

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-17-042 (To be completed by CGL Office)

600 Fuels and Transportation Division	Lindsee Tanimoto	6	916-654-4566
City of Sacramento		94-6000410	
Sacramento EV Blueprint			
6 / 30 / 2018	9 / 30 / 2019	\$ 199,280	

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

Proposed Business Meeting Date	5 / 9 / 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**

CITY OF SACRAMENTO. Proposed resolution approving Agreement ARV-17-042 with City of Sacramento for a \$199,280 grant to develop an actionable Sacramento EV implementation blueprint to accelerate the City's current efforts and build capacity to advance EV initiatives. (ARFVTP funding) Contact: Lindsee Tanimoto

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)

<input checked="" type="checkbox"/> Statutory Exemption. List PRC and/or CCR section number:	Section 15262: Feasibility and Planning Studies.
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<input checked="" type="checkbox"/> Categorical Exemption. List CCR section number:	Section 15306: Information Collection.
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☐ Common Sense Exemption. 14 CCR 15061 (b) (3)

Explain reason why Agreement is exempt under the above section:

Cal. Code Regs., tit.14, §15262 exempts feasibility and planning studies for possible future actions that have not been approved, adopted or funded from CEQA. Cal. Code Regs, tit. 14, §15306 information collection, provides that projects which consist of basic data collection, research and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of CEQA. This project consists of developing a planning document for possible future development of electric vehicles and equipment at the City of Sacramento. The project will not cause direct physical changes to the environment and only involves developing a community planning blueprint, a prioritization plan, public engagement, and developing an EV toolkit but no physical construction. Therefore, this project falls within sections 15262 and 15306 and will not have a significant effect on the environment. This project will not cause any significant effects from unusual circumstances or cumulative effects or other exceptions listed under Cal. Code Regs., tit. 14, §15300.2.

☐ 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

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**List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)**

Legal Company Name:	Budget
TBD	\$ 199,280
	\$ 0
	\$ 0

Legal Company Name:

Sacramento County, Sacramento Municipal Utility District, Sacramento Area Council of Governments, UC Davis, SacEV, EVgo Services LLC, Sacramento Regional Transit District, Sacramento Metropolitan Air Quality

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTP	FY 17/18	601.118I	\$199,280
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$
R&D Program Area:	Select Program Area		\$199,280
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Name:	Jennifer Venema	Name:	Jennifer Venema
Address:	915 I Street	Address:	915 I Street
City, State, Zip:	Sacramento, CA 95814	City, State, Zip:	Sacramento, CA 95814
Phone:	916-808-1859	Fax:	916-808-5573
E-Mail:	jvenema@cityofsacramento.org	E-Mail:	jvenema@cityofsacramento.org

☒ Competitive Solicitation      Solicitation #: GFO-17-604  
☐ First Come First Served Solicitation

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

**ARV-17-042**

**CEC-270 - List all key partners (continued):**

UC Davis PH & EV Research Center, La Familia, CALSTART, Inc., Electrify America, LLC, Mercedes-Benz USA, LLC, Valley Vision, Inc., SHRA, Mutual Housing California, Symphony Development, Franklin Neighborhood Development Corporation, Greenlots, Tesla, Inc., Volta Charging, Breathe California Sacramento Region, and GRID Alternatives.

# EXHIBIT A SCOPE OF WORK

## TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	EV Deployment Plan
3		Community EV Planning Blueprint
4	X	Public Charging Prioritization Plan
5		EV Toolkits
6		Advanced EV Mobility Opportunities
7		Community Engagement

## KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	City of Sacramento, Jennifer Venema	Subcontractor (TBD)	
2	Jennifer Venema - City of Sacramento  Judy Robinson – Sacramento County  Bill Boyce - SMUD  Tim Taylor - SMAQMD  Raef Porter – SACOG  Dahlia Garas & Gil Tal - PH&EV Research Center	Subcontractor (TBD)	Sacramento County, SMUD, PH&EV Research Center, SACOG, SMAQMD, SacEV, EVgo, Electrify America, Mercedes Benz USA, SacRT, CALSTART
3	Jennifer Venema - City of Sacramento  Jennifer Gress – City of Sacramento  Judy Robinson – Sacramento County  Raef Porter – SACOG  Dahlia Garas & Gil Tal - PH&EV Research Center	Subcontractor (TBD)	Sacramento County, SMUD, PH&EV Research Center, SACOG, SMAQMD, SacEV, Valley Vision, SHRA, Mutual Housing California, Symphony Development, Franklin Neighborhood Development Corporation

## EXHIBIT A SCOPE OF WORK

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
4	Jennifer Venema - City of Sacramento Bill Boyce - SMUD Tim Taylor - SMAQMD Raef Porter – SACOG Dahlia Garas & Gil Tal - PH&EV Research Center Will Berry & Rich Steinberg - Electrify America Jonah Eidus - EVgo Kurt Cornell - Mercedes Benz USA Ben Foss – Volta	Subcontractor (TBD)	Sacramento County, SMUD, PH&EV Research Center, SACOG, SMAQMD, SacEV, Electrify America, EVgo, Greenlots, Mercedes Benz USA, Tesla, Volta, Franklin Neighborhood Development Corporation
5	Jennifer Venema - City of Sacramento Jennifer Gress – City of Sacramento Judy Robinson – Sacramento County Bill Boyce - SMUD Tim Taylor - SMAQMD Raef Porter – SACOG Dahlia Garas & Gil Tal - PH&EV Research Center David Modisette - Breathe California Sacramento Region	Subcontractor (TBD)	Sacramento County, SMUD, PH&EV Research Center, SACOG, SMAQMD, SacEV, Mercedes Benz USA, Breathe California Sacramento Region, SHRA, Mutual Housing California. GRID Alternatives

## EXHIBIT A SCOPE OF WORK

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
6	<p>Jennifer Venema – City of Sacramento</p> <p>Tim Taylor, Paul Philley, Gary Bailey, and Steffani Charkiewicz – SMAQMD</p> <p>Bill Boyce, Josh Rasin – SMUD</p> <p>Jonah Eidus – EVgo</p> <p>Sabrina Sussman, Jordan Usner – Zipcar</p> <p>Mark Lonergan - Regional Transit</p>	Subcontractor (TBD)	<p>SMAQMD, SACOG, SMUD, Zipcar, PH&amp;EV Research Center, La Familia, Electrify America, EVgo, SacRT, SHRA, Mutual Housing California, Envoy</p>
7	<p>Jennifer Venema - City of Sacramento</p> <p>Jennifer Gress – City of Sacramento</p> <p>Judy Robinson – Sacramento County</p> <p>Bill Boyce - SMUD</p> <p>Tim Taylor - SMAQMD</p> <p>Raef Porter – SACOG</p> <p>Dahlia Garas &amp; Gil Tal - PH&amp;EV Research Center</p> <p>David Modisette - Breathe California Sacramento Region</p>	Subcontractor (TBD)	<p>Sacramento County, SMUD, PH&amp;EV Research Center, SACOG, SMAQMD, SacEV, SHRA, Mutual Housing California, FNDC, La Familia</p>

# EXHIBIT A SCOPE OF WORK

## 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
CAO	Commission Agreement Officer
CPR	Critical Project Review
EV	Electric vehicle
EVSE	EV supply equipment
FTD	Fuels and Transportation Division
FNDC	Franklin Neighborhood Development Corporation
HDV	Heavy-duty vehicle
ITS	UC Davis Institute of Transportation Studies
La Familia	La Familia Counseling Center, a community-based service provider in Sacramento for at-risk youth and families
LDV	Light-duty vehicle
MDV	Medium-duty vehicle
MPO	Metropolitan planning organization
PH&EV Research Center	Plug-in Hybrid and EV Research Center, UC Davis Institute of Transportation Studies
Recipient	City of Sacramento
SacEV	Sacramento EV Association
SACOG	Sacramento Area Council of Governments
SacPEV Collaborative	Sacramento Area Plug-In Electric Vehicle Collaborative
SacRT	Sacramento Regional Transit
SHRA	Sacramento Housing and Redevelopment Agency
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
ZEV	Zero-emission vehicle

# EXHIBIT A

## SCOPE OF WORK

### 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 Energy Commission released a Grant Solicitation and Application Package entitled "Electric Vehicle (EV) Ready Communities Challenge Phase I- Blueprint Plan Development Solicitation" 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 City of Sacramento (Recipient) submitted application #9 which was proposed for funding in the Energy Commission's Notice of Proposed Awards on April 06, 2018. GFO-17-604 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 Commission's Award, the 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:

Despite a strong policy foundation, regional leadership, and significant private investment in vehicle electrification, the Recipient is challenged to realize adopted goals for electric vehicle (EV) penetration. Sacramento has the lowest regional rate of adoption per capita in California. Based on data from the Electric Power Research Institute, Sacramento's adoption rate is just 0.31 percent, with just 3,200 EVs estimated to be in Sacramento. Analysis in the EV Strategy shows that significant work is needed to realize the Recipient's contribution to the Governor's target of 1.5 million zero-emission vehicles (ZEV) by 2025. More action is needed to facilitate EV infrastructure in new and existing construction. With increasing availability of more EVs with



## **EXHIBIT A SCOPE OF WORK**

longer range, the Recipient and agency partners are also working to ensure that EV mobility is a highly visible and feasible option for all communities. Yet more analysis and community engagement are necessary before Sacramento can expand EV standards in City code, better serve the needs of multi-family dwellers, and leverage public assets for optimal public charging. The cost-benefit of various approaches must be evaluated so the Recipient can determine how to accelerate EV adoption while still streamlining and incentivizing new construction. Barriers also exist to provide EV service to disadvantaged and low-income communities, neighborhoods that are typically lacking strong neighborhood associations or community representation. Disadvantaged neighborhoods also experience adverse exposure to air pollutants. The neighborhoods that have least access to EVs are those which would experience the greatest benefits from EV adoption. Based on the research of UC Davis Institute of Transportation Studies (ITS) and the Plug-in Hybrid and EV Research Center (PH&EV Research Center), the City recognizes the importance of concerted engagement with trusted community institutions. Yet additional resources are needed to implement a comprehensive EV engagement campaign that delivers benefits to low-income and disadvantaged neighborhoods, including the 87% of residents who live in the top 50% of disadvantaged census tracts per CalEnviro Screen 3.0.

Sacramento is becoming a testbed for EV programs and technologies. Unique qualifications include strong partnership in the local electrical utility and other agency partners, extensive community-led outreach, and unparalleled private investment in the form of Electrify America's \$44 million Green City investment. However, the City's 2017 EV Strategy identifies that a comprehensive, scaled-up approach is needed to realize Sacramento's share of the Governor's goals. Additional resources are necessary to coordinate early initiatives and develop blueprints for implementation. Lessons from Sacramento's efforts to attain EV goals will inform strategies for communities across the state, allowing other areas to benefit from the investments and early pilots in Sacramento as it serves as California's EV testbed. Grant funds would equip the City to address outstanding barriers to electrification goals and develop replicable resources and methods that build on Sacramento's early work to date.

### **Goals of the Agreement:**

The goal of this Agreement is to develop actionable blueprint planning tools that implement the City's EV Strategy, providing a detailed roadmap for the City to achieve 75,000 ZEVs in Sacramento by 2025. By creating this roadmap for EV Strategy implementation, the City will be equipped with tools to achieve equitable access to ZEV technologies and benefits by low-income populations and disadvantaged communities, in addition to goals for EV workforce development, shared vehicle ownership and new ZEV mobility programs, and supporting the use of renewable energy and advanced energy technologies in EV applications.

### **Objectives of the Agreement:**

The objectives of this Agreement are to complete a series of tasks that together will serve as a comprehensive EV blueprint. Specific objectives include the following:

1. Create an EV Deployment Plan, identifying the geographic distribution of public charging infrastructure needed to support 75,000 ZEVs in Sacramento by 2025 and the Governor's goal of 5 million ZEVs statewide by 2030, including distribution of infrastructure in both existing and new construction.
2. Develop a Community Planning Blueprint to advance EV infrastructure in new construction, which identifies the cost-benefit of various methods to advance EV readiness and accelerate EV infrastructure.

## **EXHIBIT A SCOPE OF WORK**

3. Prepare a Public Charging Prioritization Plan identifying methods and costs to optimize the existing 430 public charging EV chargers and achieve EV Strategy goals of at least 3,800 public or workplace chargers by 2025, increasing service to disadvantaged communities.
4. Develop a robust package of EV resources and toolkits to increase consumer awareness and spur agency efforts, seeking to remove barriers in the development and retrofit process, provide guidance and financing resources, and prioritize next steps for the City to realize economic benefits of electrification.
5. Provide reports with turnkey instructions for EV modeling for public agencies and the launch of innovative EV services, including an evaluation of work completed in Sacramento to date and recommendations for advancement, and schematic design.
6. Increase community awareness and identify community barriers and opportunities with a focus on barriers for disadvantaged communities, based on a comprehensive public engagement campaign.

### **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)

## **EXHIBIT A SCOPE OF WORK**

### **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.

## **EXHIBIT A SCOPE OF WORK**

### **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 CAO, 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 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 CAM will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the CAM and the CAO 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

## **EXHIBIT A SCOPE OF WORK**

- 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 CAM 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.

## **EXHIBIT A SCOPE OF WORK**

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 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 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

## **EXHIBIT A SCOPE OF WORK**

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 1.7 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 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.

## **EXHIBIT A SCOPE OF WORK**

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



# EXHIBIT A

## SCOPE OF WORK

### TECHNICAL TASKS

#### TASK 2 EV DEPLOYMENT PLAN

##### Task 2.1 Review EV Deployment Context

The goal of this task is for the subcontractor to review and summarize EV infrastructure data sets, modeling tools, and EV forecasts for the Recipient.

##### The Recipient shall:

- Review and evaluate existing EV data sets for Sacramento, including but not limited to:
  - Modeling and targets developed by the Recipient for the City of Sacramento EV Strategy.
  - California Department of Motor Vehicles registrations for Sacramento County based on early analysis from California Air Resources Board staff<sup>1</sup> and Sacramento Metropolitan Air Quality Management District (SMAQMD).
  - Clean Vehicle Rebate Project rebates for Sacramento.
  - Sacramento Area Council of Governments (SACOG) analysis of EV adoption, regression modeling for EV forecasts for the City of Sacramento, and countywide forecasting and travel-demand model assumptions to identify the top 100 charging locations<sup>2</sup> in Sacramento County for the EV Readiness and Infrastructure Plan (2017).
  - SMAQMD EV regional modeling for future ZEV adoption with CEC grant funds.
  - Regional and state data sets on medium- and heavy-duty adoption and infrastructure needs, including a review of ITS tools for freight modeling.
  - UC Davis GIS EV Planning Toolbox for Metropolitan Planning Organizations.<sup>3</sup>
- Analyze data on existing building stock and General Plan growth forecasts, including evaluation of future land uses, densities, and anticipated levels of parking.
- Prepare and submit a draft and final *Technical Memo – EV Data and Forecasts* that evaluates available data, recommended forecast assumptions, and gaps between the Recipient's targets and existing infrastructure and likely market penetration.

##### Products:

- Draft Technical Memo – EV Data and Forecasts
- Final Technical Memo – EV Data and Forecasts

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<sup>1</sup> California Air Resources Board (CARB) (2017a). Personal communication, Mark Williams, Air Pollution Specialist. mark.williams@arb.ca.gov.

<sup>2</sup> Top 100 destinations for EV charging available online: <http://arccg.is/1yGP9O>.

<sup>3</sup> <https://phev.ucdavis.edu/project/uc-davis-gis-ev-planning-toolbox-for-mpos/>

## EXHIBIT A SCOPE OF WORK

### Task 2.2 Prepare Local Model for EV Deployment

The goal of this task is for the subcontractor to use the UC Davis GIS EV Planning Toolbox and other tools to develop an updated EV forecast and infrastructure deployment maps for Sacramento. The model shall include an Excel workbook of model assumptions and outputs, in addition to detailed maps.

#### The Recipient shall:

- Customize the UC Davis GIS EV Planning Toolbox and develop City EV forecasts using City-specific market assumptions, EV adoption characteristics, and City EV targets.
- Develop forecasts and targets for medium- and heavy-duty EV infrastructure.
- Prepare and submit a stand-alone Excel-based model, draft and final *Excel Workbook - EV Baseline and Forecasts*, identifying census-tract EV data by type for existing and future growth.
- Develop draft and final *EV Deployment Maps* that identify distribution of EV infrastructure in existing and new construction to achieve City EV goals, including attention to light-duty vehicle (LDV), medium-duty vehicle (MDV), and heavy-duty vehicle (HDV) opportunities and needs, including priority areas to co-locate infrastructure.

#### Products:

- Draft Excel Workbook – EV Baseline and Forecasts
- Draft EV Deployment Maps
- Final Excel Workbook – EV Baseline and Forecasts
- Final EV Deployment Maps

### Task 2.3 Develop EV Modeling User's Guide

The goal of this task is for the subcontractor to prepare and submit a user-friendly case study that summarizes the methods for EV modeling and mapping conducted in Task 2.2, including recommended data sets and sources to replicate the work.

#### The Recipient shall:

- Prepare and submit a written summary of the methods and tools used to develop EV forecasts and maps, *Draft EV Modeling User's Guide Memo*. This shall include a summary of recommended methods for turnkey monitoring and reporting on implementation.
- Convene a meeting of the project advisory team to review and provide feedback and edits to the user's guide. Prepare and submit an *Agenda – Sac PEV Collaborative Advisory Committee meeting* at least X days before meeting.
- Prepare and submit a *Meeting Summary – Sac PEV Collaborative Advisory Committee meeting* summarizing the feedback and comments from the participants.

## EXHIBIT A SCOPE OF WORK

- After the meeting, incorporate feedback and edits to prepare *Final EV Modeling User's Guide Memo*.

### **Products:**

- Draft EV Modeling User's Guide Memo
- Agenda – Sac PEV Collaborative Advisory Committee meeting
- Meeting Summary – Sac PEV Collaborative Advisory Committee meeting
- Final EV Modeling User's Guide Memo

### **Task 2.4 Prepare the Sacramento EV Infrastructure Deployment Plan**

The goal of this task is for the subcontractor to compile work completed in Task 2 into a report that serves as Sacramento's EV Infrastructure Deployment Plan. This report will serve as a resource to the Recipient for tracking and implementation, while providing a template for other agencies to replicate the work. The report will include a summary of modeling methods and recommendations for tracking progress.

#### ***The Recipient shall:***

- Develop a graphic report, *draft and final EV Infrastructure Deployment Plan*, that shall include the following minimum components:
  - The goal of the report is to establish Sacramento's EV Deployment Plan and provide a user-friendly guide to replicate modeling and track implementation.
  - Description of the approach used, presenting content from the EV Modeling User's Guide Memo.
  - Significant issues and how they were addressed.
  - Discussion of implications for successful implementation or failure to implement the EV Deployment Plan.
  - Tables and maps identifying City infrastructure targets.
  - Data sources.
  - Template for tracking progress by EV infrastructure type across the City's geographies.
- Prepare and submit a PowerPoint presentation that summarizes the EV Deployment Plan, *PowerPoint – City of Sacramento EV Deployment Plan Presentation*.
- Participate with project partners to present results and modeling approaches to at least two meetings of regional entities and/or professional associations, such as SACOG convenings, the Capital Region Climate Readiness Collaborative, or at monthly meetings of EV Users Group in the Urban Sustainability Director's Network. Submit the *sign-in sheets or list of meeting participants* from at least two EV Deployment Plan meetings.

## EXHIBIT A SCOPE OF WORK

### **Products:**

- Draft EV Infrastructure Deployment Plan
- Final EV Infrastructure Deployment Plan
- PowerPoint – City of Sacramento EV Deployment Plan Presentation
- Sign-in sheet or list of meeting participants at presentations of the EV Deployment Plan (minimum of two meetings)

### **TASK 3 COMMUNITY EV PLANNING BLUEPRINT**

#### **Task 3.1 Evaluate Constraints and Opportunities to Accelerate Electric Vehicle Supply Equipment (EVSE) in New Construction**

The goal of this task is to evaluate options to accelerate EVSE in new construction and prepare for stakeholder engagement for recommendations.

#### **The Recipient shall:**

- Review Sacramento's policy framework for new construction, including but not limited to:
  - City General Plan.
  - City Building and Construction Code (Title 15) and Planning and Development Code (Title 17).
  - Sacramento Streamline program.
  - Initial analysis of policy framework and revised growth forecasts for the 2018 General Plan update.
- Analyze development patterns and recent construction and permitting costs for new development in Sacramento, including a comparison to costs in other metropolitan regions in California.
- Review examples of recent projects in Sacramento with voluntary levels of EV-readiness that exceed CalGreen standards.
- Evaluate best practices in other jurisdictions, including incentives and mandatory standards for EVSE.
- Identify the minimum amounts of EVSE necessary in new construction to achieve the City's EV goals, based on the EV deployment analysis completed in Task 2.
- Prepare and submit a draft and final *Memo - Constraints and Opportunities to Accelerate EVSE in New Construction*, which shall summarize work completed in this Task and will include, but is not limited to, the following:
  - Summary of issues and opportunities to advance EVSE in new construction in Sacramento.
  - Identification of opportunities to spur EV land uses where EV charging is the primary land use.
  - Description of the analysis used and activities performed.

## EXHIBIT A

### SCOPE OF WORK

- Analysis of best practices implemented in other jurisdictions.

#### Products:

- Draft Memo – Constraints and Opportunities to Accelerate EVSE in New Construction
- Final Memo – Constraints and Opportunities to Accelerate EVSE in New Construction

#### Task 3.2 Complete an EV Infrastructure Cost-Effectiveness Study for Sacramento

The goal of this task is to develop a cost-effectiveness study for Sacramento that analyzes various scenarios for a range of EV-readiness requirements in new construction.

#### The Recipient shall:

- Prepare and submit a draft and final *Outline - Cost-Effectiveness Study*, identifying contents, organization, proposed development typologies, and cost-benefit parameters.
- Conduct a cost-effectiveness analysis of options to exceed CALGreen standards for EV infrastructure in new construction, and prepare and submit a draft and final *EV Infrastructure Cost-Effectiveness Study* for Sacramento. The analysis shall address:
  - Multiple EV infrastructure building requirement scenarios for multi-family and nonresidential construction, with options ranging from simple provision of a charging unit at all pre-wired spaces, to higher levels of EV-readiness that exceed CALGreen requirements for rewiring.
  - Evaluation of the cost increases for each option in comparison to mandatory CALGreen standards, including consideration for likely triggers that may result in the need to upsize electrical service.
  - Consideration of local development and market conditions, including the amount of parking required for different development types, and the likely impact of City parking reductions and waivers on each option.
  - Key data and assumptions, including cost results by type of expense, total permit and inspection costs, and electrical and building permit inspection costs.
  - Analysis of cost-effectiveness of each option, including analysis of local incentives that could be used to offset any incremental costs.

#### Products:

- Draft Outline – Cost -Effectiveness Study
- Final Outline – Cost -Effectiveness Study
- Draft Report – EV Infrastructure Cost-Effectiveness Study
- Final Report – EV Infrastructure Cost-Effectiveness Study

## EXHIBIT A

### SCOPE OF WORK

#### Task 3.3 Convene Stakeholder Meetings on EV Opportunities for New Development

The goal of this task is to engage stakeholders to identify recommendations for a preferred option to accelerate EVSE in new construction.

##### The Recipient shall:

- Collaborate with project partners to identify a list of key stakeholders:
  - Local housing developers, including Symphony Development and College Town International.
  - Affordable housing providers, including SHRA and Mutual Housing California.
  - Region Builders and North State BIA.
  - EV mobility and technology companies.
- Prepare and submit a draft and final *Questionnaire – List of Stakeholders and Interview Questions*.
- Facilitate a minimum of three stakeholder meetings to review findings and seek feedback on options to accelerate EV readiness. This task will include development of associated materials, including but not limited to PowerPoints and meeting agendas.
- Evaluate and categorize stakeholder feedback in a draft and final *Memo - Summary of Stakeholder Engagement for EV Opportunities in New Development*. The memo shall include, but is not limited to, the following:
  - Summary of participating individuals and organizations.
  - Methods used for engagement.
  - Description of key issues discussed and how they were addressed.
  - Findings and stakeholder recommendations.
- Prepare and submit a *PowerPoint – Planning Commission Presentation, EV Opportunities in New Development* to present findings in the Memo to the Planning Commission, for input on recommendations for new development.

##### Products:

- Draft Questionnaire – List of Stakeholders and Interview Questions
- Final Questionnaire – List of Stakeholders and Interview Questions
- Draft Memo - Summary of Stakeholder Engagement for EV Opportunities in New Development
- Final Memo - Summary of Stakeholder Engagement for EV Opportunities in New Development
- PowerPoint – Planning Commission Presentation, EV Opportunities in New Development

## EXHIBIT A

### SCOPE OF WORK

#### Task 3.4 Recommended EV Readiness Framework

The goal of this task is to develop recommendations for the City's code and permitting framework to accelerate EV-readiness in new construction. Recommendations may include amendments or new incentives, and evaluation of other jurisdiction's efforts to exceed CALGreen standards for EVSE.

##### The Recipient shall:

- Develop recommended amendments to City Code framework, draft and final *Guidelines for EV Readiness*, which may include optional incentives and/or mandatory standards and/or incentives based on work completed in Task 3.1-3.3.
  - At a minimum, the Recipient shall explore other jurisdictions EV readiness (e.g., voluntary tiers of CALGreen, or other local codes) to ensure higher levels of EV incentives while balancing affordability and streamlining of new development. The task may include policies or guidelines to promote EV readiness for the Recipient.
  - This task shall also consider opportunities to amend Title 17 to streamline and facilitate new types of EV land uses, including identifying ways to encourage innovative EV deployments such as EV charging depots, or other concepts such as transit-oriented e-mobility hubs.
- Prepare and submit a draft and final *Memo - Recommendations for EV Readiness Guidelines and Incentives*, outlining other supportive updates recommended for the City Code framework, which shall include, but is not limited to, the following:
  - Summary of proposed incentives for EVSE advancement in achieving City EV goals.
  - Identification of cost-benefits for recommendations.
  - Analysis of other gaps to address and foster EVSE development.
  - Summary of recommended revisions incentivize the permitting of EVSE.

##### Products:

- Draft Guidelines for EV Readiness
- Draft Memo – Recommendations for EV Readiness Guidelines and Incentives
- Final Guidelines for EV Readiness
- Final Memo – Recommendations for EV Readiness Guidelines and Incentives

#### Task 3.5 Commission, Committee, and Council Hearings

The goal of this task is to conduct presentations and submit recommendations for EV readiness to relevant City commissions and City Council. This task assumes that Recipient's staff shall at least submit a report of recommendations for City Council to receive and file, but may include potential for code updates or adoption of incentives, dependent on direction from Recipient's management and decision-making authorities.

## EXHIBIT A

### SCOPE OF WORK

#### The Recipient shall:

- Prepare and submit draft and final *Staff Report – Recommendations for Advancing EV Readiness in New Construction*, draft and final *PowerPoint – Recommendations for Advancing EV Readiness in New Construction*, and meeting materials using the previous deliverables to present EV readiness recommendations, such as potential code updates and/or new incentives or processes to accelerate EVSE in new construction.
- Conduct at least one presentation to relevant decision-making bodies or advisory commissions, which may include, but is not limited to, the Planning Commission, Law and Legislation Committee, and/or City Council. Actual presentations will be determined based on recommendations developed in this task.

#### Products:

- Draft Staff Report – Recommendations for Advancing EV Readiness in New Construction (minimum of one)
- Draft PowerPoint – Recommendations for Advancing EV Readiness in New Construction (minimum of one)
- Final Staff Report – Recommendations for Advancing EV Readiness in New Construction (minimum of one)
- Final PowerPoint – Recommendations Advancing EV Readiness in New Construction (minimum of one)

#### Task 3.6 Community EV Planning Blueprint

The goal of this task is to prepare a blueprint report summarizing Sacramento's approach to advance EVSE in new construction. This report will also identify the contribution of future EVSE in new construction to the Recipient's overall EV targets evaluated in Task 2.

#### The Recipient shall:

- Develop the draft and final *Report - Community EV Planning Blueprint for Sacramento*, compiling work products in Task 3 into a single, combined report. The report shall include the following minimum components:
  - Issues, constraints, and opportunities for new development in Sacramento.
  - Citywide EV forecasts and targets for new construction.
  - Gaps between City targets and anticipated rates of EVSE development.
  - Cost-benefit findings for advancing EVSE in new construction.
  - Stakeholder recommendations and key issues.
  - Analysis and recommended approach to advance EVSE.
  - Summary of code revisions or other mechanisms developed to overcome challenges and achieve City goals.



## EXHIBIT A SCOPE OF WORK

- Summary of final action by Sacramento advisory committees, commissions, or City Council.
- Attachment of code revisions, or other recommended revisions and materials to support the permitting framework.
- Prepare and submit an *Agenda – Sacramento PEV Collaborative Meeting, EV Blueprint Next Steps*
- Facilitate a meeting with the Project Advisory Committee to debrief on findings, outcomes, and identify near-term opportunities to replicate the process for other jurisdictions in the SACOG region. Prepare and submit a *Meeting Summary - Sacramento PEV Collaborative Meeting, EV Blueprint Next Steps*.

### Products:

- Draft Report – Community EV Planning Blueprint for Sacramento
- Agenda – Sacramento PEV Collaborative Meeting, EV Blueprint Next Steps
- Final Report – Community EV Planning Blueprint for Sacramento
- Meeting Summary - Sacramento PEV Collaborative Meeting, EV Blueprint Next Steps

**Recipient must submit a complete Final Report – Community EV Planning Blueprint for Sacramento 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 4 PUBLIC CHARGING PRIORITIZATION PLAN

### Task 4.1 Evaluate Current Status and Utilization of Public and Workplace EVSE

The goal of this task is to evaluate existing public and workplace EVSE to identify needs and opportunities to optimize existing infrastructure. Accounting for targets to deploy EVSE in new construction through Task 3, this task will focus on options to maximize public and workplace charging, including new applications such as curbside EV charging in the right-of-way. This task will include identification of how public EV infrastructure can better serve the needs of low-income and disadvantaged communities.

#### The Recipient shall:

- Evaluate current utilization and challenges, based on existing work to date. Recent resources to inform this evaluation include, but are not limited to, the following:
  - Sacramento Municipal Utility District (SMUD) 2017 workplace charging research, including over 7,000 survey responses to a Winter 2017 SMUD survey and subsequent analysis.
  - Sacramento's Fall 2017 survey of EV Parking Program participants, with 168 respondents.

## EXHIBIT A

### SCOPE OF WORK

- Sacramento's early 2018 audit of EV Parking Program participant usage and updates to EV parking incentives at two City parking garages, pursuant to the City's EV Parking Program policy.
- EV utilization and distribution information, including review of information from Task 2, utilization statistics from other data sets, and the PH&EV's SB 1 research. Data is to be evaluated in partnership with EVSE project partners and Sac PEV Collaborative partners, including PH&EV Center, SMUD, SMAQMD, and SacEV.
- Early data from Sacramento's curbside pilot with EVgo, and collaboration with other EVSE providers seeking to provide infrastructure in the right-of-way through the City's forthcoming Curbside Charging Program, such as Volta.
- Options for financing and reducing costs of infrastructure installation.
- Prepare and submit a draft and final *Report - Current Public EVSE Utilization and Opportunities*, which includes the following minimum components:
  - Citywide evaluation of utilization and charging habits.
  - Analysis of gaps between current EVSE infrastructure and citywide targets established in Task 2.
  - Identification of key issues to address for deploying future public and workplace EVSE, and prioritization of primary barriers to be addressed to realize citywide EV targets, including goals for access and equity.

#### Products:

- Draft Report - Current Public EVSE Utilization and Opportunities
- Final Report – Current Public EVSE Utilization and Opportunities

#### Task 4.2 Conduct Stakeholder Interviews for Public and Workplace EVSE Needs and Opportunities

The goal of this task is to seek stakeholder feedback on current issues and opportunities for expanded access. This will also result in recommendations for leveraging current government incentive programs to accelerate EV adoption and infrastructure development.

#### The Recipient shall:

- Conduct interviews with an array of local and statewide representatives. The project team shall develop a draft and final interview *Questionnaire - Public and Workplace EVSE Needs and Opportunities*. The team will then convene interviews with key stakeholders, including representatives from the following groups, at a minimum:
  - Large employers, with more than 500 employees, in Sacramento, including those that participated in SMUD's workplace charging study, and the State of California (Sacramento's largest employer).
  - Fleet agencies serving disadvantaged communities, with opportunity for electrification.

## EXHIBIT A SCOPE OF WORK

- Community-based groups from low-income and disadvantaged communities in Sacramento, to identify mobility challenges, key destinations, and potential incentives for EV adoption.
- Affordable housing providers in Sacramento, including SHRA and Mutual Housing California.
- Workplaces in other regions that have instituted advanced EV charging technologies to ensure high charging turnover, such as queueing, waitlist access, or instituting a fee after an initial grace period of free charging.
- Agencies offering EV incentives for EV infrastructure or procurement of new EVs.
- Prepare and submit a draft and final *Memo - Summary of Stakeholder Interviews on Public and Workplace EVSE Needs and Opportunities*. The report will include, but is not limited to, the following:
  - Summary of interviewees.
  - Summary of key issues and comments.
  - Evaluation of opportunities and recommendations.
  - Attachment of interview questions.

### Products:

- Draft Questionnaire – Public and Workplace EVSE Needs and Opportunities
- Final Questionnaire – Public and Workplace EVSE Needs and Opportunities
- Draft Memo– Summary of Stakeholder Interviews on Public and Workplace EVSE Needs and Opportunities
- Final Memo – Summary of Stakeholder Interviews on Public and Workplace EVSE Needs and Opportunities

### Task 4.3 Evaluate and Recommend EVSE Upgrades and Strategies to Optimize Public Charging Access

The goal of this task is to provide a near-term plan to optimize existing public and workplace EV charging infrastructure, and establish a pipeline of EV infrastructure projects that will expand public charging access and increase service in disadvantaged communities. The task will focus on Recipient -owned public charging locations directly under the Recipient's control, which will serve as prototypes for future public and workplace charging. Templates developed in this task will provide the Recipient and other partners with blueprints for with fundable near-term projects.

#### The Recipient shall:

- Conduct analysis of EV opportunities at approximately 10 public facilities that provide major workplace charging or are located in low-income or disadvantaged communities, such as downtown garages with existing charging, and community centers in disadvantaged communities (refer to the map of potential parking garages, community centers, and libraries by CalEnviro Screen 3.0 designation shown in **Figure 1**). The analysis shall include, but is not limited to, the following:

## EXHIBIT A

### SCOPE OF WORK

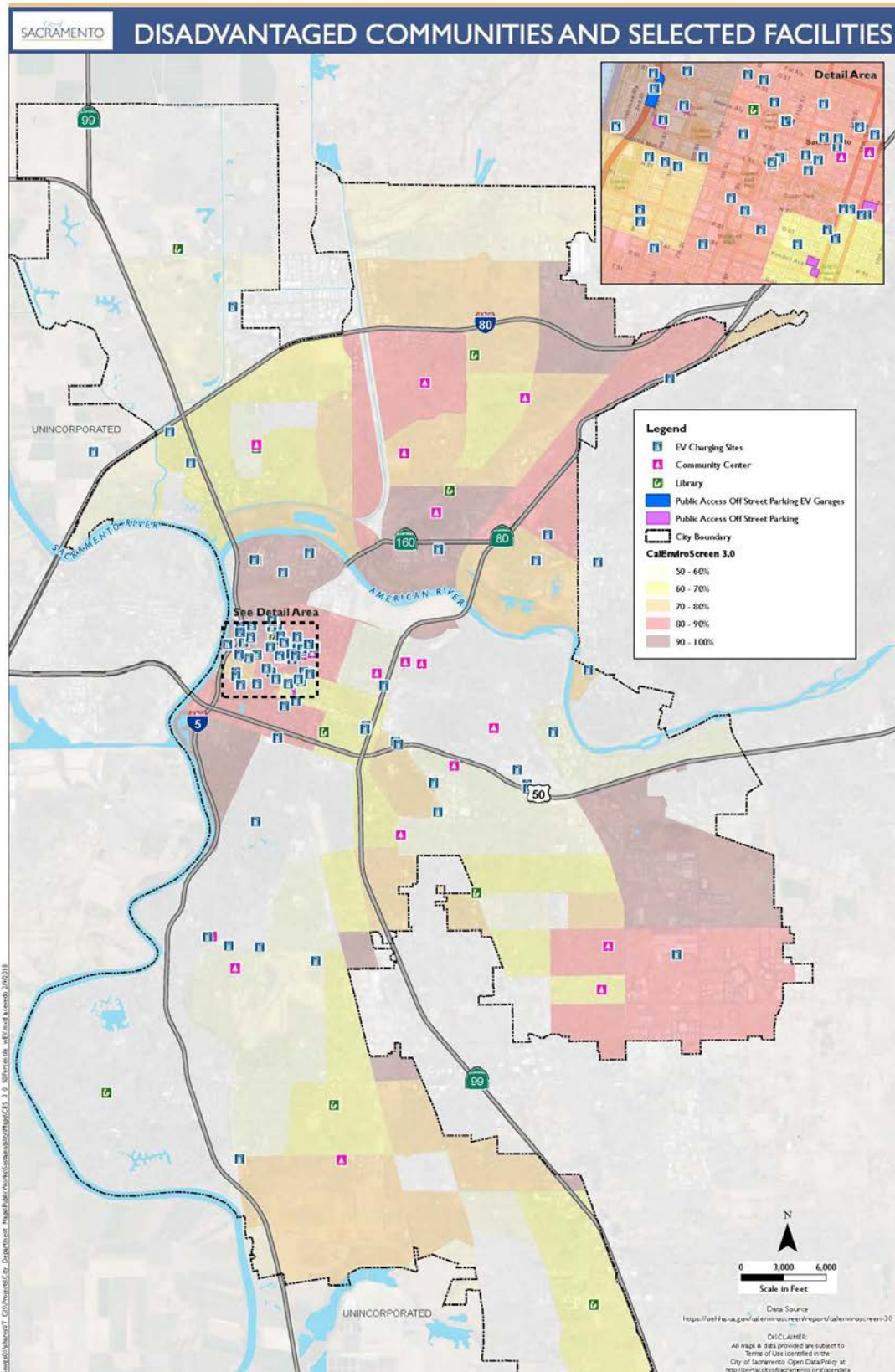
- Categorization of analyzed facilities into several main typologies, as determined by user profiles, parking lot configuration, electrical service capacity, and characteristics of any existing legacy EV infrastructure. Examples of major typologies could include covered parking garages, off-street parking lots, curbside charging, etc.
- Current utilization and travel patterns.
- Opportunities for cost-effective solar photovoltaics or energy storage as part of the EV installation.
- Current or future opportunities for transit, shared mobility, or other innovative e-mobility services.
- Develop a draft and final *Report - Recommend EVSE Upgrades and Strategies to Optimize Public Charging Access*, which shall include, but is not limited, the following:
  - Recommended EV equipment and technologies, including recommended network services, pricing structures, and features to optimize access and reduce electrical load at the 10 public facilities.
  - Cost-benefit analysis of including solar photovoltaics and/or energy storage to support the installations.
  - Necessary building electrical upgrades to support recommendations.
  - Target utilization and performance metrics for each analyzed location, to provide a benchmark for evaluating future implementation.
  - At least one recommended dual-use configuration, which would allow for both public charging and restricted fleet charging.
  - Investment-grade estimated project budgets and cost assumptions.
  - Schematic design templates for each of the major project typologies, including recommended layout for cost-effective solar photovoltaics and storage.

#### Products:

- Draft Report - Recommend EVSE Upgrades and Strategies to Optimize Public Charging Access
- Final Report - Recommend EVSE Upgrades and Strategies to Optimize Public Charging Access

# EXHIBIT A SCOPE OF WORK

Figure 1: Potential Facilities to Analyze in Task 4.3



# EXHIBIT A

## SCOPE OF WORK

### TASK 5 EV TOOLKITS

#### Task 5.1 Prepare EV Toolkits

The goal of this task is to develop graphic, user-friendly materials that summarize key resources developed in Tasks 2 – 4. These toolkits will also consolidate partner efforts, summarizing regional programs and work to date.

#### The Recipient shall:

- Compile work to date and develop a draft and final *Outline – EV Toolkit Content Outline and Mock-Up* and draft and final *EVSE Toolkits*. The toolkits shall be highly-graphic, produced in both print and digital media format. At a minimum, the toolkit shall include, but is not limited to, the following:
  - A general EVSE Toolkit with turn-key tools outlining technologies and site design layouts that supports installation of EV infrastructure in new and existing construction, with:
    - Illustrative options to comply with the City's new code or incentive procedures (pursuant to **Task 3**)
    - Schematic design templates with cost estimates for retrofits to existing construction, based both on 1) work in **Task 4** for priority public charging locations, and 2) EV infrastructure developed to date in multi-family projects, such as the Our Community CarShare at Mutual Housing and SHRA sites.
  - A Curbside EVSE Toolkit, including schematic design templates for optimal curbside EV charging layouts and a summary of curbside charging terms and conditions. This toolkit will include information from the City's early curbside EV pilots and pursuant to the City's forthcoming Curbside Charging Guidance (to be release by end of Q1, 2018).
- Develop a draft and final *FAQ EV Guide* with resources for businesses, workplaces, and multi-unit dwellings outlining options to finance or partner for installation of EV infrastructure, including a summary of incentives and financing tools, EVSE partnership opportunities, and a comparison of different options and performance metrics observed to date from local pilots in Sacramento.
- Prepare a draft and final *EV Buyer's Guide*, orienting new owners to unique resources and programs in Sacramento for EV drivers, including public charging locations, EV incentive programs, and other local rebates.
- Update the City's website, creating a publicly-accessible landing page with EV Toolkits and web-accessible media content. Prepare and submit a draft and final *Webpage EV Toolkit Content* and a copy of the *updated City webpage*.

#### Products:

- Draft Outline – EV Toolkit Content Outline and Mock-Up
- Final Outline – EV Toolkit Content Outline and Mock-Up
- Draft – EVSE Toolkits
- Draft – EV FAQ Guide

## EXHIBIT A SCOPE OF WORK

- Draft – EV Buyer’s Guide
- Draft – Webpage EV Toolkit Content
- Final – EVSE Toolkits
- Final – EV FAQ Guide
- Final – EV Buyer’s Guide
- Final – Webpage EV Toolkit Content, and updated City webpage

### Task 5.2 Develop EV Economic Pathways

The goal of this task is to develop a guide for agency efforts to strengthen the local ZEV workforce.

#### The Recipient shall:

- Evaluate the local economic context and opportunities for advanced transportation employment opportunities, including but not limited to the following:
  - Review of existing local programs, including the American River College Alternative Fuels and Green Vehicle Technology certificate program.
  - Current levels of EV service employment.
  - Anticipated service demand associated with the City’s EV targets.
  - Barriers of entry for low-income and disadvantaged communities into the advanced transportation technology space.
  - Findings based on interviews with local companies providing EV services.
  - Characteristics of successful all-in-one services service centers that can apply to the ZEV service industry, including examples of business models and operational structures.
- Develop a recommended outline for a report that will address the City’s goals for creating an EV economic ecosystem, draft and final *Outline – EV Economic Pathways Report*.
- Prepare and submit a draft and final *Report- EV Economic Pathways*, that establishes a recommended strategy for the City to catalyze a ZEV service center and local employment in EV mobility fields. The report will include the minimum core components:
  - Recommended ownership and operational structure for a ZEV service center.
  - Estimated budget for ZEV service center establishment and operations.
  - Funding opportunities and example partnership models.
  - Opportunity locations.
  - Toolkit of key City strategies to increase local hire and workforce development for electrification.

## EXHIBIT A SCOPE OF WORK

- Convene stakeholders for input on recommended strategies and opportunities, through the outreach tasks described in Task 7.

### Products:

- Draft Outline – EV Economic Pathways Report
- Final Outline – EV Economic Pathways Report
- Draft Report– EV Economic Pathways
- Final Report– EV Economic Pathways

## TASK 6 ADVANCED EV MOBILITY OPPORTUNITIES

### Task 6.1 Evaluate EV Mobility Pilots

The goal of this task is to facilitate a critical evaluation of early pilots in Sacramento and new initiatives currently under development, with input from key stakeholders. The task will also identify opportunities to increase the scale and success of work to date, with a focus on increasing service to disadvantaged communities.

#### The Recipient shall:

- Conduct an inventory of EV mobility projects in Sacramento and prepare a draft and final *Interview Framework* that will identify the list of pilots to evaluate, interviewees, and interview questions.
- Conduct stakeholder interviews and evaluate EV mobility pilots in Sacramento, reviewing each pilot to identify actors and stakeholders, program design, and impact and scalability. Key pilots to be evaluated include, but are not limited to, the following:
  - Our Community CarShare, with a focus on the effectiveness of incentives and sustainability of the business model to provide EV car share service to low-income and disadvantaged communities.
  - Early lessons and results from Electrify America's Green City electric car share initiatives.
  - EVgo's curbside high-power charger and utilization, including utilization by new EV driver use cases, such as multi-family.
  - The Civic Lab project to provide mobility for Franklin Boulevard, including evaluation of the project approach to leverage EV charging, generation, and storage with new mobility service to realize economies of scale.
  - The launch of on-demand and microtransit applications in the region using vehicles with conventional internal combustion engines such as SacRT's on-demand pilot, and opportunities for electrification.
  - Envoy's CEC-funded work, to launch residential-based electric car share at approximately 15 sites in Sacramento by mid-2018.

### Products:

- Draft – Interview Framework
- Final – Interview Framework



## EXHIBIT A

### SCOPE OF WORK

#### Task 6.2 Create E-Mobility Hub Recommendations

The goal of this task is to create an approach and mock-up of the Sac PEV Collaborative's e-mobility hub concept, inclusive of recommended operational structure and physical site layout.

##### The Recipient shall:

- Evaluate relevant international and domestic examples of mobility hubs that combine multiple services with a community awareness component, with attention to issues such as:
  - Upfront capital investments.
  - Operating structure and costs.
  - Site design.
  - Business model and/or level of public agency involvement.
  - Types of awareness and education activities provided on site.
  - Integration of on-site solar photovoltaics or energy storage technologies.
- Prepare and submit a draft and final *Memo - E-Mobility Hub Recommendations*, that identifies recommended approach and implementation plan to launch an e-mobility hub demonstration, including
  - Potential sites.
  - Recommended site layout.
  - Operational structure, and roles and responsibilities.
  - Financial estimates, including upfront capital investment and ongoing operational costs.
  - Outreach approach and key components of e-mobility at the site.
  - Opportunities for cost-effective integration of solar photovoltaics and energy storage at the deployment.
- Prepare and submit *Agenda – Sac PEV Collaborative Advisory Committee meeting*
- Engage the SacPEV Collaborative, the Project Advisory Committee, to review the memo and provide feedback for edits and refinement, including input on site locations and project layout. Direction from the SacPEV Collaborative may result in re-running the analysis of cost assumptions or operating structure of the demonstration project. Prepare and submit a *Meeting Summary – Sac PEV Collaborative Advisory Committee meeting*.

##### Products:

- Draft Memo – E-Mobility Hub Recommendations
- Agenda – Sac PEV Collaborative Advisory Committee meeting
- Meeting Summary – Sac PEV Collaborative Advisory Committee meeting
- Final Memo – E-Mobility Hub Recommendations

## EXHIBIT A

### SCOPE OF WORK

#### Task 6.3 Identify Advanced EV Mobility Opportunities

The goal of this task is to prepare and submit a summary report on EV mobility successes and challenges, identifying recommendations for improvement and a concept for an e-mobility hub, and providing lessons for replicating projects in other geographies.

##### The Recipient shall:

- Prepare and submit a draft and final *Report - Advanced EV Mobility Opportunities* that includes work completed in Tasks 6.1 and 6.2, including, but not limited to the following:
  - Comparison of program outcomes and key service indicators, including utilization, participation rates, and program cost-benefits to the operator and program participants.
  - Summary of input from interviews.
  - Analysis of business and service models.
  - Recommendations and opportunities.
  - Final recommendations for the e-mobility hub demonstration, including recommended site layout, organizational structure, costs, and project components.
- Prepare and submit an *Agenda – Sac PEV Collaborative Advisory Committee meeting*
- Convene a meeting of the Project Advisory Committee to review the Draft Advanced EV Mobility Opportunities Report and provide input on opportunities and next steps. Prepare and submit a *Meeting Summary – Sac PEV Collaborative Advisory Committee meeting*.

##### Products:

- Draft Report – Advanced EV Mobility Opportunities
- Agenda – Sac PEV Collaborative Advisory Committee meeting
- Meeting Summary – Sac PEV Collaborative Advisory Committee meeting
- Final Report – Advanced EV Mobility Opportunities

#### TASK 7 COMMUNITY ENGAGEMENT

##### Task 7.1 Develop and Implement an EV Engagement Program

The goal of this task is to create and launch a community-wide EV engagement program to support implementation of Sacramento's EV Blueprint, relying on a creative approach that partners with trusted community organizations and leaders. This task will be implemented in close collaboration with project partners and local stakeholders.

##### The Recipient shall:

- Collaborate with project partners to coordinate various outreach efforts and strategize for cross-agency messaging, including coordination for any program launches, planned ride-and-drives, and other events.

## EXHIBIT A

### SCOPE OF WORK

- Identify translation services to allow for the distribution of printed materials in several languages to incorporate the languages of Sacramento's diverse communities.
- Work with the City Neighborhood Services Division, and determine approach to coordinate and leverage existing City outreach efforts including the 2040 General Plan update. Neighborhood Services will help to identify any additional key community partners or existing community-based efforts to collaborate with.
- Develop an engagement strategy, draft and final *Memo - Outreach Strategy for EV Blueprint*, which shall include, but is not limited to, the following:
  - Purpose and goals.
  - Key issues, based on technical analysis and stakeholder feedback from earlier tasks.
  - Identification of existing content to utilize and new materials to be created.
  - Summary of proposed materials for events, including content for any posters, flyers, or surveys.
  - Stakeholder list.
  - Format and structure of outreach events, with an emphasis on formats that bring information to people at priority community events, linking EV opportunities to other important community values. Examples for formats may include, but are not limited to, the following:
    - Pop-up booths and EV car displays at farmer's markets and community fairs.
    - Job opportunity fairs.
    - Community events at local community-based institutions.
    - Stakeholder meetings with key community leaders.
    - Youth-based educational workshops, with take-home activities to share EV knowledge with family members.
  - Survey questions or summary of other interactive activities to distribute at events.
    - Activities will be designed to foster EV awareness, vet priority needs and opportunities for EVs, and seek feedback on key barriers for low-income and disadvantaged communities.
    - Surveys will also be used to increase awareness of priority EV pilots, and gauge community awareness of new EV incentives and mobility programs.
  - List of equipment and supplies.
  - Schedule of events, to maximize feedback from the community on project tasks.

## EXHIBIT A SCOPE OF WORK

- Prepare and submit draft and final *Outreach Materials*, which will include the following minimum items. One set of materials will be developed and reused for all events. Depending on the timing of the outreach event, materials may include reproduction of other project deliverables for discussion or feedback, to support earlier outreach events before completion of all graphic elements of the project:
  - Survey or interactive activity.
  - Posters.
  - Flyers.
  - Agendas and sign-in sheets.
- Facilitate community events, with a focus on facilitating a minimum of 12 events. At least 8 events will be either a) located in a disadvantaged community, or b) conducted in partnership with a community-based or other local organization to target residents of disadvantaged or low-income communities in (e.g., host an event at popular shopping destinations). Events may include workshops, pop-up events, or stakeholder meetings.
- Analyze key issues and findings, and summarize results in a draft and final *Memo - Public Outreach Summary*.

### **Products:**

- Draft Memo – Outreach Strategy for EV Blueprint
- Final Memo – Outreach Strategy for EV Blueprint
- Draft Outreach Materials
- Final Outreach Materials
- Draft Memo - Public Outreach Summary
- Final Memo - Public Outreach Summary

### **Task 7.2 EV Mobility and Opportunities Curriculum**

The goal of this task is to create new materials and educational curriculum on EVs and EV mobility programs targeted to the issues and needs of disadvantaged communities. In the near-term, materials would be used in Breathe California Sacramento Region's educational workshops in low-income communities. The Recipient would also collaborate with partners to disseminate materials more broadly for use in the work of various agencies and community partners.

### **The Recipient shall:**

- Evaluate existing outreach materials to be updated or customized, including but not limited to:
  - Existing educational resources, such as UC Davis educational curriculum templates, SacEV Association materials, and Breathe California Sacramento Region transit curriculum for disadvantaged communities.

## EXHIBIT A

### SCOPE OF WORK

- Materials related to EV workforce development opportunities in Sacramento, including EV apprenticeship and certification opportunities at American River College, Green Technology programs, and other local workforce programs.
- Create a new draft and final *EV Curriculum*, for use in classroom settings and trainings. Materials will leverage the information developed for the EV toolkits in **Task 5**. At a minimum, curriculum will include the following contents:
  - Review of the role of EVs as a part of citywide livability goals, and opportunities with EV improvements to increase retail attractiveness, draw residents, and spur other secondary benefits.
  - Analysis of benefits of EVs to the driver and to the community.
  - Summary of current incentives for EVs and EVSE installation.
  - Identification of financing options or partnership opportunities for installation of EVSE.
  - Summary of EV mobility programs, such as car share.
  - Updates to existing transit and clean-air educational materials used by Breathe California Sacramento Region in low-income communities.

#### Products:

- Draft EV Curriculum
- Final EV Curriculum

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: CITY OF SACRAMENTO

**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-17-042 with City of Sacramento for a \$199,280 grant to develop an actionable Sacramento EV implementation blueprint to accelerate the City's current efforts and build capacity to advance EV initiatives; 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]

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Cody Goldthrite,  
Secretariat