



**CALIFORNIA  
ENERGY COMMISSION**



**California Energy Commission  
April 10, 2025 Business Meeting  
Backup Materials for Sierra Nevada Cheese Company, Inc.**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Grant Request Form
3. Scope of Work

**[PROPOSED]**

**RESOLUTION NO: 25-0410-10**

**STATE OF CALIFORNIA**

**STATE ENERGY RESOURCES  
CONSERVATION AND DEVELOPMENT COMMISSION**

**RESOLUTION: Sierra Nevada Cheese Company, Inc.**

**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 IND-24-006 with Sierra Nevada Cheese Company, Inc. for a \$5,495,716 grant. This agreement will install a biogas anaerobic digester, a linear generator, and a CO2 heat pump to capture fugitive methane emissions, generate renewable energy, and improve local air quality at a cheese plant in Glenn County; and

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

**CERTIFICATION**

The undersigned Secretariat to the CEC 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 April 10, 2025.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

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Kristine Banaag  
Secretariat



## GRANT REQUEST FORM (GRF)

### A. New Agreement Number

**IMPORTANT:** New Agreement # to be completed by Contracts, Grants, and Loans Office.

**New Agreement Number:** IND-24-006

### B. Division Information

1. Division Name: ERDD
2. Agreement Manager: Colin Lee
3. MS-:51
4. Phone Number: 279-226-1034

### C. Recipient's Information

1. Recipient's Legal Name: Sierra Nevada Cheese Company, Inc.
2. Federal ID Number: 91-1770621

### D. Title of Project

Title of project: Sierra Nevada Cheese Facility Decarbonization

### E. Term and Amount

1. Start Date: 4/14/2025
2. End Date: 5/30/2028
3. Amount: \$5,495,716.00

### F. Business Meeting Information

1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 4/10/2025 .
3. Consent or Discussion? Discussion
4. Business Meeting Presenter Name: Colin Lee
5. Time Needed for Business Meeting: 5 minutes.
6. The email subscription topic is: Industrial Decarbonization and Improvement of Grid Operations - INDIGO

#### **Agenda Item Subject and Description:**

Sierra Nevada Cheese Company, Inc.

Proposed resolution approving agreement IND-24-006 with Sierra Nevada Cheese Company, Inc. for a \$5,495,716 grant, and adopting staff's recommendation that this action is exempt from CEQA. This agreement will install a biogas anaerobic digester, a linear generator, and a CO2 heat pump to capture fugitive methane emissions, generate renewable energy, and improve local air quality at a cheese plant in Glenn County. (INDIGO Funding) Contact: Colin Lee (Staff Presentation: 5 minutes)

### G. California Environmental Quality Act (CEQA) Compliance

#### **1. Is Agreement considered a "Project" under CEQA?**

Yes

If yes, skip to question 2.



If no, complete the following (PRC 21065 and 14 CCR 15378) and 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:

**2. If Agreement is considered a "Project" under CEQA answer the following questions.**

a) Agreement **IS** exempt?

Yes

Statutory Exemption?

No

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

PRC section number: None

CCR section number: None

Categorical Exemption?

Yes

If yes, list CCR section number(s) and separate each with a comma. If no, enter "None" and go to the next question.

CCR section number: Cal. Code Regs., tit. 14, § 15301 ; Cal. Code Regs., tit. 14, § 15304 ; Cal. Code Regs., tit. 14, § 15329

Common Sense Exemption? 14 CCR 15061 (b) (3)

No

If yes, explain reason why Agreement is exempt under the above section. If no, enter "Not applicable" and go to the next section.

Lead Agency supports preparation of a Notice of Exemption (NOE) as the CEQA compliance document, and agreed the project would meet the requirements for an exemption under Section 15301, Existing Facilities, Section 15304, Minor Alterations to Land, and Section 15329, Cogeneration Projects at Existing Facilities of the California Code of Regulations.

b) Agreement **IS NOT** exempt.

**IMPORTANT:** consult with the legal office to determine next steps.

No

If yes, answer yes or no to all that applies. If no, list all as "no" and "None" as "yes".

| Additional Documents                   | Applies |
|--|---------|
| Initial Study                          | No      |
| Negative Declaration                   | No      |
| Mitigated Negative Declaration         | No      |
| Environmental Impact Report            | No      |
| Statement of Overriding Considerations | No      |
| None                                   | Yes     |



**H. Is this project considered “Infrastructure”?**

Yes

**I. Subcontractors**

List all Subcontractors listed in the Budget (s) (major and minor). Insert additional rows if needed. If no subcontractors to report, enter “No subcontractors to report” and “0” to funds. **Delete** any unused rows from the table.

| Subcontractor Legal Company Name | CEC Funds | Match Funds |
|----------------------------------|-----------|-------------|
| No subcontractors to report      | \$        | \$          |

**J. Vendors and Sellers for Equipment and Materials/Miscellaneous**

List all Vendors and Sellers listed in Budget(s) for Equipment and Materials/Miscellaneous. Insert additional rows if needed. If no vendors or sellers to report, enter “No vendors or sellers to report” and “0” to funds. **Delete** any unused rows from the table.

| Vendor/Seller Legal Company Name | CEC Funds   | Match Funds |
|----------------------------------|-------------|-------------|
| Biogas Energy Inc.               | \$5,495,716 | \$1,328,000 |
| Chico State Enterprises          | \$0         | \$7,000     |

**K. Key Partners**

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter “No key partners to report.” **Delete** any unused rows from the table.

| Key Partner Legal Company Name |
|--------------------------------|
| Biogas Energy Inc.             |
| Chico State Enterprises        |

**L. Budget Information**

Include all budget information. Insert additional rows if needed. If no budget information to report, enter “N/A” for “Not Applicable” and “0” to Amount. **Delete** any unused rows from the table.

| Funding Source | Funding Year of Appropriation | Budget List Number | Amount       |
|----------------|-------------------------------|--------------------|--------------|
| GGRF           | 22-23                         | 303.202            | \$ 5,495,716 |

**TOTAL Amount:** \$ 5,495,716

R&D Program Area: ICMB: IAW

Explanation for “Other” selection Not applicable



Reimbursement Contract #: Not applicable

Federal Agreement #:

**M. Recipient’s Contact Information**

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

Name: Ben Gregersen  
Address: 6505 County Rd 39  
City, State, Zip: Willows, CA 95988  
Phone: 530-934-8660  
E-Mail: ben@sierranevadacheese.com

**3. Recipient’s Project Manager**

Name: Ben Gregersen  
Address: 6505 County Rd 39  
City, State, Zip: Willows, CA 95988  
Phone: 530-934-8660  
E-Mail: ben@sierranevadacheese.com

**N. Selection Process Used**

There are three types of selection process. List the one used for this GRF.

| Selection Process                      | Additional Information |
|--|------------------------|
| Competitive Solicitation #             | GFO-23-313             |
| First Come First Served Solicitation # | Not applicable         |
| Other                                  | Not applicable         |

**O. Attached Items**

1. List all items that should be attached to this GRF by entering “Yes” or “No”.

| Item Number | Item Name  | Attached |
|-------------|--|----------|
| 1           | Exhibit A, Scope of Work/Schedule                | Yes      |
| 2           | Exhibit B, Budget Detail                         | Yes      |
| 3           | CEC 105, Questionnaire for Identifying Conflicts | Yes      |
| 4           | Recipient Resolution                             | No       |
| 5           | Awardee CEQA Documentation                       | No       |

**Approved By**



STATE OF CALIFORNIA  
CALIFORNIA ENERGY COMMISSION

Grant Request Form  
CEC-270 (Revised 01/2024)

Individuals who approve this form must enter their full name and approval date in the MS Word version.

**Agreement Manager:** Colin Lee

**Approval Date:** 2/26/2025

**Branch Manager:** Cody Taylor

**Approval Date:**

**Director:** Cody Taylor for Jonah Steinbuck

**Approval Date:**

**EXHIBIT A**  
**Scope of Work**  
**SIERRA NEVADA CHEESE COMPANY, INC.**

**I. TASK ACRONYM/TERM LISTS**

**A. Task List**

| Task # | CPR | Task Name  |
|--------|-----|--|
| 1      |     | General Project Tasks  |
| 2      |     | Project Engineering and Design                                   |
| 3      |     | Baseline Data Collection and Measurement & Verification Planning |
| 4      | X   | Site Preparation and Equipment Procurement                       |
| 5      | X   | Equipment Installation   |
| 6      |     | Address Community Needs  |
| 7      |     | Measurement & Verification                                       |
| 8      |     | Evaluation of Project Benefits                                   |
| 9      |     | Technology/Knowledge Transfer Activities                         |
| 10     |     | Reporting for California Climate Investments                     |

**B. Acronym/Term List**

| Acronym/Term        | Meaning                                   |
|---------------------|---|
| AD                  | Anaerobic Digestion                       |
| CAM                 | Commission Agreement Manager              |
| CAO                 | Commission Agreement Officer              |
| CARB                | California Air Resources Board            |
| CEC                 | California Energy Commission              |
| CO <sub>2</sub>     | Carbon Dioxide                            |
| CH <sub>4</sub>     | Methane                                   |
| CPR                 | Critical Project Review                   |
| CEQA                | California Environmental Quality Act      |
| GHG                 | Greenhouse Gas                            |
| GWP                 | Global Warming Potential                  |
| kW                  | Kilowatt                                  |
| M&V                 | Measurement & Verification                |
| MS                  | Microsoft                                 |
| MTCO <sub>2</sub> e | Metric Tons of CO <sub>2</sub> Equivalent |
| NO <sub>x</sub>     | Nitrogen Oxide                            |
| P&ID                | Piping and Instrumentation Diagram        |
| PG&E                | Pacific Gas & Electric Company            |
| TAC                 | Technical Advisory Committee              |
| TBD                 | To be determined                          |
| SNC                 | Sierra Nevada Cheese Co. (Applicant)      |
| scfm                | standard cubic feet per minute            |
| SQL                 | Standard Query Language                   |
| XML                 | External interfaces                       |



**EXHIBIT A**  
**Scope of Work**  
**SIERRA NEVADA CHEESE COMPANY, INC.**

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

**A. Purpose of Agreement**

The purpose of this Agreement is to fund a holistic, full-lifecycle, radical decarbonization of an industrial facility through the integration of carbon capture technology, energy reductions and efficiencies, and conversion of process waste into clean, renewable energy. The result will be California's first carbon negative factory, capturing 124,375 MTCO<sub>2</sub>e over the project's anticipated 35-year lifetime.

The project will enable the facility's expansion to spur economic growth near a disadvantaged community through job creation and workforce development, while cutting air and water pollution to improve health outcomes in the local community.

**Problem/ Solution Statement**

**Problem**

With climate catastrophe upon us, industry's historical priority of maximizing production at lowest cost must now expand to encompass the full-lifecycle curtailment, if not elimination, of fossil fuel consumption and carbon emissions. Replacing outdated energy-intensive equipment is a good step, but this approach will not achieve the systemic reductions of carbon emissions necessary for a radical realignment of industrial energy consumption.

This change of perspective - incorporating energy efficiency and carbon reductions *and carbon capture* into normal operations - is a challenge for manufacturers who may not see the commonalities they share with other industries. Waste from one process is not recognized for its potential to be an input for another process, resulting in energy losses and unnecessary carbon emissions.

**Solution**

The Recipient has developed a holistic view of their industrial facility's total carbon footprint that leverages outputs from one process to become inputs for others. By redefining the concept "waste", the Recipient will drastically cut fossil fuel use while simultaneously capturing fugitive methane emissions that are a result of normal operations. Taking inspiration from whole-systems-thinking and the example of integrated natural ecosystems, the Recipient is radically redefining what industrial production entails; bringing together cutting-edge technologies and waste-to-energy processes to incorporate system-wide efficiencies that cannot be accomplished with isolated improvements.

The project integrates technological and process solutions to model a methodology for whole-facility-thinking that incorporates energy conservation with renewable energy generation and carbon capture. This integrated approach can be replicated at other industrial sites since it is customizable to any unique application. Each application of this approach will be different - the common thread is the shift of perspective to recognize that outputs and inputs are interchangeable between industrial processes, and carbon emissions can be prevented.

Starting with Biogas Energy anaerobic digestion technology that captures ongoing greenhouse gas (GHG) emissions in the form of methane, the project will convert methane into renewable

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electricity in an ultra-low nitrogen oxide (NO<sub>x</sub>) Mainspring Linear Generator. 100% of the facility's electricity will be self-generated using captured methane.

Surplus methane (biogas) will slash demand for fossil fuel natural gas in the factory's boilers, and a Flow carbon dioxide (CO<sub>2</sub>) heat pump will generate both hot and cold water for the facility while consuming a fraction of the energy currently required for operations.

The result is a project that captures significant methane emissions and eliminates demand for grid electricity and pipeline natural gas. This project will serve as an example for California industry and help the state achieve its statutory energy goals.

**B. Goals and Objectives of the Agreement**

**Agreement Goals**

The goals of this Agreement are to:

- Capture methane emissions from facility's wastewater lagoon by designing and installing an anaerobic digester and all ancillary equipment
- Install and operate a Mainspring ultra-low NO<sub>x</sub> Linear Generator to generate 250 kW of electricity from biogas, and meet 100% of the electricity demand for the facility
- Install and operate a high-efficiency Flow CO<sub>2</sub> heat pump to generate hot and cold water for the factory, reducing natural gas consumption by up to 67%
- Realize financial benefits from the project to enable facility expansion and the hiring of additional employees
- Validate that the combination of biogas capture, renewable energy generation, and energy efficiency will operate the facility as a **carbon negative factory**

**Ratepayer Benefits:** This Agreement will result in the ratepayer benefits of greater electricity reliability and lowering costs by enabling conversion of waste into electricity. This project will convert GHG emissions from wastewater into renewable electricity that eliminates demand for the entire facility and thereby decreases demand from the grid. Lower demand from the grid becomes greater reliability for the grid, while cutting the amount of electricity that the local utility needs to generate.

**Technological Advancement and Breakthroughs:** 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 demonstrating the holistic approach to biogas capture, systematic industrial energy conservation and self-generation of renewable energy. The integration of technologies, practices, and processes that capture/reduce/reuse/ or self-generate energy in this project will achieve significant, replicable reductions in greenhouse gas emissions while generating economic growth, reducing local air pollution near a disadvantaged population, and reducing demand on the electrical grid.

**Agreement Objectives**

The objectives of this Agreement are to:

- Design and install an anaerobic digestion (AD) facility to process 100% of the factory's wastewater to produce up to 82 standard cubic feet per minute (scfm) of biogas at 56% methane content

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- Install a 250 kW Mainspring linear electrical generator to convert biogas into renewable electricity to cover 100% of the factory's electricity demand
- Install a dual-fuel burner on the existing steam boiler to enable steam generation from biogas produced by the AD facility and displace natural gas consumed on site
- Install a Flow CO2 heat pump to make hot and cold water use in the factory, reducing electricity and natural gas demand
- Validate the integration of the above technologies and processes to achieve carbon negative operation of the facility
- Address community needs to ensure the project's benefits have visibility with surrounding communities
- Bring this technology and solution to California's industrial markets

**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)**. All products submitted which will be viewed by the public, must comply with the accessibility requirements of Section 508 of the federal Rehabilitation Act of 1973, as amended (29 U.S.C. Sec. 794d), and regulations implementing that act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations. All technical tasks should include product(s). 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.

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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 California Energy Commission's (CEC) 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.

The following describes the accepted formats for electronic data and documents provided to the CEC 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.
- 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 CEC'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:**

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- Attend a “Kick-off” meeting with the CAM, and other CEC staff relevant to the Agreement. The Recipient’s Project Manager and any other individuals deemed necessary by the CAM or the Project Manager shall participate in this meeting. The administrative and technical aspects of the Agreement will be discussed at 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., Teams, Zoom), with approval of the CAM.

The Kick-off meeting will include discussion of the following:

- The CAM’s expectations for accomplishing tasks described in the Scope of Work;
  - An updated Project Schedule;
  - Terms and conditions of the Agreement;
  - Invoicing and auditing procedures;
  - Travel;
  - Equipment purchases;
  - Administrative and Technical products (subtask 1.1);
  - CPR meetings (subtask 1.3);
  - Monthly Calls (subtask 1.5)
  - Quarterly Progress reports (subtask 1.6)
  - Final Report (subtask 1.7)
  - Match funds (subtask 1.8);
  - Permit documentation (subtask 1.9);
  - Subawards(subtask 1.10);
  - Technical Advisory Committee meetings (subtasks 1.11 and 1.12);
  - Agreement changes;
  - Performance Evaluations; and
  - Any other relevant topics.
- Provide *Kick-off Meeting Presentation* to include but not limited to:
    - Project overview (i.e. project description, goals and objectives, technical tasks, expected benefits, etc.)
    - Project schedule that identifies milestones
    - List of potential risk factors and hurdles, and mitigation strategy
  - Provide an *Updated Project Schedule, Match Funds Status Letter, and Permit Status Letter*, 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:**

- Kick-off Meeting Presentation
- Updated Project Schedule (*if applicable*)
- Match Funds Status Letter (subtask 1.7) (*if applicable*)
- Permit Status Letter (subtask 1.8) (*if applicable*)

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**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 CEC 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 CEC 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 CEC.

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 CAM may schedule additional CPR meetings as necessary. The budget may 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 CEC, 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 and submit 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.
- 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* with a list of expected CPR participants in advance of the CPR meeting. If applicable, the agenda may 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. A determination of unsatisfactory progress This may result in project delays, including a potential Stop Work Order, while the CEC determines whether the project should continue.
- 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)

**CAM Products:**

**EXHIBIT A**  
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- CPR Agenda(s)
- Progress Determination

**Subtask 1.4 Final Meeting**

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

**The Recipient shall:**

- Meet with CEC 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 of the following Agreement closeout items:
  - Disposition of any procured equipment.
  - The CEC'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 copies of *All Final Products* organized by the tasks in the Agreement.

**Products:**

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

**MONTHLY CALLS, REPORTS AND INVOICES**

**Subtask 1.5 Monthly Calls**

The goal of this task is to have calls at least monthly between the CAM and Recipient to verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

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The objectives of this task are to verbally 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, to verify match funds are being proportionally spent concurrently or in advance of CEC funds or are being spent in accordance with an approved Match Funding Spending Plan, to form the basis for determining whether invoices are consistent with work performed, and to answer any other questions from the CAM. Monthly calls might not be held on those months when a quarterly progress report is submitted or the CAM determines that a monthly call is unnecessary.

**The CAM shall:**

- Schedule monthly calls.
- Provide questions to the Recipient prior to the monthly call.
- Provide call summary notes to Recipient of items discussed during call.

**The Recipient shall:**

- Review the questions provided by CAM prior to the monthly call
- Provide verbal answers to the CAM during the call.

**Product:**

- Email to CAM concurring with call summary notes.

**Subtask 1.6 Quarterly 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 *Quarterly 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 reporting period, including accomplishments, problems, milestones, products, schedule, fiscal status, and an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Progress reports are due to the CAM the 10th day of each January, April, July, and October. The Quarterly Progress Report template can be found on the ECAMS Resources webpage available at: <https://www.energy.ca.gov/media/4691>
- Submit a monthly or quarterly *Invoice* on the invoice template(s) provided by the CAM.

**Recipient Products:**

- Quarterly Progress Reports
- Invoices

**CAM Product:**

- Invoice template

**Subtask 1.7 Final Report**



**EXHIBIT A**  
**Scope of Work**  
**SIERRA NEVADA CHEESE COMPANY, INC.**

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. When creating the Final Report Outline and the Final Report, the Recipient must use the CEC Style Manual provided by the CAM.

**Subtask 1.7.1 Final Report Outline**

**The Recipient shall:**

- Prepare a *Final Report Outline* in accordance with the *Energy Commission Style Manual* provided by the CAM.

**Recipient Products:**

- Final Report Outline (draft and final)

**CAM Products:**

- Energy Commission Style Manual
- Comments on Draft Final Report Outline
- Acceptance of Final Report Outline

**Subtask 1.7.2 Final Report**

**The Recipient shall:**

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Energy Commission 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)
    - 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)
- Submit a draft of the Executive Summary to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments on Draft Final Report* received on the Executive Summary. For each comment received, the Recipient will identify in the summary the following:
  - Comments the Recipient proposes to incorporate.
  - Comments the Recipient does propose to incorporate and an explanation for why.

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- 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.
- Incorporate all CAM comments into the *Final Report*. If the Recipient disagrees with any comment, provide a *Written Responses to Comments* explaining why the comments were not incorporated into the final product.
- Submit the revised *Final Report* electronically with any Written Responses to Comments within 10 days of receipt of CAM's Written Comments on the Draft Final Report, unless the CAM specifies a longer time period or approves a request for additional time.

**Products:**

- Summary of TAC Comments on Draft Final Report
- Draft Final Report
- Written Responses to Comments (*if applicable*)
- Final Report

**CAM Product:**

- Written Comments on the Draft Final Report

**MATCH FUNDS, PERMITS, AND SUBAWARDS**

**Subtask 1.8 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. 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 application that led to the CEC 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 application that led to the CEC 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.
  - If different from the solicitation application, provide a letter of commitment

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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*)

**Subtask 1.9 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*)

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- Copy of Each Approved Permit (*if applicable*)

**Subtask 1.10 Subawards**

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

**The Recipient shall:**

- Manage and coordinate subrecipients activities in accordance with the requirements of this Agreement.
- Incorporate this Agreement by reference into each subaward.
- Include any required Energy Commission flow-down provisions in each subaward, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subaward terms.
- If requested by the CAM, submit a draft of each *Subaward* required to conduct the work under this Agreement.
- If requested by the CAM, submit a final copy of each executed subaward.
- Notify and receive written approval from the CAM prior to adding any new subrecipient (see the terms regarding of subrecipient additions in the terms and conditions).

**Products:**

- Subawards (*if requested by the CAM*)

**TECHNICAL ADVISORY COMMITTEE**

**Subtask 1.11 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.
- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.

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- Advocate, to the extent the TAC members feel is appropriate, on behalf of the project in its effort to build partnerships, governmental support, and relationships with a national spectrum of influential leaders.
- Ask probing questions that ensure a long-term perspective on decision-making and progress toward the project's strategic goals.

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.

**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 1.12.
- 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 1.12 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.

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**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.

**The TAC shall:**

- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate on behalf of the project in its effort to build partnerships, governmental support and relationships with a national spectrum of influential leaders.
- Ask probing questions that ensure a long-term perspective on decision-making and progress toward the project's strategic goals.
- Review and provide comments to proposed project performance metrics.
- Review and provide comments to proposed project Draft Technology Transfer Plan.

**Products:**

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

**Subtask 1.13 Project Performance Metrics**

The goal of this subtask is to finalize key performance targets for the project based on feedback from the TAC and report on final results in achieving those targets. The performance targets should be a combination of scientific, engineering, techno-economic, and/or programmatic metrics that provide the most significant indicator of the research or technology's potential success.

**The Recipient shall:**

- Complete and submit the project performance metrics section of the *Initial Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task, to the CAM.
- Present the draft project performance metrics at the first TAC meeting to solicit input and comments from the TAC members.

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- Develop and submit a *TAC Performance Metrics Summary* that summarizes comments received from the TAC members on the proposed project performance metrics. The *TAC Performance Metrics Summary* will identify:
  - TAC comments the Recipient proposes to incorporate into the *Initial Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task.
  - TAC comments the Recipient does not propose to incorporate with and explanation why.
- Develop and submit a *Project Performance Metrics Results* document describing the extent to which the Recipient met each of the performance metrics in the *Final Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task.
- Discuss the *Project Performance Metrics Results* at the Final Meeting.

**Products:**

- TAC Performance Metrics Summary
- Project Performance Metrics Results

**Subtask 1.14 Obtain and Execute Subawards and Agreements with Site Hosts**

The goal of this task is to ensure quality products and to execute subrecipients and site host agreements, as applicable, required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement and contracting policies and procedures.

**The Recipient shall:**

- Execute and manage subawards and coordinate subrecipient activities.
- Execute and manage site host agreements, and ensure the right to use the project site throughout the term of the Agreement, as applicable. A site host agreement is not required if the Recipient is the site host.
- Notify the CEC in writing immediately, but no later than five calendar days, if there is a reasonable likelihood the project site cannot be acquired or can no longer be used for the project.
- Submit a letter to the CAM describing the subawards and any site host agreement needed or stating that no subawards or site host agreements are required.
- If requested by the CAM, submit a draft of each subaward and any site host agreement required to conduct the work under this Agreement to the CAM for review.
- If requested by the CAM, submit a final copy of each executed subaward and any site host agreement.
- If Recipient intends to add new subrecipients or change subrecipients, then the Recipient shall notify the CAM.

**Products:**

- Letter describing the subawards needed, or stating that no subawards are required

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**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 after the product name, only a final version of the product is required.*

**TASK 2 PROJECT ENGINEERING AND DESIGN**

The goal of this task is to design and plan the equipment needed for the successful integration and operation of the system at the cheese plant. This involves creating detailed designs for the key equipment (AD facility, heat pump, and Mainspring electrical generator) and developing a plan for how these elements will work together efficiently on-site. The goal for AD engineering and design is to optimize biogas production with the given feedstock, resulting in up to 82 scfm biogas production. The goal for the heat pump is to integrate hot/cold water production into the cheese factory and ensure safe operation with electrical supply. The goal for the Mainspring Generator is to plan integration with biogas supply (both volume and quality) as well as electrical take-off on site. Integration of these systems will result in planned layout in the context of the existing cheese factory infrastructure.

**The Recipient shall:**

- Design integration of AD facility with cheese factory facilities and operations.
- Design AD facility including all equipment and systems
  - Complete mix reactor with gas storage incorporated into roofing system
  - High-throughput fixed-bed reactors
- Produce engineered drawings required for permitting and installation as well as piping and instrumentation diagrams (P&ID)
- Document proposed process integration of new equipment with *Site P&ID*
- Engineer genset module and produce drawings/application material for permitting and installation
- Engineer changes to on-site behind the meter electrical infrastructure
- Coordinate electrical interconnection requirements with PG&E
- Engineer integration of heat pump in factory.
- Provide a *Project Design Memo* to help the CEC understand how funds are spent, to support continued reimbursement and describe how the Recipient will overcome barriers of its project. It shall include, but not be limited to:
  - Summary of the steps taken to reach the final design and final layout;
  - Identification of barriers involved and discuss the steps taken to overcome those barriers;
  - Equipment specifications;
  - Discussion of the final engineered design and equipment layout for each site.

**Products:**

- Project Design Memo
- Site P&ID

**TASK 3 BASELINE DATA COLLECTION AND MEASUREMENT & VERIFICATION PLANNING**

The goal of this task is to collect baseline data to compare operational conditions prior to new equipment installation. Site data and specific equipment energy usage will be collected to develop



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a robust baseline. The task will also establish a robust measurement and verification (M&V) plan to compare baseline operations to the impacts of the technology interventions.

**The Recipient shall:**

- Develop a *M&V Plan* to monitor and evaluate pre-project and post-project electricity and gas consumption for the site and relevant equipment.
- Develop baseline operational energy requirements by monitoring onsite gas and electricity usage for 12 months using existing data. If existing data is not available, the baseline operating conditions will be monitored for at least 4 months.
  - Include equipment-level data for the chiller that will be replaced. The data should be sufficient to calculate the coefficient of performance of equipment.
  - Include equipment-level data for boiler systems. The data should be sufficient to calculate the efficiency of equipment.
  - Monitor trucking of waste and transportation costs associated with facility operations.
- Document baseline data in a *Baseline Data Report*

**Products:**

- M&V Plan
- Baseline Data Report

**TASK 4 SITE PREPARATION AND EQUIPMENT PROCUREMENT**

The goal of this task is to procure the necessary equipment and materials for this project and prepare the site for all project modifications. This includes securing all necessary permits, planning for necessary plant shutdown, and all other site improvements needed for equipment installation. This task will acquire all necessary equipment, materials, and components required for the installation of the AD facility, heat pump, and Mainspring generator, ensuring that they meet specifications and quality standards. Recipient will work with vendors to review and confirm that each piece of equipment conforms to design and operational requirements, delivered on time and within budget, under proper documentation for warranties, maintenance instructions, and safety protocols. Recipient will secure all permits for installation of equipment and address all concerns raised by authorities during the permit approval process.

**The Recipient shall:**

- Perform site preparation including ground excavation and plot improvements
- Work with vendor (Biogas Energy Inc.) to procure AD equipment including tanks, biogas processing equipment, electrical generator, heat pump, dual-fuel burner, electrical equipment, controls, pumps, piping, sensors, computer, control room, roofing system, heating system, biogas storage, heat exchanger, compressors, materials, insulation & siding, valves, wiring. All equipment will be to same standard as other AD facilities built by the subrecipient in California (Fiscalini Farms, North State Rendering).
  - Tank capacity will meet all seismic code requirements as well as acid contents.
  - Roofing system will have biogas storage capacity
  - Electrical generator will meet all emissions standards set by the California Air Resources Board (CARB)
  - Electric hot water heater will provide sufficient hot water for factory needs

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- Secure all necessary permits: building permit, conditional use permit, CEQA, air permit, etc.
- Equipment will be delivered to site in shipping containers or skid mounted. Installation will be coordinated with vendors per site preparation schedule.
- Provide a *Site Preparation and Equipment Procurement Report* to help the CEC understand how funds are spent, to support continued reimbursement and describe how the Recipient will overcome barriers to the project. It shall include, but not be limited to:
  - Summary of the steps to prepare the site;
  - Images of site before installation;
  - Copy of the performance specifications for each piece of equipment purchased by the grant;
  - Copies of all required permits needed for installation at the site;
  - Copies of the final procurement documents and purchase orders; and
  - Status of the planned installation including a preliminary schedule for equipment delivery and installation for the site.
- Prepare a *CPR Report #1* in accordance with subtask 1.3.
- Participate in a CPR Meeting.

**Products:**

- Site Preparation and Equipment Procurement Report
- CPR Report #1

**TASK 5 EQUIPMENT INSTALLATION**

The goal of this task is to oversee the installation, integration, and commissioning of all the critical systems and equipment for the project at the recipient's cheese plant. This task ensures that all equipment, including the AD facility, heat pump, and Mainspring electrical generator are installed correctly and tested to meet performance specifications. Additionally, infrastructure, telemetry, and any necessary adjustments will be made for smooth operation. This task will ensure the safe operation of all equipment and efficient conversion of wastewater into energy.

**The Recipient shall:**

- Construct the AD facility, with work including, but not limited to,
  - Place forms, rebar and concrete for foundations
  - Excavate trenches for pipes and conduit
  - Erect digester tank walls; install insulation and cladding
  - Place fixed-bed reactors
  - Install waste reception pit
  - Install roofing system with biogas capture
  - Install digester heating system
  - Install all piping, conduit and wires
  - Erect control room, install programmable logic controllers, motor controls, electric equipment, computer
  - Install biogas upgrade systems
  - Integrate power supply to AD facility
- Install Mainspring linear generator; with work including, but not limited to, hook up of the biogas pipe, power offtake cable, and controls

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- Install Flow CO2 heat pump water heater/cooler and plumbing connections to factory piping
- Install biogas dual fuel burner in natural gas steam boiler
- Install any modifications to on-site behind-the-grid electrical network
- Place digester effluent pipes to lagoon storage
- Install all sensors, valves, pumps, and controls
- Start up all systems; feed inoculant wastewater to start biology
- Commission equipment and make adjustments as needed to meet stated performance specifications
- Provide an *Equipment Installation Memo* to help the CEC understand how funds are spent, support continued reimbursement and describe how the Recipient will overcome barriers of its project. It shall include, but not be limited to:
  - Summary of the equipment installation requirements for each demonstration site;
  - Identification of barriers involved during installation and discuss the steps taken to overcome those barriers;
  - Images of installed equipment;
  - Discuss results of equipment start-up and commissioning at each site with respect to whether the equipment as installed meets the stated performance specifications.
- Produce and deliver *Operation, Safety and Maintenance Manual* for equipment installed.
- Prepare a *CPR Report #2* in accordance with subtask 1.3.
- Participate in a CPR Meeting.

**Products:**

- Equipment Installation Memo (*draft and final*)
- Operation, Safety and Maintenance Manual
- CPR Report #2

**TASK 6 ADDRESS COMMUNITY NEEDS**

The goal of this task is to ensure that the project provides tangible, positive, and sustainable benefits to the local community. This involves addressing specific community needs, enhancing the overall well-being of residents, and making sure that the project aligns with the social, economic, and environmental expectations of the community. The Recipient will engage with the local community by holding meeting and outreach activities to gather input and communicate project status. Feedback gathered from these efforts will be considered in plans for project implementation and operations into the future.

**The Recipient shall:**

- Prepare a *Plan for outreach and engagement activities*
- Work with North State Planning and Development Collective (Chico State Enterprises) to engage in public outreach
- Schedule and hold public meetings to discuss the project and learn about needs of the local community. Incorporate that feedback into project planning.
- Send information by mail to surrounding neighbors and the wider community with information on the project and invitation to attend meetings
- Meet with county officials to discuss the project and needs of the county
- Document results with a *Report on outreach and engagement activities*

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**Products:**

- Plan for outreach and engagement activities
- Report on outreach and engagement activities

**TASK 7 MEASUREMENT & VERIFICATION**

The goal of this task is to systematically quantify and assess the impacts of the newly installed systems (anaerobic digester, linear generator, heat pump) on the industrial facility. This task involves both the quantitative measurement of energy and greenhouse gas (GHG) emissions impacts, as well as the qualitative assessment of various operational factors like maintenance, safety, and startup/shutdown processes. The overall objective is to ensure that the project's goals are being met, that the systems are operating efficiently, and that the benefits (both environmental and operational) are clearly documented and verified. The Recipient will use data collected in Task 3 to compare with post-project energy production, and make this information available to the Energy Commission and interested parties to facilitate adoption of these technologies throughout California.

**The Recipient shall:**

- Monitor electricity use by heat pump; compare to pre-project electricity demand by chiller
- Document facility's change in grid-supplied electricity using utility bills
- Document facility's change in natural gas consumption using utility bills
- Monitor trucking of waste and transportation costs associated with facility operations. Compare with pre-project baselines.
- Record waste supply to anaerobic digestion facility and compare to biogas production rates
- Monitor Mainspring linear generator electrical output
- Use California Air Resources Board (CARB) benefits calculator to determine changes in GHG emissions
- Monitor and document qualitative impacts such as maintenance, safety, and startup/shutdown of operations.
- Complete *M&V Report* with 12 months of data collection

**Products:**

- M&V report (draft and final)

**TASK 8 EVALUATION OF PROJECT BENEFITS**

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

**The Recipient shall:**

- Complete *the Initial Project Benefits Questionnaire*. The Initial Project Benefits Questionnaire shall be initially completed by the Recipient with 'Kick-off' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Complete the *Annual Survey* by December 1 of each year. The Annual Survey includes but is not limited to the following information:
  - AB 209 Requirements<sup>1</sup>

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<sup>1</sup> Assembly Bill 209, Chapter 251, Statutes of 2022, Section 25660.2  
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- Technology scalability, and adoption by other industries
  - News media and publications
  - Technology Company growth
  - Follow-on funding and awards received
- Complete the *Initial Project Benefits Questionnaire*. The Initial Project Benefits Questionnaire shall be initially completed by the Recipient with 'Kick-off' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Complete the *Annual Survey* by December 1 of each year. The Annual Survey includes but is not limited to the following information:
  - AB 209 Requirements<sup>2</sup>
  - Technology scalability, and adoption by other industries
  - News media and publications
  - Technology Company growth
  - Follow-on funding and awards received
- Complete the *Final Project Benefits Questionnaire*. The Final Project Benefits Questionnaire shall be completed by the Recipient with 'Final' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Respond to CAM questions regarding the questionnaire drafts.
- Complete and update the project profile on the CEC's public online project and recipient directory on the [Energize Innovation website \(www.energizeinnovation.fund\)](http://www.energizeinnovation.fund), and provide *Documentation of Project Profile on EnergizeInnovation.fund*, including the profile link.
- If the Prime Recipient is an Innovation Partner on the project, complete and update the organizational profile on the CEC's public online project and recipient directory on the [Energize Innovation website \(www.energizeinnovation.fund\)](http://www.energizeinnovation.fund), and provide *Documentation of Organization Profile on EnergizeInnovation.fund*, including the profile link.

**Products:**

- Initial Project Benefits Questionnaire
- Annual Survey(s)
- Final Project Benefits Questionnaire
- Documentation of Project Profile on EnergizeInnovation.fund
- Documentation of Organization Profile on EnergizeInnovation.fund

**TASK 9 TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES**

The goal of this task is to ensure the learning that resulted from the demonstration(s) is captured and disseminated to the range of professions that will be responsible for future deployments of this technology or similar technologies.

**The Recipient shall:**

- Develop and submit a *Project Case Study Plan* that outlines how the Recipient will document the planning, construction, commissioning, and operation of the technology or system being demonstrated. The Project Case Study Plan should include:

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<sup>2</sup> Assembly Bill 209, Chapter 251, Statutes of 2022, Section 25660.2  
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- An outline of the objectives, goals, and activities of the case study.
- The organization that will be conducting the case study and the plan for conducting it.
- A list of professions and practitioners involved in the project's development.
- Specific activities the Recipient will take to ensure the learning that results from the project is disseminated to those professions and practitioners.
- Presentations/webinars/training events to disseminate the results of the case study.
- Present the Draft Project Case Study Plan to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments* that summarizes comments received from the TAC members on the draft *Project Case Study Plan*. This document will identify:
  - TAC comments the Recipient proposes to incorporate into the *Final Technology Transfer Plan*.
  - TAC comments the Recipient does not propose to incorporate and explanation why.
- Submit the final *Project Case Study Plan* to the CAM for approval.
- Execute the final *Project Case Study Plan* and develop and submit a *Project Case Study*.
- When directed by the CAM, develop presentation materials for a CEC sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual symposium(s) sponsored by the CEC.
- 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:**

- Project Case Study Plan (draft and final)
- Summary of TAC Comments
- Project Case Study (draft and final)
- High Quality Digital Photographs

**TASK 10 REPORTING FOR CALIFORNIA CLIMATE INVESTMENTS**

The goal of this task is to ensure that the impacts and results of the project are accurately and promptly reported to stakeholders.

**The Recipient shall:**

- Complete and submit *Reporting Documents (as needed)* that may include the following:
  - Report the emission reductions and other benefits of their projects using the quantification and assessment methodology (Attachment TBD) developed by CARB for California Climate Investments. All the funded projects are required to update this report as needed and submit it to CEC in a timely manner after the CEC's Notice of Proposed Award.
  - Complete a benefit assessment tool (Attachment TBD) developed by CARB for California Climate Investments Priority Populations. All the funded projects are

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**Scope of Work**  
**SIERRA NEVADA CHEESE COMPANY, INC.**

required to update this report as needed and submit it to CEC in a timely manner after the CEC's Notice of Proposed Award.

- All the funded projects are required to report jobs data to CEC annually using the Excel reporting template developed by CARB for California Climate Investments. Reports should use the latest version of the Excel template that is available at the time of reporting, supplied by the CEC CAM.

**Products:**

- Reporting Documents (as needed)

**V. PROJECT SCHEDULE**

Please see the attached Excel spreadsheet.