

Transmittal 2

Grant Agreement with the California Energy Commission

To	From
BOARD OF HARBOR COMMISSIONERS	
EXECUTIVE DIRECTOR	
DED & CHIEF OF STAFF	
DED & CHIEF FINANCIAL OFFICER	
CHIEF OF PUBLIC SAFETY & EMERG MGT	
DED - MKTG & CUSTOMER RELATIONS	
DED - DEVELOPMENT	
SR DIRECTOR, COMMUNICATIONS	
SR DIRECTOR, GOVERNMENT AFFAIRS	
ACCOUNTING	
CARGO/INDUSTRIAL REAL ESTATE	
CARGO MARKETING	
CITY ATTORNEY	XX
COMMISSION OFFICE	
COMMUNITY RELATIONS	
CONSTRUCTION	
CONSTRUCTION & MAINTENANCE	
CONTRACTS & PURCHASING	
DEBT & TREASURY MANAGEMENT	
EMERGENCY MANAGEMENT	

CITY OF LOS ANGELES
HARBOR DEPARTMENT
OFFICE MEMORANDUM

November 22, 2016

To	From
ENGINEERING	
XX ENVIRONMENTAL MANAGEMENT	
FINANCIAL MANAGEMENT	
GOODS MOVEMENT	
GRAPHICS	
HUMAN RESOURCES	
INFORMATION TECHNOLOGY	
LEGISLATIVE AFFAIRS	
MANAGEMENT AUDIT	
MEDIA RELATIONS	
PLANNING & STRATEGY	
PORT PILOTS	
PORT POLICE	
RISK MANAGEMENT	
TRADE DEVELOPMENT	
WATERFRONT/COMM REAL ESTATE	
WHARFINGERS	

SUBJECT: APPROVED AS TO FORM – GRANT AGREEMENT WITH THE CALIFORNIA ENERGY COMMISSION FOR THE ADVANCED YARD TRACTOR DEVELOPMENT AND ECO-FRATIS DRAYAGE TRUCK EFFICIENCY PROJECT

Pursuant to your request, transmitted herewith approved as to form are two (2) original executed copies of the above-referenced Agreement for further processing by your office.


HEATHER M. McCLOSKEY
Deputy City Attorney

HMM:aw
Attachments

CALIFORNIA ENERGY COMMISSION

DIVISION OF FINANCIAL SERVICES
GRANTS & LOANS
1515 NINTH STREET, MS-1
SACRAMENTO, CA 95814-5512
TEL: (916) 654-4381
www.energy.ca.gov



August 12, 2016

Christopher Cannon
Chief Sustainability Officer
City of Los Angeles, Harbor Department
425 S. Palos Verdes Street,
San Pedro, CA 90731

Re: GRANT AWARD NUMBER: ARV-15-069, *Port of Los Angeles Advanced Yard Tractor Deployment and ECO-FRATIS Drayage Truck Efficiency Project*

PROCEDURE FOR EXECUTING AGREEMENT

- Enclosed is one copy of the CEC 146, and one copy of the Grant documents. Please have **two** copies of the CEC 146 signed by the authorized person identified by your organization. Return both signed copies to me at the address below.
- This grant award agreement is not binding on either party until fully and properly executed by the authorized state officials. A copy of this agreement will be sent to you when it has been executed by the State.
- The Energy Commission agrees to keep this offer open for a period of 30 days from the date of this letter. Failure to execute this agreement within this 30 day period may result in forfeiture of the award.

FUND AVAILABILITY

Funds in this award have a limited period in which they must be expended. All recipient expenditures must occur prior to the end of the term of this agreement.

EFFECTIVE DATE

Effective date of this Agreement is either the start date or the approval date by the California Energy Commission, whichever is later. The California Energy Commission shall be the last party to sign. No work is authorized, nor shall any work begin, until on or after the effective date.

PROJECT ASSISTANCE

There are two offices at the Commission with staff to assist you with your grant award. Contact me at (916) 654-4921 or janna.franks@energy.ca.gov for administrative questions and the Commission Project Manager listed in Exhibit D for technical questions.

Sincerely,

Janna Franks
Commission Agreement Officer
California Energy Commission
1516 Ninth Street, MS-18
Sacramento, CA 95814

Enclosures cc: Larry Rillera, Commission Agreement Manager, MS-27; File



RECIPIENT City of Los Angeles Harbor Department	AGREEMENT NUMBER ARV-15-069
ADDRESS 425 S. Palos Verdes Street San Pedro, CA 90731	AGREEMENT TERM 6/30/2016 to 4/30/2021 The effective date of this Agreement is either the start date or the approval date by the California Energy Commission, whichever is later. The California Energy Commission shall be the last party to sign. No work is authorized, nor shall any work begin, until on or after the effective date.

PROJECT DESCRIPTION
 The parties agree to comply with the terms and conditions of the following Exhibits which are by this reference made a part of the agreement.

Exhibit A – Scope of Work	Page(s): 16
Exhibit A – Attachments	Page(s): 2
Exhibit B – Budget	Page(s): 48
Exhibit B – Attachments	Page(s): 0
Exhibit C – General Terms and Conditions	Page(s): 25
Exhibit C – Attachments	Page(s): 0
Exhibit D - Contacts	Page(s): 1

REIMBURSABLE AMOUNT
\$ 5,833,000
MATCH SHARE
\$ 2,856,547
TOTAL
\$ 8,689,547

The undersigned parties have read the attachments to this agreement and will comply with the standards and requirements contained therein.

CALIFORNIA ENERGY COMMISSION		RECIPIENT	
AUTHORIZED SIGNATURE	DATE	AUTHORIZED SIGNATURE	DATE
NAME Rachel L. Grant Kiley		NAME	
TITLE Contracts, Grants and Loans Office Manager		TITLE	
CALIFORNIA ENERGY COMMISSION ADDRESS 1516 9th Street, MS 1, Sacramento, CA 95814			

APPROVED AS TO FORM AND LEGALITY
November 22 2016
MICHAEL N. FEUER, City Attorney
 By *[Signature]*
 Deputy City Attorney

**Exhibit A
SCOPE OF WORK**

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Design, Build, and Commission Yard Tractors
3		Plan, Design, Integrate, and Commission Intelligent Transportation Systems
4	X	Demonstration, Data Collection, and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Carter Atkins, Kerry Cartwright		
2	Carter Atkins	Steven Ramo (Capacity Trucks), Mike Zupanovich (Harbor Diesel Equipment), Andy Swanton (BYD Motors), Geoffrey Romano (Everport Terminals), Andres Carlos (Clean Energy)	
3	Kerry Cartwright,	Mansooreh Mollaghasemi (Productivity Apex, Inc.), Kanok Boriboonsomsin (UCR), Sal Manzo (Infomagnus), Bryan Pennington (METRO)	
4	Carter Atkins, Kerry Cartwright	Geoffrey Romano (Everport)	Harbor Trucking Association

GLOSSARY

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

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
BOM	Bill of Materials
CAM	Commission Agreement Manager
CPR	Critical Project Review
DAC	Disadvantaged Communities
FRATIS	Freight Advanced Traveler Information System
FTD	Fuels and Transportation Division
GHG	Greenhouse Gas
ITS	Intelligent Transportation Systems and Technologies
MHD	Medium- and Heavy-Duty Vehicle
NG	Natural Gas
POLA/POLB	Port of Los Angeles and Port of Long Beach
Recipient	City of Los Angeles Harbor Department

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, clean air, and alternative energy policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the ARFVTP through January 1, 2024. 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.

The Energy Commission issued Solicitation GFO-15-604 entitled "Freight Transportation Projects at California Seaports" under the ARFVTP on January 6, 2016. This competitive grant solicitation was an offer to cost share the development of medium-and heavy-duty (MHD) advanced vehicle technology demonstrations, intelligent transportation system (ITS) demonstrations, and natural gas vehicle (NGV) deployments. To be eligible for funding under GFO-15-604, the projects must also be consistent with the Energy Commission's ARFVTP Investment Plan as updated annually. In response to GFO-15-604, the Recipient submitted Application #03 which was proposed for funding in the Energy Commission's Notice of Proposed Awards on May 19, 2016. GFO-15-604 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 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 Port of Los Angeles (POLA) experiences high greenhouse gas (GHG) and criteria pollutant emissions from on- and off-road vehicles that operate in and around the port. In addition to the use of conventional diesel-fueled internal combustion engines in MHD vehicles and equipment that move goods, the increasing volume of goods moving through the Port, the emergence of larger ships, and the evolving supply chain management practices of end-customers have increased the demands and pressure placed on the port complex. Congestion has a significant negative impact on the local and the broader economy, as it leads to lost revenue for the companies importing or exporting goods and increased shipping costs to offset the inefficiencies. Local communities suffer as commuter traffic conditions are negatively impacted by freight congestion, air quality is degraded by emissions from idling vehicles, or those equipped with conventional propulsion systems, and safety is compromised by increasingly congested roads.

Goals of the Agreement

The goals of this agreement are to enhance market acceptance of advanced vehicle and information technology in yard tractor and drayage truck applications that will reduce greenhouse gas emissions, reduce petroleum use, improve energy cost savings, and benefit disadvantaged communities (DAC).

Objectives of the Agreement

The objectives of this agreement are to:

- Design and build a minimum of 25 vehicles for field demonstration, to verify the performance, and to collect performance data.
- Design, build, and deploy integrated intelligent transportation systems and technologies (ITS) for field demonstration, to increase truck driver productivity, and to collect performance data.
- Displace petroleum fuel, reduce GHG emissions, and support jobs in the port area and in disadvantaged 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 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 DESIGN, BUILD, AND COMMISSION YARD TRACTORS**

The goal of this task is to plan, design, build and commission a minimum of 20 yard tractors with low-NOx emission engines and a minimum of 5 yard tractors with battery-electric propulsion technologies.

The Recipient shall:

- Review vehicle build specifications and functional requirements.
- Finalize Bill of Materials (BOMs) and order components for each vehicle.
- Design, fabricate, and build vehicle, components, systems, and subsystems.
- Provide skid mounted mobile NG tanks to refuel vehicles.
- Conduct tests, certifications, quality checks, and validations for vehicle, components, systems, subsystems, and safety elements.
- Conduct drivability testing, visual quality assurance, final road test, and pre-delivery test.
- Obtain sign-off authorization to release truck, commission the demonstration vehicles, and deliver vehicles to the demonstrator.
- Prepare and submit a Truck Summary Report with Photographs that contains, at a minimum, the information listed above for each demonstration vehicle.

Products:

- Truck Summary Report with Photographs

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 3 PLAN, DESIGN, INTEGRATE, AND COMMISSION ITS

The goals of this task are to plan, design, integrate, and commission the Freight Advanced Traveler Information System (FRATIS), ECO-Drive, and GEOSTAMP suite of ITS applications.

The Recipient shall:

- Identify, plan, map processes and protocols, and secure participants for demonstration, provide a list of participants, and identify the number of trucks participating by company.
- Customize and integrate the FRATIS application. The Recipient shall also design and integrate FRATIS back-office application, subsystems, software, hardware, communication technologies, and infrastructure.
- Test and validate the FRATIS application.
- Identify and list each demonstration site and list of equipment upgrades needed at each site.
- Upgrade traffic signal controllers at the demonstration sites and create a place for receiving, storing, and disseminating traffic signal phase and timing information.
- Design, develop, test, validate, and integrate the ECO-Drive application and GEOSTAMP engine.
- Provide a technical memorandum on:
 - Traffic signal controller upgrade, traffic signal phase and timing information.
 - ECO-Drive algorithms, application design, software architecture, testing of the Eco-Drive mobile application, and test results.
 - GEOSTAMP information on integration solution, integration platform for applications, security system to process request, and turn time data.
- Procure 70 Android tablets, cellular service, and truck navigation with traffic service for truck deployment and install the driver mobile application and all the other supporting applications.
- Prepare and submit ITS Test Plan.
- Prepare and submit ITS Summary Report with Photographs that contains, at a minimum, the information listed above.

Products:

- ITS Test Plan
- ITS Summary Report with Photographs

TASK 4 DEMONSTRATION, DATA COLLECTION, AND ANALYSIS

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

The Recipient shall:

- Develop a data collection test plan that outlines the frequency and project specific metrics to be collected. The test plan shall be reviewed by the CAM and comments provided prior to vehicle demonstration.
- Provide training and support to demonstrators, maintenance and operations staff, data collectors, and key project participants.
- Demonstrate project vehicles.
- Develop data collection test plan including baseline pre-deployment and post-deployment data.
- Provide data for baseline vehicles for each power train/fuel type that will be demonstrated. The Recipient shall include, at a minimum, the following data:
 - Vehicle type, class (e.g. 3-8), powertrain type, and fuel type.
 - Typical duty cycle, vehicle mile traveled (VMT), hours of operation.
 - Maximum capacity of on-vehicle fuel/energy storage system, rated power of the powertrain.
 - Frequency of refueling/recharging events.
 - Fuel economy and fuel/energy usage.
 - Emissions, including but not limited to:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
 - Total carbon dioxide equivalent emission
- Collect 12 months of throughput, usage, and operations data from the project including, but not limited to:
 - Vehicle type, class (e.g. 3-8), powertrain type, fuel type
 - Typical duty cycle, VMT, hour of operation
 - Maximum capacity of natural gas fuel tank/battery pack, rated power low NOx engine/electric motor

- Fuel consumption, fuel/energy usage (average data throughout demonstration period)
- Utilization of electric vehicle charging system and the natural gas fueling, including but not limited to frequency of refueling/recharging events
- Provide a quantified step-by-step calculation of petroleum usage reduction and GHG emission reduction
- Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
 - Total carbon dioxide equivalent emission
- Specific jobs and economic development resulting from this project
- Identify any current and planned use of renewable energy at the facility.
- Identify the source of the electric power and NG in refueling.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code of Regulations.
- 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 GHG emissions.
- Provide quantified cost difference between the demonstration vehicles and baseline vehicles, and quantified step-by-step calculation of the payback period.
- Provide quantified step-by-step calculations of the benefit/costs compared to the original proposal.
- For ITS demonstration, collect 12 months of throughput, usage, and operations data from the project including, but not limited to:
 - Operation log, including but not limited to:
 - Total execution time per truck
 - Total waiting time per truck
 - Turn time per truck
 - Total vehicle utilization time

- Total vehicle utilization time reduction.
- Operational cost improvement
- Total miles reduction, unproductive miles reduction
- Fuel consumption reduction
- Emission reduction
- 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.

Products:

- Data collection information and analysis will be included in the Final Report (See Task 1.5)

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

Exhibit A-1

Schedule of Products and Due Dates

Task Number	Task Name	Product(s)	Due Date
1.1	Attend Kick-off Meeting	Updated Schedule of Products	1/6/2017
		Updated List of Match Funds	1/6/2017
		Updated List of Permits	1/6/2017
		Kick-Off Meeting Agenda (CEC)	1/6/2017
1.2	Critical Project Review Meetings	Agenda and List of Expected Participants	7/11/2017
		1st CPR Schedule for Written Determination	7/11/2017
		Meeting CPR Report(s)	7/11/2017
		Written determination (CEC)	7/11/2017
1.3	Final Meeting	Written documentation of meeting agreements	12/9/2019
		Schedule for completing closeout activities	12/9/2019
1.4	Monthly Progress Reports	Monthly Progress Reports	The 10th calendar day of each month during the approved term of this Agreement
1.5	Final Report	Final Outline of the Final Report	8/23/2019
		Draft Final Report (no less than 60 days before the end term of the agreement)	9/5/2019
		Final Report	11/6/2019
1.6	Identify and Obtain Match Funds	A letter regarding match funds or stating that no match funds are provided	2/6/2017
		Copy(ies) of each match fund commitment letter(s) (if applicable)	2/6/2017
		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
1.7	Identify and Obtain Required Permits	Letter documenting the permits or stating that no permits are required	5/9/2017
		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 final approved permit (if applicable)	Within 10 days of change in schedule for obtaining permits
1.8	Obtain and Execute Subcontracts	Letter describing the subcontracts needed, or stating that no subcontracts are required	3/9/2017
		Draft subcontracts	15 days prior to the scheduled execution date
		Final subcontracts	Within 10 days of execution
2	DESIGN, BUILD, AND COMMISSION YARD TRACTORS	Truck Summary Report with Photographs	7/23/2018
3	PLAN, DESIGN, INTEGRATE, AND COMMISSION ITS	ITS Task Management	1/2/2017-5/30/2019
		FRATIS Module PLANNING, DESIGN, AND INTEGRATION	
		ECO-Drive PLANNING, DESIGN, AND DEVELOPMENT	
		GeoStamp Module PLANNING, DESIGN, AND INTEGRATION	
		ECO-FRATIS Integrated Application	
		DEMONSTRATION, DEPLOYMENT, DATA COLLECTION, AND ANALYSIS	
4	DEMONSTRATION, DATA COLLECTION, AND ANALYSIS	Data collection information and analysis will be provided in the final report (Task 1.5)	11/6/2019

Exhibit B

Category Budget

City of Los Angeles Harbor Department

Name of Organization:

- Contractor/Recipient Subcontractor
 Small Micro Business Disabled Veteran Business Enterprise

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ -	\$ -	\$ -
Fringe Benefits	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -
Materials/Miscellaneous	\$ -	\$ -	\$ -
Subcontractors	\$ 5,833,000	\$ 2,808,007	\$ 8,641,007
Total Other Direct Costs	\$ 5,833,000	\$ 2,808,007	\$ 8,641,007
Indirect Costs	\$ -	\$ -	\$ -
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ -	\$ -	\$ -
Grand Totals	\$ 5,833,000	\$ 2,808,007	\$ 8,641,007

Direct Labor (Unloaded)

City of Los Angeles Harbor Department

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -

				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ -	\$ -	\$ -

Fringe Benefits

City of Los Angeles Harbor Department

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
-	-	\$ -	\$ -	\$ -	\$ -
Fringe Benefit Totals		\$ -	\$ -	\$ -	\$ -

Travel

City of Los Angeles Harbor Department

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
-	-	-	-	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

City of Los Angeles Harbor Department

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
-	-	-	-	\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Materials & Miscellaneous

City of Los Angeles Harbor Department

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
-	-	-	-	\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Subcontracts

City of Los Angeles Harbor Department

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
2, 4	Capacity Trucks	To build and demonstrate yard tractors		\$ 3,363,000	\$ 1,999,000	\$ 5,362,000
2, 4	BYD Motors, Inc.	To build and demonstrate yard tractors		\$ 1,500,000	\$ 375,000	\$ 1,875,000
3, 4	Productivity Apex, Inc.	To design, build, integrate, and demonstrate intelligent transportation system	SB	\$ 513,998	\$ 306,241	\$ 820,239
3, 4	University of California at Riverside	To design, build, integrate, and demonstrate intelligent transportation system		\$ 359,855	\$ 90,138	\$ 449,993
3, 4	InfoMagnus	To design, build, integrate, and demonstrate intelligent transportation system	SB	\$ 96,147	\$ 37,628	\$ 133,775
Total:				\$ 5,833,000	\$ 2,808,007	\$ 8,641,007

Indirect Costs and Profit

City of Los Angeles Harbor Department

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
-	-	-	\$ -	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
-	-	\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget

Capacity Trucks

Name of Organization

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ -	\$ -	\$ -
Fringe Benefits	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -
Equipment	\$ 3,363,000	\$ 499,000	\$ 3,862,000
Materials/Miscellaneous	\$ -	\$ 1,500,000	\$ 1,500,000
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 3,363,000	\$ 1,999,000	\$ 5,362,000
Indirect Costs	\$ -	\$ -	\$ -
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ -	\$ -	\$ -
Grand Totals	\$ 3,363,000	\$ 1,999,000	\$ 5,362,000

Direct Labor (Unloaded)

Capacity Trucks

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -
				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ -	\$ -	\$ -

Fringe Benefits

Capacity Trucks

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Fringe Benefit Totals		\$ -	\$ -	\$ -	\$ -

Travel

Capacity Trucks

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

Capacity Trucks

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
2	Off-Road Natural Gas Yard Tractors	To provide yard tractors for field demonstration	20	\$ 168,150	\$ 3,363,000	\$ -	\$ 3,363,000
2	Natural Gas Fuel and Refueling Station	To provide skid mounted refueling tanks to support demonstration	1	\$ 499,000	\$ -	\$ 499,000	\$ 499,000
Total:					\$ 3,363,000	\$ 499,000	\$ 3,862,000

Materials & Miscellaneous

Capacity Trucks

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
4	Natural Gas Yard Tractor	To support operations and maintenance, service needs, and demonstration activities	Variable	Variable	\$ -	\$ 1,500,000	\$ 1,500,000
Total:					\$ -	\$ 1,500,000	\$ 1,500,000

Subcontracts

Capacity Trucks

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

Capacity Trucks

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
			\$ -	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget

BYD Motors, Inc.

Name of Organization

- Contractor/Recipient
 Subcontractor
 Small Business
 Micro Business
 Disabled Veteran Business Enterprise

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ -	\$ -	\$ -
Fringe Benefits	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -
Equipment	\$ 1,500,000	\$ -	\$ 1,500,000
Materials/Miscellaneous	\$ -	\$ 375,000	\$ 375,000
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 1,500,000	\$ 375,000	\$ 1,875,000
Indirect Costs	\$ -	\$ -	\$ -
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ -	\$ -	\$ -
Grand Totals	\$ 1,500,000	\$ 375,000	\$ 1,875,000

Direct Labor (Unloaded)

BYD Motors, Inc.

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
		\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
		\$ -	-	\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -

				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ -	\$ -	\$ -

Fringe Benefits

BYD Motors, Inc.

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Fringe Benefit Totals		\$ -	\$ -	\$ -	\$ -

Travel

BYD Motors, Inc.

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

BYD Motors, Inc.

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
2	Battery Powered Yard Tractors	To design build, and demonstrate yard tractors	5	\$ 300,000	\$ 1,500,000	\$ -	\$ 1,500,000
Total:					\$ 1,500,000	\$ -	\$ 1,500,000

Materials & Miscellaneous

BYD Motors, Inc.

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
4	Battery Yard Tractor Demonstration	To support operations and maintenance, service needs, and demonstration activities	Various	Various	\$ -	\$ 375,000	\$ 375,000
Total:					\$ -	\$ 375,000	\$ 375,000

Subcontracts

BYD Motors, Inc.

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

BYD Motors, Inc.

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
			\$ -	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget

University of California at Riverside

Name of Organization

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise (DVBE)

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ 138,995	\$ 36,000	\$ 174,995
Fringe Benefits	\$ 65,712	\$ -	\$ 65,712
Total Labor	\$ 204,707	\$ 36,000	\$ 240,707
Travel	\$ 3,600	\$ -	\$ 3,600
Equipment	\$ -	\$ -	\$ -
Materials/Miscellaneous	\$ 91,971	\$ 44,778	\$ 136,749
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 95,571	\$ 44,778	\$ 140,349
Indirect Costs	\$ 59,577	\$ 9,360	\$ 68,937
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ 59,577	\$ 9,360	\$ 68,937
Grand Totals	\$ 359,855	\$ 90,138	\$ 449,993

Direct Labor (Unloaded)

University of California at Riverside

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
		\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
Kanok Boiboonsomsin	Principal Investigator	\$ 10,759	24	\$ 39,328	\$ -	\$ 39,328
Matthew Barth	Co-Principal Investigator	\$ 17,953	6	\$ 4,255	\$ -	\$ 4,255
Peng Hao	Assistant Research Engineer	\$ 7,983	24	\$ 47,202	\$ -	\$ 47,202
Alexander Vu	Assistant Development Engineer	\$ 5,075	24	\$ 36,183	\$ -	\$ 36,183
Daniel Sandez	Junior Development Engineer	\$ 4,009	12	\$ 12,027	\$ -	\$ 12,027
TBD	Graduate Student Researcher	\$ 4,354	24	\$ -	\$ 36,000	\$ 36,000
Monthly Direct Labor Totals				\$ 138,995	\$ 36,000	\$ 174,995
				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ 138,995	\$ 36,000	\$ 174,995

Fringe Benefits

University of California at Riverside

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
Kanok Boriboonsomsin	60.00%	\$ 39,328	\$ 18,091	\$ -	\$ 18,091
Matt Barth	60.00%	\$ 4,255	\$ 383	\$ -	\$ 383
Peng Hao	60.00%	\$ 47,202	\$ 22,717	\$ -	\$ 22,717
Alex Vu	60.00%	\$ 36,183	\$ 18,157	\$ -	\$ 18,157
Daniel Sandez	60.00%	\$ 12,027	\$ 6,364	\$ -	\$ 6,364
Fringe Benefit Totals		\$ 138,995	\$ 65,712	\$ -	\$ 65,712

Travel

University of California at Riverside

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
3, 4	Principal Investigator and/or Co-Principal Investigator	Riverside to/from Sacramento	3 trips to Sacramento for project meetings	\$ 1,500	\$ -	\$ 1,500
3, 4	TBD/Development Engineers	Riverside to/from Various Ports and Demonstrators	20 trips to the ports and participating demonstrators for ITS installation, training, and troubleshooting	\$ 1,500	\$ -	\$ 1,500
3, 4	TBD/Development Engineers	Riverside to/from Los Angeles	10 trips to LA Metro and intersections for system installation	\$ 600	\$ -	\$ 600
Total:				\$ 3,600	\$ -	\$ 3,600

Equipment

University of California at Riverside

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Materials & Miscellaneous

University of California at Riverside

Task No.	Description	Purpose	# Units	Unit Cost*	Energy Commission Funds	Match Share	Total
4	Graduate Student Health Insurance Plan	Graduate Student researchers	6	\$ 5,303	\$ -	\$ 31,818	\$ 31,818
4	Communication devices and cables	Intersection instrumentation	10	\$ 500	\$ 5,000	\$ -	\$ 5,000
4	On-board computing devices	Vehicle instrumentation	10	\$ 1,000	\$ 10,000	\$ -	\$ 10,000
4	Radar unit	Vehicle instrumentation	10	\$ 1,000	\$ 10,000	\$ -	\$ 10,000
4	Miscellaneous	Intersection/vehicle instrumentation	Varies	Varies	\$ 5,000	\$ -	\$ 5,000
4	Tablets	Vehicle instrumentation	30	\$ 120	\$ -	\$ 3,600	\$ 3,600
4	26% of Modified total direct costs (Less equip, subs, and other items that do not include OH charges)	Facilities Rental	1	\$ 238,318	\$ 61,971	\$ 9,360	\$ 71,331
Total:					\$ 91,971	\$ 44,778	\$ 136,749

* Note: Detailed costs for each item shall be provided and approved by CAM before incurring expenses.

Subcontracts

University of California at Riverside

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

University of California at Riverside

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
Modified Total Direct Cost	25.00%	Modified Direct Labor	\$ 238,307	\$ 59,577	\$ 9,360	\$ 68,937
Total:				\$ 59,577	\$ 9,360	\$ 68,937

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget
(see instructions)

Name of Organization

Productivity Apex, Inc.

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise (DVBE)

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ 171,334	\$ 125,494	\$ 296,828
Fringe Benefits	\$ 29,551	\$ 24,835	\$ 54,387
Total Labor	\$ 200,886	\$ 150,329	\$ 351,215
Travel	\$ -	\$ -	\$ -
Equipment	\$ 70,000	\$ 12,000	\$ 82,000
Materials/Miscellaneous	\$ -	\$ -	\$ -
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 70,000	\$ 12,000	\$ 82,000
Indirect Costs	\$ 187,352	\$ 157,452	\$ 344,804
Profit (not allowed for grant recipients)	\$ 55,760	\$ -	\$ 55,760
Total Indirect and Profit	\$ 243,112	\$ 157,452	\$ 400,564
Grand Totals	\$ 513,998	\$ 319,781	\$ 833,779

Direct Labor (Unloaded)

(see instructions)

Productivity Apex, Inc.

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
Dr. Mansooreh Mollaghasemi	Task 4. Program Manager	\$ 90.00	520	\$ -	\$ 46,800.00	\$ 46,800
Dr. Sam Fayez	Task 4. Project Manager	\$ 62.50	808	\$ -	\$ 50,408	\$ 50,408
Dr. Ahmed ElNashar	Task 4. Scientist	\$ 38.00	1,027	\$ 9,934.00	\$ 28,286	\$ 38,220
Fabio Zavagnini	Task 4. Industrial Engineer	\$ 33.30	1,200	\$ 61,969.00	\$ -	\$ 61,969
Surya Suluh	Task 4. Software Engineer	\$ 45.66	2,000	\$ 91,320.00	\$ -	\$ 91,320
Natalie Fernandez	Task 4. Administration	\$ 21.63	375	\$ 8,111.25	\$ -	\$ 8,111
Hourly Direct Labor Totals				\$ 171,334	\$ 125,494	\$ 296,828

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -
				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ 149,325	\$ 125,494	\$ 274,819

Subcontracts

(see instructions)

Productivity Apex, Inc.

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

(see instructions)

Productivity Apex, Inc.

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
Overhead	22.73%	Direct labor plus fringe	\$ 329,206	\$ 40,659	\$ 34,170	\$ 74,829
General & Administrative (G&A)	66.82%	Value-added method (Labor, fringe, overhead)	\$ 404,034	\$ 146,694	\$ 123,282	\$ 269,976
	0.00%		\$ -	\$ -	\$ -	\$ -
	0.00%		\$ -	\$ -	\$ -	\$ -
	0.00%		\$ -	\$ -	\$ -	\$ -
Total:			\$ 187,352	\$ 157,452	\$ 157,452	\$ 344,804

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
10.00%	Total costs	\$ 557,600	\$ 55,760	\$ -	\$ 55,760
Total:			\$ 55,760	\$ -	\$ 55,760

\$ 513,998 \$ 319,781 \$ 833,779

Category Budget

InfoMagnus

Name of Organization

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise (DVBE)

Cost Category	Energy Commission Reimbursable Share	Match Share	Metro Match	Total
Direct Labor	\$ 58,966	\$ 25,385	\$ 23,611	\$ 107,962
Fringe Benefits	\$ 8,373	\$ 3,605	\$ 3,353	\$ 15,331
Total Labor	\$ 67,340	\$ 28,989	\$ 26,964	\$ 123,293
Travel	\$ -	\$ -		\$ -
Equipment	\$ -	\$ -		\$ -
Materials/Miscellaneous	\$ -	\$ -		\$ -
Subcontractors	\$ -	\$ -		\$ -
Total Other Direct Costs	\$ -	\$ -		\$ -
Indirect Costs	\$ 20,067	\$ 8,639	\$ 8,035	\$ 36,741
Profit (not allowed for grant recipients)	\$ 8,740	\$ -	\$ -	\$ 8,740
Total Indirect and Profit	\$ 28,807	\$ 8,639	\$ 8,035	\$ 45,481
Grand Totals	\$ 96,147	\$ 37,628	\$ 35,000	\$ 168,774

Direct Labor (Unloaded)

InfoMagnus

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Metro Match	Total
Narayanan Kulasaker	Director of Analytics	\$ 91.35	275	\$ 25,120	\$ -		\$ 25,120
Harikumar Tata	Technology Lead	\$ 41.35	275	\$ 11,370	\$ -	\$ 11,370.19	\$ 22,740
Naveen Kirane	Sr Database Dev	\$ 39.90	275	\$ 10,974	\$ -		\$ 10,974
Himanshu Kumar	Sr Developer	\$ 41.83	275	\$ 11,502	\$ -	\$ 11,544.23	\$ 23,047
Kaveh Mahjoob	Architect	\$ 115.38	110	\$ -	\$ 12,692	\$ 697	\$ 13,389
Sal Manzo	Project Manager	\$ 115.38	110	\$ -	\$ 12,692		\$ 12,692
Hourly Direct Labor Totals				\$ 58,966	\$ 25,385	\$ 23,611	\$ 107,962

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Metro Match	Total
-	-	\$ -	-	\$ -	\$ -		\$ -
Monthly Direct Labor Totals				\$ -	\$ -		\$ -
				Energy Commission Funds	Match Share		Total
Direct Labor Grand Totals				\$ 58,966	\$ 25,385	\$ 23,611	\$ 107,962

Fringe Benefits

InfoMagnus

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Metro Match	Total
All Classifications	14.20%	\$ 107,962	\$ 8,373	\$ 3,605	\$ 3,353	\$ 15,331
Fringe Benefit Totals		\$ 107,962	\$ 8,373	\$ 3,605	\$ 3,353	\$ 15,331

Travel
InfoMagnus

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

InfoMagnus

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Materials & Miscellaneous

InfoMagnus

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Subcontracts

InfoMagnus

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

InfoMagnus

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Metro Match	Total
Overhead	10.00%	Modified Direct Labor	\$ 123,293	\$ 6,734	\$ 2,899	\$ 2,696	\$ 12,329
General & Administrative (G&A)	18.00%	Direct Labor, Fringe Benefits, Indirect Costs	\$ 135,622	\$ 13,333	\$ 5,740	\$ 5,339	\$ 24,412
Total:			\$ 20,067	\$ 8,639	\$ 8,035	\$ 36,741	

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
7.00%	Total costs	\$ 160,034	\$ 8,740	-	\$ 8,740
Total:			\$ 8,740	-	\$ 8,740

EXHIBIT C

ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY PROGRAM (ARFVTP) TERMS AND CONDITIONS

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TERMS AND CONDITIONS

1. **Grant Agreement**

This project is being funded with a grant from the California Energy Commission's (Energy Commission) Alternative and Renewable Fuel and Vehicle Technology Program.

This Agreement is comprised of the grant funding award, the Terms and Conditions, and all attachments. These Terms and Conditions are standard requirements for grant awards. The Energy Commission may impose additional special conditions in this grant Agreement that address the unique circumstances of this project. Special conditions that conflict with these standard provisions take precedence.

The Recipient's authorized representative shall sign all copies of this Agreement and return all signed packages to the Energy Commission's Grants and Loans Office within 30 days. Failure to meet this requirement may result in the forfeiture of this award. When all required signatures are obtained, an executed copy will be returned to the Recipient.

The term of this Agreement or the Agreement Period is the length of this Agreement between the Energy Commission and the Recipient. Project means Recipient's specific project that is funded in whole or in part by this Agreement. The Recipient's project may coincide with or extend outside the Agreement Period.

All reimbursable work and/or the expenditure of funds must occur within the approved term of this Agreement. The Energy Commission cannot authorize any payments until all parties sign this Agreement.

2. **Documents Incorporated by Reference**

The documents below are incorporated by reference into this Agreement. These terms and conditions will govern in the event of a conflict with the documents below, with the exception of the documents in subsection (f). Where this Agreement or California laws and regulations are silent or do not apply, the Energy Commission will use the federal cost principles and acquisition regulations listed below as guidance in determining whether reimbursement of claimed costs is allowable. Documents incorporated by reference include:

Solicitation Documents (if applicable)

- a. The funding solicitation under which this Agreement was awarded.
- b. The Recipient's proposal submitted in response to the solicitation

Federal Cost Principles (applicable to state and local governments, Indian tribes, institutions of higher education, and nonprofit organizations)

- c. 2 Code of Federal Regulations (CFR) Part 200, Subpart E (Sections 200.400 et seq.)

Federal Acquisition Regulations (applicable to commercial organizations)

- d. 48 CFR, Ch.1, Subchapter E, Part 31, Subpart 31.2: Contracts with Commercial Organizations (supplemented by 48 CFR, Ch: 9, Subchapter E, Part 931, Subpart 931.2 for Department of Energy grants)

Nondiscrimination

- e. 2 California Code of Regulations, Section 8101 et seq.: Contractor Nondiscrimination and Compliance

General Laws

- f. Any federal, state, or local laws or regulations applicable to the project that are not expressly listed in this Agreement

3. *Funding Limitations*

Any federal, State, and local laws and regulations applicable to your project not expressly listed in this Agreement are incorporated herein as part of this Agreement.

4. *Due Diligence*

The Recipient is required to take timely actions which, taken collectively, move this project to completion. The Energy Commission Agreement Manager (CAM) will periodically evaluate the Schedule of Products and Due Dates for completion of the Statement of Work tasks. If the CAM determines (1) the Recipient is not being diligent in completing the tasks in the Statement of Work or (2) the time remaining in this Agreement is insufficient to complete all project work tasks by the approved Agreement end term date, the CAM may recommend that this Agreement be terminated, and the Agreement may, without prejudice to any of the Energy Commission's remedies, be terminated.

5. *Products*

Products are defined as any tangible item specified in the Statement of Work. Unless otherwise directed, draft copies of all products identified in the Work Statement shall be submitted to the CAM for review and comment. The Recipient will submit an original and two copies of the final version of all products to the CAM.

6. *Reports*

- a. Progress Reports

The Recipient shall submit progress reports to the CAM as indicated in the Special Conditions or Work Statement. At a minimum, each progress report shall include the following:

Work Statement: This section should include a brief restatement of the approved tasks in the Work Statement and a report on the status of each, including a discussion of any products due and whether or not the project is progressing according to schedule. This section also should include a discussion of any problems encountered, proposed changes to the tasks in the Work Statement, and anticipated accomplishments in the upcoming quarter.

Financial Status: This section should include a narrative report comparing costs incurred to date with the approved Budget. The report should state whether or not the project is progressing within the approved Budget and discuss any proposed changes.

Additional Information: Additional information may be required in the progress reports as specified in the Work Statement or Special Conditions.

b. Final Reports

A draft final report shall be submitted to the CAM no later than 60 days prior to the end of the Agreement term. At a minimum, the report shall include:

- Table of Contents.
- Abstract.
- A brief summary of the objectives of the project and how these objectives were accomplished.
- Any findings, conclusions, or recommendations for follow-up or ongoing activities that might result from the successful completion of the project.
- A statement of future intent of the grant Recipient to maintain or further develop the project.
- A Payment Request form for the final payment (including any retention).
- A consolidated list of subcontractors funded in whole or in part by the grant Recipient. Include the name, address, concise statement of work done, period, and value of each.
- Additional information specified in the Work Statement or Special Conditions.

The CAM will review the draft report. The Recipient will incorporate applicable comments and submit the final report (the original and two copies) to the CAM.

Upon receipt of the final report, the CAM shall ensure that all work has been satisfactorily completed.

c. Rights in Reports

The Energy Commission reserves the right to use and reproduce all reports and data produced and delivered pursuant to this Agreement, and reserves the right to authorize others to use or reproduce such materials. Each report becomes the property of the Energy Commission.

d. **Failure to Comply with Reporting Requirements**

Failure to comply with the reporting requirements contained in this Agreement will be considered a material noncompliance with the terms of this Agreement. Noncompliance may result in withholding of future payments, suspension or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards.

7. Publications - Legal Statement on Reports and Products

You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

No product or report produced as a result of work funded by this program shall be represented to be endorsed by the Energy Commission, and all such products or reports shall include the following statement:

LEGAL NOTICE

This document was prepared as a result of work sponsored by the California Energy Commission. It does not necessarily represent the views of the Energy Commission, its employees, or the State of California. The Energy Commission, the State of California, its employees, contractors, and subcontractors make no warranty, express or implied, and assume no legal liability for the information in this document; nor does any party represent that the use of this information will not infringe upon privately owned rights.

8. Changes to the Agreement

a. **Significant Changes**

Significant changes to this Agreement must be approved by the Energy Commission through a formal amendment. Significant changes include, but are not limited to:

- Change of Recipient's legal name,
- Change of Recipient,
- Changes in order to disencumber funds,
- Changes to the Work Statement that reasonably modify the purpose of the Agreement,
- Changes to the Schedule of Products that extend the due dates beyond the term of the Agreement,
- Changes to the Budget that increase the amount of the Agreement,

- Changes to the Budget that increase rates or fees.

The Recipient shall submit a request in writing to the CAM with a copy to the Energy Commission Grants and Loans Officer for any significant change. The CAM will notify the Recipient Project Manager of the appropriate Energy Commission action within ten (10) working days.

b. Nonsignificant Changes

Changes that are not significant to the Agreement do not need to be approved at a Energy Commission business meeting through a formal amendment. These changes shall be documented in a Letter of Agreement, signed by both parties.

c. Schedule of Products and Due Dates

If the Schedule of Products and Due Dates needs to be revised after the execution of the Agreement, the revised dates cannot extend beyond the term end date of the Agreement without a formal amendment. Recipient shall work with the CAM to agree on the new product due dates. The CAM will issue the revised Schedule of Products and Due Dates to the Recipient and the Grants and Loans Office.

d. Budget Reallocations

- (1) The Energy Commission, through its CAM and Grants and Loans Officer, and the Recipient can agree upon and make certain budget reallocations without a formal amendment to this Agreement as long as ALL of the following conditions are met:

- (a) The total of all budget reallocations cannot exceed ten percent (10%) with a cap amount of \$150,000 of the Agreement Amount. For purposes of this provision, "Agreement Amount" means the total amount of Energy Commission funds being paid to the Recipient under this Agreement. It does not include any match funds provided by the Recipient.

For example, if under an agreement the Energy Commission agrees to pay a recipient \$100,000 and the recipient is supplying \$500,000 in match funding, the ten percent (10%) limitation applies to the \$100,000. Only up to \$10,000 of Energy Commission funds could be reallocated without a formal amendment. If under an agreement the Energy Commission agrees to pay a recipient \$2,000,000, ten percent would be \$200,000, but the cap is \$150,000, so the most that could be reallocated without a formal amendment is \$150,000.

- (b) The budget reallocation cannot substantially change the scope of work. Examples of budget reallocations that do not substantially change the scope of work include, but are not limited to, the following:
- Increasing or decreasing the overall travel budget. This does not mean an increase to the allowed per diem rates under this Agreement.
 - Increasing or decreasing the equipment budget.
 - Increasing or decreasing the number of personnel assigned to complete tasks. This does not include increasing the hourly rates of the personnel and classifications listed in the budget. Increasing hourly rates requires a formal amendment. The addition of personnel also requires a formal amendment unless there is already an identified classification of rates in the budget that the new personnel will be filling.
- (c) The budget reallocation only involves moving funds between tasks. The total Agreement Amount must remain unchanged. Increasing the total amount of the Agreement requires a formal amendment.
- (d) The budget reallocation does not increase the percentage rate of Indirect Overhead, Fringe Benefits, General and Administrative Costs, or any other rates listed in the budget. For example, if an agreement budget lists the Indirect Overhead percentage rate as 25% of Direct Labor, the 25% cannot be changed without a formal amendment.
- (2) To effectuate a budget reallocation under this section, the Recipient must make a request in writing to both the CAM and the Grants and Loans Officer. Both the CAM and the Grants and Loans Officer will then approve or disapprove the request in writing; the approval or disapproval is not effective or binding unless signed by both the CAM and the Grants and Loans Officer. Oral communications cannot be used or relied upon. If the request is approved, the CAM shall revise the Budget Attachments to reflect the changes and send them to the Grants and Loans Officer and the Recipient.
- (3) Any desired budget reallocations that do not meet the four criteria in this section must be made through a formal amendment.
- (4) Attempted budget reallocations that do not meet the requirements of this section are not legally binding upon the parties.

e. Amendments

This Agreement may be amended to make changes, including without limitation, additional funds, additional time, additional or modified tasks, and additional or modified terms.

9. Contracting and Procurement Procedures

This section provides general requirements for an agreement between the Recipient and a third party ("subcontractor").

All subcontracts must be submitted to the CAM for review prior to execution, pursuant to the administrative task. For subcontracts that are listed as "to be determined" in the budget, the Recipient must submit the subcontractor's budget information to the CAM, using the budget forms provided, and have an executed subcontract, before the subcontractor can incur any costs for which the Recipient will seek reimbursement.

The Recipient is required, where feasible, to employ contracting and procurement practices that promote open competition for all goods and services needed to complete this project. Recipient shall obtain price quotes from an adequate number of sources for all subcontracts.

The Energy Commission will defer to the Recipient's own regulations and procedures as long as they reflect applicable state and local laws and regulations and are not in conflict with the minimum standards specified in this Agreement.

Upon request, the Recipient must submit to the CAM a copy of all solicitations for services or products required to carry out the terms of this Agreement and copies of the proposals or bids received. If a specific subcontractor was identified in the original grant application and the grant was evaluated based in part on this subcontractor's qualifications, then prior written approval from the CAM is required before substituting a new subcontractor.

The Recipient is responsible for handling all contractual and administrative issues arising out of or related to any subcontracts it enters into under this Agreement.

All subcontracts must incorporate all of the following:

- A clear and accurate description of the material, products, or services to be procured as well as a detailed budget and timeline.
- Provisions that allow for administrative, contractual, or legal remedies in instances where subcontractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate.
- Provisions for termination by the Recipient, including termination procedures and the basis for settlement.
- Language conforming to the "Nondiscrimination" provision in this Agreement.
- The Standard of Performance provisions specified in this Agreement.

- Retention of Records provisions specified in this Agreement.
- Audits provisions specified in this Agreement.
- Language conforming to the "Indemnification" provision in this Agreement.
- Public Work -- Payment of Prevailing Wages Generally Required by Law provisions in this Agreement

Recipients who are subcontracting with University of California (UC) may use the terms and conditions negotiated by the Energy Commission with UC for their subcontracts. Recipients who are subcontracting with the Department of Energy (DOE) national laboratories may use the terms and conditions negotiated with DOE.

Failure to comply with the above requirements may result in the termination of this Agreement.

10. Bonding and Insurance

The Recipient will follow its own bonding and insurance requirements relating to bid guarantees, performance bonds, and payment bonds without regard to the dollar value of the subcontract(s) as long as they reflect applicable state and local laws and regulations.

11. Permits and Clearances

The Recipient is responsible for ensuring all necessary permits and environmental documents are prepared and clearances are obtained from the appropriate agencies.

12. Equipment

Equipment is defined as having a useful life of at least one year, having an acquisition unit cost of at least \$5,000, and purchased with Energy Commission funds. Equipment means any products, objects, machinery, apparatus, implements or tools purchased, used or constructed within the Project, including those products, objects, machinery, apparatus, implements or tools from which over thirty percent (30%) of the equipment is composed of materials purchased for the Project. For purposes of determining depreciated value of equipment used in the Agreement, the Project shall terminate at the end of the normal useful life of the equipment purchased, funded and/or developed with Energy Commission funds. The Energy Commission may determine the normal useful life of such equipment.

Title to equipment acquired by the Recipient with grant funds shall vest in the Recipient. The Recipient shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by grant funds, and the Recipient shall not encumber the property without CAM approval. When no longer needed for the original project or program, the Recipient shall contact the CAM for disposition instructions.

13. Termination

This project may be terminated for any reason set forth below.

a. **With Cause**

In the event of any breach by the Recipient of the conditions set forth in this Agreement, this Agreement may be terminated for cause upon five (5) days written notice to the Recipient, without prejudice to any of the Energy Commission's legal remedies.

b. **Without Cause**

This Agreement may, at the Energy Commission's option, be terminated without cause in whole or in part, upon giving thirty (30) days advance notice in writing to the Recipient by certified mail, return receipt requested. In such event, the Recipient agrees to use all reasonable efforts to mitigate the Recipient's expenses and obligations hereunder. Also in such event, the Energy Commission shall pay the Recipient for all satisfactory work performed and expenses incurred within 30 days after such notice of termination which could not by reasonable efforts of the Recipient have been avoided, but not in excess of the maximum payable under this Agreement.

14. Stop Work

The Energy Commission Grants Officer may, at any time, by written notice to Recipient, require Recipient to stop all or any part of the work tasks in this Agreement. Stop work orders may be issued for reasons such as a project exceeding budget, standard of performance, out of scope work, delay in Project schedule, misrepresentations and the like.

a. **Compliance.** Upon receipt of such stop work order, Recipient shall immediately take all necessary steps to comply therewith and to minimize the incurrence of costs allocable to work stopped.

b. **Equitable Adjustment.** An equitable adjustment shall be made by Energy Commission based upon a written request by Recipient. Such adjustment request must be made by Recipient within thirty (30) days from the date of the stop work order.

c. **Canceling a Stop Work Order.** Recipient shall resume the work only upon receipt of written instructions from the Energy Commission Grants Officer.

15. Travel and Per Diem

a. The Recipient shall be reimbursed for travel and per diem expenses using the same rates provided to non-represented State employees. The Recipient must pay for travel in excess of these rates. The Recipient may obtain current rates from the Energy Commission's Web Site at: http://www.energy.ca.gov/contracts/TRAVEL_PER_DIEM.PDF.

- b. For purposes of payment, Recipient's headquarters shall be considered the location of the Recipient's office where the employees' assigned responsibilities for this award are permanently assigned. Travel expenditures not listed in this section cannot be reimbursed.
- c. Travel identified in the Budget section of this Agreement is approved and does not require further authorization.
- d. Travel that is not included in the Budget section of this Agreement shall require written authorization from the CAM and Grants and Loans Officer prior to travel departure. The Energy Commission will reimburse travel expenses from the Recipient's office location.
- e. The Recipient must retain documentation of travel expenses in its financial records. The documentation must be listed by trip and include dates and times of departure and return, departure and destination cities. Travel receipts, including for travel meals and incidentals, shall be submitted with invoices requesting reimbursement from the Energy Commission.

16. Standard of Performance

Recipient, its subcontractors and their employees, in the performance of Recipient's work under this Agreement shall be responsible for exercising the degree of skill and care required by customarily accepted good professional practices and procedures used in the Recipient's field.

Any costs for failure to meet the foregoing standard or to correct otherwise defective work that requires re-performance of the work, as directed by CAM, shall be borne in total by Recipient and not the Energy Commission. The failure of a project to achieve the performance goals and objectives stated in the Work Statement is not a basis for requesting re-performance unless the work conducted by Recipient and/or its subcontractors is deemed by the Energy Commission to have failed the foregoing standard of performance.

In the event Recipient/subcontractor fails to perform in accordance with the above standard:

- Recipient/subcontractor will re-perform, at its own expense, any task which was not performed to the reasonable satisfaction of the CAM. Any work re-performed pursuant to this paragraph shall be completed within the time limitations originally set forth for the specific task involved. Recipient/subcontractor shall work any overtime required to meet the deadline for the task at no additional cost to the Energy Commission;
- The Energy Commission shall provide a new schedule for the re-performance of any task pursuant to this paragraph in the event that re-performance of a task within the original time limitations is not feasible; and

- The Energy Commission shall have the option to direct Recipient/subcontractor not to re-perform any task which was not performed to the reasonable satisfaction of the CAM pursuant to application of (1) and (2) above. In the event the Energy Commission directs Recipient/subcontractor not to re-perform a task, the Energy Commission and Recipient shall negotiate a reasonable settlement for satisfactory work performed. No previous payment shall be considered a waiver of the Energy Commission's right to reimbursement.

Nothing contained in this section is intended to limit any of the rights or remedies which the Energy Commission may have under law.

17. Payment of Funds

The Energy Commission agrees to reimburse the Recipient for actual allowable expenditures incurred in accordance with the Budget. The rates in the Budget are rate caps, or the maximum amount allowed to be billed. The Recipient can only bill for actual expenses incurred at the Recipient's actual direct labor rate(s), fringe benefit rate(s), and indirect rate(s), not to exceed the rates specified in the Budget.

a. Payment Requests

The Recipient may request payment from the Energy Commission at any time during the term of this Agreement although it is preferred that payment requests be submitted with the progress reports. The final payment request must be received by the Energy Commission along with the draft Final Report 60 days prior to the end of the Agreement term.

Payments will generally be made on a reimbursement basis for Recipient expenditures, i.e., after the Recipient has incurred the cost for a service, product, supplies, or other approved budget item. No reimbursement for food or beverages shall be made other than allowable per diem charges.

Funds in this Agreement have a limited period in which they must be expended. All Recipient expenditures must occur within the approved term of this Agreement.

b. Documentation

All payment requests must be submitted using a completed Payment Request form. This form must be accompanied by an itemized list of all charges and copies of all receipts or invoices necessary to document these charges for both Energy Commission and match share, including backup documentation for actual expenditures, such as time cards, vendor invoices, and proof of payment. Any payment request that is submitted without the itemization will not be authorized. If the itemization or documentation is incomplete, inadequate, or inaccurate, the CAM will inform the Recipient and hold the invoice until all required information is received or corrected. Any penalties imposed on the Recipient by a subcontractor because of delays in payment will be paid by the Recipient.

Any documentation in foreign currency must be converted to dollars, and the conversion rate must be included in your itemization.

c. Certification

The following certification shall be included on each Payment Request form and signed by the Recipient's authorized officer:

I certify that this invoice is correct and proper for payment, and reimbursement for these costs has not and will not be received from any other sources, including but not limited to a government entity contract, subcontract or other procurement method.

Additional certification required related to the payment of prevailing wages. Refer to section 27 of these terms and conditions for more information.

d. Government Entity

Government Entity is defined as a governmental agency from California or any state or a state college or state university from California or any state; a local government entity or agency, including those created as a Joint Powers Authority; an auxiliary organization of the California State University or a California community college; the Federal Government; a foundation organized to support the Board of Governors of the California Community Colleges or an auxiliary organization of the Student Aid Commission established under Education Code 69522.

e. Release of Funds

The CAM will not process any payment request during the Agreement term until the following conditions have been met:

- All required reports have been submitted and are satisfactory to the CAM.
- All applicable special conditions have been met.
- All appropriate permits or permit waivers from governmental agencies have been issued to the Recipient and copies have been received by the CAM.
- All products due have been submitted and are satisfactory to the CAM.
- Other prepayment conditions as may be required by the CAM have been met. Such conditions will be specified in writing ahead of time, if possible.

f. Fringe Benefits, Indirect Overhead, and General and Administrative (G&A), Indirect cost rates must be developed in accordance with generally accepted accounting principles. If the Recipient has an approved fringe benefits or indirect cost rate (indirect overhead or G&A) from their cognizant Federal Agency, the Recipient may bill at the federal rate up to the Budget rate caps if the following conditions are met:

- The Recipient may bill at the federal provisional rate but must adjust annually to reflect their actual final rates for the year in accordance with the Labor, Fringe, and Indirect Invoicing Instructions which can be accessed in this agreement.
- The cost pools used to develop the federal rates must be allocable to the Energy Commission Agreement, and the rates must be representative of the portion of costs benefiting the Energy Commission Agreement. For example, if the federal rate is for manufacturing overhead at the Recipient's manufacturing facility and the Energy Commission Agreement is for research and development at their research facility, the federal indirect overhead rate would not be applicable to the Energy Commission Agreement.
- The federal rate must be adjusted to exclude any costs that are specifically prohibited in the Energy Commission Agreement.
- The Recipient may only bill up to the Agreement Budget rate caps unless and until an amendment to the Agreement Budget is approved.

g. Retention

It is the Energy Commission's policy to retain 10 percent of any payment request or 10 percent of the total Energy Commission award at the end of the project. After the project is complete the Recipient must submit a completed payment request form requesting release of the retention. The CAM will review the project file and, when satisfied that the terms of the funding Agreement have been fulfilled, will authorize release of the retention.

h. State Controller's Office

Payments are made by the State Controller's Office.

18. Fiscal Accounting Requirements

a. Accounting and Financial Methods

The Recipient shall establish a separate ledger account or fund for receipt and disbursement of Energy Commission funds for each project funded by the Energy Commission. Expenditure details must be maintained in accordance with the approved budget details using appropriate accounting practices.

b. Retention of Records

The Recipient shall retain all project records (including financial records, progress reports, and payment requests) for a minimum of three (3) years after the final payment has been received or three years after the federal grant term, whichever is later, unless otherwise specified in the funding Agreement.

Records for nonexpendable personal property acquired with grant funds shall be retained for three years after its final disposition or three years after the federal grant term, whichever is later.

c. Audits

Upon written request from the Energy Commission, the Recipient shall provide detailed documentation of all expenses at any time throughout the project. In addition, the Recipient agrees to allow the Energy Commission or any other agency of the State, or their designated representative, upon written request, to have reasonable access to and the right of inspection of all records that pertain to the project during the term of this Agreement and for a period of three (3) years thereafter or three years after the federal grant term, whichever is later, unless the Energy Commission notifies the Recipient, prior to the expiration of such three-year period, that a longer period of record retention is necessary. Further, the Recipient agrees to incorporate an audit of this project within any scheduled audits, when specifically requested by the State. Recipient agrees to include a similar right to audit in any subcontract.

Recipients are strongly encouraged to conduct annual audits in accordance with the single audit concept. The Recipient should provide two copies of the independent audit report and any resulting comments and correspondence to the CAM within 30 days of the completion of such audits.

d. Cost or Match Share

Cost or Match Share means cash or in-kind (non-cash) contributions provided by Recipient, subcontractors or other parties that will be used in performance of this Agreement.

If the grant Budget includes cost or match share under this Agreement, the Recipient agrees to be liable for the percentage of cost or match share identified in this Agreement of the total allowable project costs incurred even if the project is terminated early or is not funded to its completion.

Total allowable project cost is the sum of the Agreement share and Recipient share of the project costs. *Cost share* percentage is calculated by dividing Recipient cost share amount by the total allowable project cost. *Match share* percentage is calculated by dividing Recipient match share by the Agreement share of the project costs.

Failure to provide the minimum required cost or match share may result in the subsequent recovery of some or all of the funds provided under this Agreement.

The Recipient must maintain accounting records detailing the expenditure of the match (actual cash and in-kind services) and provide complete documentation of expenditures as described under "Payment of Funds."

19. Indemnification

The Recipient agrees to indemnify, defend, and save harmless the State, its officers, agents, and employees from any and all claims and losses accruing or resulting to Recipient and to any and all contractors, subcontractors, materialmen, laborers, and any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by the Recipient in the performance of this Agreement.

20. Disputes

In the event of a dispute or grievance between Recipient and the Energy Commission regarding this Agreement, the following two-step procedure shall be followed by both parties. Recipient shall continue with responsibilities under this Agreement during any dispute.

a. Energy Commission Dispute Resolution Level 1

The Recipient shall first discuss the problem informally with the CAM. If the problem cannot be resolved at this stage, the Recipient must direct the grievance together with any evidence, in writing, to the Energy Commission Grants and Loans Officer. The grievance must state the issues in the dispute, the legal authority or other basis for the Recipient's position and the remedy sought. The Energy Commission Grants and Loans Officer and the Program Office Manager must make a determination on the problem within ten (10) working days after receipt of the written communication from the Recipient. The Grants and Loans Officer shall respond in writing to the Recipient, indicating a decision supported by reasons. Should the Recipient disagree with the Grants and Loans Officer decision, the Recipient may appeal to the second level.

b. **Energy Commission Dispute Resolution Level 2**

The Recipient must prepare a letter indicating why the Grants and Loans Officer's decision is unacceptable, attaching to it the Recipient's original statement of the dispute with supporting documents, along with a copy of the Grants and Loans Officer's response. This letter shall be sent to the Executive Director at the Energy Commission within ten (10) working days from receipt of the Grants and Loans Officer's decision. The Executive Director or designee shall meet with the Recipient to review the issues raised. A written decision signed by the Executive Director or designee shall be returned to the Recipient within twenty (20) working days of receipt of the Recipient's letter. The Executive Director may exercise the option of presenting the decision to the Energy Commission at a business meeting. Should the Recipient disagree with the Executive Director's decision, the Recipient may appeal to the Energy Commission at a regularly scheduled business meeting. Recipient will be provided with the current procedures for placing the appeal on a Energy Commission Business Meeting Agenda.

21. Workers' Compensation Insurance

- a. Recipient hereby warrants that it carries Worker's Compensation Insurance for all of its employees who will be engaged in the performance of this Agreement, and agrees to furnish to the CAM satisfactory evidence of this insurance at any time the CAM may request.
- b. If Recipient is self-insured for worker's compensation, it hereby warrants such self-insurance is permissible under the laws of the State of California and agrees to furnish to the CAM satisfactory evidence of this insurance at any time the CAM may request.

22. General Provisions

a. **Governing Law**

It is hereby understood and agreed that this Agreement shall be governed by the laws of the State of California as to interpretation and performance.

b. **Independent Capacity**

The Recipient, and the agents and employees of the Recipient, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the Energy Commission.

c. **Assignment**

Without the written consent of the Energy Commission in the form of a formal written amendment, this Agreement is not assignable or transferable by Recipient either in whole or in part.

d. **Timeliness**

Time is of the essence in this Agreement.

e. Unenforceable Provision

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

f. Waiver

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law.

g. Assurances

The Energy Commission reserves the right to seek further written assurances from the Recipient and its team that the work of the project under this Agreement will be performed consistent with the terms of the Agreement.

h. Change in Business

(1) Recipient shall promptly notify the Energy Commission of the occurrence of each of the following:

- (a) A change of address.
- (b) A change in the business name or ownership.
- (c) The existence of any litigation or other legal proceeding affecting the project.
- (d) The occurrence of any casualty or other loss to project personnel, equipment or third parties of a type commonly covered by insurance.
- (e) Receipt of notice of any claim or potential claim against Recipient for patent, copyright, trademark, service mark and/or trade secret infringement that could affect the Energy Commission's rights.

(2) Recipient shall not change or reorganize the type of business entity under which it does business except upon prior written notification to the Energy Commission. A change of business entity or name change requires an amendment assigning or novating the Agreement to the changed entity. In the event the Energy Commission is not satisfied that the new entity can perform as the original Recipient, the Energy Commission may terminate this Agreement as provided in the termination paragraph.

i. **Survival of Terms**

It is understood and agreed that certain provisions shall survive the completion or termination date of this Agreement for any reason. The provisions include, but are not limited to:

- "Payments of Funds"
- "Equipment"
- "Change in Business"
- "Disputes"
- "Termination"
- "Audit"
- "Indemnification"
- "Fiscal Accounting Requirements"

23. Certifications and Compliance

a. **Federal, State and Municipal Requirements**

Recipient must obtain any required permits and shall comply with all applicable federal, State, and municipal laws, rules, codes, and regulations for work performed under this Agreement.

b. **Nondiscrimination Statement of Compliance**

During the performance of this Agreement, Recipient and its subcontractors shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, sexual orientation, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, and denial of family care leave. Recipient and its subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. Recipient and its subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Sections 12990 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Agreement by reference and made a part of it as if set forth in full. Recipient and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

The Recipient shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

c. Drug-Free Workplace Certification

By signing this Agreement, the Recipient hereby certifies under penalty of perjury under the laws of the State of California that the Recipient will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

- (1) Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations as required by Government Code Section 8355(a)(1).
- (2) Establish a Drug-Free Awareness Program as required by Government Code Section 8355(a)(2) to inform employees about all of the following:
 - The dangers of drug abuse in the workplace;
 - The person's or organization's policy of maintaining a drug-free workplace;
 - Any available counseling, rehabilitation, and employee assistance programs; and
 - Penalties that may be imposed upon employees for drug abuse violations.
- (3) Provide, as required by Government Code Section 8355(a)(3), that every employee who works on the proposed project:
 - Will receive a copy of the company's drug-free policy statement;
 - Will agree to abide by the terms of the company's statement as a condition of employment on the project.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both, and the Recipient may be ineligible for any future State awards if the Energy Commission determines that any of the following has occurred: (1) the Recipient has made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

d. Child Support Compliance Act (Applicable to California Employers)

For any Agreement in excess of \$100,000, the Recipient acknowledges that:

- It recognizes the importance of child and family support obligations and shall fully comply with all applicable State and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
 - To the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- e. Americans with Disabilities Act

By signing this Agreement, Recipient assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. 12101, et seq.), which prohibits discrimination on the basis of disability, as well as applicable regulations and guidelines issued pursuant to the ADA.

24. Site Visits

The Energy Commission and/or its designees have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. Recipient must provide and must require subawardees to provide reasonable facilities and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

25. Confidentiality

A. Information Considered Confidential

Confidential information is information designated confidential pursuant to the procedures specified in 20 CCR 2505. If applicable, all Recipient information considered confidential at the commencement of this Agreement is designated in the Attachment to this Exhibit.

B. Confidential Deliverables: Labeling and Submitting Confidential Information

Prior to the commencement of this Agreement, if applicable, the parties have identified in the Attachment to this Exhibit, specific Confidential Information to be provided as a deliverable. All such confidential deliverables shall be marked, by the Recipient, as "Confidential" on each page of the document containing the Confidential Information and presented in a sealed package to the Energy Commission Grants Officer. (Non-confidential deliverables are submitted to the Accounting Office.) All Confidential Information will be contained in the "confidential" volume: no Confidential Information will be in the "public" volume.

C. Submittal of Unanticipated Confidential Information as a Deliverable

The Recipient and the Energy Commission agree that during this Agreement, it is possible that the Recipient may develop additional data or information not originally anticipated as a confidential deliverable. In this case, Recipient shall follow the procedures for a request for designation of Confidential Information specified in 20 CCR 2505. The Energy Commission's Executive Director makes the determination of confidentiality.

Such subsequent determinations may be added to the list of confidential deliverables in the Attachment to this Exhibit.

D. Disclosure of Confidential Information

Disclosure of Confidential Information by the Energy Commission may only be made pursuant to 20 CCR 2506 and 2507. All confidential data, records or deliverables that are legally disclosed by the Recipient or any other entity become public records and are no longer subject to the above confidentiality designation.

26. Budget Contingency Clause

It is mutually agreed that this Agreement shall be of no further force and effect if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the work identified in Exhibit A. In this event, the Energy Commission shall have no liability to pay any funds whatsoever to the Recipient or to furnish any other consideration under this Agreement, and the Recipient shall not be obligated to perform any provisions of this Agreement.

If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the Energy Commission shall have the option to either: 1) cancel this Agreement with no liability occurring to the Energy Commission; or 2) offer an Agreement Amendment to the Recipient to reflect the reduced amount.

27. Public Works -- Payment of Prevailing Wages

Generally Required by Law

Projects that receive an award of public funds from the Energy Commission often involve construction, alteration, demolition, installation, repair or maintenance work over \$1,000.

NOTE: Projects that receive an award of public funds from the Energy Commission are likely to be considered public works under the California Labor Code. See Chapter 1 of Part 7 of Division 2 of the California Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000.

Accordingly, the Energy Commission assumes that all projects it funds are public works. Projects deemed to be public works require among other things the payment of prevailing wages.

NOTE: Prevailing wage rates can be significantly higher than non-prevailing wage rates.

By accepting this grant, Recipient as a material term of this agreement shall be fully responsible for complying with all California public works requirements including but not limited to payment of prevailing wage. Therefore, as a material term of this grant, Recipient must either:

(a) Proceed on the assumption that the project is a public work and ensure that:

- (i) prevailing wages are paid; and
- (ii) the project budget for labor reflects these prevailing wage requirements; and
- (iii) the project complies with all other requirements of prevailing wage law including but not limited to keeping accurate payroll records, and complying with all working hour requirements and apprenticeship obligations;

or,

(b) Timely obtain a legally binding determination from DIR or a court of competent jurisdiction before work begins on the project that the proposed project is not a public work.

NOTE: Only the California Department of Industrial Relations (DIR) and courts of competent jurisdiction have jurisdiction to issue legally binding determinations that a particular project is or is not a public work.

If the Recipient is unsure whether the project receiving this award is a "public work" as defined in the California Labor Code, it may wish to seek a timely determination from the California Department of Industrial Relations (DIR) or an appropriate court.

NOTE: Such processes can be time consuming and therefore it may not be possible to obtain a timely determination before the date for performance of the award commences.

If the Recipient does not timely obtain a binding determination from DIR or a court of competent jurisdiction that the project is not a public work, before the grant agreement from the Energy Commission is executed, the Recipient shall assume that the project is a public work and that payment of prevailing wages is required and shall pay prevailing wages unless and until such time as the project is subsequently determined to not be a public work by DIR or a court of competent jurisdiction.

NOTE: California Prevailing Wage law provides for substantial damages and financial penalties for failure to pay prevailing wages when payment of prevailing wages is required.

Subcontractors and Flow-down Requirements. Recipient shall ensure that its subcontractors, if any, also comply with above requirements with respect to public works/prevailing wage. Recipient shall ensure that all agreements with its contractors/subcontractors to perform work related to this Project contain the above terms regarding payment of prevailing wages on public works projects. Recipient shall be responsible for any failure of Recipient's subcontractors to comply with California prevailing wage and public works laws.

Indemnification and breach. Any failure of Recipient or its subcontractors to comply with the above requirements shall constitute a breach of this agreement that excuses the Energy Commission's performance of this grant agreement at the Energy Commission's option, and shall be at Recipient's sole risk. In such a case, Energy Commission may refuse payment to Recipient of any amount under this award and Energy Commission shall be released, at its option, from any further performance of this award or any portion thereof. By accepting this grant award, as a material term of this agreement, Recipient agrees to indemnify the Energy Commission and hold the Energy Commission harmless for any and all financial consequences arising out of or resulting from the failure of Recipient and/or any of Recipient's subcontractors to pay prevailing wages or to otherwise comply with the requirements of prevailing wage law.

Budget. Recipient's budget on public works projects must indicate which job classifications are subject to prevailing wage. For detailed information about prevailing wage and the process to determine if the proposed project is a public work, Recipient may wish to contact the California Department of Industrial Relations (DIR) or a qualified labor attorney of their choice for guidance.

Covered Trades. For public works projects, Recipient may contact DIR for a list of covered trades and the applicable prevailing wage.

Questions. If Recipient has any questions about this contractual requirement or the wage, record keeping, apprenticeship or other significant requirements of California prevailing wage law, it is recommended that Recipient consult DIR and/or a qualified labor attorney of its choice before accepting the award for this grant.

Certification. Recipient shall certify to the Energy Commission on each Payment Request Form, either that (a) prevailing wages were paid to eligible workers who provided labor for work covered by the payment request and that the Recipient and all contractors and subcontractors otherwise complied with all California prevailing wage laws, or (b) that the project is not a public work requiring the payment of prevailing wages. In the latter case, Recipient shall provide competent proof of a DIR or court determination that the project is not a public work requiring the payment of prevailing wages.

Prior to the release of any retained funds under this Agreement, the Recipient shall submit to the Energy Commission the above-described certificate signed by the Recipient and all contractors and subcontractors performing public works activities on the project. Absent such certificate, Recipient shall have no right to any funds under this grant, and Energy Commission shall be relieved of any obligation to pay said funds.

28. *Intellectual Property*

The Energy Commission makes no claim to intellectual property developed under this Agreement that is not specified for delivery, except as expressly provided herein.

**Exhibit D
Contact List**

California Energy Commission	Recipient
<p>Commission Agreement Manager:</p> <p>Larry Rillera California Energy Commission 1516 Ninth Street, MS-27 Sacramento, CA 95814 Phone: (916) 651-6178 Fax: (916) 654-4676 e-mail: Larry.Rillera@energy.ca.gov</p>	<p>Project Managers:</p> <p>Carter Atkins (MHD) & Kerry Cartwright (ITS) City of Los Angeles, Harbor Department 425 S. Palos Verdes Street San Pedro, CA 90731 Phone: (310) 732-7649/ (310) 732-7702 Fax: (310) 547-4643 e-mail: catkins@portla.org; KCartwright@portla.org</p>
<p>Commission Agreement Officer:</p> <p>Janna Franks California Energy Commission 1516 Ninth Street, MS-18 Sacramento, CA 95814 Phone: (916) 654-4921 Fax: (916) 654-4423 e-mail: janna.franks@energy.ca.gov</p>	<p>Administrator:</p> <p>Christopher Cannon Chief Sustainability Officer City of Los Angeles, Harbor Department 425 S. Palos Verdes Street, San Pedro, CA 90731 Phone: (310) 732-3763 Fax: (310) 547-4643 e-mail: ccannon@portla.org</p>
<p>Accounting Officer:</p> <p>Kathy Jones California Energy Commission 1516 Ninth Street, MS-2 Sacramento, CA 95814 Phone: (916) 654-4377 Fax: (916) 653-1435 e-mail: Kathy.jones@energy.ca.gov</p>	<p>Accounting Officer:</p> <p>Frank Liu Accounting Director City of Los Angeles, Harbor Department 425 S. Palos Verdes Street, San Pedro, CA 90731 Phone: (310) 732-379 Fax: (310) 831-0439 e-mail: FLiu@portla.org</p>
<p>Legal Notices:</p> <p>Tatyana Yakshina Grants Manager 1516 9th Street, MS-18 Sacramento, CA 95814 Phone: (916) 654-4204 Fax: (916) 654-4423 e-mail: tatyana.yakshina@energy.ca.gov</p>	<p>Recipient Legal Notices:</p> <p>Office of the City Attorney, Harbor Division 425 S. Palos Verdes Street, San Pedro, CA 90731 Phone: (310) 732-3750 Fax: (310) 831-9778 e-mail:</p>

