





Award Number: ARV-12-006

Date: 09 / 26 / 2012

**Note:** The Energy Commission Project Managers Manual includes detailed instructions on how to complete this section, with examples of grants that are “Projects” and are not “Projects”. When the Project Manager is completing this section, if questions arise as to the appropriate answers to the questions below, please consult with the Energy Commission attorney assigned to review grants or loans for your division.

1. Is grant/loan considered a “Project” under CEQA?  Yes *(skip to question #2)*  No *(continue with question #1)*

Please complete the following: *[Public Resources Code (PRC) 21065 and 14 California Code of Regulations (CCR) 15378]:*

Explain why the grant/loan is **not** considered a “Project”? The grant/loan will not cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because grant/loan involves:

developing a regional readiness plan and the outcome of the grant is a comprehensive plug-in electric vehicle readiness plan for the Upstate California region.

2. If grant/loan is considered a “Project” under CEQA: *(choose either IS or IS NOT)*

Grant/loan **IS** exempt:

Statutory Exemption: *(List PRC and/or CCR section numbers)* \_\_\_\_\_

Categorical Exemption: *(List CCR section number)* \_\_\_\_\_

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

Explain reason why the grant/loan is exempt under the above section:

Please attach draft Notice of Exemption (NOE). Consult with the Energy Commission attorney assigned to your division for instructions on how to complete the NOE.

Grant/loan **IS NOT** exempt. The Project Manager needs to consult with the Energy Commission attorney assigned to your division and the Siting Office regarding a possible initial study.

## EXHIBIT A Scope of Work

### TECHNICAL TASK LIST

Task #	Task Name
1	Administration
2	Coordination and Development of PEVCC
3	Infrastructure Deployment Plan
4	Plan to Collect Data on Consumer Charging Behavior
5	Estimation of GHG Reductions from PEV Adoption
6	Plan to Mitigate “On-peak” PEV Charging
7	Plan for Streamlining EVSE Permitting, Installation and Inspection
8	Plan to Accelerate PEV Adoption in Fleets and Other Incentives
9	PEV Education and Outreach Plan
10	Plan to Share Project Results with Other Communities

### KEY NAME LIST

Task	Key Personnel	Key Sub-contractor(s)	Key Partner(s)
1	Ted Marconi – Mt. Shasta, Jason Darrow – Siskiyou County Economic Development Council (SCEDC), Jim Zoellick – Schatz Energy Research Center (SERC)	SCEDC, SERC	
2	Jason Darrow – SCEDC, Jim Zoellick – SERC, Dave Carter – Gutteridge Haskins and Davey Consulting Engineers (GHD)	SCEDC, SERC, GHD	Cities of *Mt. Shasta, Yreka, Redding. *County of Siskiyou, *Upstate ED
3	Jason Darrow – SCEDC, Jim Zoellick and Colin Sheppard – SERC, Dave Carter and Terrence Williams – GHD	SCEDC, SERC, GHD	*Pacific Power (PP), *Pacific Gas and Electric (PG&E), *Redding Electric Utility (REU), Mt. Shasta, Yreka, Redding, Red Bluff, Siskiyou, Shasta, Tehama
4	Jason Darrow – SCEDC, Jim Zoellick – SERC, Terrence Williams – GHD	SCEDC, SERC, GHD	
5	Jason Darrow – SCEDC, Jim Zoellick and Colin Sheppard – SERC	SCEDC, SERC	
6	Jason Darrow – SCEDC, Jim Zoellick and Colin Sheppard – SERC, Terrence Williams and Dave Carter – GHD	SCEDC, SERC, GHD	PP, PG&E, REU
7	Jason Darrow – SCEDC, Jim Zoellick – SERC, Dave Carter – GHD	SCEDC, SERC, GHD	PP, PG&E, REU, Mt. Shasta, Yreka, Redding, Red Bluff, Siskiyou, Shasta, Tehama
8	Jason Darrow – SCEDC, Jim Zoellick	SCEDC,	Mt. Shasta, Yreka, Redding,

Task	Key Personnel	Key Sub-contractor(s)	Key Partner(s)
	– SERC	SERC	Red Bluff, Siskiyou, Shasta, Tehama
9	Jason Darrow – SCEDC, Jim Zoellick – SERC, Dave Carter – GHD	SCEDC, SERC, GHD	
10	Jason Darrow – SCEDC, Jim Zoellick – SERC	SCEDC, SERC	

\* Organizations denoted with an asterisk are providing in-kind cost share.

## GLOSSARY

Term/ Acronym	Definition
ARFVT	Alternative and Renewable Fuel and Vehicle Technology
Commission	Energy Commission
EVSE	Electric Vehicle Supply Equipment
GHD	Gutteridge Haskins and Davey Consulting Engineers
PEV	Plug-in Electric Vehicle
PEVCC	Plug-in Electric Vehicle Coordinating Council
PG&E	Pacific Gas and Electric Company
PP	Pacific Power
REU	Redding Electric Utility
SCEDC	Siskiyou County Economic Development Council
SERC	Schatz Energy Research Center

## Background:

Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology (ARFVT) Program. The statute, subsequently amended by AB 109 (Núñez, Chapter 313, Statutes of 2008), authorizes the Energy Commission to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state’s climate change policies. The Energy Commission has an annual program budget of approximately \$100 million and provides financial support for projects that:

- Develop and improve alternative and renewable low-carbon fuels;
- Optimize alternative and renewable fuels for existing and developing engine technologies;
- Produce alternative and renewable low-carbon fuels in California;
- Decrease, on a full fuel cycle basis, the overall impact and carbon footprint of alternative and renewable fuels and increase sustainability;
- Expand fuel infrastructure, fueling stations, and equipment;
- Improve light-, medium-, and heavy-duty vehicle technologies;
- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets;
- Expand infrastructure connected with existing fleets, public transit, and transportation corridors; and

- Establish workforce training programs, conduct public education and promotion, and create technology centers.

The statute requires the Energy Commission to adopt and update annually an investment plan to determine funding priorities and opportunities and describe how program funding will be used to complement other public and private investments. On August 11, 2010, the Energy Commission adopted its second investment plan for the 2010-11 fiscal year. The investment plan contains specific recommendations for expending ARFVT Program funds. This investment plan is on-line at <http://www.energy.ca.gov/2010publications/CEC-600-2010-001/CEC-600-2010-001-CMF.PDF>.

On May 12, 2011, the California Energy Commission (Energy Commission) released Grant Solicitation Application Package PON-10-602 entitled “Regional Plans to Support Plug-In Electric Vehicle Readiness” under the Alternative and Renewable Fuel and Vehicle Technology Program. The grant solicitation was offered to help prepare California regions for the rollout of Plug-in Electric Vehicles (PEVs). Funds will help regions develop PEV strategic plans for PEV electric vehicle supply equipment (EVSE), establish best practices for “PEV-ready” building and public works guidelines, and help to streamline PEV EVSE permitting, installation, and inspection processes. Regions are required to establish a PEV Coordinating Council with a lead agency which may receive up to \$200,000 per award. In response to solicitation PON-10-602, Recipient submitted proposal #12 which was proposed for funding in the Energy Commission’s Notice of Proposed Awards on June 19, 2012. Both solicitation PON-10-602 and Recipient’s proposal #12 are incorporated herein by reference to this Agreement in their entirety.

**Problem Statement:**

The commercial introduction of PEVs into California communities is just now beginning. The state is poised to be a market leader, and successful development of a robust PEV market will bring numerous environmental, energy security and economic benefits to state residents. However, the successful introduction of PEVs will require coordinated efforts among key stakeholders to overcome obstacles and ensure smooth market development. While much of the focus on early market development is in the state’s metropolitan areas, there is also a need to provide planning, collaboration and education and outreach efforts in the state’s rural communities. In addition, there is a need to provide connectivity along the state’s main highway corridors between population centers. The Upstate Region of California includes three county jurisdictions: Siskiyou, Shasta, and Tehama. The Upstate Region is anticipating the rollout of PEVs and is poised to be a key participant in the West Coast Green Highway. Planning and coordination for electric vehicle infrastructure in the Upstate Region will help to link communities along the Interstate 5 corridor and provide connectivity between the population centers in the Upstate Region.

**Goal of the Agreement:**

The goal of this Agreement is to create a coordinated effort throughout the Upstate Region that supports the successful introduction of plug-in electric vehicles and the strategic development of charging infrastructure to support PEVs. This will be facilitated through the creation of a regional Plug-in Electric Vehicle Coordinating Council (PEVCC), development of an infrastructure deployment plan, appropriate streamlining of the permitting and installation process for EVSE, efforts to accelerate PEV adoption in vehicle fleets, and development of an education and outreach program to promote PEV adoption throughout the region.

**Objectives of the Agreement:**

The objectives of this Agreement are to:

- Develop a collaborative effort among local stakeholders to efficiently and effectively promote the adoption of PEVs in the region,
- Develop plans for the deployment of EVSE infrastructure that joins the Upstate Region with the West Coast Green Highway and connects key population centers, makes optimal use of limited resources, minimizes stranded investment and ensures adequate infrastructure that is strategically placed to effectively meet consumer needs,
- Integrate PEV promotion efforts into local greenhouse gas action planning and renewable energy planning efforts and demonstrate greenhouse gas reduction potential,
- Develop plans for the successful deployment of EVSE infrastructure into the local electric grid, including mitigation for on-peak charging and integration with local renewable energy resources,
- Streamline EVSE permitting and installation processes throughout the region,
- Promote early adoption of PEVs in fleets and promote these successful demonstrations through coordinated education and outreach efforts,
- Develop an education and outreach plan that creates awareness throughout the region about PEVs and the benefits they offer, highlights local PEV success stories, and publicizes local efforts that support PEV adoption, and
- Collaborate with other communities to share lessons learned and publicize the Upstate Region’s successful PEV promotion efforts as a potential model for other rural communities.

**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 Recipient shall:**

- Attend a “Kick-Off” meeting with the Commission Project Manager, the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the Commission Project Manager to this meeting. The administrative and technical aspects of this Agreement will be discussed at the meeting. Prior to the kick-off meeting, the Commission Project Manager will provide an agenda to all potential meeting participants.

The administrative portion of the meeting shall include, but not be limited to, the following:

- Discussion of the terms and conditions of the Agreement
- Discussion of Critical Project Review (Task 1.2)
- Match fund documentation (Task 1.6) No work may be done until this documentation is in place.
- Permit documentation (Task 1.7)
- Discussion of subcontracts needed to carry out project (Task 1.8)

The technical portion of the meeting shall include, but not be limited to, the following:

- The Commission Project Manager's expectations for accomplishing tasks described in the Scope of Work
- An updated Schedule of Products
- Discussion of Progress Reports (Task 1.4)
- Discussion of Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Discussion of the Final Report (Task 1.5)

The Commission Project Manager shall designate the date and location of this meeting.

**Recipient Products:**

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

**Commission Project Manager Product:**

- Kick-Off Meeting Agenda

**Task 1.2 Critical Project Review (CPR) Meetings**

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.

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. The Commission Project Manager may schedule CPRs as necessary, and CPR costs will be borne by the Recipient.

Participants include the Commission Project Manager and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) team lead, other Energy Commission staff and Management as well as other individuals selected by the Commission Project Manager to provide support to the Energy Commission.

**The Commission Project Manager 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. One of the outcomes of this meeting will be 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 Commission Project Manager concludes that satisfactory progress is not being made, this conclusion will be referred to the Transportation Committee for its 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 Commission Project Manager 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.

**Commission Project Manager 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 Project 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 Project 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 Project Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Project 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 research 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 that 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 Project 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.

**Product:**

- Monthly Progress Reports

**Task 1.5 Final Report**

The goal of the Final Report is to assess the project’s success in achieving its 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.
- Prepare a Final Report following the approved outline and the latest version of the Final Report guidelines that will be provided by the Commission Project Manager. The Commission Project Manager 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:**

- Draft Outline of the Final Report
- Final Outline of the Final Report
- 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 should 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 seeks reimbursement.

**Comment [k1]:** Jared, Please consult with staff over the use of the term Should vs Shall.

**Comment [JC2]:** "Should" will be sufficient for use.

**The Recipient shall:**

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Project 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 Project Manager if during the course of the Agreement additional match funds are received.

- Notify the Commission Project 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.

**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 Project 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 Project Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Project Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Project 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)

**Task 1.8 Obtain and Execute Subcontracts**

The goal of this task is for Recipients to identify any subcontracts required to carry out the tasks under this Agreement and to procure them consistent with the terms and conditions of this Agreement 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, that the budgeted expenditures are reasonable and consistent with applicable cost principles.

**The Recipient shall:**

- Prepare a letter documenting the subcontracts required to conduct this Agreement, and submit it to the Commission Project Manager at least 2 working days prior to the kick-off meeting. If there are no subcontracts required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that subcontracts will be required during the course of the Agreement, provide in the letter:
  - A list of the subcontracts that describes the anticipated maximum budget and general scope of work for each,
  - A description of the procurement process to be used, and
  - The schedule the Recipient will follow in applying for and obtaining these subcontracts.
- Submit a draft of the subcontract that will include a budget with the information required in the budget details to the Commission Project Manager for review and approval, and incorporate any changes recommended by the Commission Project Manager.
- Submit a final copy of the executed subcontract.

**Products:**

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

**TECHNICAL TASKS**

**TASK 2 COORDINATION AND DEVELOPMENT OF PEVCC**

The goal of this task is to maintain clear and consistent communication amongst all local stakeholders throughout the project and to establish a framework for future collaboration for ongoing regional PEV efforts following project completion.

**The Recipient shall:**

- Organize a project kickoff meeting of the PEVCC to review and refine mission statement, charter, defined goals, and defined domains of activities for coalition members (as previously established in initial meeting prior to execution of the grant agreement).
- Establish PEVCC workgroups to provide ongoing support and input on specific project tasks and activities.
- Recruit additional local government, non-profit, and businesses stakeholders to the PEVCC.

- Organize at least four bi-annual coordination meetings over the two-year term of the project.
- Provide bi-monthly project updates via email to all PEVCC members.
- Participate in groups that support electric vehicle deployment (such as the California Plug-in Electric Vehicle Collaborative) to take advantage of their network of technical advisors and get access to information on best practices and lessons-learned.
- Develop a funding and sustainability plan to maintain the PEVCC after grant period is completed.

**Products:**

- PEVCC Initial Documents: Finalized versions of PEVCC mission statement, charter, goals, and domains of activities for coalition members. List of PEVCC members and PEVCC workgroup members
- Minutes from all PEVCC meetings
- Copies of bi-monthly PEVCC updates
- Funding and sustainability plan for PEVCC

**TASK 3 INFRASTRUCTURE DEPLOYMENT PLAN**

**Task 3.1 Data Development**

The goal of this task is to develop region-specific planning data, including the use of previous studies, employer/workplace engagement, transportation studies, and estimates of PEV deployment, to support infrastructure deployment.

**The Recipient shall:**

- Procure transportation demand data as well as GIS road network and relevant US Census data for the Upstate Region.
- Research PEV adoption projections including the split between EV and PHEV vehicle types
- Obtain cost data for Level 1, 2, and 3 charging technologies.
- Obtain electrical grid capacity data including available capacity at key substations and 12 kVA distribution lines.
- Obtain engineer’s opinions of probable costs for charging station installation and utility service upgrades to accommodate PEV charging infrastructure.

**Products:**

- Summary of Infrastructure Cost Data

**Comment [JC3]:** Added Summary product for this task.

**Task 3.2 Develop Regional Guidelines for EVSE Deployment**

The goal of this task is to develop macro-level guidelines regarding the location and type (Level 1, 2 or 3) of PEV infrastructure deployment in the Upstate Region including the I-5 corridor and commercial and public areas.

**The Recipient shall:**

- Based on PEV penetration estimates developed for other studies (Electric Power Research Institute/Natural Resources Defense Council 2007; Electric Transportation Engineering Corporation 2010) and input from potential near-term PEV fleet vehicle operators, develop a set of projected PEV adoption scenarios for use in subsequent analyses.

- Develop an agent-based PEV transportation model for the Upstate Region.
- Apply the transportation model to identify infrastructure configurations that enable connectivity along the I-5 and between regional population centers (Redding, Chico, etc.). Use optimization to explore how support for PEV adoption can be maximized under cost constraints.
- Develop timeline recommendations on infrastructure development for the various adoption scenarios.
- Document the development recommendations and modeling methodology in an Upstate PEV development guidelines technical memorandum.

**Products:**

- Upstate PEV Development Guidelines Technical Memorandum, including: 1) a map showing proposed EVSE infrastructure locations, 2) proposed quantities for installation, and 3) a timeline for deployment beginning in 2014.

**Task 3.3 Identify Preferred EVSE Deployment Locations**

The goal of this task is to translate the macro-level guidelines from Task 3.2 into more specific preferred locations for deploying EVSE. This will include recommendations on location quantity of EVSE, as well as installation cost estimates. Locations will include the West Coast Green Highway corridor, public access on public property, commercial property, and workplaces.

**The Recipient shall:**

- Use the results from task 3.2 to conduct on-the-ground surveys and consultations with local jurisdictions and utilities to identify the best locations to furnish with EVSE.
- Based on the results of the on-the-ground surveys and consultations, prepare a map showing the locations and type of EVSE to be deployed.
- Prepare engineer's cost estimates for installation of EVSE.

**Products:**

- EVSE Roll-Out Technical Memorandum - Documentation of proposed near-term EVSE rollout, with maps showing specific locations of EVSE for each node and engineer's cost estimates for installation of EVSE.

**TASK 4: PLAN TO COLLECT DATA ON CONSUMER CHARGING BEHAVIOR**

The goal of this task is to develop a plan to collect data on consumer charging behavior.

**The Recipient shall:**

- Conduct an analysis of the available technology and the effectiveness of that technology to capture driver charging behavior.
- Determine the level of acceptance that a particular method of data acquisition will garner.
- Make recommendations to the various municipalities regarding the need for, value, and availability of various levels of data acquisition technology.
- Develop a rollout plan for integrating data acquisition with the planned charging stations.

**Products:**

- Consumer Charging Behavior Data Plan. This Technical Memorandum will include an assessment of available data acquisition technology, consumer acceptance of the technology, and value of the collected data, as well as a data acquisition rollout plan.

#### **TASK 5: ESTIMATE GREENHOUSE GAS REDUCTIONS FROM PEV ADOPTION**

The goal of this task is to estimate greenhouse gas emissions reductions from PEVs in the Upstate Region.

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

- Generate a baseline analysis of transportation energy consumption and emissions generation (GHG, criteria pollutants and toxic air emissions) for the existing and expected vehicle fleet for the proposed study region.
- Generate a fuel cycle analysis of the PEV vehicles (pump to wheels) that are expected to replace the existing conventional vehicles.
- Generate a fuel cycle analysis for the electricity sold in the Upstate Region of California.
- Generate a fuel cycle analysis of the potential regional grid mix given the expected grid mix for various levels of renewable energy development.

##### **Products:**

- Greenhouse Gas Reductions Technical Memorandum - Estimate of greenhouse gas reductions associated with PEV adoption.

#### **TASK 6: PLAN TO MITIGATE “ON-PEAK” PEV CHARGING**

The goal of this task is to examine the likely impact of PEV charging on the local grid and to identify measures for reducing ‘on peak’ utility loading due to PEV charging.

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

- Assess the peak demand due to PEV charging associated with various PEV penetrations and charging scenarios.
- Assess the impact to the local grid and the need for mitigation.
- Identify methods for mitigating and/or deterring on peak charging, including pricing options and use of renewable energy.

##### **Products:**

- On-Peak Charging Technical Memorandum - Assessment of impact of PEV charging on the local grid, the need for mitigation, and mitigation options.

#### **TASK 7: PLAN FOR STREAMLINING OF EVSE PERMITTING, INSTALLATION, AND INSPECTION**

The goal of this task is to develop a plan for PEV-friendly buildings and public works, including pre-installation checklists and post-commitment streamlining of EVSE permitting, installation, and inspection processes.

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

- Develop a summary of existing permitting pathways for PEV charging infrastructure for select jurisdictions
- Develop a summary of PEV friendly ordinances, codes, and standards completed by jurisdictions outside of the Upstate Region
- Notify appropriate staff at participating jurisdictions that mock permit application for PEV charger installations will be submitted under the project.
- Submit mock permit applications for PEV charger installations (residential single- and multi-family dwellings, and commercial) in each of the jurisdictions participating with the project.

- Track permit application preparation time, permit fees, review time, permit restrictions for each mock permit application.
- Summarize permitting process for each participating jurisdiction and develop a comparison matrix.
- Develop and deliver an “EV101” educational workshop for local code and permitting officials. Cover EVSE functions, options, codes and standards, inspection and compliance, and installation process. Discuss permitting process and help officials understand the importance of assisting the public in adopting new EV technologies. Identify ways to homogenize and streamline the permitting process for PEV charging infrastructure across the Upstate Region.
- Develop and distribute an EVSE permitting and installation guide that includes appropriate and legal streamlined permitting and installation processes that best fit the region and a permitting and pre-installation checklist for purchasers of EVSE.

**Products:**

- Upstate EVSE Permitting and Installation Guide
- “EV101” Workshop Materials - Presentation for local code and permitting officials and list of workshop participants

**TASK 8: PLAN TO ACCELERATE PEV ADOPTION IN FLEETS AND OTHER INCENTIVES**

The goal of this task is to develop a plan to accelerate PEV adoption in public and private fleets.

**The Recipient shall:**

- Develop a list of public and private entities in the region with vehicle fleets.
- Conduct outreach to fleet managers and agency decision makers to solicit participation in fleet PEV-opportunity evaluations.
- Work with fleet managers to assess PEV opportunities within their fleets, taking into consideration including: vehicle types, duty cycles, procurement schedules, and life-cycle operational costs.
- Work with vehicle and EVSE manufactures and vendors to provide fleet managers with detailed information on the range of equipment options available to meet specific fleet needs.
- Work with fleet managers to develop individualized strategies to acquire PEVs and install supporting EVSE.
- Facilitate information exchange and collaboration of fleet managers through the PEVCC and PEVCC fleet-management workgroup.
- Develop set of potential incentives that can be employed by municipalities, utilities and others to promote the use of PEVs (price differentials, preferred parking, free charging, etc.).
- Develop a plan to integrate PEV readiness and promotion policies into sustainable community strategies, such as climate action planning.
- Develop a plan to attract and/or develop jobs and economic opportunities related to PEV infrastructure and services.

**Products:**

- Fleet Vehicle Memorandum #1 - List of identified regional public and private vehicle fleets.
- Fleet Vehicle Memorandum #2 - Summary of fleet-manager outreach activities, fleet PEV opportunity assessments, and adopted fleet PEV-acquisition plans.
- PEV Incentives Memorandum - Municipal incentives, integration into sustainable community plans and economic development plans.

**TASK 9: PEV EDUCATION AND OUTREACH PLAN**

The goal of this task is to develop PEV education and outreach plans to promote the benefits of PEV adoption.

**The Recipient shall:**

- Research what other communities have done regarding EV education and outreach.
- Compile existing education and outreach resources (from local and state governments, utilities, car companies, EV charger companies, Electric Power Research Institute, Rocky Mountain Institute's Project Get Ready, U.S. Department of Energy, California Plug-in Electric Vehicle Collaborative, CalCars, non-profit organizations, etc.).
- Develop a PEV education and outreach plan that addresses the following sectors: general public, local government, emergency first responders, and potential fleet vehicle operators.
- Develop education and outreach materials and tools, which will include web-based materials and a promotional brochure.
- Compile materials on electric vehicle and EV charging infrastructure safety, codes, standards and emergency response.
- Identify and begin to foster partnerships and collaborations for promoting EVs and EV Infrastructure. Partnering organizations may include: Pacific Power, Pacific Gas & Electric, Redding Electric Utility, local cities and counties, local auto dealerships, Siskiyou County Economic Development Council, Air Resources Board, and Caltrans. This effort will be coordinated via the PVECC.
- Publicize the activities of the EV readiness project and associated local successes, including adoption of new EV fleet vehicles and installation of new EV charging infrastructure.

**Products:**

- Education and Outreach plan - Addresses the general public, local government, emergency first responders, and potential fleet vehicle operators.
- PEV Website Information
- PEV Promotional brochure
- Outreach Presentation

**TASK 10: PLAN TO SHARE PROJECT RESULTS WITH OTHER COMMUNITIES**

The goal of this task is to share best practices with other regions for PEV infrastructure permitting, installation, deployment, maintenance, and inspection.

**The Recipient shall:**

- Make project results, reports, and promotional materials available via the web.
- Participate in group forums and share project results. Group forums may include: Rocky Mountain Institute's Project Get Ready and the California Plug-in Electric Vehicle Collaborative.
- Interact with other communities who are promoting EVs and EV infrastructure development and share results and lessons learned.

**Products:**

- List of Group Forums Participated

**Task 11: PLAN TO PROVIDE AN UPSTATE REGION PEV READINESS PLAN**

The goal of this plan is to provide a plan designed for review and adoption by the regional jurisdictions involved in the process. This plan differs from the final report required under the terms of this solicitation.

**The Recipient shall:**

- Work with the project team to develop an Upstate Region PEV Readiness Plan.

**Products:**

- Upstate Region PEV Readiness Plan
- Conference Presentation