

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 02/13)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-xx-xxx (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Aida Escala	27	916-654-4726

Recipient's Legal Name	Federal ID Number
Electric Power Research Institute	23-7175375

Title of Project
Santa Clara Electric Vehicle Charging Center

Term and Amount	Start Date	End Date	Amount
	7 / 9 / 2014	6 / 30 / 2018	\$ 469,012

**Business Meeting Information**
 ARFVTP agreements under \$75K delegated to Executive Director.

Proposed Business Meeting Date	7 / 9 / 2014	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Lindsee Tanimoto	Time Needed:	5 minutes

Please select one list serve. Altfuels (AB118- ARFVTP)**Agenda Item Subject and Description**

Proposed resolution approving Agreement ARV-xx-xxx with Electric Power Research Institute for a \$469,012 grant to install plug-in electric vehicle (PEV) chargers at a multilevel parking garage located in the City of Santa Clara that will provide easy access to PEV charging at a high-profile destination site in the Bay Area.

**California Environmental Quality Act (CEQA) Compliance**

1. Is Agreement considered a "Project" under CEQA?  
 Yes (skip to question 2)  No (complete the following (PRC 21065 and 14 CCR 15378)):  
 Explain why Agreement is not considered a "Project":  
 Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because .
2. If Agreement is considered a "Project" under CEQA:  
 a) Agreement **IS** exempt. (Attach draft NOE)  
 Statutory Exemption. List PRC and/or CCR section number:  
 Categorical Exemption. List CCR 14 CCR: Sections 15301, 15303, and 15304 section number:  
 Common Sense Exemption. 14 CCR 15061 (b) (3)  
 Explain reason why Agreement is exempt under the above section:  
 The project consists of minor alteration of existing facilities and/or mechanical equipment involving negligible or no expansion of use beyond that existing; including replacement or reconstruction of existing utility systems and/or facilities involving negligible or no expansion of capacity and/or minor alterations to land, including minor trenching and backfilling where surface is restored. All power will be provided from the existing electrical panel and the work includes installations of conduit, wiring, electrical connections and mounting equipment. Minor trenching may be required to bring power from local sources to proposed charging stations.
- 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

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

Legal Company Name:	Budget
Silicon Valley Power	\$ 39,096
MJR Electric	\$ 203,570
ChargePoint	\$ 140,681

**List all key partners: (attach additional sheets as necessary)**

Legal Company Name:

**GRANT REQUEST FORM (GRF)**

Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTF	2013-14	601.118F	\$469,012
Funding Source			\$
R&D Program Area:	Select Program Area	TOTAL:	\$ 0
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer				Recipient's Project Manager			
Name:	David T. Morrison			Name:	John Halliwell		
Address:	942 Corridor Park Blvd.			Address:	942 Corridor Park Blvd.		
City, State, Zip:	Knoxville, TN 37932			City, State, Zip:	Knoxville, TN 37932		
Phone:	865-218-8104	Fax:	865-218-8001	Phone:	865-218-8149	Fax:	865-218-8001
E-Mail:	dmorriso@epri.com			E-Mail:	jhalliwell@epri.com		

Selection Process Used	
<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: PON-13-606
<input type="checkbox"/> First Come First Served Solicitation	

The following items should be attached to this GRF	
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

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 Agreement Manager

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 Date

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 Office Manager

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 Date

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 Deputy Director

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 Date

**Exhibit A  
SCOPE OF WORK**

**TECHNICAL TASK LIST**

<b>Task #</b>	<b>CPR Meeting</b>	<b>Task Name</b>
1		Administration
2	X	Install and Commission Charging Stations
3		Develop Site Power Management Capability
4		Data Collection and Analysis

**KEY NAME LIST**

<b>Task #</b>	<b>Key Personnel</b>	<b>Key Subcontractor(s)</b>	<b>Key Partner(s)</b>
1	John Halliwell – EPRI Jan Pepper - SVP	Silicon Valley Power	
2	John Halliwell – EPRI Morgan Davis – EPRI Jan Pepper – SVP Richard Lowenthal - ChargePoint Michael Rauschnot - MJR	Silicon Valley Power ChargePoint MJR Electric	
3	Morgan Davis – EPRI Richard Lowenthal - ChargePoint	ChargePoint	
4	John Halliwell – EPRI Morgan Davis - EPRI Jan Pepper - SVP Richard Lowenthal - ChargePoint	Silicon Valley Power ChargePoint	

## GLOSSARY

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

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Vehicle and Technology Program
CAM	Commission Agreement Manager
CPR	Critical Project Review
Energy Commission	California Energy Commission
EV	Electric Vehicle
FTD	Fuels and Transportation Division
PEV	Plug-in Electric Vehicle
Recipient	Electric Power Research Institute

## 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 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 Energy Commission issued solicitation PON-13-606 to fund electric vehicle charging infrastructure in several categories that will support growth of electric vehicles as a conventional method of transportation and adoption of plug-in electric vehicles (PEV) over a wide range of California's population and socio-economic classes. To be eligible for funding under PON-13-606, the projects must also be consistent with the Energy Commission's ARFVT Investment Plan updated annually. In response to PON-13-606, the Electric Power Research Institute (Recipient) submitted application number 42, which was proposed for funding in the Energy Commission's Notice of Proposed Awards on April 4, 2014, and PON-13-606 is 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 the Energy Commission's Award, the Energy Commission's Award shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

### **Problem Statement**

The electric service capacity to electric vehicle (EV) chargers places constraints on the installation's size and power capacity. Plug-in electric vehicles (PEVs) are an important alternative mode of transportation that will help reduce greenhouse gas emissions. There are insufficient numbers of EV chargers to support the widespread adoption of PEVs.

### **Goals of the Agreement**

The goal of this Agreement is to:

- Complete installation of EV chargers.
- Operate and manage the charge station network using the Open Standard Protocol.
- Develop and evaluate peak power demand management across the charge station installation including power sharing between networked stations.
- Engage with stakeholders in proximity of the charging station facility to facilitate and enhance consumer awareness and utilization of the charging stations.
- Understand utilization of the system and the impact of stakeholder engagement.
- Reduce California's use and dependence on petroleum transportation fuels and increase the use of alternative and renewable fuels and advanced vehicle technologies.

### **Objectives of the Agreement**

The objectives of this Agreement are to:

- Commission and operate EV chargers.
- Demonstrate networked operation of the charging stations using the Open Standard Protocol and document short comings and challenges in doing so.
- Demonstrate the ability to manage peak power consumption of the charging station installation via the managing network and document how this could be used to lower cost of future installations.
- Document successes and failures of outreach activities, document lessons learned and system utilization statistics in monthly reports and a final report to the Energy Commission.
- Attempt to correlate utilization data with stakeholder engagement activities.
- Through collection of utilization data, document reduction of petroleum fuel use.

## **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 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 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's Products:**

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

**CAM's Product:**

- Kick-Off Meeting Agenda

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

**A CPR is planned at the completion of Task 2.4 and others may be scheduled as needed.**

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 Grants Officer, the Fuels and Transportation Division (FTD) electric 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 and submit 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 and submit 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's Products:**

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

**Recipient's 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 CAM. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the CAM.

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

The administrative portion of the meeting shall be a discussion with the CAM 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 and submit a schedule for completing the closeout activities for this Agreement.

**Recipient's 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 and submit 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.

**Recipient's 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 and submit an Outline of the Final Report, if requested by the CAM.
- Prepare and submit 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.

**Recipient's 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 and submit 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, and 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 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.

**Recipient's 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 and submit a letter documenting the permits required to conduct this Agreement and submit it to the CAM at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
  - A list of the permits that identifies the:
    - Type of permit
    - Name, address and telephone number of the permitting jurisdictions or lead agencies
  - The schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.

- If during the course of the Agreement additional permits become necessary, provide the 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 CAM within 5 working days. Either of these events may trigger an additional CPR.

**Recipient's 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 CAM for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

**Recipient's Products:**

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

## **TECHNICAL TASKS**

### **TASK 2 INSTALL AND COMMISSION CHARGING STATIONS**

The goal of this task is to install and commission EV chargers including associated electrical infrastructure and a new electric service to support the power needs of the charging stations. The potential site for the chargers, identified as of the commencement date of this grant agreement, is at 2525 Tasman Drive, Santa Clara, 95054.

**Site changes.** Any change of the above-identified charging station site to a new or different proposed site must be effectuated through an agreement amendment.

#### **Task 2.1 Install Charge Stations**

The goal of this task is to generate required engineering drawings for the site installation, purchase charge station hardware, and complete installation of chargers.

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

- Purchase charge station hardware.
- Install new electrical service and dual cable charge stations.
- Successfully pass installation electrical inspection.

##### **Recipient's Product:**

- Photos of installed dual cable charge stations

#### **Task 2.2 Network Service Procurement, System Activation and Commissioning**

The goal of this task is to complete procurement of network service and to fully commission the charge station system including remote control and data collection.

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

- Commission charge station system.
- Verify that the charge station system is fully operational, including remote control and data collection.

##### **Recipient's Products:**

- Written documentation that all dual cable charge stations are fully functional

**[A CPR is planned at the completion of this Task. See Task 1.2]**

#### **Task 2.3 Community Interaction and Utilization Optimization**

The goal of this task is to maximize utilization of the charging stations through community interaction, communication, and garage operations.

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

- Test methods to maximize utilization of EV charging stations, including valet service, pricing options, and technology advancements.
- Engage, establish and facilitate regular meetings of Santa Clara EV Charging Center Stakeholders, e.g. City of Santa Clara, Silicon Valley Power, convention center, Santa Clara Valley Transportation Authority, stadium, hotels, and key local employers/businesses. It is anticipated these meetings would be convened monthly for the 3-4 month period prior to commissioning, a 3-4 month period post-commissioning and then quarterly over the term of the project.
- Identify key communication mechanisms to promote PEV adoption and advance public education, and development of shared communications to maximize utilization – for use by stakeholders in engaging their respective audiences – including content pieces, links, and signage.
- Prepare a report which shall include, but is not limited to, the following:
  - Meeting minutes.
  - List of activities performed.
  - Description of the results to maximize charger utilization and to what degree the goal was achieved.
  - Significant issues encountered and how they were addressed.
  - Discussion of the implications regarding the success or failure of the results, and the effect on the budget and the overall objectives of the project.
  - Photographs as appropriate.

**Recipient's Product:**

- Report for Task 2.3

**TASK 3 DEVELOP SITE POWER MANAGEMENT CAPABILITY**

The goal of this task is to develop charge station site level automated power management capability and to verify function of power management at the site.

**The Recipient shall:**

- Develop site level automatic power management control capability via Open Standard Protocol.
- Develop a test plan to vet operation of the automated power control and management capability.
- Demonstrate actual site power management on an automated, remote control basis.
- Demonstrate ability to manage site power with the photovoltaic system output.

- Prepare a test report on power management evaluation. The test report shall include, but is not limited to, the following:
  - Test results.
  - Analysis.
  - Conclusions.
  - Recommendations.
  - Photographs as appropriate.

**Recipient's Products:**

- Copy of test plan
- Test report

**Task 4 DATA COLLECTION AND ANALYSIS**

The goal of this task is to collect operational data from the project, to analyze that data for economic and environmental benefits, and to include the data and analysis in the Final Report.

**The Recipient shall:**

- Develop data collection test plan.
- Troubleshoot any issues identified.
- Collect 6 months of throughput, usage, and operations data from the project including, but not limited to:
  - Capacity and actual use of the new charging system (including number of charging sessions and energy use in kilowatt-hours per given time period).
  - Gallons of gasoline and/or diesel fuel displaced (with associated mileage information).
  - Expected air emissions reduction, including:
    - Non-methane hydrocarbons,
    - Oxides of nitrogen,
    - Non-methane hydrocarbons plus oxides of nitrogen, and
    - Particulate matter.
- Identify any current or planned use of renewable energy at the facility.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle greenhouse gas emissions.
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.

**Product:**

- Data collection information and analysis will be included in the Final Report

## Exhibit A-1 Schedule of Products and Due Dates

<b>Task Number</b>	<b>Task Name</b>	<b>Product(s)</b>	<b>Due Date</b>
<b>1.1</b>	<b>Attend Kick-off Meeting</b>		
		Updated Schedule of Products	2 days before the kick-off meeting
		Updated List of Match Funds	2 days before the kick-off meeting
		Updated List of Permits	2 days before the kick-off meeting
		Kick-Off Meeting Agenda (CEC)	2 days before the kick-off meeting
<b>1.2</b>	<b>Critical Project Review Meetings</b>	Agenda and a list of expected participants	(Energy Commission)
		1st CPR Meeting CPR Report	10/1/2015
		Written determination (CEC)	(Energy Commission)
<b>1.3</b>	<b>Final Meeting</b>	Written documentation of meeting agreements	11/30/2017
		Schedule for completing closeout activities	11/30/2017
<b>1.4</b>	<b>Monthly Progress Reports</b>		
		Monthly Progress Reports	The 10th calendar day of each month during the approved term of this Agreement
<b>1.5</b>	<b>Final Report</b>	Final Outline of the Final Report	8/1/2017
		Draft Final Report (no less than 60 days before the end term of the agreement)	9/30/2017
		Final Report	11/1/2017
<b>1.6</b>	<b>Identify and Obtain Match Funds</b>	A letter regarding match funds or stating that no match funds are provided	8/15/2014
		Copy(ies) of each match fund commitment letter(s) (if applicable)	8/29/2014
		Letter(s) for new match funds (if applicable)	Within 10 days of identifying new match funds
		Letter that match funds were reduced (if applicable)	Within 10 days of identifying reduced funds

<b>1.7 Identify and Obtain Required Permits</b>	Letter documenting the permits or stating that no permits are required	8/29/2014
	A copy of each approved permit (if applicable)	Within 10 days of receiving each permit
	Updated list of permits as they change during the term of the Agreement (if applicable)	Within 10 days of change in list of permits
	Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)	Within 10 days of change in schedule for obtaining permits
	A copy of each approved final permit (if applicable)	Within 10 days of receiving each final permit
<b>1.8 Obtain and Execute Subcontracts</b>	Letter describing the subcontracts needed, or stating that no subcontracts are required	9/12/2014
	Draft subcontracts	15 days prior to the scheduled execution date
	Final subcontracts	Within 10 days of execution
<b>2 Install and Commission Charging Stations</b>	<b>2.1</b> Photos of installed dual cable charge stations	9/20/2015
	<b>2.2</b> Written documentation that all dual cable charge stations are fully functional	10/1/2015
	<b>2.3</b> Report for Task 2.3	7/30/2016
<b>3 Develop Site Power Management Capability</b>	Copy of test plan	3/30/2016
	Test report	9/1/2016
<b>4 Data Collection and Analysis</b>		
	Data collection information and analysis will be included in the Final Report	N/A

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: ELECTRIC POWER RESEARCH INSTITUTE

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

**RESOLVED**, that the Energy Commission approves Agreement ARV-14-004 from PON-13-606 with **Electric Power Research Institute** for a **\$469,012** grant to install plug-in electric vehicle (PEV) chargers at a multilevel parking garage located in the City of Santa Clara that will provide easy access to PEV charging at a high-profile destination site in the Bay Area; 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 July 22, 2014.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

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Harriet Kallemeyn,  
Secretariat