

**GRANT REQUEST FORM (GRF)**

CEC-270 (Revised 02/13)

CALIFORNIA ENERGY COMMISSION

New Agreement ARV-14-028 (To be completed by CGL Office)

Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Andrew Hom	27	916-651-3000

Recipient's Legal Name	Federal ID Number
City of San Mateo	94-6000422

Title of Project
Wastewater Digester Gas to Biomethane for Vehicle Fuel

Term and Amount	Start Date	End Date	Amount
	11 / 12 / 2014	12 / 1 / 2017	\$ 2,450,000

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

Proposed Business Meeting Date	11 / 12 / 2014	<input type="checkbox"/> Consent	<input checked="" type="checkbox"/> Discussion
Business Meeting Presenter	Andrew Hom	Time Needed:	5 minutes

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

Proposed resolution approving Agreement ARV-14-028 with the City of San Mateo for a \$2,450,000 grant to produce and dispense low carbon biomethane from the unused digester gas that is generated at the City of San Mateo's wastewater treatment plant. The biomethane produced will then be used to fuel the City of Mateo's fleet vehicles.

**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 section number:
 

15301 - Existing Facilities
15303 - New Construction or Conversion of Small Structures
15304 - Minor Alterations to Land
      - Common Sense Exemption. 14 CCR 15061 (b) (3)
      - Explain reason why Agreement is exempt under the above section:
      - The City of San Mateo will be installing a digester gas treatment system within their wastewater treatment plant to remove contaminants and carbon dioxide from the digester gas produced at the facility and convert it into biomethane. Other modifications will include the installation of low pressure storage and control modifications to divert the digester gas to the gas treatment system, and installation of biomethane compression, storage and dispensing equipment to deliver the biomethane to vehicles. This project is exempt as it does not involve the use of significant amounts of hazardous substances and the surrounding area is not environmentally sensitive. Additionally, the three structures being installed do not exceed 10,000 square feet in floor area on sites zoned for such use.
      - 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 |   |

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

Legal Company Name:	Budget
Kennedy/Jenks Consultants	\$ 0
Unison Solutions	\$ 0
	\$ 0

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

**GRANT REQUEST FORM (GRF)**



Legal Company Name:  
 \_\_\_\_\_  
 \_\_\_\_\_

**Budget Information**

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
Funding Source	FY 14/15	601.118 G	\$2,450,000
Funding Source			\$
R&D Program Area:	Select Program Area	TOTAL: \$ 0	
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Recipient's Administrator/ Officer				Recipient's Project Manager			
Name:	Gogo Heinrich			Name:	Gogo Heinrich		
Address:	1949 Pacific Boulevard			Address:	1949 Pacific Boulevard		
City, State, Zip:	San Mateo, CA, 94403-1430			City, State, Zip:	San Mateo, CA, 94403-1430		
Phone:	650-522-7361	Fax:	- -	Phone:	650-522-7361	Fax:	- -
E-Mail:	gheinrich@cityofsanmateo.org			E-Mail:	gheinrich@cityofsanmateo.org		

**Selection Process Used**

Competitive Solicitation  
 First Come First Served Solicitation
 Solicitation #: PON-13-609

**The following items should be attached to this GRF**

1. Exhibit A, Scope of Work	<input checked="" type="checkbox"/>	Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/>	Attached
3. CEC 105, Questionnaire for Identifying Conflicts	<input checked="" type="checkbox"/>	Attached
4. Recipient Resolution	<input checked="" type="checkbox"/> N/A	<input type="checkbox"/> Attached
5. CEQA Documentation	<input type="checkbox"/> N/A	<input checked="" type="checkbox"/> Attached

Agreement Manager \_\_\_\_\_ Date \_\_\_\_\_ Office Manager \_\_\_\_\_ Date \_\_\_\_\_ Deputy Director \_\_\_\_\_ Date \_\_\_\_\_

## Exhibit A SCOPE OF WORK

### **TECHNICAL TASK LIST**

Task #	CPR	Task Name
1		Administration
2		Pre-Design, Design and Bidding
3	X	Construction and Equipment
4		Data Collection and Analysis

### **KEY NAME LIST**

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	City of San Mateo		
2	City of San Mateo		Unison Solutions
3	City of San Mateo		Unison Solutions
4	City of San Mateo		Unison Solutions

### **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
CAM	Commission Agreement Manager
Recipient	City of San Mateo
cfm	Cubic Feet Per Minute
CNG	Compressed Natural Gas
CPR	Critical Project Review
DGE	Diesel Gallon Equivalent
FTD	Fuels and Transportation Division
GGE	Gasoline Gallon Equivalent
Recipient	City of San Mateo
SAE	Society of Automotive Engineers
WWTP	Waste Water Treatment Plant

**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 PON-13-609 entitled "Pilot-Scale and Commercial-Scale Advanced Biofuels Production Facilities" under the ARFVTP on January 14, 2014. This competitive grant solicitation was an offer to cost share the development and production of new low carbon transportation fuels. To be eligible for funding under PON-13-609, the projects must also be consistent with the Energy Commission's ARFVTP Investment Plan as updated annually. In response to PON-13-609, the Recipient submitted Application #2 which was proposed for funding in the Energy Commission's Notice of Proposed Awards on July 18, 2014. PON-13-609 is hereby incorporated by reference into this Agreement in its 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:**

California has a reliable and sustainable resource that is not being utilized to its full potential. This resource is digester gas that is produced as a byproduct of wastewater treatment in approximately 150 publicly owned wastewater treatment plants throughout the state.

The project will be the first example of a new approach to cost-effectively produce vehicle fuel from wastewater generated digester gas in California. Numerous public agencies will see the project as a viable option to cost-effectively recover energy from their digester gas. In addition, this approach will prove easier to operate and maintain than producing electricity with digester gas. Finally, the project displaces the use of petroleum fuel for vehicles. Because of these positive attributes, other public agencies with a Waste Water Treatment Plant (WWTP) will be encouraged to implement projects to produce biomethane for vehicle fuel from digester gas,

once it is proven successful. The target markets for replicating the project are the 150 public agencies in California that produce digester gas at a WWTP.

The project will sustainably and cost-effectively produce low carbon vehicle fuel from the unused digester gas that is generated at the City of San Mateo's WWTP. To achieve this, the digester gas will be treated using a unique system to create biomethane that meets the SAE J1616 vehicle fuel standards at digester gas production rates commonly seen at WWTPs. After treatment, the biomethane will be compressed and stored at a pressure suitable for rapid fueling of vehicles designed to operate on compressed natural gas (CNG). At the San Mateo WWTP, approximately 100 cubic feet per minute of wastewater generated digester gas is available to sustainably produce up to 500 gasoline gallon equivalents (GGE) of biofuel every day, or approximately 160,000 diesel gallon equivalents (DGE) of biofuel per year.

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

The goals of this Agreement are to demonstrate that the technology to sustainably produce low carbon biofuel from digester gas generated from wastewater solids is viable and cost effective. The technical and financial success of the project will demonstrate that any wastewater treatment facility with digesters has the potential to sustainably produce vehicle fuel from digester gas. The demonstrated success should encourage other public agencies with WWTPs to consider producing vehicle fuel.

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

The objectives of this Agreement are as follows:

1. Install gas collection and control facilities to deliver digester gas to the gas treatment system.
2. Install a digester gas treatment system to clean anaerobic digester gas to produce biomethane that complies with SAE J1616 standards (CNG vehicle fuel).
3. Install a vehicle fuel system to compress, store, and dispense CNG to vehicles.
4. Produce 500 GGEs/day of vehicle fuel for use by the City of San Mateo's fleet.
5. Convert and/or buy vehicles to use CNG for vehicle fuel
6. Promote the success of waste gas conversion so that other public agencies with WWTPs will be encouraged to replicate the project.

## **ADMINISTRATIVE TASKS**

### **TASK 1 ADMINISTRATION AND AGREEMENT MANAGEMENT**

#### **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 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 Commission Agreement Manager (CAM), the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the CAM to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
  - Agreement Terms and Conditions
  - Critical Project Reviews (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

**CAM Product:**

- Kick-Off Meeting Agenda

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

CPRs provide the opportunity for open discussions between the Energy Commission and the Recipient. The goal of this ongoing task is to periodically assess critical progress under this agreement, determine if the project should continue to receive Energy Commission funding, and to identify any necessary modifications to the tasks, products, schedule and/or budget.

The Commission Agreement Manager may schedule CPR meetings as necessary, and meeting costs are borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) biofuel 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, products, schedule, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (see section 8 of 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 progress towards achieving goals and objectives of this Agreement. This report shall include recommendations and conclusions regarding continued work. 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 close out the 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 CAM. The technical portion of the meeting shall present an assessment of the degree to which goals and objectives have been achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The CAM will determine the appropriate meeting participants. The administrative portion of the meeting shall be a discussion with the CAM and the Grants Officer about the following Agreement closeout items:
  - What to do with any equipment purchased with Energy Commission funds (Options)
  - Energy Commission's request for specific "generated" data (not already provided in Agreement products)
  - Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
  - "Surviving" Agreement provisions
  - Final invoicing and release of retention
- Prepare 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 CAM 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 purpose, approach, activities performed, results, and advancements in science and technology of the project; 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 future projects and improvements to the FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

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

- Prepare an outline of the Final Report.

- Prepare a Final Report following the 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
- Draft Final Report
- Final Report

**Task 1.6 Identify and Obtain Matching Funds**

The goal of this task is to ensure that match funds planned for this Agreement are obtained 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 CAM at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, and then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies:
  - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
  - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide the appropriate information to the CAM, if during the course of the Agreement additional match funds are received.

- Notify the CAM within 10 days, if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

**Products:**

- 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 CAM at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
  - A list of permits that identifies:
    - Type of permit
    - Name, address and telephone number of the permitting jurisdiction(s) or lead agency
  - Schedule the Recipient will follow in applying for and obtaining these permits.
- Discuss list of permits and schedule for obtaining them at the kick-off meeting and develop a timetable for submitting an updated list, schedule and copies of permits. 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 a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the CAM.
- As permits are obtained, send a copy of each approved permit to the CAM.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 working days. Either of these events may trigger an additional CPR.

**Products:**

- Letter documenting permits or stating that no permits are required
- Copy of each approved permit (if applicable)
- Updated list of permits as they change during term of the Agreement (if applicable)

- Updated schedule for acquiring permits as changes occur during term of the Agreement (if applicable)
- 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 Terms and Conditions of the Agreement and the Recipient’s own procurement policies and procedures. This task also provides the Energy Commission an opportunity to review subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

**The Recipient shall:**

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the CAM for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

**Products:**

- Draft subcontracts
- Final subcontracts

**TECHNICAL TASKS**

**TASK 2 Pre-Design, Design and Bidding**

The goal of this task is to create plans and specifications that describe the Project in sufficient detail so that the City can use a public bidding process to solicit bids from contractors to install the equipment necessary to produce 500 GGE/day of biomethane that will comply with SAE J1616 for use as vehicle fuel.

**The Recipient shall:**

- Identify the modifications to the digester gas collection and control system to deliver digester gas to the gas treatment system.
- Refine the location of the gas treatment system and the vehicle fuel system components.
- Identify key equipment for the City to purchase, if needed.
- Identify the mechanical, electrical, and other utility connections to new facilities.
- Refine the cost estimate and payback analysis.
- Document the results of the predesign tasks in a technical memorandum.
- Create plans to show the civil, mechanical, structural, electrical, and instrumentation and control design of the gas treatment system and the vehicle fuel system, and appurtenant work need to create a complete and operable system.
- Create specifications to define the civil, mechanical, structural, electrical, and instrumentation and control components of the work.
- Combine the plans and specifications into a set of contract documents so that the City can use a public bidding process to solicit bids from contractors to construct the Project.

- Publicly open bids from the contractors and award a contract to the selected contractor.

**Products:**

- Technical memorandum to summarize the results of the Pre-Design tasks
- Engineering designs when the design is approximately 50% complete
- Engineering designs when the design is approximately 90% complete
- A set of contract documents suitable for public bidding when the design is 100% complete
- A summary of the bids received

**TASK 3 Procurement and Construction**

The goal of this task is to procure equipment, construct, test, start-up and commission the Project.

**The Recipient shall:**

- Administer construction progress meetings.
- Respond to contractor questions.
- Review contractor submittals of shop drawings and materials.
- Develop and negotiate change orders to the Project as needed.
- Review and process monthly payment requests from the contractor.
- Oversee testing of the installed equipment.
- Oversee training of the City's staff to operate and maintain the facilities.
- Oversee start-up and commissioning of the installed equipment.
- Produce approximately 500 GGE per day, equivalent to 160,000 diesel gallon equivalents per year of biomethane that will comply with SAE J1616 for use as vehicle fuel.

**Products:**

- Facility testing results
- Written and signed letter verifying biomethane produced

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

**Task 4 Data Collection and Analysis**

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

**The Recipient shall:**

- Develop a plan for data collection
- Troubleshoot any issues identified.
- Collect 6 months of throughput, usage, and operations data from the project including, but not limited to:
  - 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 Title 24 standards in Part 6 of the California Code 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 greenhouse gas emissions.
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.

**Products:**

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

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: CITY OF SAN MATEO

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

**RESOLVED**, that the Energy Commission approves Agreement ARV-14-028 with the **City Of San Mateo** for a **\$2,450,000** grant to produce low carbon biomethane from the unused digester gas that is generated at the City of San Mateo's wastewater treatment plant. The biomethane will be used to fuel fleet vehicles; 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 November 17, 2014.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

---

Harriet Kallemeyn,  
Secretariat