

GRANT AMENDMENT REQUEST FORM (GARF)



Original Agreement #	EPC-17-018		1
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ERDD	Tanner Kural		916-327-1542
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The Regents of the University of California on behalf of the Davis campus	94-6036494
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<input type="checkbox"/> Term Extension	New End Date:	Include revised schedule and complete items A, B, C, & F below.
<input type="checkbox"/> Budget Augmentation	Amendment Amount: \$ 0	Include revised budget and complete items A, B, C, D & F below.
<input type="checkbox"/> Budget Reallocation		Include revised budget and complete items A, B, C, & F below.
<input checked="" type="checkbox"/> Scope of Work Revision		Include revised scope of work and complete items A, B, C, E & F below.
<input checked="" type="checkbox"/> Change in Project Location or Demonstration Site		Include revised scope of work and complete items A, B, C, E & F below.
<input type="checkbox"/> Novation/Name Change of Prime Contractor/Recipient		Include novation documentation and complete items A, B, C, & F below.
<input checked="" type="checkbox"/> Terms and Conditions Modification		Include applicable exhibits with bold/underline/strikeout and complete items A, B, C, & F below.

Business Meeting approval is not required for the following types of Agreements:

<input type="checkbox"/> ARFVTP agreements under \$75K delegated to Executive Director.			
Proposed Business Meeting Date	1/09/2019	<input checked="" type="checkbox"/> Consent	<input type="checkbox"/> Discussion
Business Meeting Presenter	N/A	Time Needed:	0 minutes

Please select one list serve. Select

Agenda Item Subject and Description

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA ON BEHALF OF THE DAVIS CAMPUS. Proposed resolution approving Amendment 1 to Agreement EPC-17-018 with The Regents of the University of California on behalf of the Davis campus, to change the project location from a naval base in Ventura County to a cold storage facility in Oxnard, California, and to replace equipment vendor SEaB Energy with Impact Bioenergy Inc., including a revision to pre-existing intellectual property.

Legal Company Name:	Budget
Biodico, Inc.	\$ 1,500,164
SEAHOLD LIMITED LIABILITY COMPANY	\$ 22,400
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$

Legal Company Name:
Impact Bioenergy, Inc.
Lineage Logistics

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D) Budget Information			
Funding Source	Funding Year of Appropriation	Budget List No.	Amount
			\$
			\$
			\$
			\$
			\$
			\$
R&D Program Area:	EGRO: Renewables		\$
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

1. Is Agreement considered a "Project" under CEQA?
 Yes (skip to question 2) No (complete the following (PRC 21065 and 14 CCR 15378)):
 Explain why Agreement is not considered a "Project":

2. If Agreement is considered a "Project" under CEQA:
 a) Agreement **IS** exempt. (Attach draft NOE)
 Statutory Exemption. List PRC and/or CCR section number: _____
 Categorical Exemption. List CCR section number: Cal. Code Regs., tit 14, § 15303
 Common Sense Exemption. 14 CCR 15061 (b) (3)
 Explain reason why Agreement is exempt under the above section:
 The Energy Commission made CEQA findings pertaining to this project at the time of its approval in September 2017, including findings based on the United States Department of the Navy's Environmental Assessment (EA) and Finding of No Significant Impact that work under the proposed project will not have a significant environmental impact. The Navy's EA was conducted for a larger project for large-scale biodiesel production at the naval base, of which the project proposed under this grant agreement (a food waste-to-electricity anaerobic digester) was a small component. Now, the project location is proposed to change from the naval base to an existing industrial facility. The remainder of the project, including the feedstocks used, will remain the same.

This project is exempt under Cal. Code Regs., tit 14, section 15303. Categorical Exemption 15303 "New Construction or Conversion of Small Structures" applies to construction of limited numbers of new, small facilities or structures. This project involves the temporary placement and operation of an anaerobic digester (AD) within an existing industrial facility. The AD system will consist of five shipping container units within a 2,800 sq. ft. perimeter, shielded from public view by existing warehouses. The system will be able to convert approximately 6,700 lbs. of food waste per day into biogas, which will be used to generate electricity, heat, and fertilizer while preventing methane emissions associated with landfill use. The AD is designed with odor control measures. The purpose of this project is to demonstrate the use of decentralized AD solutions. The research project is expected to temporarily use the site for 2 to 3 years. For these reasons, the proposed project will have no significant impact on the environment and fits within section 15303.

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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F) The following items should be attached to this GARF (as applicable)			
1. Exhibit A, Scope of Work	<input type="checkbox"/>	N/A	<input checked="" type="checkbox"/> Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/> Attached
3. CEQA Documentation	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/> Attached
4. Novation Documentation	<input checked="" type="checkbox"/>	N/A	<input type="checkbox"/> Attached
5. CEC 105, Questionnaire for Identifying Conflicts			<input checked="" type="checkbox"/> Attached

Agreement Manager

Date

Office Manager

Date

Deputy Director

Date

EXHIBIT A Scope of Work

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2		Project Preparation
3		Equipment Installation/Operation and Food Waste Collection
4	X (3)	Measurement and Verification of System Performance
5		Evaluation of Project Benefits
6		Technology/Knowledge Transfer Activities
7		Production Readiness Plan

B. Acronym/Term List

Acronym/Term	Meaning
AD	Anaerobic Digestion
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CHP	Combined Heat and Power
CPR	Critical Project Review
GHG	Greenhouse Gas
LCOE	Levelized Cost of Electricity
M&V	Measurement and Verification
SCE	Southern California Edison
TAC	Technical Advisory Committee

II. PURPOSE OF AGREEMENT, PROBLEM/SOLUTION STATEMENT, AND GOALS AND OBJECTIVES

A. Purpose of Agreement

The purpose of this Agreement is to fund the design, installation, and assessment of a compact, containerized anaerobic digestion (AD) system as an on-site solution for converting food waste to electricity, heat, and fertilizer. The project benefits of this integrated, small-scale system will be analyzed based on the performance of the pilot unit, but will also be extrapolated out to reflect the potential of broader adoption statewide.

B. Problem/ Solution Statement

Problem

The common model for managing food waste generally involves disposal in a landfill where the organic material releases methane gas (a greenhouse gas (GHG) with 25 times the global warming potential of carbon dioxide) to the atmosphere as it degrades. The conversion of food

¹ Please see subtask 1.3 in Part III of the Scope of Work (General Project Tasks) for a description of Critical Project Review (CPR) Meetings.

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waste to electricity and heat via AD provides a promising alternative solution to the current model, but the appropriate scale of AD infrastructure (i.e. establishing centralized vs. decentralized AD systems) for food waste has not yet been well-defined.

Solution

This project will assess the potential for a highly standardized and rapidly deployable decentralized AD solution as a compelling alternative to large-scale centralized AD facilities. By implementing on-site AD at locations where food waste is generated and electricity demand exists, it is possible to reduce/avoid: 1) the consumption of non-renewable electricity, 2) the transmission and distribution losses associated with the delivery of electricity across long distances on the regional grid, and 3) the transport costs (inclusive of the monetary, environmental, and public health costs) of hauling food waste long distances to feed larger AD generators.

C. Goals and Objectives of the Agreement

Agreement Goals

The goal of this Agreement is to advance both the technology and knowledge required to increase the deployment of cost-effective, on-site AD systems that jointly optimize waste management and renewable electricity, heat, and fertilizer production for local California communities.

Ratepayer Benefits:² This Agreement will result in the ratepayer benefits of greater electricity reliability and lower costs through the on-site generation and utilization of electricity produced through the AD of food waste. The project will evaluate the performance of a small-scale, on-site AD system installed at a ~~large-scale Naval Facility~~ **cold-storage facility** in Southern California, where the pilot unit will directly reduce the ~~Navy Base's~~ **cold storage facility's** demand for electricity from the regional grid, as well as avoid the longer term marginal costs of electricity supply expansion. These benefits have the potential to increase significantly should the results of the pilot project enable increased adoption and installation of the technology across the State.

Technological Advancement and Breakthroughs:³ This Agreement will lead to technological advancement and breakthroughs to overcome barriers to the achievement of the State of California's statutory energy goals by addressing the knowledge gap regarding the optimal scale for the deployment and utilization of AD technology to convert organic waste (specifically food waste for this project) into renewable electricity, heat, and fertilizer. To meet this need, this project will perform techno-economic and environment assessments of increased deployment of micro-scale AD systems across the state. The project will also develop new knowledge about the performance variability of micro-scale AD systems relative to fluctuating and heterogeneous food waste feedstock inputs.

² California Public Resources Code, Section 25711.5(a) requires projects funded by the Electric Program Investment Charge (EPIC) to result in ratepayer benefits. The California Public Utilities Commission, which established the EPIC in 2011, defines ratepayer benefits as greater reliability, lower costs, and increased safety (See CPUC "Phase 2" Decision 12-05-037 at page 19, May 24, 2012, http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/167664.PDF).

³ California Public Resources Code, Section 25711.5(a) also requires EPIC-funded projects to lead to technological advancement and breakthroughs to overcome barriers that prevent the achievement of the state's statutory and energy goals.

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Assembly Bill 1826 (passed in late 2014) requires businesses to separate their organic waste for composting or AD, creating a dramatic increase in the demand for these technologies as alternative fates for organic waste material. However, the AD market is relatively nascent in the State, so a deeper understanding of the costs and benefits of deploying technology at various scales can immediately inform decision-making that will have long-term implications in the energy sector as described below.

Leveraging small-scale AD technology to convert food waste to electricity, heat, and fertilizer addresses multiple statutory energy goals, including:

- Increased generation of renewable electricity (SB 350);
- Reduced demand for natural gas (SB 350);
- Reduced GHG emissions driven by reduced electricity demand, reduced hauling miles to transport waste, and reduced demand for synthetic fertilizer (AB 32 and Executive Order B-30-15);
- Development of combined heat and power (CHP) projects (Governor's Clean Energy Jobs Plan, 2011); and,
- Increased sustainable utilization of organic waste (Bioenergy Action Plan, 2012).

Additional Co-benefits:

- Annual net electricity savings of 479.5 MWh/year and annual thermal savings of 27,740 therms/year.
- Assuming consistent operation at full capacity, the system will reduce net peak demand from the ~~Navy Base~~ **cold storage facility** on the Southern California Edison (SCE) grid by 60 kW.
- Energy cost reductions:
 - Assuming avoided commercial electricity costs of \$152/MWh⁴: \$72,246/year
 - Assuming avoided commercial natural gas charges of \$1/therm⁵: \$27,740/year
 - Total: \$99,986/year
- Reduces the amount of food waste going to landfills by 1,220 tons per year.
- Air quality benefits of the proposed technology will be quantified over the project period. The current generation system as specified meets all local quality requirements. As a decentralized solution for food waste processing, there are additional benefits to air quality based on reduced hauling of food waste from source to AD system.
- Avoided GHGs 427.2 metric tons of CO₂ emissions per year.

Agreement Objectives

The objectives of this agreement are to guide our activities over the duration of the project period using the following four objectives:

- Install and operate an innovative, community-scale AD solution at ~~the U.S. Naval Base~~ **Lineage Logistics' cold storage facility** in Ventura County that successfully produces electricity, heat, and fertilizer from food waste (non-recoverable for human consumption) collected from local enterprises less than 7 miles away and including severely disadvantaged communities.

⁴ SCE electricity pricing forecast, 2017 commercial estimate:

http://www.energy.ca.gov/2013_energypolicy/documents/demand-forecast/mid_case/

⁵ Ibid.

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- Monitor, evaluate, and enhance the performance of micro-scale AD systems (less than 5 tons per day of food waste).
- Estimate the potential economic and environmental costs and benefits associated with the scale out of decentralized AD solutions relative to more centralized AD infrastructure.
- Broadly raise awareness on the problem of food waste, opportunities to redirect food to those in need, and the potential for small-scale AD systems as a viable option to produce positive local benefits from this “low-value” waste stream.

III. TASK 1 GENERAL PROJECT TASKS

PRODUCTS

Subtask 1.1 Products

The goal of this subtask is to establish the requirements for submitting project products (e.g., reports, summaries, plans, and presentation materials). Unless otherwise specified by the Commission Agreement Manager (CAM), the Recipient must deliver products as required below by the dates listed in the **Project Schedule (Part V)**. Products that require a draft version are indicated by marking “**(draft and final)**” after the product name in the “Products” section of the task/subtask. If “(draft and final)” does not appear after the product name, only a final version of the product is required. With respect to due dates within this Scope of Work, “**days**” means working days.

The Recipient shall:

For products that require a draft version, including the Final Report Outline and Final Report

- Submit all draft products to the CAM for review and comment in accordance with the Project Schedule (Part V). The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt, unless otherwise specified in the task/subtask for which the product is required.
- Consider incorporating all CAM comments into the final product. If the Recipient disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final product.
- Submit the revised product and responses to comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period, or approves a request for additional time.

For products that require a final version only

- Submit the product to the CAM for acceptance. The CAM may request minor revisions or explanations prior to acceptance.

For all products

- Submit all data and documents required as products in accordance with the following:

Instructions for Submitting Electronic Files and Developing Software:

- **Electronic File Format**
 - Submit all data and documents required as products under this Agreement in an electronic file format that is fully editable and compatible with the Energy

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Commission's software and Microsoft (MS)-operating computing platforms, or with any other format approved by the CAM. Deliver an electronic copy of the full text of any Agreement data and documents in a format specified by the CAM, such as memory stick or CD-ROM.

The following describes the accepted formats for electronic data and documents provided to the Energy Commission as products under this Agreement, and establishes the software versions that will be required to review and approve all software products:

- Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
 - Text documents will be in MS Word file format, version 2007 or later.
 - Documents intended for public distribution will be in PDF file format.
 - The Recipient must also provide the native Microsoft file format.
 - Project management documents will be in Microsoft Project file format, version 2007 or later.
- **Software Application Development**
- Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:
- Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
 - Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
 - Visual Studio.NET (version 2008 and up). Recommend 2010.
 - C# Programming Language with Presentation (UI), Business Object and Data Layers.
 - SQL (Structured Query Language).
 - Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
 - Microsoft SQL Reporting Services. Recommend 2008 R2.
 - XML (external interfaces).

Any exceptions to the Electronic File Format requirements above must be approved in writing by the CAM. The CAM will consult with the Energy Commission's Information Technology Services Branch to determine whether the exceptions are allowable.

MEETINGS

Subtask 1.2 Kick-off Meeting

The goal of this subtask is to establish the lines of communication and procedures for implementing this Agreement.

The Recipient shall:

- Attend a "Kick-off" meeting with the CAM, the Commission Agreement Officer (CAO), and any other Energy Commission staff relevant to the Agreement. The Recipient will bring its Project Manager and any other individuals designated by the CAM to this meeting. The administrative and technical aspects of the Agreement will be discussed at

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the meeting. Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. The meeting may take place in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

The administrative portion of the meeting will include discussion of the following:

- Terms and conditions of the Agreement;
- Administrative products (subtask 1.1);
- CPR meetings (subtask 1.3);
- Match fund documentation (subtask 1.7);
- Permit documentation (subtask 1.8);
- Subcontracts (subtask 1.9); and
- Any other relevant topics.

The technical portion of the meeting will include discussion of the following:

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
 - An updated Project Schedule;
 - Technical products (subtask 1.1);
 - Progress reports and invoices (subtask 1.5);
 - Final Report (subtask 1.6);
 - Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
 - Any other relevant topics.
- Provide an *Updated Project Schedule*, *List of Match Funds*, and *List of Permits*, as needed to reflect any changes in the documents.

The CAM shall:

- Designate the date and location of the meeting.
- Send the Recipient a *Kick-off Meeting Agenda*.

Recipient Products:

- Updated Project Schedule (*if applicable*)
- Updated List of Match Funds (*if applicable*)
- Updated List of Permits (*if applicable*)

CAM Product:

- Kick-off Meeting Agenda

Subtask 1.3 Critical Project Review (CPR) Meetings

The goal of this subtask is to determine if the project should continue to receive Energy Commission funding, and if so whether any modifications must be made to the tasks, products, schedule, or budget. CPR meetings provide the opportunity for frank discussions between the Energy Commission and the Recipient. As determined by the CAM, discussions may include project status, challenges, successes, advisory group findings and recommendations, final report preparation, and progress on technical transfer and production readiness activities (if applicable). Participants will include the CAM and the Recipient, and may include the CAO and any other individuals selected by the CAM to provide support to the Energy Commission.

CPR meetings generally take place at key, predetermined points in the Agreement, as determined by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the

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CAM may schedule additional CPR meetings as necessary. The budget will be reallocated to cover the additional costs borne by the Recipient, but the overall Agreement amount will not increase. CPR meetings generally take place at the Energy Commission, but they may take place at another location, or may be conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

The Recipient shall:

- Prepare a *CPR Report* for each CPR meeting that: (1) discusses the progress of the Agreement toward achieving its goals and objectives; and (2) includes recommendations and conclusions regarding continued work on the project.
- Submit the CPR Report along with any other *Task Products* that correspond to the technical task for which the CPR meeting is required (i.e., if a CPR meeting is required for Task 2, submit the Task 2 products along with the CPR Report).
- Attend the CPR meeting.
- Present the CPR Report and any other required information at each CPR meeting.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient's input.
- Send the Recipient a *CPR Agenda* and a *List of Expected CPR Participants* in advance of the CPR meeting. If applicable, the agenda will include a discussion of match funding and permits.
- Conduct and make a record of each CPR meeting. Provide the Recipient with a *Schedule for Providing a Progress Determination* on continuation of the project.
- Determine whether to continue the project, and if so whether modifications are needed to the tasks, schedule, products, or budget for the remainder of the Agreement. If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Deputy Director of the Energy Research and Development Division.
- Provide the Recipient with a *Progress Determination* on continuation of the project, in accordance with the schedule. The Progress Determination may include a requirement that the Recipient revise one or more products.

Recipient Products:

- CPR Report(s)
- Task Products (draft and/or final as specified in the task)

CAM Products:

- CPR Agenda
- List of Expected CPR Participants
- Schedule for Providing a Progress Determination
- Progress Determination

Subtask 1.4 Final Meeting

The goal of this subtask is to complete the closeout of this Agreement.

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The Recipient shall:

- Meet with Energy Commission staff to present project findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement. This meeting will be attended by the Recipient and CAM, at a minimum. The meeting may occur in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

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

- The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
- The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
 - Disposition of any state-owned equipment.
 - Need to file a Uniform Commercial Code Financing Statement (Form UCC-1) regarding the Energy Commission's interest in patented technology.
 - The Energy Commission's request for specific "generated" data (not already provided in Agreement products).
 - Need to document the Recipient's disclosure of "subject inventions" developed under the Agreement.
 - "Surviving" Agreement provisions such as repayment provisions and confidential products.
 - Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
- Prepare a *Schedule for Completing Agreement Closeout Activities*.
- Provide *All Draft and Final Written Products* on a CD-ROM or USB memory stick, organized by the tasks in the Agreement.

Products:

- Final Meeting Agreement Summary (*if applicable*)
- Schedule for Completing Agreement Closeout Activities
- All Draft and Final Written Products

REPORTS AND INVOICES

Subtask 1.5 Progress Reports and Invoices

The goals of this subtask are to: (1) periodically verify that satisfactory and continued progress is made towards achieving the project objectives of this Agreement; and (2) ensure that invoices contain all required information and are submitted in the appropriate format.

The Recipient shall:

- Submit a monthly *Progress Report* to the CAM. Each progress report must:
 - Summarize progress made on all Agreement activities as specified in the scope of work for the preceding month, including accomplishments, problems, milestones,

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products, schedule, fiscal status, and an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. See the Progress Report Format Attachment for the recommended specifications.

- Submit a monthly or quarterly *Invoice* that follows the instructions in the “Payment of Funds” section of the terms and conditions, including a financial report on Match Fund and in-state expenditures.

Products:

- Progress Reports
- Invoices

Subtask 1.6 Final Report

The goal of this subtask is to prepare a comprehensive Final Report that describes the original purpose, approach, results, and conclusions of the work performed under this Agreement. The CAM will review the Final Report, which will be due at least **two months** before the Agreement end date. When creating the Final Report Outline and the Final Report, the Recipient must use the Style Manual provided by the CAM.

Subtask 1.6.1 Final Report Outline

The Recipient shall:

- Prepare a *Final Report Outline* in accordance with the *Style Manual* provided by the CAM. (See Task 1.1 for requirements for draft and final products.)

Recipient Products:

- Final Report Outline (draft and final)

CAM Product:

- Style Manual
- Comments on Draft Final Report Outline
- Approval of Final Report Outline

Subtask 1.6.2 Final Report

The Recipient shall:

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Style Manual, and Final Report Template provided by the CAM with the following considerations:
 - Ensure that the report includes the following items, in the following order:
 - Cover page (**required**)
 - Credits page on the reverse side of cover with legal disclaimer (**required**)
 - Acknowledgements page (optional)
 - Preface (**required**)
 - Abstract, keywords, and citation page (**required**)
 - Table of Contents (**required**, followed by List of Figures and List of Tables, if needed)

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- Executive summary (**required**)
 - Body of the report (**required**)
 - References (if applicable)
 - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
 - Bibliography (if applicable)
 - Appendices (if applicable) (Create a separate volume if very large.)
 - Attachments (if applicable)
- Ensure that the document is written in the third person.
 - Ensure that the Executive Summary is understandable to the lay public.
 - Briefly summarize the completed work. Succinctly describe the project results and whether or not the project goals were accomplished.
 - Identify which specific ratepayers can benefit from the project results and how they can achieve the benefits.
 - If it's necessary to use a technical term in the Executive Summary, provide a brief definition or explanation when the technical term is first used.
 - Follow the Style Guide format requirements for headings, figures/tables, citations, and acronyms/abbreviations.
 - Ensure that the document omits subjective comments and opinions. However, recommendations in the conclusion of the report are allowed.
 - Include a brief description of the project results in the Abstract.
- Submit a draft of the report to the CAM for review and comment. The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt
 - Consider incorporating all CAM comments into the Final Report. If the Recipient disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final product
 - Submit the revised Final Report and responses to comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period or approves a request for additional time.
 - Submit one bound copy of the *Final Report* to the CAM along with *Written Responses to Comments on the Draft Final Report*.

Products:

- Final Report (draft and final)
- Written Responses to Comments on the Draft Final Report

CAM Product:

- Written Comments on the Draft Final Report

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MATCH FUNDS, PERMITS, AND SUBCONTRACTS

Subtask 1.7 Match Funds

The goal of this subtask is to ensure that the Recipient obtains any match funds planned for this Agreement and applies them to the Agreement during the Agreement term.

While the costs to obtain and document match funds are not reimbursable under this Agreement, the Recipient may spend match funds for this task. The Recipient may only spend match funds during the Agreement term, either concurrently or prior to the use of Energy Commission funds. Match funds must be identified in writing, and the Recipient must obtain any associated commitments before incurring any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a *Match Funds Status Letter* that documents the match funds committed to this Agreement. 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 this 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 cash match funds, their source(s) (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied.
 - The amount of each in-kind contribution, a description of the contribution type (e.g., property, services), the documented market or book value, the 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 must identify its owner and provide a contact name, address, telephone number, and the address where the property is located.
 - A copy of a letter of commitment from an authorized representative of each source of match funding that the funds or contributions have been secured.
- At the Kick-off meeting, discuss match funds and the impact on the project if they are significantly reduced or not obtained as committed. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.
- Provide a *Supplemental Match Funds Notification Letter* to the CAM of receipt of additional match funds.
- Provide a *Match Funds Reduction Notification Letter* to the CAM if existing match funds are reduced during the course of the Agreement. Reduction of match funds may trigger a CPR meeting.

Products:

- Match Funds Status Letter
- Supplemental Match Funds Notification Letter (*if applicable*)
- Match Funds Reduction Notification Letter (*if applicable*)

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Subtask 1.8 Permits

The goal of this subtask 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, with the exception of costs incurred by University of California recipients. Permits must be identified and obtained before the Recipient may incur any costs related to the use of the permit(s) for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a *Permit Status Letter* that documents the permits required to conduct this Agreement. If no permits are required at the start of this Agreement, then state this in the letter. If permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies: (1) the type of permit; and (2) the name, address, and telephone number of the permitting jurisdictions or lead agencies.
 - The schedule the Recipient will follow in applying for and obtaining the permits.

The list of permits and the schedule for obtaining them will be discussed at the Kick-off meeting (subtask 1.2), and a timetable for submitting the updated list, schedule, and copies of the permits will be developed. The impact on the project 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 progress reports and will be a topic at CPR meetings.

- If during the course of the Agreement additional permits become necessary, then provide the CAM with an *Updated List of Permits* (including the appropriate information on each permit) and an *Updated Schedule for Acquiring Permits*.
- Send the CAM a *Copy of Each Approved Permit*.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 days. Either of these events may trigger a CPR meeting.

Products:

- Permit Status Letter
- Updated List of Permits (*if applicable*)
- Updated Schedule for Acquiring Permits (*if applicable*)
- Copy of Each Approved Permit (*if applicable*)

Subtask 1.9 Subcontracts

The goals of this subtask are to: (1) procure subcontracts required to carry out the tasks under this Agreement; and (2) ensure that the subcontracts are consistent with the terms and conditions of this Agreement.

The Recipient shall:

- Manage and coordinate subcontractor activities in accordance with the requirements of this Agreement.
- Incorporate this Agreement by reference into each subcontract.
- Include any required Energy Commission flow-down provisions in each subcontract, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subcontract terms.

EXHIBIT A

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- If required by the CAM, submit a draft of each *Subcontract* required to conduct the work under this Agreement.
- Submit a final copy of the executed subcontract.
- Notify and receive written approval from the CAM prior to adding any new subcontractors (see the discussion of subcontractor additions in the terms and conditions).

Products:

- Subcontracts (*draft if required by the CAM*)

TECHNICAL ADVISORY COMMITTEE

Subtask 1.10 Technical Advisory Committee (TAC)

The goal of this subtask is to create an advisory committee for this Agreement. The TAC should be composed of diverse professionals. The composition will vary depending on interest, availability, and need. TAC members will serve at the CAM's discretion. The purpose of the TAC is to:

- Provide guidance in project direction. The guidance may include scope and methodologies, timing, and coordination with other projects. The guidance may be based on:
 - Technical area expertise;
 - Knowledge of market applications; or
 - Linkages between the agreement work and other past, present, or future projects (both public and private sectors) that TAC members are aware of in a particular area.
- Review products and provide recommendations for needed product adjustments, refinements, or enhancements.
- Evaluate the tangible benefits of the project to the state of California, and provide recommendations as needed to enhance the benefits.
- Provide recommendations regarding information dissemination, market pathways, or commercialization strategies relevant to the project products.

The TAC may be composed of qualified professionals spanning the following types of disciplines:

- Researchers knowledgeable about the project subject matter;
- Members of trades that will apply the results of the project (e.g., designers, engineers, architects, contractors, and trade representatives);
- Public interest market transformation implementers;
- Product developers relevant to the project;
- U.S. Department of Energy research managers, or experts from other federal or state agencies relevant to the project;
- Public interest environmental groups;
- Utility representatives;
- Air district staff; and
- Members of relevant technical society committees.

EXHIBIT A Scope of Work

The Recipient shall:

- Prepare a *List of Potential TAC Members* that includes the names, companies, physical and electronic addresses, and phone numbers of potential members. The list will be discussed at the Kick-off meeting, and a schedule for recruiting members and holding the first TAC meeting will be developed.
- Recruit TAC members. Ensure that each individual understands member obligations and the TAC meeting schedule developed in subtask 1.11.
- Prepare a *List of TAC Members* once all TAC members have committed to serving on the TAC.
- Submit *Documentation of TAC Member Commitment* (such as Letters of Acceptance) from each TAC member.

Products:

- List of Potential TAC Members
- List of TAC Members
- Documentation of TAC Member Commitment

Subtask 1.11 TAC Meetings

The goal of this subtask is for the TAC to provide strategic guidance for the project by participating in regular meetings, which may be held via teleconference.

The Recipient shall:

- Discuss the TAC meeting schedule with the CAM at the Kick-off meeting. Determine the number and location of meetings (in-person and via teleconference) in consultation with the CAM.
- Prepare a *TAC Meeting Schedule* that will be presented to the TAC members during recruiting. Revise the schedule after the first TAC meeting to incorporate meeting comments.
- Prepare a *TAC Meeting Agenda* and *TAC Meeting Back-up Materials* for each TAC meeting.
- Organize and lead TAC meetings in accordance with the TAC Meeting Schedule. Changes to the schedule must be pre-approved in writing by the CAM.
- Prepare *TAC Meeting Summaries* that include any recommended resolutions of major TAC issues.

Products:

- TAC Meeting Schedule (draft and final)
- TAC Meeting Agendas (draft and final)
- TAC Meeting Back-up Materials
- TAC Meeting Summaries

IV. TECHNICAL TASKS

Products that require a draft version are indicated by marking “(draft and final)” after the product name in the “Products” section of the task/subtask. If “(draft and final)” does not appear

EXHIBIT A Scope of Work

after the product name, only a final version of the product is required. **Subtask 1.1 (Products)** describes the procedure for submitting products to the CAM.

TASK 2: PROJECT PREPARATION

The goal of this task is to secure the project site(s) and develop a detailed measurement and verification (M&V) plan.

Subtask 2.1 Execute Agreement with the Selected Deployment Site

The goals of this task are to: (1) confirm the availability of the project deployment site; and (2) execute any agreements necessary to secure the demonstration site.

The Recipient shall:

- Reach agreement with the manager(s) of the selected deployment site(s) regarding the project timeline, space reserved for the project, equipment installation, permit and insurance requirements, indemnity, and the Recipient's use of any removal or support staff. The sites identified as of the commencement date of this grant are:
- ~~Site 1: Biodico Site, National Environmental Technology Test Site, Naval Base Ventura County, Port Hueneme, CA~~
- **Site 1: Lineage Logistics, Oxnard, CA**
- ~~Site 2: Alternative Site: Ventura County's Recycling Market Development Zone Program - University of California Santa Barbara~~
- For any changes in site location, Recipient must check with their CAM or CAO who will provide guidance regarding the level of Energy Commission approval required.
- Prepare and provide a *Site Readiness Verification Document* (e.g. Copy of Contract, Lease Agreement, Memorandum of Understanding).

Products:

- Site Readiness Verification Document

Subtask 2.2 Project Measurement and Verification

The goal of this subtask is to develop a detailed M&V Plan for each site.

The Recipient shall:

- Develop a detailed *M&V Plan* for each site to include but not be limited to:
 - A description of the monitoring equipment and instrumentation which will be used at each site.
 - A description of the key input parameters and output metrics which will be measured and recorded in an operations log.
 - A description of the analysis methods to be employed, including the performance of calculations and data visualizations to analyze the observed and estimated electricity savings (including peak savings), natural gas savings, and fuel savings as compared to baseline data.
 - Independent, third-party M&V services to be employed.
- Include information on feedstock types (including categorization as primary and other) and quantity (wet/dry tons) with the progress reports and, at the end of the year, the report should include the total annual amounts by feedstock types.

Products:

EXHIBIT A

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- M&V Plan (draft and final)

TASK 3: EQUIPMENT INSTALLATION AND OPERATION AND FOOD WASTE COLLECTION

The goal of this subtask is to install and operate the AD cogeneration system and the food waste collection system.

The Recipient shall:

- Develop a detailed *Execution Plan* to be approved by the CAM prior to the acquisition and installation of the AD cogeneration and food waste collection system. The Execution Plan serves to define procedural matters relating to the design, procurement, and construction of the system.
 - A description of project objectives and priorities,
 - A description of the organization, roles, and responsibilities.
 - A description of project controls.
- Develop a detailed Operations Manual to be approved by the CAM prior to the commissioning of the AD cogeneration and food waste collection system:
 - A description of the equipment to be used at the site
 - A description of the operations for the equipment.
 - A description of the food collection procedures.
 - A description of the operating plan.
- Install, commission, maintain and operate the equipment according to the formalized *Execution Plan* and *Operations Manual* based on descriptions above and approved by the CAM.
- List acquired and installed equipment in progress report per Task 1.5.
- Maintain an operations log as set forth by the M&V Plan developed in Subtask 2.2 (operations log available upon request).
- Compile operational data from the operation log into operational charts that display the operational performance of the system. This is to be included in the semiannual M&V progress reports (see Task 4).
- Make recommendations on improving the system and operations and obtain approval of the CAM before initiating the changes. Recommendations and changes made to improve the system and operations will be recorded in the progress report of the respective month.

Products:

- Execution Plan
- Operations Manual

TASK 4: MEASUREMENT AND VERIFICATION OF SYSTEM PERFORMANCE

The goals of this task are to measure the pilot project electricity generation, heat output, and fertilizer production per unit of food waste input in the system, and subsequently, to estimate and optimize the avoided electricity, natural gas, and cost savings achieved from the pilot plant operation.

The Recipient shall:

EXHIBIT A Scope of Work

- Visit the project site twice per year for onsite observation of the technology installation and operation for the duration of the project period.
- Maintain a secure database to organize and store all project data.
- Collect baseline electricity and natural gas consumption and cost data at the project site (including SCE and SoCal Gas energy billing and interval data) for a minimum of two years.
- Collect baseline data from food waste providers about the pre-pilot fate (type of disposal and location) of their food waste.
- Weigh and characterize collected food waste by source and type (to the greatest extent possible).
- Collect and consolidate core data from AD and CHP system operation, including but not limited to: temperature, fluid levels, biogas pressure, gas composition (CH₄ content, CO₂ content, O₂ content, H₂S content), electricity generation, and heat output
- Collect and consolidate net metering data.
- Track all maintenance and repair events by event type, labor and parts required, cost, and duration.
- Characterize the fertilizer potential of the solid and liquid digestates from the AD.
- Develop and execute a *Test Plan* for laboratory experimentation to quantify the link between the degree of variability in feedstock characteristics and 1) AD system performance, 2) CHP electricity and heat production, and 3) digestate fertilizer potential.
- Prepare annual *Feedstock and System Performance Reports* that communicate the measured feedstock properties and the data from the experimentation to correlate 1) AD system performance, 2) CHP electricity and heat production, and 3) digestate fertilizer potential to feedstock property fluctuation (estimated total of three reports).
- Execute M&V Plan activities set forth in Subtask 2.2.
- Produce a *M&V Progress Report* every six months for the duration of the pilot system operation (estimated total of seven reports).
- Evaluate project M&V results and write the *M&V Final Report*.
- Incorporate the M&V results and the technology investigation results into the Technology/Knowledge Transfer activities.
- Prepare *CPR Reports #1-3* and participate in CPR meeting per subtask 1.3

Products:

- M&V Progress Reports (#1-7)
- Test Plan
- Feedstock and System Performance Reports (#1-3)
- M&V Final Report (draft and final)
- CPR Reports #1-3

TASK 5: EVALUATION OF PROJECT BENEFITS

The goal of this task is to report the benefits resulting from this project.

The Recipient shall:

- Complete three Project Benefits Questionnaires that correspond to three main intervals in the Agreement: (1) *Kick-off Meeting Benefits Questionnaire*; (2) *Mid-term Benefits Questionnaire*; and (3) *Final Meeting Benefits Questionnaire*. Update *Attachment 12 Cost and Benefit Calculations and Small-Scale Bioenergy Levelized Cost of Electricity*

EXHIBIT A Scope of Work

(LCOE) calculator. If not using LCOE calculator, clearly explain why not applicable, provide other cost measures and justify the measures.

- Provide all key assumptions used to estimate projected benefits, including targeted market sector (e.g., population and geographic location), projected market penetration, baseline and projected energy use and cost, operating conditions, and emission reduction calculations. Examples of information that may be requested in the questionnaires include:
 - For Product Development Projects and Project Demonstrations:
 - Published documents, including date, title, and periodical name.
 - Estimated or actual energy and cost savings, and estimated statewide energy savings once market potential has been realized. Identify all assumptions used in the estimates.
 - Greenhouse gas and criteria emissions reductions.
 - Other non-energy benefits such as reliability, public safety, lower operational cost, environmental improvement, indoor environmental quality, and societal benefits.
 - Data on potential job creation, market potential, economic development, and increased state revenue as a result of the project.
 - A discussion of project product downloads from websites, and publications in technical journals.
 - A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
 - Additional Information for Product Development Projects:
 - Outcome of product development efforts, such copyrights and license agreements.
 - Units sold or projected to be sold in California and outside of California.
 - Total annual sales or projected annual sales (in dollars) of products developed under the Agreement.
 - Investment dollars/follow-on private funding as a result of Energy Commission funding.
 - Patent numbers and applications, along with dates and brief descriptions.
 - Additional Information for Product Demonstrations:
 - Outcome of demonstrations and status of technology.
 - Number of similar installations.
 - Jobs created/retained as a result of the Agreement.
 - For Information/Tools and Other Research Studies:
 - Outcome of project.
 - Published documents, including date, title, and periodical name.
 - A discussion of policy development. State if the project has been cited in government policy publications or technical journals, or has been used to inform regulatory bodies.
 - The number of website downloads.
 - An estimate of how the project information has affected energy use and cost, or has resulted in other non-energy benefits.
 - An estimate of energy and non-energy benefits.

EXHIBIT A Scope of Work

- Data on potential job creation, market potential, economic development, and increased state revenue as a result of project.
- A discussion of project product downloads from websites, and publications in technical journals.
- A comparison of project expectations and performance. Discuss whether the goals and objectives of the Agreement have been met and what improvements are needed, if any.
- Respond to CAM questions regarding responses to the questionnaires.

The Energy Commission may send the Recipient similar questionnaires after the Agreement term ends. Responses to these questionnaires will be voluntary.

Products:

- Kick-off Meeting Benefits Questionnaire, *Attachment 12 Cost and Benefits Calculations*, LCOE calculator or other, as applicable.
- Mid-term Benefits Questionnaire, *Attachment 12 Cost and Benefits Calculations*, LCOE calculator or other, as applicable.
- Final Meeting Benefits Questionnaire, *Attachment 12 Cost and Benefits Calculations*, LCOE calculator or other, as applicable.

TASK 6: TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

The goal of this task is to develop a plan to make the knowledge gained, experimental results, and lessons learned available to the public and key decision makers.

The Recipient shall:

- Prepare an *Initial Fact Sheet* at start of the project that describes the project. Use the format provided by the CAM.
- Prepare a *Final Project Fact Sheet* at the project's conclusion that discusses results. Use the format provided by the CAM.
- Prepare a *Technology/Knowledge Transfer Plan* that includes:
 - An explanation of how the knowledge gained from the project will be made available to the public, including the targeted market sector and potential outreach to end users, utilities, regulatory agencies, and others.
 - A description of the intended use(s) for and users of the project results.
 - Published documents, including date, title, and periodical name.
 - Copies of documents, fact sheets, journal articles, press releases, and other documents prepared for public dissemination. These documents must include the Legal Notice required in the terms and conditions. Indicate where and when the documents were disseminated.
 - A discussion of policy development. State if project has been or will be cited in government policy publications, or used to inform regulatory bodies.
 - The number of website downloads or public requests for project results.
 - Additional areas as determined by the CAM.
- Conduct technology transfer activities in accordance with the Technology/Knowledge Transfer Plan. These activities will be reported in the Progress Reports.
- Offer semiannual outreach tours to decision-makers and interested parties to coincide

EXHIBIT A

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with each site visit by the UC Davis team

- When directed by the CAM, develop *Presentation Materials* for an Energy Commission-sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the California Energy Commission.
- 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.
- Prepare a *Technology/Knowledge Transfer Report* on technology transfer activities conducted during the project.

Products:

- Initial Fact Sheet (draft and final)
- Final Project Fact Sheet (draft and final)
- Presentation Materials (draft and final)
- High Quality Digital Photographs
- Technology/Knowledge Transfer Plan (draft and final)
- Technology/Knowledge Transfer Report (draft and final)

TASK 7: PRODUCTION READINESS PLAN

The goal of this task is to determine the steps that will lead to the manufacturing of technologies developed in this project or to the commercialization of the project's results.

The Recipient shall:

- Prepare a *Production Readiness Plan*. The degree of detail in the plan should be proportional to the complexity of producing or commercializing the proposed product, and to its state of development. As appropriate, the plan will discuss the following:
 - Critical production processes, equipment, facilities, personnel resources, and support systems needed to produce a commercially viable product.
 - Internal manufacturing facilities, supplier technologies, capacity constraints imposed by the design under consideration, design-critical elements, and the use of hazardous or non-recyclable materials. The product manufacturing effort may include "proof of production processes."
 - The estimated cost of production.
 - The expected investment threshold needed to launch the commercial product.
 - An implementation plan to ramp up to full production.
 - The outcome of product development efforts, such as copyrights and license agreements.
 - Patent numbers and applications, along with dates and brief descriptions.
 - Other areas as determined by the CAM.

Products:

- Production Readiness Plan (draft and final)

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.

Exhibit C

Confidential Products and Project-Relevant Pre-Existing and Independently Funded Intellectual Property

1. Instructions

Identification of Confidential Information

- **Prior to the effective date of the Agreement**, the Recipient must identify in Section 2 of this attachment any products (or information contained within products) that it considers to be confidential. If the Energy Commission agrees that the information is confidential, it will not disclose it except as provided in Section 19 (Confidentiality) of these terms and conditions.
- **During the Agreement**, if the Recipient develops additional information not originally anticipated as confidential, it must follow the procedures for a request for designation of confidential information specified in Title 20 California Code of Regulations (CCR) Section 2505.

The Energy Commission's Executive Director will make the confidentiality determination. Following this determination, the confidential information may be added to this attachment through a Letter of Agreement (see Section 6 (Amendments) and Attachment 2 (Sample Letter of Agreement)). The Energy Commission will not disclose information subject to an application for confidential designation except as provided in Section 19.

- **When submitting products containing confidential information**, the Recipient must mark each page of any document containing confidential information as "confidential" and present it in a sealed package to the Contracts, Grants, and Loans Office.

The Commission Agreement Manager may require the Recipient to submit a non-confidential version of the product, if it is feasible to separate the confidential information from the non-confidential information.

Identification of Project-Relevant Independently Funded and Pre-Existing Intellectual Property

- The Recipient must identify all project-relevant pre-existing intellectual property and project-relevant independently funded intellectual property in Section 3 of this attachment prior to the effective date of the Agreement, or within sixty (60) days of becoming aware that the property has been or will be used to support a premise, postulate, or conclusion referred to or expressed in any product under the Agreement. This attachment may be amended by a Letter of Agreement (see Section 6 (Amendments) and Attachment 2 (Sample Letter of Agreement)).
 - **"Project-relevant pre-existing intellectual property" and "project-relevant independently funded intellectual property"** mean pre-existing and independently funded intellectual property used to support a premise, postulate, or conclusion referred to or expressed in any product under the Agreement.
 - **"Pre-existing intellectual property"** means: (a) inventions, technologies, designs, drawings, data, software, formulas, compositions, processes, techniques, works of authorship, trademarks, service marks, and logos that the Recipient or a third party owned or possessed prior to the effective date of this Agreement and that have not been developed, altered, or reduced to practice with Energy Commission or match funds; and (b) associated proprietary rights to these items that are obtained without Energy Commission or match funds, such as patent and copyright.

- **“Independently funded intellectual property”** means: (a) inventions, technologies, designs, drawings, data, software, formulas, compositions, processes, techniques, works of authorship, trademarks, service marks, and logos that are created, conceived, discovered, made, developed, altered, or reduced to practice by the Recipient or a third party during or after the Agreement term without Energy Commission or match funds; and (b) associated proprietary rights to these items that are obtained without Energy Commission or match funds, such as patent and copyright.

“Works of authorship” does not include written products created for Agreement reporting and management purposes, such as reports, summaries, lists, letters, agendas, schedules, and invoices. The Commission owns such products regardless of their funding source.

- **Failure to identify project-relevant pre-existing or independently funded intellectual property** in this attachment may result in the property’s designation as “intellectual property” that is subject to licenses and royalties, as described in Sections 21 (Intellectual Property) and 22 (Royalty Payments to the Commission).

2. Confidential Products and/or Confidential Information Contained within Products

The Energy Commission designates the following products (or information contained within products) as confidential, in accordance with Title 20 California Code of Regulations Section 2505(c)(2)(B).

Product name	NONE
Task/subtask number	
Information to be kept confidential	<input type="checkbox"/> Entire product <input type="checkbox"/> Selected information within product (<i>describe below; be as specific as possible</i>):
Legal basis for confidentiality designation	<input type="checkbox"/> California Public Records Act, located in California Government Code Sections 6250 et seq. (<i>identify the relevant section(s) and subsections(s) below</i>): <input type="checkbox"/> Other law (<i>identify below, including the relevant section(s) and subsections(s)</i>):
Term of confidentiality	MM-DD-YY to MM-DD-YY
<p>Trade secrets only</p> <p>Answer the following questions if the product/information described above is considered a trade secret (i.e., confidential business information that provides the business with a competitive advantage):</p> <ol style="list-style-type: none"> 1. What is the nature of the competitive advantage provided by the product/information? 2. How would the competitive advantage be lost by disclosure? (generally describe the value of the product/information and the ease or difficulty with which it may be legitimately acquired or duplicated by others). 	

3. Project-Relevant Pre-Existing Intellectual Property and Project-Relevant Independently Funded Intellectual Property

The Recipient has identified the following items as “project-relevant pre-existing intellectual property” and/or “project-relevant independently funded intellectual property,” as defined in Sections 20 (Pre-Existing and Independently Funded Intellectual Property) and 25 (Definitions) of these terms and conditions. The Commission makes no ownership, license, or royalty claims to this property, and may only access it for the purposes described in Section 20.

Name/Title of Intellectual Property	Renewable energy microgeneration system
Type of Intellectual Property	<input checked="" type="checkbox"/> Project-relevant pre-existing intellectual property <input type="checkbox"/> Project-relevant independently funded intellectual property <input checked="" type="checkbox"/> Invention <input type="checkbox"/> Process <input type="checkbox"/> Technology <input type="checkbox"/> Technique <input type="checkbox"/> Design <input type="checkbox"/> Work of Authorship <input type="checkbox"/> Drawing <input type="checkbox"/> Trademark/ Service mark <input type="checkbox"/> Data <input type="checkbox"/> Logo <input type="checkbox"/> Software <input type="checkbox"/> Formula
Registered or Pending Intellectual Property (i.e., copyrights, patents, or trademarks that are registered or pending with the U.S. Copyright Office or the U.S. Patent and Trademark Office)	<input type="checkbox"/> Copyright <input checked="" type="checkbox"/> Patent <input type="checkbox"/> Trademark/ Service mark Name of owner: SEaB Energy Ltd Number and date: US8465645 B2, June 18, 2013 <i>For pending applications</i> Name of applicant: Application number and date:
Unregistered Intellectual Property	<input type="checkbox"/> Copyright <input type="checkbox"/> Trademark/ Service mark <input type="checkbox"/> Trade Secret Name of owner:
Description of how the property will be or has been used to support a premise, postulate, or conclusion referred to or expressed in any product under the Agreement	US patent for the renewable energy microgeneration technology based on containerized Anaerobic Digestion (AD) that is the FLEXIBUSTER™, as will be installed at the Naval Base Ventura County (NBVC) in California as part of the proposed project. Patents in a number of other countries (non-US) are in place, including UK and Canada.

Name/Title of Intellectual Property	FLEXIBUSTER™
Type of Intellectual Property	<input checked="" type="checkbox"/> Project-relevant pre-existing intellectual property <input type="checkbox"/> Project-relevant independently funded intellectual property <input type="checkbox"/> Invention <input type="checkbox"/> Process <input type="checkbox"/> Technology <input type="checkbox"/> Technique <input type="checkbox"/> Design <input type="checkbox"/> Work of Authorship <input type="checkbox"/> Drawing <input checked="" type="checkbox"/> Trademark/ Service mark <input type="checkbox"/> Data <input type="checkbox"/> Logo <input type="checkbox"/> Software <input type="checkbox"/> Formula
Registered or Pending Intellectual Property (i.e., copyrights, patents, or trademarks that are registered or pending with the U.S. Copyright Office or the U.S. Patent and Trademark Office)	<input type="checkbox"/> Copyright <input type="checkbox"/> Patent <input type="checkbox"/> Trademark/ Service mark Name of owner: Number and date: <i>For pending applications</i> Name of applicant: Application number and date:
Unregistered Intellectual Property	<input type="checkbox"/> Copyright <input checked="" type="checkbox"/> Trademark/ Service mark <input type="checkbox"/> Trade Secret Name of owner: SEaB Energy Ltd
Description of how the property will be or has been used to support a premise, postulate, or conclusion referred to or expressed in any product under the Agreement	FLEXIBUSTER™ name trademark (unregistered), which is the name of the renewable energy microgeneration technology registered under previously mentioned patent US8465645 B2, to be installed at the Naval Base Ventura County (NBVC) in California as part of the proposed project.

Name/Title of Intellectual Property	<p align="center"><u>PRE-FABRICATED MULTI-MODAL BIOENERGY SYSTEMS AND METHODS</u> <u>project-relevant pre-existing intellectual property</u></p>														
Type of Intellectual Property	<p><input checked="" type="checkbox"/> <u>Project-relevant pre-existing intellectual property</u> <input checked="" type="checkbox"/> <u>Project-relevant independently funded intellectual property</u></p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> <u>Invention</u></td> <td><input checked="" type="checkbox"/> <u>Process</u></td> </tr> <tr> <td><input type="checkbox"/> Technology</td> <td><input checked="" type="checkbox"/> <u>Technique</u></td> </tr> <tr> <td><input checked="" type="checkbox"/> <u>Design</u></td> <td><input type="checkbox"/> Work of Authorship</td> </tr> <tr> <td><input checked="" type="checkbox"/> <u>Drawing</u></td> <td><input checked="" type="checkbox"/> <u>Trademark/ Service mark</u></td> </tr> <tr> <td><input checked="" type="checkbox"/> <u>Data</u></td> <td><input checked="" type="checkbox"/> <u>Logo</u></td> </tr> <tr> <td><input type="checkbox"/> Software</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> <u>Formula</u></td> <td></td> </tr> </table>	<input checked="" type="checkbox"/> <u>Invention</u>	<input checked="" type="checkbox"/> <u>Process</u>	<input type="checkbox"/> Technology	<input checked="" type="checkbox"/> <u>Technique</u>	<input checked="" type="checkbox"/> <u>Design</u>	<input type="checkbox"/> Work of Authorship	<input checked="" type="checkbox"/> <u>Drawing</u>	<input checked="" type="checkbox"/> <u>Trademark/ Service mark</u>	<input checked="" type="checkbox"/> <u>Data</u>	<input checked="" type="checkbox"/> <u>Logo</u>	<input type="checkbox"/> Software		<input checked="" type="checkbox"/> <u>Formula</u>	
<input checked="" type="checkbox"/> <u>Invention</u>	<input checked="" type="checkbox"/> <u>Process</u>														
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<input type="checkbox"/> Software															
<input checked="" type="checkbox"/> <u>Formula</u>															
<u>Registered or Pending Intellectual Property (i.e., copyrights, patents, or trademarks that are registered or pending with the U.S. Copyright Office or the U.S. Patent and Trademark Office)</u>	<p><input type="checkbox"/> Copyright <input checked="" type="checkbox"/> <u>Patent</u> <input checked="" type="checkbox"/> <u>Trademark/ Service mark</u></p> <p><u>Name of owner: Impact Bioenergy, Inc.</u> <u>Number and date:</u> <u>US Patent no 8,662,791 B2; March 4, 2014</u> <u>Service mark US registr no 4719286; April 14, 2015</u></p> <hr/> <p><u>For pending applications</u> <u>Name of applicant: Impact Bioenergy, Inc.</u> <u>Application number and date:</u> <u>US Patent Pending; filed in January 16, 2014 (14/156,704). A continuation application was filed September 9, 2017</u></p>														
<u>Unregistered Intellectual Property</u>	<p><input type="checkbox"/> Copyright <input type="checkbox"/> Trademark/ Service mark <input checked="" type="checkbox"/> <u>Trade Secret</u></p> <p><u>Name of owner: Impact Bioenergy, Inc.</u></p>														
<u>Description of how the property will be or has been used to support a premise, postulate, or conclusion referred to or expressed in any product under the Agreement</u>	<p><u>The apparatus and methods are detailed in the above registrations and will be used in part or in whole in delivering product under this agreement. Additional intellectual property regarding mixing, heating, metering, additives, hydraulic level control, gas pressure control, and biochemical measurements will also be used in delivering product under this agreement.</u></p>														

STATE OF CALIFORNIA

STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION

RESOLUTION - RE: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA ON
BEHALF OF THE DAVIS CAMPUS

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 Amendment 1 to Agreement EPC-17-018 with The Regents of the University of California on behalf of the Davis campus, to change the project location from a naval base in Ventura County to a cold storage facility in Oxnard, CA, and to replace equipment vendor SEaB Energy with Impact Bioenergy Inc., including a revision to pre-existing intellectual property; 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 January 9, 2019.

AYE: [List of Commissioners]

NAY: [List of Commissioners]

ABSENT: [List of Commissioners]

ABSTAIN: [List of Commissioners]

Cody Goldthrite,
Secretariat