

GRANT REQUEST FORM (GRF)

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-17-047 (To be completed by CGL Office)

600 Fuels and Transportation Division	Lawrence G. Vettrano	6	916-654-3933
San Francisco Department of the Environment		94-6000417	
San Francisco's Electric Vehicle Ready Community Blueprint			
07 / 01 / 2018	09 / 30 / 2019	\$ 199,398	

☐ ARFVTP agreements \$75K and under delegated to Executive Director.

Proposed Business Meeting Date	05 / 09 / 2018	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
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Business Meeting Presenter	Sharon Purewal	Time Needed:	5 minutes
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Please select one list serve. Altfuels (AB118- ARFVTP)

Agenda Item Subject and Description

Proposed resolution approving Agreement ARV-17-047 with San Francisco Department of the Environment for a \$199,398 grant to advance EVs and expand the market by introducing actions to remove barriers to market growth and develop a blueprint and mapping tool that will serve as an action item list for city, private sector partners, community members, and other stake holders.

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

☒ Yes (skip to question 2)☐ No (complete the following (PRC 21065 and 14 CCR 15378)):

Explain why Agreement is not considered a "Project":

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because .

2. If Agreement is considered a "Project" under CEQA:

☒ a) Agreement **IS** exempt. (Attach draft NOE)
☐ Statutory Exemption. List PRC and/or CCR section number:

☒ Categorical Exemption. List CCR 15306 section number:

☐ Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section:

14 CCR Section 15306, Information Collection, provides an exemption for projects consisting of basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resources. The project can be for information gathering or as part of a study leading to an action which a public agency has not yet approved, adopted, or funded. This project involves data collection on electric vehicles, driving patterns, and parking as well as resource evaluation for the creation of a blueprint and mapping tool for electric vehicle promotion and usage which will not result in a serious or major disturbance to an environmental resource since it will consist of data collection and other planning activities.

☐ b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)

Check all that apply

☐ Initial Study☐ Negative Declaration☐ Mitigated Negative Declaration☐ Environmental Impact Report☐ Statement of Overriding Considerations

Legal Company Name:

Budget

N/A

\$ 0

\$ 0

\$ 0

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Legal Company Name:
N/A

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTP	FY 17/18	601.118I	\$199,398
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$
R&D Program Area: N/A			\$199,398
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Name:	Jennifer Kass	Name:	Jessie Denver
Address:	SF Department of the Environment 1455 Market, 12th Floor	Address:	SF Department of the Environment 1455 Market, 12th Floor
City, State, Zip:	San Francisco, CA 94103	City, State, Zip:	San Francisco, CA 94103
Phone:	415-355-3762	Fax:	415-554-6694
E-Mail:	jennifer.kass@sfgov.org	E-Mail:	Jessie.Denver@sfgov.org

<input checked="" type="checkbox"/> Competitive Solicitation <input type="checkbox"/> First Come First Served Solicitation	Solicitation #: GFO-17-604
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1. Exhibit A, Scope of Work	<input checked="" type="checkbox"/> Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/> Attached
3. CEC 105, Questionnaire for Identifying Conflicts	<input checked="" type="checkbox"/> Attached
4. Recipient Resolution	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Attached
5. CEQA Documentation	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Attached

Agreement Manager	Date	Office Manager	Date	Deputy Director	Date
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**Exhibit A
SCOPE OF WORK**

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2		Electric Mobility Subcommittee of the San Francisco Mayor's Electric Vehicle Working Group
3	X	Inventory and Analysis
4	X	Electric Vehicle Ready Blueprint
5		Electric Vehicle Ready Blueprint Map
6		Outreach and Knowledge Exchange

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Lars Peters Suzanne Loosen	NA	NA
2	Lars Peters Jessie Denver Zac Thompson	NA	<ul style="list-style-type: none"> Mayor's Office, interdepartmental / agency stakeholders Local, state, nonprofit and industry stakeholders
3	Lars Peters Suzanne Loosen Zac Thompson	NA	<ul style="list-style-type: none"> Key interdepartmental / agency / external stakeholders Private sector stakeholders
4	Jessie Denver Lars Peters	NA	<ul style="list-style-type: none"> Mayor's Office SFMTA SFPUC
5	Lars Peters	NA	<ul style="list-style-type: none"> Key interdepartmental / agency / external stakeholders Private sector stakeholders
6	Jessie Denver Lars Peters Suzanne Loosen Zac Thompson	NA	<ul style="list-style-type: none"> Interdepartmental / agency stakeholders Nonprofit / community based organizations

GLOSSARY

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

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
CAM	Commission Agreement Manager

Term/ Acronym	Definition
CPR	Critical Project Review
FTD	Fuels and Transportation Division
Recipient	San Francisco Department of the Environment
EVs	Electric Vehicles <ul style="list-style-type: none"> Includes light, medium and heavy-duty Plug-in Hybrid Electric Vehicles; Battery Electric Vehicles and Fuel Cell Electric Vehicles.
DCFC	Direct Current Fast Charging
GHG	Greenhouse Gas
MUD	Multi-Unit Dwelling
ZEV	Zero Emission Vehicle
TNC	Transportation Network Company
EVWG	San Francisco Mayor's Electric Vehicle Working Group

BACKGROUND

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The statute authorizes the California Energy Commission (Energy Commission) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the ARFVTP through January 1, 2024, and specifies that the Energy Commission allocate up to \$20 million per year (or up to 20 percent of each fiscal year's funds) in funding for hydrogen station development until at least 100 stations are operational.

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

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

On December 14, 2017, the California Energy Commission (Energy Commission) released a Grant Solicitation and Application Package entitled "Electric Vehicle (EV) Ready Communities Challenge Phase I- Blueprint Plan Development" under the ARFVTP. This competitive grant

solicitation was for Phase I of an expected two phase effort for EV ready communities. Phase I planning blueprints will identify the actions and milestones needed to proceed towards implementation of an EV ready community. In response to GFO-17-604, the Recipient submitted application #7 which was proposed for funding in the Energy Commission's Notice of Proposed Awards once the NOPA is published. GFO-17-604 and Recipient's application are hereby incorporated by reference into this Agreement in its 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 Energy Commission's Award, the Energy Commission's Award shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

Problem Statement:

Innovation in the field of transportation electrification makes it technically possible to electrify most and eventually all private sector mobility, and power that movement of people and goods with 100% Greenhouse Gas-free electricity. However, Recipient presents that four key obstacles hinder adoption:

- Insufficient awareness and marketing of EVs and their benefits, incentives and charging options. Overall, the automobile industry and dealerships have been reluctant to market EVs and often lack expertise on incentives, and charging and fueling (hydrogen) infrastructure.
- Access to charging infrastructure at home and in workplaces is a critical need. However, for drivers (residents, commuters and visitors) parking on the street or in shared garages it is often unattainable or very difficult / expensive. Prospective EV drivers encounter resistance from building owners and homeowner associations, as well as technical challenges where electrical capacity is insufficient in existing buildings and shared garages. For street parking, there is currently no permit pathway in San Francisco to site an EV charging station in the public right of way (e.g., curbside) and existing local DCFC infrastructure is inconvenient, expensive and insufficient to meet demand. Level 2 (curbside), MUD charging and DCFC lack profitable business models limiting private sector investment.
- Medium and heavy-duty vehicle technology remains expensive and vehicle options are limited. As the California ZEV mandate does not apply and performance demands are challenging, industry investments in this category have traditionally been lacking.
- Shared, connected and automated emerging mobility options are the fastest growing form of mobility. In the case of TNCs there is no local regulatory authority with oversight on vehicle technology used.

The high costs and/or limited range of EVs has held back market transformation in the past. With the full market launch of the long-range light duty EVs like the Chevrolet Bolt and Tesla Model 3 this obstacle is about to be largely removed. Solving remaining barriers to adoption is therefore both critical and urgent as it is only these barriers that hinder full scale adoption and realization of a massive reduction in GHG emissions and improvement in local air quality, especially in low income and underserved communities with a disproportionate burden of fossil fuel air pollution.

Goals of the Agreement:

The goal of this project is to put in place the foundation to fully electrify private sector transportation in San Francisco by 2040, with interim goals in 2022, 2025 and 2030. To achieve this goal, the Electric Vehicle Ready Blueprint (EV Ready Blueprint) will articulate its vision and plan to advance EVs and expand the market by introducing actions in seven key opportunity areas most likely to result in rapid deployment of vehicle electrification: 1) Charging and Fueling Infrastructure, 2) Electricity Supply and Grid Integration, 3) Affordability, 4) Awareness, 5) Emerging Mobility, 6) Medium and Heavy-Duty Vehicles, and 7) Fossil Fuel Free Streets. The EV Blueprint will serve as a “to-do” list for city staff, private sector partners and other stakeholders and be highly replicable by other municipalities. To draft San Francisco’s EV Ready Blueprint, the Recipient will convene an Electric Mobility Subcommittee of the EVWG. The Subcommittee will include stakeholders from industry, community based organizations, and local, regional and state governmental organizations who will provide input and help to identify the near, medium and long-term actions in each opportunity areas. The EV Ready Blueprint will apply the rubric of 1) race and social equity and 2) maximizing opportunities for workforce development for all elements ensuring the transition to EVs benefits *all* San Francisco residents and visitors, and the greater Bay Area.

Objectives of the Agreement:

The objectives of this Agreement are to a) deliver an EV Ready Blueprint and dynamic EV Ready Blueprint Map and b) develop a participation process involving internal and external stakeholders, including the public.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

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

The Recipient shall:

- Attend a “Kick-Off” meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the Energy Commission Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6) No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)
 - Subcontracts needed to carry out project (Task 1.8)
 - The CAM’s expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Progress Reports (Task 1.4)
 - Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
 - Final Report (Task 1.5)

Recipient Products:

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

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

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

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

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

The CAM shall:

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

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

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

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

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

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

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

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

- What to do with any equipment purchased with Energy Commission funds (Options)
- Energy Commission's request for specific "generated" data (not already provided in Agreement products)
- Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
- "Surviving" Agreement provisions

- Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

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

Task 1.4 Monthly Progress Reports

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

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

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Agreement Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.
- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 Final Report

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

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

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

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

Products:

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

Task 1.6 Identify and Obtain Matching Funds

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

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
 - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.

- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

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

Task 1.7 Identify and Obtain Required Permits

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

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

The Recipient shall:

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

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

Products:

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

Task 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

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

Products:

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

TECHNICAL TASKS

TASK 2 ELECTRIC MOBILITY SUBCOMMITTEE OF THE SAN FRANCISCO MAYOR'S ELECTRIC VEHICLE WORKING GROUP

The goal of this task is to set up a new Electric Mobility Subcommittee of the EVWG, and convene internal and external stakeholders via in-person meetings.

The Recipient shall:

- Coordinate a diverse group of internal and external stakeholders, subject to CAM input,¹ to serve on the Electric Mobility Subcommittee of the EVWG.
- Ensure the Electric Mobility Subcommittee of the EVWG:
 - develops a vision with quantitative goals and realistic timelines for electrified private sector transportation
 - develops actions that align with the State of California's electrified transportation goals
 - addresses any adverse impacts of EV charging on utility rates, and to support grid delivery, reliability and resiliency
 - addresses the needs of residents in MUDs and single-family homes that face barriers to charging where they live
 - addresses charging requirements for various use cases across the light, medium and heavy-duty sectors
- Prepare supporting materials and conduct bi-weekly meetings over a six-month period for the Electric Mobility Subcommittee of the EVWG for the duration of the project.
- Set up tracking of deliverables and reporting structure.
- Incorporate Electric Mobility Subcommittee of the EVWG meeting minutes, agendas and action items in Task 1.4 Monthly Progress Reports
- Incorporate Electric Mobility Subcommittee of the EVWG input into Technical Tasks 3-6.

Products:

- List of Electric Mobility Subcommittee of the EVWG members and affiliations
- Detailed meeting timeline, agendas identifying all activities, task and action items and deadlines incorporated into monthly progress reports (Subtask 1.4)
- Interim progress summaries compiled on a quarterly basis incorporated into monthly progress reports (Subtask 1.4)

TASK 3 INVENTORY AND ANALYSIS

The goal of this task is to collect and analyze data to support decision making and development of the dynamic EV Ready Blueprint Map.

¹ Note: The intent is not for the CAM to have the authority to add or subtract confirmed members of the Electric Mobility Subcommittee of the EVWG. Rather, the intent is for the Recipient to submit via quarterly reports updates on coordination activities.

The Recipient shall:

- Collect data from sources required for analysis including but not limited to the following:
 - Department of Motor Vehicle records of vehicles registered in San Francisco, specifying make and model, model year, ZIP+5, fuel type
 - Vehicle use and driving patterns, including American Community Survey records of commute patterns into, out of, and within the city
 - State of California's Emission FACtor (EMFAC) 2017 model estimates of Vehicle Miles Traveled and emissions
 - Planning database with Building year, Type, Number of units of each lot
 - Database of commercial and municipal parking lots
 - Estimates of on and off-street parking (San Francisco County Transportation Authority and/or San Francisco Municipal Transportation Agency data)
 - Large scale new construction projects (Planning Department)
 - Grid utilization data; Area boundaries of Networked versus Radial Grid
- Build a detailed computer model and map that informs location and type of charging infrastructure investments for different forms of mobility including private households, ride-hailing, commuter buses and other medium and heavy-duty fleets. Model shall include:
 - Various scenarios of EV adoption across types of vehicles (light-duty, medium or heavy-duty, fleets)
 - EV vehicle mix assumptions
 - Charging preference and availability assumptions (home / work / public / DCFC)
 - Technology change: Battery size and charging technology assumptions
 - Mobility mix scenarios
 - Vehicle ownership scenarios
- Model various scenarios and policy impacts including but not limited to the following:
 - Impact on grid variables including distribution challenges as well as generation mix
 - Local air quality impacts
 - GHG reduction (Well to Wheels)
 - Geographic distribution of impacts
 - City wide or concentrated in certain areas
 - CalEnviroscreen 3.0 designated disadvantaged communities
- Evaluate the current business model challenges for charging network operators, including utility rate structures, investment costs and parking leases.
- Develop a searchable list of MUD properties with key characteristics such as parking spaces, rent versus owned, electrical supply etc.
- Identify bottle necks at various nodes of the power grid for both the radial and the networked grid in San Francisco.

Products:

- Data collection information and analysis from Task 3 will be included in the EV Ready Blueprint
- Detailed Excel model for scenario analysis
- Maps and graphs to illustrate selected scenarios and support EV Ready Blueprint development
- A CPR meeting is scheduled to be held within this task as stated in Task 1.2, subject to change by the CAM

TASK 4 EV READY BLUEPRINT

The goal of this task is to develop a comprehensive EV Ready Blueprint detailing the policies and actions needed to put San Francisco on track to fully electrify private sector mobility by 2040. The EV Ready Blueprint will articulate its vision and plan to advance EVs and expand the market by introducing actions in seven key opportunity areas most likely to result in rapid deployment of vehicle electrification: 1) Charging and Fueling Infrastructure, 2) Electricity Supply and Grid Integration, 3) Affordability, 4) Awareness, 5) Emerging Mobility, 6) Medium and Heavy-Duty Vehicles, and 7) Fossil Fuel Free Streets. The EV Ready Blueprint will serve as a “to-do” list for city staff, private sector partners and other stakeholders and be highly replicable by other municipalities.

The Recipient shall:

- Develop a comprehensive EV Ready Blueprint (draft and final) which shall include the following:
 - Identify actions to inform drivers about EVs and their benefits, incentives and charging options.
 - Identify actions, including policies and incentives, based on international best practices and local goals and priorities, to ensure that owning and driving an EV is more affordable than driving on gasoline or diesel, especially for low-income drivers.
 - Identify policy instruments and actions to ensure that charging infrastructure for EVs is convenient, accessible and affordable for all residents and visitors. Priority initiatives should specifically target existing MUD stock which houses 2/3 of San Francisco's privately-owned vehicles. Address identified challenges, including landlord incentives, rent-control, electrical capacity, deeded spaces, etc.
 - Identify policies and actions to make electric the more convenient choice (even for vehicle parked on the street) and identify next steps needed to evaluate the feasibility of curbside charging and fossil fuel free zones. Evaluate options to support EVs through a dense network / backbone of DCFC and/or Level 2 chargers.
 - Develop a roadmap to encourage transformation of commercial medium and heavy-duty fleets, and set the standard for electric medium and heavy-duty vehicle technology.
 - Identify policy instruments and actions to require emerging mobility options to be emission-free

- Identify actions to ensure grid delivery, reliability, and resiliency.
- Incorporation of solicited input of the Electric Mobility Subcommittee of the EVWG

Products:

- Draft EV Ready Blueprint with roles and responsibilities and timelines assigned to each action recommended by the Electric Mobility Subcommittee of the EVWG to ensure efficient and accelerated implementation.
- Final EV Ready Blueprint with roles and responsibilities and timelines assigned to each action recommended by the Electric Mobility Subcommittee of the EVWG to ensure efficient and accelerated implementation.

Recipient must submit a complete Electric Vehicle Ready Blueprint to the CAM by July 1, 2019 to be eligible for funding under the planned Phase II solicitation. The July 1, 2019 due date may be extended if the Energy Commission, and not the Recipient, caused a delay in execution of this Agreement past July 1, 2018.

TASK 5 EV READY BLUEPRINT MAP

The goal of this task is creation of a first-of-its-kind dynamic, replicable EV Ready Blueprint Map to inform implementation of EV Ready Blueprint actions and charging infrastructure investments. For stakeholders—including staff, decision makers, local utilities, charging network providers and the public—the EV Ready Blueprint Map will identify attractive siting opportunities based on easily selectable criteria and scenario assumptions. This will enable stakeholders to consider the best paths for charging station deployment that are affordable, equitable and expeditious; and will result in high-utilization.

The Recipient shall:

- Partner with key stakeholders to develop a dynamic EV Ready Blueprint Map leveraging the data described in Task 2 to inform location and type of charging infrastructure investments for different forms of private sector transportation electrification.
- Incorporate applicable input from the Electric Mobility Subcommittee of the EVWG

Products:

- Dynamic EV Ready Blueprint Map

TASK 6 OUTREACH AND KNOWLEDGE EXCHANGE

The goal of this task is to engage the community in the refining and implementation of the EV Ready Blueprint to ensure that EV Ready Blueprint actions are aligned with community needs, concerns and interests.

The goal of this task is also to ensure that the investment in San Francisco does not just improve one city but cities throughout the region, state, U.S. and beyond. This task will ensure knowledge transfer among professionals and municipal colleagues, providing a vehicle to glean best practices and transmit shared learning with a vision to scale up to other cities poised to use San Francisco's EV Ready Blueprint and EV Ready Blueprint Map.

The Recipient shall:

- Develop a Public Engagement Plan to involve community based organizations, state and local agencies, residents, businesses, and industry.
- Create an EV Ready Blueprint Playbook to share San Francisco's step-by-step experience in developing EV Ready Blueprint actions including coordination of a diverse stakeholder Subcommittee process. Ensure the EV Ready Blueprint Playbook highlights regional factors that affect the success of the EV Ready Blueprint actions, benefits to neighboring communities, opportunities for collaboration, model operating policies, and procedures including necessary data collection. The EV Ready Blueprint Playbook will link to San Francisco's EV Ready Blueprint Map, and outline how communities can replicate the tool for their community.
- Disseminate information through online webinars and in-person presentations, through San Francisco's membership in, and relationships with, local, regional, state, national and international organizations.

Products:

- Public Engagement Plan
- EV Ready Blueprint Playbook
- Webinar and in-person presentations

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: SAN FRANCISCO DEPARTMENT OF THE ENVIRONMENT

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

RESOLVED, that the Energy Commission approves Agreement ARV-17-047 with San Francisco Department of the Environment for a \$199,398 grant to advance EVs and expand the market by introducing actions to remove barriers to market growth and develop a blueprint and mapping tool that will serve as an action item list for city staff, private sector partners, community members, and other stakeholders; and

FURTHER BE IT RESOLVED, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

CERTIFICATION

The undersigned Secretariat to the Commission 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 California Energy Commission held on May 9, 2018.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat