

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 02/13)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-15-068 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Larry Rillera	27	916-651-6178

Recipient's Legal Name	Federal ID Number
San Diego Port Tenants Association	93-1003997

Title of Project
San Diego Port Sustainable Freight Demonstration Project

Term and Amount	Start Date	End Date	Amount
	7 / 5 / 2016	4 / 30 / 2020	\$ 5,903,652

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

Proposed Business Meeting Date	6 / 14 / 2016	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Larry Rillera	Time Needed:	5 minutes

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

Proposed resolution approving Agreement ARV-15-068 with the San Diego Port Tenants Association for a \$5,903,652 grant to conduct a field demonstration project of advanced vehicle technologies and intelligent transportation systems. The demonstration will occur in and around the Port of San Diego and benefit disadvantaged communities. (ARFVTF Funding) Contact: Larry Rillera (Staff Presentation: 5 minutes)

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

- Is Agreement considered a "Project" under CEQA?
    - Yes (skip to question 2)  No (complete the following (PRC 21065 and 14 CCR 15378)):
    - Explain why Agreement is not considered a "Project":
    - Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because .
  - If Agreement is considered a "Project" under CEQA:
    - a) Agreement **IS** exempt. (Attach draft NOE)
      - Statutory Exemption. List PRC and/or CCR section number:
      - Categorical Exemption. List CCR 14 CCR 15306 (Information Collection) section number:
      - Common Sense Exemption. 14 CCR 15061 (b) (3)
    - Explain reason why Agreement is exempt under the above section:
 

The project will build and demonstrate advanced battery technology vehicles and intelligent transportation systems in and around the Port of San Diego located in the City of San Diego. The project will displace the use of diesel fueled trucks and port equipment and will instead use zero-emission vehicle technologies for the demonstration. The project will not cause either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because this is a demonstration and information collection project.
    - b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)
- Check all that apply
- |   |   |
|---|---|
| <input type="checkbox"/> Initial Study                  | <input type="checkbox"/> Environmental Impact Report            |
| <input type="checkbox"/> Negative Declaration           | <input type="checkbox"/> Statement of Overriding Considerations |
| <input type="checkbox"/> Mitigated Negative Declaration |   |

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<b>List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)</b>		
Legal Company Name:	Budget	Match
BYD	\$1,200,000	\$0
CEMEX	\$ 300,000	\$146,104
Continental Maritime	\$ 1,000,000	\$301,991
Dole Fresh Food	\$ 600,000	\$484,803
Harborside	\$ 300,000	\$72,250
Marine Group	\$ 649,300	\$308,497
Terminalift	\$ 996,586	\$724,347
Pasha Group	\$ 300,000	\$0
Efficient Drivetrains, Inc.	\$1,445,886	\$435,000
Transportation Power, Inc.	\$1,000,000	\$30,000
Peleton	\$ 927,823	\$242,000
The Grant Farm	\$ 289,969	\$0
carbonBLU	\$ 90,000	\$0
Greenling Institute	\$ 75,000	\$0
GC Green	\$ 35,000	\$0

<b>List all key partners: (attach additional sheets as necessary)</b>
Legal Company Name:
Grant Farm, Greenling Institute, GC Green, carbonBLU, Transportation Power, Inc., Efficient Drivetrains, Inc.

<b>Budget Information</b>			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
ARFVTF	15/16	601.118H	\$5,903,652
Funding Source			\$
Funding Source			\$
Funding Source			\$
R&D Program Area:	Select Program Area	TOTAL:	\$5,903,652
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

<b>Recipient's Administrator/ Officer</b>				<b>Recipient's Project Manager</b>			
Name:	Sophie Silvestri			Name:	Sophie Silvestri		
Address:	San Diego Port Tenants Association 2390 Shelter Island Dr. #210			Address:	San Diego Port Tenants Association 2390 Shelter Island Dr. #210		
City, State, Zip:	San Diego, CA 92106			City, State, Zip:	San Diego, CA 92106		
Phone:	619-226-6546	Fax:	619-226-6557	Phone:	619-226-6546	Fax:	619-226-6557
E-Mail:	sophie@sdpta.com			E-Mail:	sophie@sdpta.com		

<b>Selection Process Used</b>	
<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: GFO-15-604
<input type="checkbox"/> First Come First Served Solicitation	

<b>The following items should be attached to this GRF</b>			
1. Exhibit A, Scope of Work	<input checked="" type="checkbox"/>	N/A	Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/>	N/A	Attached
3. CEC 105, Questionnaire for Identifying Conflicts	<input checked="" type="checkbox"/>	N/A	Attached
4. Recipient Resolution	<input checked="" type="checkbox"/>	N/A	Attached
5. CEQA Documentation	<input type="checkbox"/>	N/A	Attached

Agreement Manager \_\_\_\_\_

Date \_\_\_\_\_

Office Manager \_\_\_\_\_

Date \_\_\_\_\_

Deputy Director \_\_\_\_\_

Date \_\_\_\_\_

**Exhibit A  
SCOPE OF WORK**

**TECHNICAL TASK LIST**

<b>Task #</b>	<b>CPR</b>	<b>Task Name</b>
1		Administration
2		Design, Build, and Commission Demonstration Vehicles
3	X	Intelligent Transportation System Plan, Design, Integration, and Commission
4	X	Disadvantaged Communities Program
5	X	Demonstration, Data Collection, and Analysis

**KEY NAME LIST**

<b>Task #</b>	<b>Key Personnel</b>	<b>Key Subcontractor(s)</b>	<b>Key Partner(s)</b>
1	Sharon Cloward, Sophie Silvestri	The Grant Farm	
2	Sharon Cloward, Sophie Silvestri	The Grant Farm; Efficient Drivetrains, Inc.; BYD Motors, Inc.; TransPower	CEMEX, Continental Maritime, Dole, Harborside, Marine Group, Pasha Group, Terminalift
3	Sharon Cloward, Sophie Silvestri	Peloton	
4	Sharon Cloward, Sophie Silvestri	GC Services; Greenlining Institute	
5	Sharon Cloward, Sophie Silvestri	carbonBLU, Peleton	CEMEX, Continental Maritime, Dole, Harborside, Marine Group, Pasha Group, Terminalift

**GLOSSARY**

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

<b>Term/ Acronym</b>	<b>Definition</b>
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
CAM	Commission Agreement Manager

<b>Term/ Acronym</b>	<b>Definition</b>
CPR	Critical Project Review
DAC	Disadvantaged Communities
FSP	Freight Signal Priority
FTD	Fuels and Transportation Division
GHG	Greenhouse Gas
ITS	Intelligent Transportation Systems and Technologies
MHD	Medium- and Heavy-Duty Vehicles/Equipment
Recipient	San Diego Port Tenants Association

**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 #07 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:**

Medium- and heavy-duty (MHD) trucks and equipment close to the ports and industrial areas are a major source of pollution and harmful emissions. The truck market is predominantly powered by diesel fuel. The San Diego Unified Port District (Port) developed a Climate Action Plan which specified a 10% reduction goal on greenhouse gas (GHG) emissions when compared to the 2006 baseline by 2020 as well as a suite of GHG reduction measures. The Port can reduce GHG emissions through the electrification of port- and non-port-owned vehicles and equipment. However, critical barriers continue to hinder the widespread adoption of advanced MHD vehicles such as inadequate consumer knowledge of these technologies, experience with all-electric MHD vehicles, and technology cost.

**Goals of the Agreement:**

The goals of this Agreement are to enhance market acceptance and deployment of a range of advanced vehicle technologies that will reduce GHG emissions, reduce petroleum use, and benefit disadvantaged communities (DAC).

**Objectives of the Agreement:**

The objectives of this Agreement are to:

- Build a minimum of 10 advanced technology vehicles to verify the performance of the proposed technologies.
- Build intelligent transportation systems (ITS) for integration into 10 vehicles in ITS framework.
- Develop a disadvantaged communities (DAC) program, conduct outreach, and issue a report on findings.
- Field demonstrates and collects data on a minimum of 20 vehicles placed in MHD and ITS service.

## **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 DEMONSTRATION VEHICLES**

The goal of this task is to design, build, and commission demonstration vehicles.

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

- Review vehicle/equipment build specifications and functional requirements.
- Finalize Bill of Materials (BOMs) and order components for each vehicle/equipment.
- Design, fabricate, and build vehicle, components, systems, and subsystems.

- 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 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

**TASK 3 ITS PLAN, DESIGN, INTEGRATION, AND COMMISSION**

The goals of this task are to plan, design, and commission ITS systems and components for integration into demonstration vehicles.

**The Recipient shall:**

- Evaluate drayage operations on port area surface streets and identify routes, intersections, and drayage fleets as potential project sites and partners.
- Conduct outreach to fleet demonstrators, secure participants for demonstration, and prepare and execute contract(s) for ITS participants.
- Coordinate with local government traffic engineers to identify freight signal priority (FSP) parameters, install vehicle-to-infrastructure communications, and install and test FSP system on at least six intersections.
- Prepare BOM and Equipment List.
- Procure and integrate the Peloton technology, FSP, and automated throttle control for surface street operation, including ITS subsystems, software, hardware, and communication technologies into demonstration vehicles.
- Prepare and submit detailed “Budget and Operations Plan” that includes, but is not limited to, all project partners, project schedule, project milestones, project routes, type and volume of freight transported, approvals and permits required, and demonstration vehicle duty cycle(s).
- Develop, prepare, and submit “ITS Test Plan” that includes performance, testing, and validation of acceptable performance for FSP and platooning.
- Commission ITS system and prepare and submit “Written Notification of ITS Commissioning” for each vehicle.
- Prepare and submit “ITS Summary Report with Photographs” that contains, at a minimum, the information listed above.

**Products:**

- Budget and Operations Plan
- ITS Test Plan
- Written Notification of ITS Commissioning
- ITS Summary Report with Photographs

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

**TASK 4      DISADVANTAGED COMMUNITIES PROGRAM**

The goals of this task are to: 1) evaluate the project for DAC impacts to project partnerships, project suppliers and supply chains, and workforce support; 2) conduct outreach to DAC and solicit feedback on the deployment of project technologies; and 3) report on project findings.

**The Recipient shall:**

- Evaluate the policy, environmental, workforce, and public health project context.
- Conduct outreach to provide introductions to technology and demonstrator partners for the project that seek employees, services, and products.
- Organize and conduct a “Workforce, Advanced Vehicle Technology, and Supply Chain Diversity Workshop” including, but not limited to, project participants, fleet and technology partners, DAC, community groups, and the general public to solicit feedback on the deployment of project technologies.
- Prepare and submit a draft and final “San Diego Port Sustainable Freight Demonstration and Equity Plan” that includes, but is not limited to:
  - Draft and final plan outline. The CAM shall review, provide comments, and approve the draft and final outline.
  - Recommendations on specific ways to successfully engage DAC in the planning, design, outreach, and demonstration of advanced vehicle technology projects.
  - Evaluation of specific and measurable project equity issues including, but not limited to, adoption of advanced technology solutions, reducing GHG and criteria pollutants to community health, and regional economic benefits.
  - Evaluation of equity issues associated with the projects’ demonstration of MHD and ITS components.
- Communicate and publicly discuss the findings of the plan.

**Recipient Products:**

- Draft San Diego Port Sustainable Freight Demonstrations and Equity Plan

## Outline

- Final San Diego Port Sustainable Freight Demonstrations and Equity Plan Outline
- Draft San Diego Port Sustainable Freight Demonstration and Equity Plan
- Final San Diego Port Sustainable Freight Demonstration and Equity Plan

## **CAM Products:**

- Approve Draft San Diego Port Sustainable Freight Demonstrations and Equity Plan Outline
- Approve Final San Diego Port Sustainable Freight Demonstrations and Equity Plan Outline
- Approve draft San Diego Sustainable Freight Demonstration and Equity Plan
- Approve final San Diego Sustainable Freight Demonstration and Equity Plan

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

## **Task 5 DEMONSTRATION, DATA COLLECTION, AND ANALYSIS**

The goals of this task are to conduct field demonstrations of advanced vehicle technologies and ITS systems, collect performance and operational data from the project, to analyze that data for economic and environmental impacts, and to include the 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.
- Conduct field demonstration of vehicles/equipment and ITS technologies.
- Provide training and support to demonstrators, maintenance and operations staff, data collectors, and key project participants.
- Demonstrate and deploy project vehicles.
- Troubleshoot any issues identified.
- 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 up to 12 months of throughput, usage, and operations data from the project including, but not limited to:
  - Total execution time, wait time, and turn time per truck
  - Maximum capacity of the new fueling system
  - Gallons of gasoline and/or diesel fuel displaced (with associated mileage information)
  - Expected air emissions reduction, for example:
    - Non-methane hydrocarbons
    - Oxides of nitrogen
    - Non-methane hydrocarbons plus oxides of nitrogen
    - Particulate Matter
    - Formaldehyde
  - Duty cycle of the current fleet and the expected duty cycle of future vehicle acquisitions
  - 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 alternative fuel.
- Describe any energy efficiency measures used in the facility that may exceed the standards in the California Code of Regulations, title 24, Part 6.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle greenhouse gas emissions.

- Conduct two webinars, prepare two journal/newspaper articles, and conduct four open meetings for port tenants and stakeholders to assess the advanced technology vehicles.
- 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 1.2)

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

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: SAN DIEGO PORT TENANTS ASSOCIATION

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

**RESOLVED**, that the Energy Commission approves Agreement ARV-15-068 from GFO-15-604 with with the San Diego Port Tenants Association for a \$5,903,652 grant to conduct a field demonstration project of advanced vehicle technologies and intelligent transportation systems. The demonstration will occur in and around the Port of San Diego and benefit disadvantaged communities; and

**FURTHER BE IT RESOLVED**, that the Executive Director or his/her designee shall execute the same on behalf of the Energy Commission.

**CERTIFICATION**

The undersigned Secretariat to the Commission does hereby certify that the foregoing is a full, true, and correct copy of a Resolution duly and regularly adopted at a meeting of the California Energy Commission held on June 14, 2016.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

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Cody Goldthrite,  
Secretariat