrogen
  - Particulate Matter
  - Formaldehyde

- Identify any current and planned use of renewable energy at the facility.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Compare any project performance and expectations provided in the proposal to CEC with actual project performance and accomplishments.

- Collect and provide 12 months of throughput, usage, and operations data from the project including, but not limited to, for each session:

Category	Field	Desired Data Type
Sites	Site ID	Hash key
Sites	Site Name	Varchar
Sites	Site Type	Varchar
Sites	EVSP	Varchar
Sites	Street Address	Varchar
Sites	City	Varchar
Sites	State	Varchar
Sites	Zip	Varchar
Sites	Latitude	Decimal
Sites	Longitude	Decimal
Sites	Number of EVSEs	Varchar
Sites	Number of Ports	Varchar
EVSE	EVSE ID	Hash key
EVSE	EVSE Manufacturer	Varchar
Category	**Field**	**Desired Data Type**
EVSE	EVSE Model Number	Varchar
EVSE	EVSE Maximum kW	Integer
EVSE	EVSE Number of Ports	Integer
EVSE	EVSE Power Level	Varchar
Ports	Port ID	Hash key
Ports	Port Maximum kW	Integer
Ports	Connector Type	Varchar
Sessions	Session ID	Hash key
Sessions	Charge Duration	Varchar (HH:MM:SS)
Sessions	Charge Session Start Date	Date
Sessions	Charge Session Start Time	Time
Sessions	Charge Session End Date	Date
Sessions	Charge Session End Time	Time
Sessions	Disconnect Reason	String
Sessions	Connection Duration	Varchar (HH:MM:SS)
Sessions	Idle Duration	Varchar (HH:MM:SS)
Sessions	Energy Consumed	Decimal

Sessions	Charge Peak Demand	Decimal
Sessions	Charge Average Demand	Decimal
Sessions	Total Transacted Amount (Driver)	Currency
Sessions	Payment method	Character
Sessions	Driver ID	Hash key
Sessions	Vehicle Make, if known	Varchar
Sessions	Vehicle Model, if known	Varchar
Sessions	Vehicle Year, if known	Integer
Sessions	Vehicle Type, if known	Character

- Provide *data on charger installations and charging events* in Quarterly Progress Reports.
- Provide a *Data Collection and Information Analysis Report* that lists and analyzes all the data and information described above.

Products:

- Data on charger installations and charging events submitted electronically in Quarterly Progress Reports described in Task 1.5
- Data Collection Information and Analysis Report

TASK 9 PROJECT FACT SHEET

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

The Recipient shall:

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

Products:

- Initial Project Fact Sheet

- Final Project Fact Sheet
- High Quality Digital Photographs