



STATE OF CALIFORNIA

# GRANT REQUEST FORM (GRF)

CEC-270 (Revised 12/2019)

CALIFORNIA ENERGY COMMISSION

## A) New Agreement # LCF-19-001 (to be completed by CGL office)

B) Division	Agreement Manager:	MS-	Phone
600 Fuels and Transportation Division	Pilar Magaña	27	916-651-0587

C) Recipient's Legal Name	Federal ID #
Aemetis Biogas LLC	38-4076147

D) Title of Project
Aemetis Central Dairy Digester Cluster Biogas Cleanup Project

## E) Term and Amount

Start Date	End Date	Amount
06 / 15 / 2020	03 / 31 / 2022	\$ 4,183,000

## F) Business Meeting Information

- ARFVTP agreements \$75K and under delegated to Executive Director  
 Proposed Business Meeting Date 06 / 10 / 2020  Consent  Discussion  
 Business Meeting Presenter Pilar Magaña Time Needed: 5 minutes  
 Please select one list serve. Altfuels (AB118- ARFVTP)

### Agenda Item Subject and Description:

AEMETIS BIOGAS LLC. Proposed resolution approving Agreement LCF-19-001 with Aemetis Biogas LLC for a \$4,183,000 grant to fund construction and operation of a biogas cleanup plant and renewable natural gas production facility and adopting staff's determination that this action is exempt from CEQA. When operational the facility will upgrade biogas from nearby anaerobic dairy digesters and convert it to renewable natural gas for use as transportation fuel. (GGRF funding) Contact: Pilar Magaña. (Staff presentation: 5 minutes)

## G) 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:
  - Agreement **IS** exempt.
    - Statutory Exemption. List PRC and/or CCR section number: PRC 21080(b)(1)
    - Categorical Exemption. List CCR section number: 15301 and 15303
    - Common Sense Exemption. 14 CCR 15061 (b) (3) Explain reason why Agreement is exempt under the above section: 14 CCR section 15301 exempts the operation, repair, maintenance, and minor alteration of existing structures, facilities or mechanical equipment involving negligible or no expansion of existing or former use. This project will involve the minor alteration and operation of an existing biorefinery facility and construction of utilities within existing highways and streets with negligible or no



**GRANT REQUEST FORM (GRF)**

expansion of existing or former use as determined by the lead agency, Stanislaus County. 14 CCR section 15303 exempts the construction and location of limited numbers of new, small facilities or structures. This project will involve the construction of a limited number of small dairy digesters at dairy lagoons and is therefore exempt under 14 CCR section 15303. Construction of the dairy digesters have also been approved by the lead agency, Stanislaus County, as exempt under CEQA.

- b)  Agreement **IS NOT** exempt. (consult with the legal office to determine next steps)

Check all that apply

- Initial Study
- Negative Declaration
- Mitigated Negative Declaration
- Environmental Impact Report
- Statement of Overriding Considerations

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

Legal Company Name:	Budget
Momentum	\$ 225,000.00
Velocity 7 Inc.	\$ 25,000.00
Air Liquide	\$ 0.00

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

Legal Company Name:
SCS Energy, LLC
Biogas Engineering, Inc.
Seabourn Industrial, Inc.

**J) Budget Information**

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
Other	FY 18/19	601.328	\$4,183,000
Funding Source			\$
Funding Source			\$
Funding Source			\$
Funding Source			\$

R&D Program Area: Select Program Area TOTAL: \$

Explanation for "Other" selection Greenhouse Gas Reduction Fund

Reimbursement Contract #: Federal Agreement #:

**K) Recipient's Contact Information**

**1. Recipient's Administrator/Officer**

Name: Robbie Macias

Address: 20400 Steven Creek Blvd.

City, State, Zip: Cupertino, CA, 95014

Phone: (209) 252-5232



STATE OF CALIFORNIA

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E-Mail: Robbie.macias@aemetis.com

## 2. Recipient's Project Manager

Name: Robbie Macias

Address: 20400 Stevens Creek Blvd.

CALIFORNIA ENERGY COMMISSION

City, State, Zip: Cupertino, CA,  
95014

Phone: (209) 252-5232

E-Mail: Robbie.macias@aemetis.com

### L) Selection Process Used

- Competitive Solicitation      Solicitation #: GFO-19-601
- First Come First Served Solicitation      Solicitation #:      -      -

### M) 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      |
| 5. CEQA Documentation                               | <input type="checkbox"/>            | N/A      |

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

\_\_\_\_\_  
**Date**

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

\_\_\_\_\_  
**Date**

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

\_\_\_\_\_  
**Date**

## Exhibit A SCOPE OF WORK

### TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Pre-Construction Activities
3		Construction
4	X	Facility Commissioning
5		Priority Population Outreach
6		Data Collection and Analysis
7		Project Fact Sheet

### KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Robbie Macias – Aemetis Jeff Welch – Aemetis Andy Foster – Aemetis Daele Mather – Momentum	Momentum	
2	Robbie Macias – Aemetis Jeff Welch – Aemetis Andy Foster – Aemetis	SCS Energy Biogas Engineering Seabourn Industrial	Air Liquide Vilter (Emerson)
3	Robbie Macias – Aemetis Jeff Welch – Aemetis Andy Foster – Aemetis Joseph P. Bushinsky – Air Liquide TBD – TBD Construction Contractor	SCS Energy Biogas Engineering Seabourn Industrial	Pacific Gas & Electric Air Liquide Vilter (Emerson)
4	Robbie Macias – Aemetis Jeff Welch – Aemetis Andy Foster – Aemetis	ECO Engineers Momentum Biogas Engineering Air Liquide	TBD
5	Robbie Macias – Aemetis Andy Foster – Aemetis Janet Cohen – Velocity 7	Velocity 7	TBD
6	Ethan Hanohano – Momentum Matt Hart – Momentum Robbie Macias – Aemetis	Momentum	TBD

## GLOSSARY

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

Term/ Acronym	Definition
LCFPP	Low Carbon Fuel Production Program
ABGL	Aemetis Biogas LLC
ACDDC	Aemetis Central Dairy Digester Cluster
BCP	Biogas Cleanup Plant
CI	Carbon Intensity
CAM	Commission Agreement Manager
CPR	Critical Project Review
DAC	Disadvantaged Community are areas designated in the top 25 percent highest scoring census tracts in CalEnviroScreen 3.0 ( <a href="http://calepa.ca.gov/EnvJustice/GHGInvest/">http://calepa.ca.gov/EnvJustice/GHGInvest/</a> ).
FTD	Fuels and Transportation Division
gCO <sub>2</sub> e/MJ	Grams of Carbon Dioxide Equivalent per Megajoule
GHG	Greenhouse Gases (Measured in carbon dioxide equivalents (CO <sub>2</sub> e))
LCFS	Low Carbon Fuel Standard
MMBTU	Million British Thermal Units
MTCO <sub>2</sub> e	Metric Ton of Carbon Dioxide Equivalent
NMNEVOC	Non-Methane, Non-Ethane Volatile Organic Compounds
Priority Populations	Priority Populations include residents of (1) census tracts identified as disadvantaged by California Environmental Protection Agency per SB 535 (De Leon, Chapter 830, Statutes of 2012), (2) census tracts identified as low-income per AB 1550 (Gomez, Chapter 369, Statutes of 2016), or (3) a low-income household per AB 1550 (Gomez, Chapter 369, Statutes of 2016). For more information see Attachment 11 to the solicitation GFO-19-601.
Recipient	Aemetis Biogas, LLC
RNG	Renewable Natural Gas

## Background

The Low Carbon Fuel Production Program (LCFPP) is part of California Climate Investments, a statewide program that puts billions of cap-and-trade dollars to work reducing greenhouse gas (GHG) emissions, strengthening the economy, and improving public health and the environment, particularly in disadvantaged communities. The Cap-and-Trade Program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. California Climate Investments projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling, and much more. At least 35 percent of these investments are located within and benefiting residents of disadvantaged communities, low-income communities, and low-income households across California. For more information, visit the California Climate Investments website at [www.caclimateinvestments.ca.gov](http://www.caclimateinvestments.ca.gov).

All California Climate Investments programs must advance Assembly Bill (AB) 32 and Senate Bill (SB) 32 as the primary program goal, and each project must provide real and quantifiable GHG emission reductions. The LCFPP will accelerate the adoption of renewable fuels and alternative fuel vehicle technologies that support achieving the state's long-term GHG emissions reduction goals while maximizing other co-benefits. The Energy Commission, in alignment with California Climate Investments principles, will prioritize funds investment in projects that achieve the highest GHG reductions, maximize benefits to disadvantaged communities, and are necessary to meet the state's climate goals. These investments are expected to encourage projects that support California's existing plans, policies, and initiatives (for example, *California's 2017 Climate Change Scoping Plan* and the measures included therein, *California Sustainable Freight Action Plan*, *Mobile Source Strategy*, and *Short-Lived Climate Pollutant Strategy*).

This program gives applicants opportunities to work together with other agencies to provide and maximize benefits (for example, the California Department of Food and Agriculture's Dairy Digester Research and Development Program and the California Department of Resources Recycling and Recovery's (CalRecycle) Organics Grant Program). To avoid duplicative funding, applicants must coordinate with local, state, and federal programs.

A full description of all the energy and climate laws and policies governing LCFPP is found in the Guidelines (<https://www.energy.ca.gov/programs-and-topics/programs/low-carbon-fuel-production-program>). The major policies that govern LCFPP include the following:

- AB 32 created a comprehensive program mandating a reduction in California GHG emissions to 1990 levels by 2020. In implementing AB 32, the California Air Resources Board (CARB) developed a scoping plan describing the approach California will take to reduce GHG emissions, including the Cap-and-Trade Program. CARB must update the plan every five years. Additional information can be found at: <http://www.arb.ca.gov/cc/ab32/ab32.htm>.
- SB 32 requires CARB to adopt rules and regulations to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 levels by 2030.
- SB 535 requires the California Environmental Protection Agency (CalEPA) to identify disadvantaged communities and requires CARB to provide guidance on maximizing benefits to these communities.
- AB 1550 (Gomez, Chapter 369, Statutes of 2016) amends existing SB 535 (DeLeon, Chapter 830, Statutes of 2012) to set investment minimums for Greenhouse Gas Reduction Fund (GGRF) projects in and benefiting disadvantaged communities and low-income communities and includes the following requirements:

- A minimum of 25% of the proceeds to be invested in projects located within and benefitting individuals living in disadvantaged communities;
- An additional minimum of 5% be invested in projects located within and benefitting individuals living in low-income communities or benefitting low-income communities statewide; and
- An additional minimum of 5% be invested in projects that are located within and benefitting individuals living in low-income communities, or benefitting low-income households that are within one-half mile of a disadvantaged community.

**Problem Statement:**

California seeks to reduce the GHG emissions associated with transportation and, more specifically, the carbon intensity of its transportation fuels. In order to maximize the potential benefits of this waste stream and renewable transportation fuel, a range of technological, market, environmental, and financial barriers must be overcome. High development costs of the proposed technology suite for this project have had limited demonstrations to only a handful of dairies. The high moisture content and corrosive nature of dairy biogas makes transportation extremely difficult and cost-prohibitive without significant capital investment. Limited knowledge of the revenue streams associated with dairy biogas renewable natural gas (RNG) has inhibited adoption. Institutional hurdles such as strict quality requirements of interconnecting with the state’s utility natural gas pipeline network also limit development. The high hydrogen sulfide, carbon dioxide, and liquid content of dairy biogas creates environmental hurdles that must be addressed by integrating diverse technologies into a single system, increasing complexity and cost. Absent financial mechanisms like the LCFS, the higher cost of producing dairy biogas RNG limits its marketability and early commercial viability. It is critical that these barriers be addressed today to unlock RNG’s environmental and economic benefits for California’s dairies and fleets by converting fugitive emission into valuable pipeline-quality RNG.

**Goals of the Agreement:**

The goals of this Agreement are to:

- Construct and operate a multi-feedstock-capable production facility (the Biogas Cleanup Plant (BCP) RNG production facility).
- Produce an ultra-low CI transportation fuel to displace fossil fuel use in California’s transportation sector.
- Reduce Air Pollution.
- Provide numerous benefits to local priority populations as described and defined in solicitation GFO-19-601 and the CEC Low-Carbon Fuel Production Program 2019 Program Implementation Guidelines (July 2019, CEC-600-2019-006-F) (LCFP Program Guidelines) and specified in the Glossary above, including full-time and temporary construction-period jobs.

**Objectives of the Agreement:**

The objectives of this Agreement are to:

1. Receive approximately 7.2 million standard cubic feet (scf) per day of dairy biogas produced from dairy manure feedstock at up to 30 nearby farms;
2. Install all proposed equipment and commission proposed facility;
3. Achieve annual production of approximately 6.8 million diesel gallon equivalents (DGE) (1 million MMBTU) of ultra-low-carbon RNG from dairy biogas;

4. Demonstrate an average RNG carbon intensity of as low as -427 gCO<sub>2</sub>e/MJ;
5. Reduce GHG emissions by more than 2.6 million MTCO<sub>2</sub>e/year;
6. Provide approximately 1,018 MMBTU of RNG of transportation fuel for use per year to the Monterey Park Tract or another Disadvantaged Community as approved by the CAM;
7. Collect and submit facility operation and performance data to the Energy Commission for a minimum of six months after the biofuel production facility becomes operational; and
8. Calculate the fuel's levelized cost using the Levelized Cost of Fuel Calculator

## **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 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, the Grants Officer, and a representative of the Accounting Office. The Recipient shall bring its Project Manager, Agreement Administrator, Accounting Officer, and others designated by the Commission Agreement Manager 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 Commission Agreement Manager may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the Commission Grants Officer, the Fuels and Transportation Division (FTD) 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:**

- Draft subcontracts
- Final subcontracts

**TECHNICAL TASKS**

**TASK 2 PRE-CONSTRUCTION ACTIVITIES**

The goal of this task is to complete the design and engineering and all other pre-construction activities for the proposed Biogas Cleanup Plant (BCP) RNG production facility (BCP facility).

**The Recipient shall:**

- Complete all design and engineering plans and planning for the proposed BCP facility, including the design and engineering of grading and foundation requirements, electrical components, mechanical components, structural

- components.
- Prepare and provide a *Written Notification of Completion of Grading and Foundation Plans* to the CAM. The letter shall include, but is not limited to:
    - Final engineering documents
    - Summary of the lessons learned in the design phase
    - Approval from applicable agencies
  - Prepare and provide a *Written Notification of Completion of Electrical Plans* to the CAM. The letter shall include, but is not limited to:
    - Final engineering documents
    - Summary of the lessons learned in the design phase
    - Approval from applicable agencies
  - Prepare and provide a *Written Notification of Completion of Mechanical Plans* to the CAM. The letter shall include, but is not limited to:
    - Final engineering documents
    - Summary of the lessons learned in the design phase
    - Approval from applicable agencies
  - Prepare and provide a *Written Notification of Completion of Structural Plans* to the CAM. The letter shall include, but is not limited to:
    - Final engineering documents
    - Summary of the lessons learned in the design phase
    - Approval from applicable agencies
  - Prepare and provide to the CAM final *Construction and Equipment List* that will be used to develop bid packages to be sent to vendors.
  - Develop *Operator Training and Safety Manuals* specific to the proposed Air Liquide Digester RemovAL™ System deployed at the BCP facility.
  - Submit all remaining required permits from local agencies having jurisdiction, including, but not limited to:
    - Building Permit application
    - Application for Authority to Construct (ATC)
    - Application for Permit to Operate
  - Prepare *Permitting Report* that includes:
    - Copy of Building Permit
    - Copy of Authority to Construct
    - Copy of Permit to Operate
  - Design and engineering plans shall include, but not be limited to the following:
    - New fuel production capacity at the BCP facility to achieve annual production of approximately 6.8 million DGEs;
    - Production of renewable fuel with a calculated carbon intensity of 30 g CO<sub>2</sub> /MJ or less;
    - Fuel that will lead to reduction in on-road motor vehicle air emissions.
  - Develop and Execute a *Procurement Plan* for the BCP facility that will detail the process for procurement and final vendor selection of equipment, materials, and services in a manner that provides transparency into the selection process and the rationale for optimizing the quality of services provided with price. The *Procurement Plan* will include, but is not limited to:
    - A description of the bid packages to be assembled
    - A methodology for receiving and evaluating responses
    - A description of the vendor selection process

- Prepare and provide a *Procurement Report* for the BCP facility that will detail the selection process and justification for the service providers selected. The *Procurement Report* will include, but is not limited to:
  - A list of respondents to bid packages
  - A rationale for the selected service providers
- Complete negotiations and contracting with nearby dairies within Stanislaus County to secure sufficient dairy manure biogas feedstock supply agreements to meet Agreement objectives as follows:
  - Conduct outreach to nearby dairies of the Keyes proposed BCP facility for participation in the project.
  - Transportation of biogas from dairies to BCP facility shall be via Stanislaus County approved pipelines.
  - Complete negotiations and execute feedstock supply agreements with at least 13 approved dairies, or lesser amount as approved in writing by the CAM.
  - Contracted dairies must be within Stanislaus County and project work must comply with all County setback requirements and building permits without the need for a discretionary use permit.
  - If Recipient wants to change any of the requirements for participating dairies it must submit a request to amend this Agreement pursuant to the Terms and Conditions for consideration by the Energy Commission.
- Agreements and procurement shall only include eligible feedstock as described and defined in solicitation GFO-19-601 (addendum 2) pages 10-12 and LCFP Program Guidelines pages 10-12.
- Prepare and provide to the CAM a *Written Notice of Completion of Feedstock Supply Agreements*.

**Products:**

- Written Notification of Completion of Grading and Foundation Plans
- Written Notification of Completion of Electrical Plans
- Written Notification of Completion of Mechanical Plans
- Written Notification of Completion of Structural Plans
- Construction and Equipment List
- Operator Training and Safety Manuals
- Permitting Report
- Procurement Plan
- Procurement Report
- Written Notice of Completion of Feedstock Supply Agreements

**[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]**

**TASK 3 CONSTRUCTION**

The goal of this task is to construct and commission the commercial-scale BCP RNG production facility so that the facility is ready for continuous commercial operation.



**The Recipient shall:**

- Develop and implement a *Construction Management Plan* for the facility that will outline the budget and schedule for the remaining items necessary to complete construction and installation activities. The *Construction Management Plan* will include, but is not limited to, the following:
  - A list of construction and installation milestones
  - A list of preferred equipment vendors and a timeline for equipment procurement
  - A Gantt chart and detailed project schedule
  - A description of best management practices to be utilized
  - A risk mitigation strategy
  - A plan for quality control and quality assurance
- Prepare and provide a *Major Project Change List* for the facility that will identify any major project changes that occurred during or after implementation of the Construction Management Plan. The *Major Project Change List* will be updated on an as-needed basis and will include, but is not limited to, the following:
  - An update on selected equipment vendors and timeline for equipment acquisition
  - A description of the scope of any challenge(s) necessitating a material change in the Construction Management Plan
  - A solution to address any challenge(s) and rationale for the proposed solution(s)
  - An update, as necessary, to the milestones and Gantt chart to reflect any new approach(es)
- Prepare and provide a *Construction Report* for the facility that will evaluate the actual construction activities compared to the Construction Management Plan. The *Construction Report* will include, but is not limited to:
  - A final schedule of completed milestones with pictures documenting completed milestones
  - A description of lessons learned
  - A summary of any major project changes
- Prepare and provide *Written Notification of Completion of Construction and Installation* for the facility that will notify the CAM that construction and installation activities have been completed, including pictures of all completed construction and installations.

**Products:**

- Construction Management Plan
- Major Project Change List
- Construction Report
- Written Notification of Completion of Construction and Installation

**TASK 4 FACILITY COMMISSIONING**

The goal of this task is to perform the testing required to commission the commercial-scale BCP RNG production facility and co-located fueling station, including hosting a ribbon cutting ceremony to celebrate facility commissioning.

**The Recipient Shall:**

- Develop and implement a *Cold Testing Plan* for the facility that will detail the process, deliverables, and milestones associated with the cold testing of the facility. Cold testing refers to testing without material. The *Cold Testing Plan* will include, but is not limited to, the following:
  - A description of the equipment to be tested
  - A description of the methodology to test the identified equipment, including testing for required carbon intensity and projected DGE capacity
  - A list of goals and objectives for the test
  - A description of the quality control and quality assurance practices for the test methodology
- Develop and implement a *Cold Testing Report* for the facility that will evaluate the cold test results. The *Cold Testing Report* will include, but is not limited to, the following:
  - A description of the results of the cold test for the identified equipment
  - A description of any major changes that were made based on findings during the cold testing
- Develop and implement a *Hot Testing Plan* for the facility that will detail the process, deliverables, and milestones associated with the hot testing of the facility. Hot testing refers to testing with material. The *Hot Testing Plan* will include, but is not limited to, the following:
  - A description of the equipment to be tested
  - A description of the methodology to test the identified equipment, including testing for required carbon intensity and projected DGE capacity
  - A list of goals and objectives for the test
  - A description of the quality control and quality assurance practices for the test methodology
- Prepare and provide a *Hot Testing Report* for the facility that will evaluate the hot test results. The *Hot Testing Report* will include, but is not limited to, the following:
  - A description of the results of the hot test for the identified equipment
  - A description of any major changes that were made based on findings during the hot testing
- Prepare and provide *Written Notification of Completion of Commissioning* for the facility that will notify the CAM that commissioning activities have been completed and that the facility is ready to commence commercial operations.
- Host public Ribbon Cutting Ceremony for invited stakeholders, elected officials, project partners, community organizations, community leaders, and the general public. Prepare and provide a *Ribbon Cutting Ceremony Activities Report* to the CAM, which, at a minimum, will have:
  - A list invited parties
  - Final number of attendees
  - Description of the event
  - Photos and/or videos of the event
- Operate facility at less than 50% of full capacity for two months to validate the performance of the equipment, including required carbon intensity and projected DGE capacity.
- Operate facility at 100% of full capacity. Prepare and provide a *Written Notification of Achievement of Full-Scale Production* for the facility that will notify the CAM that the facility is ready to commence commercial operations at full capacity.

**Products:**

- Cold Testing Plan
- Cold Testing Report
- Hot Testing Plan
- Hot Testing Report
- Written Notification of Completion of Commissioning
- Ribbon Cutting Ceremony Activities Report
- Written Notification of Achievement of Full-Scale Production

**[CPR WILL OCCUR DURING THIS TASK. See Task 1.2 for details.]**

**TASK 5 PRIORITY POPULATION OUTREACH**

The goal of this task is to expand outreach and knowledge sharing with the local workforce, educational system, and community stakeholders as well as applicable Priority Populations as defined in this Scope of Work Glossary.

**The Recipient shall:**

- Develop and execute a *Priority Population Outreach Plan* that includes, but is not limited to, the following:
  - Outline of clean transportation educational materials for dissemination and presentation at local schools, junior colleges, and universities
  - Tentative schedule of community meeting(s) with stakeholders from local Priority Population
  - Conduct educational outreach and workshops for students at local high schools and colleges about dairy digester technology and the Aemetis facility
- Develop a summary *Priority Population Outreach Report*.
  - Outreach topic list
  - Outreach presentation details
    - Time and place of outreach presentation
    - Outreach presentation and meeting agenda
    - Total number of attendees

**Products:**

- Priority Population Outreach Plan
- Priority Population Outreach Report

**TASK 6 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 impacts, and to include the data and analysis in the Final Report.

**The Recipient shall:**

- Develop a *Data Collection Plan*.
- Troubleshoot any issues identified.
- Collect at least six months of data, including:
  - Throughput, usage, and operations data
  - Normal operating hours, up time, down time, and explanations of variations
  - Feedstock supply summary

- Maximum capacity of the new fuel production system in diesel gallon equivalents (DGE) and ordinary units
- Gallons of gasoline and/or diesel fuel displaced (with associated mileage information), along with value converted into DGE
- Record of wastes from production processes (wastewater, solid waste, criteria emissions, etc.)
- 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
- Levelized Cost of Fuel and Finished fuel price
- Analysis of total facility costs, operation and maintenance costs, marginal abatement costs
- Comply with the Petroleum Industry Information Reporting Act (PIIRA) and complete CEC Form M810E and CEC Form M13 on a monthly basis for submission to the California Energy Commission's PIIRA Data Collection Unit.
- Provide a written record of registering with the Low Carbon Fuel Standard and Renewable Fuel Standard programs.
- Identify any current and planned use of renewable energy at the facility.
- 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 or provide an Air Resources Board approved pathway carbon intensity.
- Estimate annual life-cycle greenhouse gas 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 Plan
- Data collection information and analysis will be included in the Final Report

**TASK 7 PROJECT FACT SHEET**

The goal of this task is to develop an initial and final project fact sheet that describes the CEC-funded project and the benefits resulting from the project for the public and key decision makers.

**The Recipient shall:**

- Prepare an *Initial Project Fact Sheet* at start of the project that describes the project and the expected benefits. Use the format provided by the CAM.

- Prepare a *Final Project Fact Sheet* at the project's conclusion that describes the project, the actual benefits resulting from the project, and lessons learned from implementing the project. Use the format provided by the CAM.
- Provide at least (6) six *High Quality Digital Photographs* (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project sites or related project photographs.

**Products:**

- Initial Project Fact Sheet
- Final Project Fact Sheet
- High Quality Digital Photographs

**Notice of Exemption**

**Form D**

**To:** Office of Planning and Research  
Commission  
PO Box 3044, Room 113  
Transportation Division  
1400 Tenth Street  
MS-27  
Sacramento, CA 95812-3044  
95814

**From:** California Energy  
Fuels and  
1516 Ninth Street,  
Sacramento, CA

**Project Title:** Aemetis Central Dairy Digester Biogas Cleanup Project

**Project Location – Specific:**

Project Location	Address	City	ZIP	County
Aemetis Keyes Ethanol Production Facility	4209 Jessup Road	Keyes	95328	Stanislaus
Various dairy lagoons	TBD	TBD	TBD	Stanislaus

**Project Location – City:** Keyes                      **Project Location – County:** Stanislaus

**Description of Project:**

The project will involve the construction and operation of a new Biogas Cleanup Plant at an existing commercial biofuel production facility located in the Keyes, California for the procurement and upgrading of dairy biogas pipelined from local dairy digesters to convert to renewable natural gas. The construction of the Biogas Cleanup Plant is located in the M (industrial) zoning district and will consist of plant design, engineering, construction and commissioning, with biogas being stored at an existing on-site boiler.

**Name of Public Agency Approving Project:** California Energy Commission

**Name of Person or Agency Carrying Out Project:** Pilar Magaña

**Exempt Status:** *(check one)*

- Ministerial (Sec. 21080(b)(1); 15268);
- Declared Emergency (Sec. 21080(b)(3); 15269(a));
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- Categorical Exemption. State type and section number
- Statutory Exemptions. State code number.
- Common Sense Exemption. 15061(b)(3)

15301 and 15303

PRC 21080 (b)(1)

Authority cited: Sections 21083 and 21110, Public Resources Code. Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

**Notice of Exemption**

**Form D**

14 CCR section 15301 exempts the operation, repair, maintenance, and minor alteration of existing structures, facilities or mechanical equipment involving negligible or no expansion of existing or former use. This project will involve the minor alteration and operation of an existing biorefinary facility and construction of utilities within existing highways and streets with negligible or no expansion of existing or former use as determined by the lead agency, Stanislaus County.

14 CCR section 15303 exempts the construction and location of limited numbers of new, small facilities or structures. This project will involve the construction of a limited number of small dairy digesters at dairy lagoons and is therefore is exempt under 14 CCR section 15303. Construction of the dairy digesters have also been approved by the lead agency, Stanislaus County, as exempt under CEQA.

**Responsible Agency**

**Contact Person:** Pilar Magaña **Area code/Telephone/Ext:** 916-651-0587

Has a Notice of Exemption been filed by the public agency approving the project?  Yes  No

**Signature:** Pollution Specialist **Date:** \_\_\_\_\_ **Title:** Air

**Signed by Responsible Agency**

**Signed by Applicant**

**Date received for filing at OPR:** \_\_\_\_\_

STATE OF CALIFORNIA

STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: AEMETIS BIOGAS, LLC.

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

**RESOLVED**, that the CEC approves Agreement LCF-19-001 with Aemetis Biogas LLC for a \$4,183,000 grant to fund construction and operation of abiogas cleanup plant and renewable natural gas production facility. When operational, the facility will upgrade biogas from nearby anaerobic dairy digesters and convert it to renewable natural gas for use as transportation fuel; and

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

**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 CEC held on June 10, 2020.

AYE:

NAY:

ABSENT:

ABSTAIN:

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Cody Goldthrite  
Secretariat