

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 10/2015)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-17-043 (To be completed by CGL Office)

600 Fuels and Transportation Division	Thanh Lopez	6	916-654-3929
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County of Los Angeles	95-6000927
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Transportation Grid (T-GRID) Blueprint for Los Angeles County
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06 / 30 / 2018	09 / 30 / 2019	\$ 200,000
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☐ 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**

COUNTY OF LOS ANGELES. Proposed resolution approving Agreement ARV-17-043 with County of Los Angeles for a \$200,000 grant to develop an EV readiness blueprint, which will provide a comprehensive strategy for a responsible and responsive acceleration to a zero-emissions mobility society.

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	§15301 Feasibility and Planning Studies
section number:	

<input checked="" type="checkbox"/> Categorical Exemption. List CCR	§15306 Information Collection
section number:	

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

Explain reason why Agreement is exempt under the above section:

It can be seen with certainty that this proposed project will not cause any direct or indirect change in the environment because funding will only be used for planning and analysis activities and will not involve any construction, improvements, or enactment of zoning ordinances. The project will create a roadmap for an electric vehicle ready community which will include data collection, modeling efforts and strategies to get to a zero-emissions mobility society. There is no possibility that the activity in question will have a significant effect on the environment because the activities involve public outreach, administrative coordination efforts, and similar activities; and involves no physical construction.

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

Check all that apply

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

Legal Company Name:

Budget

Lawrence Berkeley National Laboratories

\$ 24,750

UCLA Luskin Center

\$ 19,250

ICF International, LLC

\$ 27,000

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CALIFORNIA ENERGY COMMISSION



Legal Company Name:
Los Angeles CleanTech Incubator
See attached

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTP	16/17	601.118	\$200,000
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$
R&D Program Area:	Select Program Area		\$200,000
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Name:	Gary Gero	Name:	Demetra J. McBride
Address:	500 W Temple St, Room 493	Address:	1100 N Eastern Ave, 2 <sup>nd</sup> Floor
City, State, Zip:	Los Angeles, CA 90012	City, State, Zip:	Los Angeles, CA 90063
Phone:	213-266-1696	Fax:	- -
E-Mail:	ggero@ceo.lacounty.gov	E-Mail:	dmcbride@isd.lacounty.gov

<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: GFO-17-604
<input type="checkbox"/> 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
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# GRANT AMENDMENT REQUEST FORM ATTACHMENT

CEC-270 Attachment

Original Agreement: ARV-17-043

Amendment #: \_\_\_\_\_

## Recipient's Legal Name:

County of Los Angeles

## C) List all subcontractors (major and minor) and equipment vendors:

Legal Company Name:	Budget
Los Angeles CleanTech Incubator	\$40,000
Global Green	\$25,750
Miriam Wrobel & Associates	\$18,450
South Bay Cities Council of Governments	\$5,500
San Gabriel Valley Council of Governments	\$5,500
City of Los Angeles	\$5963
City of Santa Monica	\$5963
City of West Hollywood	\$5962
City of Long Beach	\$5962

## D) List all key partners:

Legal Company Name:
City of Santa Monica
Global Green
Los Angeles CleanTech Incubator (LACI)
Los Angeles County Metropolitan Transportation Authority (LA Metro)
Los Angeles Department of Transportation (LADOT)
Los Angeles Economic Development Commission (LAEDC)
San Gabriel Valley Council of Governments
South Bay Cities Council of Governments (SBCOG)
South Coast Air Quality Management District (SCAQMD)
Southern California Association of Governments (SCAG)
University of California, Los Angeles (UCLA)

**GRANT AMENDMENT REQUEST FORM ATTACHMENT**

CEC-270 Attachment

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**Exhibit A  
SCOPE OF WORK**

**TECHNICAL TASK LIST**

<b>Task #</b>	<b>CPR</b>	<b>Task Name</b>
1	N/A	Administration
2		Planning
3	<b>X</b>	Needs Assessment
4		Transformation from B-Grid to T-Grid
5		Facilitation and Communication
6		Blueprint

**KEY NAME LIST**

<b>Task #</b>	<b>Key Personnel</b>	<b>Key Subcontractor(s)</b>	<b>Key Partner(s)</b>
1	Demetra J. McBride	ICF International, LLC	Los Angeles CleanTech Incubator (LACI)
2	Demetra J. McBride, Richard Teebay	ICF International, LLC	Southern California Association of Governments (SCAG), Los Angeles County Metropolitan Transportation Authority (LA Metro), Southern California Air Quality Management District (SCAQMD), LACI, University of California Los Angeles (UCLA), Los Angeles Economic Development Commission (LAEDC), LA Department of Transportation (LADOT)
3	Demetra J. McBride, Minh S. Le	ICF International, LLC	SCAG, LA Metro, SCAQMD, LACI, LAEDC, LA DOT, San Gabriel Valley Council of Governments (SGVCOG), South Bay Cities Council of Governments (SBCCOG), City of Santa Monica
4	Demetra J. McBride, Minh S. Le, Richard Teebay	ICF International, LLC	Lawrence Berkeley National Laboratories (LBNL), UCLA, SCAG, LA Metro, LA DOT
5	Demetra J. McBride, Minh S. Le	ICF International, LLC	LACI, Global Green, UCLA
6	Demetra J. McBride, Minh S. Le, Richard Teebay	ICF International, LLC	LGNL, UCLA, LACI

## GLOSSARY

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

<b>Term/ Acronym</b>	<b>Definition</b>
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
BEAM	Behavior, Energy, Autonomy and Mobility
Blueprint	Transportation Grid Blueprint: Planning for a Post-Building, Transportation Driven Electric Grid for the Los Angeles Region
CAM	Commission Agreement Manager
CPR	Critical Project Review
CyDER	Cyber Physical Co-simulation Platform for Distributed Energy Resources
DAC	Disadvantaged Community
DC	Direct Current
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
FTD	Fuels and Transportation Division
LA DOT	Los Angeles Department of Transportation
LA Metro	Los Angeles Metropolitan Transportation Authority
LACI	Los Angeles CleanTech Incubator
LAEDC	Los Angeles Economic Development Commission
LBNL	Lawrence Berkeley National Laboratories
LMI	Low-to-Moderate Income
MPO	Metropolitan Planning Organization
Recipient	County of Los Angeles
PEV	Plug-in Electric Vehicle
PUC	California Public Utilities Commission
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategies
SBCCOG	South Bay Cities Council of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SGVCOG	San Gabriel Valley Council of Governments
T-Grid	Transportation Grid
UCLA	University of California Los Angeles
V2G-Sim	Vehicle-to-Grid Simulator

## **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 Grant Funding Opportunity (GFO) 17-604 titled "Electric Vehicle (EV) Ready Communities Challenge Solicitation" under the ARFVTP. This competitive grant solicitation was to fund projects for a 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 County of Los Angeles (Recipient) submitted application #18 which was proposed for funding in the Energy Commission's Notice of Proposed Awards on April 6, 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:**

California has a target of five million zero-emission vehicles (ZEV) on the road by 2030, which may increase the net annually electric load by about 8-10 percent. However, how that additional net annual load increase is distributed geographically and temporally could result in excess additional distribution and transmission system upgrades, avoidable rate increases driven by time-of-use patterns, and reversal of the environmental gains electric vehicles are intended to achieve. Where plug-in electric vehicle (PEV) charging infrastructure is placed – and how and when PEVs are charged – needs to be optimized in order to minimize net societal costs. For

example, if planned poorly, extra investments will be required in distribution and transmission grid upgrades. Incomplete, shallow and/or disaggregated planning will also certainly create pressure on electricity rates.

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

The goal of this Agreement is to develop an actionable, high-functioning, and enduring plan for Los Angeles County, to enable further deployment of PEVs. Particular emphasis will be placed on strategies to support PEV growth within disadvantaged communities (DACs).

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

The objectives of this Agreement are to create a fully-responsive blueprint and a platform for EV-readiness implementation plan titled *Transportation Grid (T-Grid) Blueprint: Planning for a Post-Building, Transportation Driven Electric Grid for the Los Angeles Region* (Blueprint). The Blueprint will provide a regional-replicable and comprehensive strategy for responsible and responsive acceleration to a zero-emissions mobility society.

## **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 PLANNING**

The goal of this task is to review existing literature, develop transportation use cases for analysis, and to identify interdependencies between the built environment and transportation planning. To complete this task, the following subtasks shall be performed.

**TASK 2.1 REVIEW EXISTING PLANS**

The goal of this task is to analyze existing PEV related policies, programs, plans, studies, training programs, and outreach activities/events throughout Los Angeles County and adjacent regions.

**The Recipient shall:**

- Review Southern California Association of Government's (SCAG) 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) and all relevant California and local PEV-Readiness Plans.
- Review and develop a compilation document of all statutes, policies, ordinances, and California Public Utilities Commission (PUC) activities applicable to electric vehicle supply equipment (EVSE) installations in Los Angeles County.
- Interview stakeholders, as needed, to determine the best practices and lessons learned from their EV-Readiness planning and legislation process and document results in a summary report.

**Products:**

- Compilation document of all statutes, policies, ordinances, and PUC activities applicable to EVSE installations in Los Angeles County
- Summary report of best practices and lessons-learned

**TASK 2.2 TRANSPORTATION USE CASE ANALYSIS**

The goal of this task is to analyze current and future charging station locations for all vehicle weight classifications as a PEV driver crosses the County west-to-east from ports to high-end residential, to commercial district/urban cores, to low-to-moderate income (LMI) households and disadvantaged communities (DACs), and to industrial centers.

**The Recipient shall:**

- Conduct travel demand modeling and use trip data from metropolitan planning organizations (MPO) to identify home-to-work and work-to-home trips, weighing trips by likely PEV adopters more heavily than others.

- Compile available resources and modeling techniques to create a methodology to predict future charging needs for all vehicle weight classes and circulation/frequency, and potential charging solution categories.

**Product:**

- Summary of methodology to predict transportation use cases

**TASK 2.3 ANALYSES AND PROFILING OF REGIONAL TRANSPORTATION PATTERNS, IMPACTS AND PROJECTIONS**

The goal of this task is to identify and review data, policies, technology, and economic impacts that adjust, impact, and update the County of Los Angeles Policy Growth Forecasts under the 2016 SCAG RTP/SCS. This task will identify interdependencies between the built environment and transportation planning.

**The Recipient shall:**

- Build upon circulation maps produced under the 2016 SCAG RTP/SCS. The project will develop economic, land-use, and mobility assumptions, and adjust/update types and levels (orders of magnitude) of impacts, including shifts, increases, and constraints generated.
- Identify super commuter regional patterns using existing statistics to form a baseline analysis, and then identify and assess near- and mid-term project changes that could alter or shift super-commuter mobility patterns. A parallel analysis will project how those changes may influence environmental factors and to what potential order of magnitude.
- Analyze medium- and heavy-duty vehicles to downscale existing, binding SCAG regional forecasts and create program design for analyses, data-mining, and calculus necessary to create a binding sub-jurisdictional assessment and forecast that models vehicle-type impacts, energy demand, circulation patterns, and potential charging options.
- Develop a report on the analyses of assumptions and sub-jurisdictional forecasts, including, but not limited to, the following.
  - Program design concept elements formed by assumptions regarding projected use-cases for variable vehicle types and charging requirements.
  - Chart of present assumptions regarding scale and impact of Super-Commuter traffic and circulation.
  - Projected cascading impacts associated with potential impacts and demand.

**Products:**

- Sub-jurisdictional circulation maps
- Report on the analyses of assumptions and sub-jurisdictional forecasts

**TASK 3 NEEDS ASSESSMENT**

The goal of this task is to build on the planning elements from Task 2 and resources to determine where electric vehicles are deployed to date in the Los Angeles region.

**The Recipient shall:**

- Add vehicle deployment data gleaned from the Clean Vehicle Rebate Project, Department of Motor Vehicles vehicle registration data, and MPOs to the Task 2.2 methodology.
- Review building codes, planning and land-use documents, and permitting and inspection readiness elements that are not written specifically for electric vehicles, but encompass criteria necessary for PEV deployment or EVSE installation.
- Create a siting-analysis methodology with an initial short-list of proposed siting locations to demonstrate hot spot priorities throughout the region.
- Work with the Department of Public Works to create a methodology to assess the almost 10,000 County-maintained power poles for potential conversion to level 1 electric vehicle charging access.

**Products:**

- Updated summary of methodology to predict transportation use cases
- Updated compilation document of all structural statutes, policies, ordinances, and PUC activities applicable to EVSE installed in Los Angeles County
- Siting analysis methodology and map of priority area for each EVSE category
- Summary of methodology for power pole assessment

**[CPR WILL OCCUR AFTER THIS TASK. SEE TASK 1.2 FOR DETAILS]**

**TASK 4 TRANSFORMATION FROM B-GRID TO T-GRID**

The goal of this task is to analyze the vertical and horizontal grid capacity, investigate impacts on utility rates, and develop modelling for in integrated grid. To complete this task, the following subtasks shall be performed.

**TASK 4.1 ANALYZE VERTICAL GRID CAPACITY**

The goal of this task is to project locational demand fluctuations and to identify power, access, structural, governance/policy, and financial constraints to widespread installation of EVSE charging infrastructure.

**The Recipient shall:**

- Identify surplus points and constraints in Vertical demand (buildings).
  - Organize efforts along building types (residential, commercial, industrial, and public agencies) and geographic grids used by the investor-owned and publicly-owned utilities to develop a general formula and exemplars for potential Phase II analytics of existing capacity.
  - Measure additional electrification power demand
  - Identify an approach for assessing feasibility of increasing and/or improving electricity infrastructure and rating access. Particular emphases shall be applied to DAC and LMI areas.

- Expand Vertical (transportation) assessment for future projected growth.
  - Focus assessments and updates of SCAG regional maps, downscaled to the sub-jurisdictional level, for residential and commercial/industrial projected growth.
  - Growth projections will include assumptions related to demand distribution and time-of-use cycles. Certain growth areas will be selected to demonstrate and define access, capacity, and potential utilization screening, for initial mapping of charging network options. Particular emphasis shall be applied to DAC and LMI areas.
- Develop defined checklist of barriers and audit points to electrification retro-commissioning including, but not limited to:
  - Governance (permitting, plan review, inconsistent policies across municipalities and unincorporated county)
  - Structural and network
  - Cost-points and financing
  - Operational, including without limitation useful life, ownership, network monitoring and reporting, maintenance and training.

**Products:**

- Summary of Vertical assessment
- Checklist of barriers and audit points

**TASK 4.2 ANALYZE HORIZONTAL GRID CAPACITY**

The goal of this task is to identify power, access, structural, governance/policy, and financial constraints or challenges to widespread installation of EVSE charging infrastructure across the Horizontal (or Mobility/Transit) Plane.

**The Recipient shall:**

- Identify surplus points and constraints on Horizontal electrification demand, by building upon existing maps (e.g., PlugShare) to chart existing concentrations and access to charging infrastructure, charging cycle types, and cost levels.
- Develop a Horizontal assessment methodology for future projected growth by mapping and identifying strategic links between Senate Bill 375 development areas (Regional Housing Needs Allocation, Priority Develop Area, economic development centers), vehicle types, charging cycles, and impacts on a sub-jurisdictional (countywide) but replicable scale and design.
  - The proposed methodology for projecting and calculating locational and corridor-based increases in transit, including energy demand associated with mobility will include vehicle type, impact on greenhouse gas/vehicle miles traveled, checklist of factors linked to distinct power supply types, and impacts of demand shifts (rates, operability).
- Develop sub-jurisdictional (countywide) maps of charging infrastructure and attributes, as well as projected demand for cascading impacts and/or constraints affecting charging infrastructure build-out.

- This will include maps of LMIs and DACs, distinguishing PEV impact from pass-through traffic or as origin-destination locations, map overlays of grid surplus points and constraints, and projected future mobility demand on the grid.

**Products:**

- Sub-jurisdictional (countywide) maps of charging infrastructure and attributes
- Summary of Horizontal assessment methodology

**TASK 4.3 DEMAND, GENERATION AND RATE IMPACTS OF MARKET EXPANSION AND SUPPORTING EVSE INFRASTRUCTURE**

The goal of this task is to investigate demand, generation and rate impacts of market expansion and supporting EVSE infrastructure, particularly the impact on utility rates (as well as cost per eGallon) from increased EV penetration scenarios under a mix of different deployment options of EVSEs (light pole mounted, Level 1, Level 2, and direct current (DC) fast charge)

**The Recipient shall:**

- Investigate the impact on utility rates (as well as cost per eGallon) from increased PEV penetration scenarios under a mix of different deployment options of EVSEs (light pole mounted, Level 1, Level 2, and DC fast charge, etc.).
- Model how the charger type mix impacts the daily load profile on individual feeders (as well as at the Independent System Operator level) and how this impacts peak demand rates.
- Develop the framework on research needed to develop models and simulation tools. Leverage Lawrence Berkeley National Labs (LBNL) simulation tools, such as Vehicle-to-Grid Simulator (V2G-Sim), Behavior, Energy, Autonomy and Mobility (BEAM), Cyber Physical Co-simulation Platform for Distributed Energy Resources (CyDER) and other modeling tools available through the US Department of Energy's Grid Modernization Initiative.
- Work with LBNL to develop a framework for research that takes into account daily load profiles under various scenarios of PEV and EVSE deployment.

**Products:**

- Map overlays of grid surplus points and constraints
- Map of projected future mobility demands on the grid
- Report on factors linked to distinct power supply types and impacts of demand shifts (rates, operability)
- Demonstrated Model Load Profiles

**TASK 4.4 T-GRID DEVELOPMENT/SOLUTIONS-MANAGEMENT**

The goal of this task is to assemble potential market, structural technology-based, operational, and financing options or strategies that facilitate PEV market penetration, enhance and/or supplement performance, and promote utility rate stabilization.

**The Recipient shall:**

- Outline market-based pilot models and solutions which will include potential incentives, financing mechanisms, consumer behavior, funding sources, and “closed-loop” solutions, with an emphasis on LMI and DAC areas.
- Investigate diversified strategies and geographic distribution models to produce a portfolio of diversified EVSE infrastructure solutions including, but not limited to:
  - Workplace charging.
  - Autonomous, Connected, Electric and Shared (ACES) mobility in new development.
  - Charging garages.
  - Street-side pole-supported charging.
  - Location-setting via Traffic Signal Synchronization data-mining.
  - Neighborhood electric vehicles.
  - Public Agency Sites and facilities charging.
  - Other first-mile-last-mile strategies.
- Evaluate e-commerce and goods movement-specific strategies and measures to build upon the prior work of Metro and the Los Angeles County Zero Emissions Freight Collaborative, focusing on EVSE infrastructure challenges specific to medium- and heavy-duty vehicles, and discrete mobility patterns and usage connected with international, logistics, e-commerce and warehousing trade.
  - Strategies will address and map sub-jurisdictional, inter-regional, port, and intermodal trips, and developed for direct and co-benefits. The strategy will emphasize coordinated solutions for mobility, economy, energy, and environment so that investments can provide multiple benefits.

**Products:**

- Market-Based Strategies Overview/Portfolio
- Diversified Strategies and Geographic Distribution Models Overview/Portfolio
- E-Commerce and Freight Conveyance Mobility Map
- E-Commerce and Zero-Emissions Freight Use-Case Strategies Portfolio

**TASK 4.5 MODELING AN INTEGRATED GRID**

The goal of this task is to model an integrated grid based on dynamic exchange between built and mobility infrastructure and systems, capturing forms of future technology or structural development are required to optimize power consistency, reliability, affordability, and resiliency of an optimal, integrated and dynamic T-Grid (including analytics, software tools and applications) and what data or research is needed.

**The Recipient shall:**

- Leverage LBNL simulation models, such as V2G-Sim, BEAM, CyDER to analyze the size of the opportunity available from future technology (beyond V1G).
- Identify opportunities where current models could provide insight into a future

where energy load from buildings are more tightly coordinated with EV charging.

**Product:**

- Models of the integrated Los Angeles region grid, showing stationary and mobile infrastructure

## **TASK 5 FACILITATION AND COMMUNICATION**

The goal of this task is to engage stakeholders, host planning meetings, and create an outreach strategy. To complete this task, the following subtasks shall be performed.

### **TASK 5.1 STAKEHOLDER ENGAGEMENT**

The goal of this task is to gather all applicable resources and knowledge from stakeholders and engage the region to confirm the Blueprint will become a truly implemental plan.

**The Recipient shall:**

- Conduct an initial poll of stakeholders for resources, potential roles, related actions, and additional questions needed to create the Blueprint.
- Utilize bullet polls as needed to gather key information from stakeholders and subject matter experts.
- Keep stakeholders informed throughout the process, utilizing working group charrettes as needed.
- Maintain a running compilation of lessons-learned and critical success factors, as identified by the project team and stakeholders, throughout the year-long process.

**Products:**

- Stakeholder poll and summary of the poll results
- Stakeholder bullet poll and summary of poll results
- Working group meeting agendas and meeting summaries
- Lessons learned and critical success factors report

### **TASK 5.2 HOST STAKEHOLDER CHARETTES**

The goal of this task is to host two charrettes (intensive, facilitated planning meetings) at program launch and project close, to review all working elements of the Blueprint at conception and realization for all stakeholders, for stakeholder consensus.

**The Recipient shall:**

- Host, plan, and facilitate a program launch and project close event for regional stakeholders.

**Products:**

- Launch event and project close agendas
- Event written materials

- Event summaries

### **TASK 5.3 COMMUNICATIONS PLAN AND OUTREACH STRATEGY**

The goal of this task is to create an outreach strategy to inform residents, employers, employees and the general public.

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

- Engage every project working group to identify the communication needs of their sector, to develop an all-encompassing communications strategy.
- Compile the applicable reports and resources utilized and developed from Tasks 2 through 5 into a cohesive, multi-faceted communications strategy.

#### **Product:**

- Communications strategy report

### **TASK 6 BLUEPRINT**

The goal of this task is to compile an EV Ready Communities Blueprint titled Transportation Grid (T-Grid) Blueprint: Planning for a Post-Building, Transportation Driven Electric Grid for the Los Angeles Region. The Blueprint will be replicable by other California communities.

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

- Compile all documents and electronic resources from Tasks 2 through 5 into a comprehensive blueprint plan.
- Review the Blueprint for actionable steps that the County, communities, partners, and other interested parties could enact to create an EV Ready Community.
- Review of the Blueprint by partners and stakeholders and revise the Blueprint as necessary to incorporate feedback to create the final Blueprint.

#### **Products:**

- Draft Blueprint
- Final Blueprint

**Failure to submit the final EV-Ready Blueprint to the Energy Commission within one year of the start date of this agreement may prevent eligibility under the planned Phase II solicitation.**

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: COUNTY OF LOS ANGELES

**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-17-043 with County of Los Angeles for a \$200,000 grant to develop an EV readiness blueprint, which will provide a comprehensive strategy for a responsible and responsive acceleration to a zero-emissions mobility society; 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