



### California Energy Commission June 16, 2023 Business Meeting Backup Materials for Agenda Item No 03gii: WWF Operating Company, LLC

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

### STATE OF CALIFORNIA

### STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION

### **RESOLUTION: WWF Operating Company, LLC**

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

**RESOLVED**, that the CEC approves agreement FPI-22-005 with WWF Operating Company for a \$704,264 grant to install and operate two heat recovery systems to reduce GHG emissions at WWF Operating Company's dairy processing facility in the City of Industry. One system will repurpose waste steam condensate created during the direct contact sterilization stage while the other system captures flue-gas heat from the boiler. This project will demonstrate the potential of heat recovery systems to reduce GHG emissions, gas use, water consumption, and operating costs. This project is also expected to provide benefits to priority populations through criteria pollutant emission reductions; 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 June 16, 2023.

AYE: NAY: ABSENT: ABSTAIN:

Dated:

Liza Lopez Secretariat



# **GRANT REQUEST FORM (GRF)**

# A. New Agreement Number

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

New Agreement Number: FPI-22-005

### **B.** Division Information

- 1. Division Name: ERDD
- 2. Agreement Manager: Matthew Stevens
- 3. MS-: 51
- 4. Phone Number: Enter Phone Number

### C. Recipient's Information

- 1. Recipient's Legal Name: WWF Operating Company, LLC
- 2. Federal ID Number: 75-2218815

# D. Title of Project

Title of project: Danone North America - Boiler Stack and Process Wastewater Heat Recovery

### E. Term and Amount

- 1. Start Date: 6/30/2023
- 2. End Date: 3/31/2026
- 3. Amount: \$704,264.00

# F. Business Meeting Information

- 1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
- 2. The Proposed Business Meeting Date: 6/16/2023 .
- 3. Consent or Discussion? Consent
- 4. Business Meeting Presenter Name: Matthew Stevens
- 5. Time Needed for Business Meeting: 5 minutes.
- 6. The email subscription topic is: Enter the email subscription topic name.

# Agenda Item Subject and Description:

**WWF Operating Company, LLC.** Proposed resolution approving agreement FPI-22-005 with WWF Operating Company for a \$704,264 grant to install and operate two heat recovery systems to reduce GHG emissions at WWF Operating Company's dairy processing facility in the City of Industry, and adopting staff's determination that this action is exempt from CEQA. One system will repurpose waste steam condensate created during the direct contact sterilization stage while the other system captures flue-gas heat from the boiler. This project will demonstrate the potential of heat recovery systems to reduce GHG emissions, gas use, water consumption, and operating costs. This project is also expected to provide benefits to priority populations through criteria pollutant emission reductions. (FPIP funding) Contact: Matthew Stevens

# 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, § 15302 ;

# 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.

14 C.C.R. §15301. This project will involve minor alteration of an existing private facility and mechanical equipment at an existing food processing facility in the City of Industry, CA involving negligible or no expansion of existing or former use. The project will be installing a steam condensate recovery system and a flue-gas heat capture system. Both systems will be installed inside the existing building and may involve modifying steam lines and concrete work at the recipient's dairy processing facility. The installation will involve minor alteration of existing mechanical equipment with no expansion beyond the existing use of the food processing facility and will not have significant effect on the environment. The project falls under categorical exemption listed in 14 C.C.R. §15301.

14 C.C.R. §15302. This project involves the replacement of existing mechanical equipment at an existing food processing facility in the City of Industry. This project will replace existing inefficient equipment to reduce energy consumption and greenhouse gas emissions. The new equipment will be located on the same site as the equipment replaced and have substantially the same purpose and capacity as the equipment replaced.



Each exemption is an independent basis for finding the project is exempt.

The project will not impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies; does not involve any cumulative impacts of successive projects of the same type in the same place that might be considered significant; does not involve unusual circumstances that might have a significant effect on the environment; will not result in damage to scenic resources within a highway officially designated as a state scenic highway; the project site is not included on any list compiled pursuant to Government Code section 65962.5; and the project will not cause a substantial adverse change in the significance of a historical resource. Therefore, none of the exceptions to categorical exemptions listed in CEQA Guidelines section 15300.2 apply to this project, and this project will not have a significant effect on the environment.

### 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. 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
Thermal Energy International Corporation	\$ 16,620	<b>\$</b> 8,949

### I. 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
No vendors to report	\$	\$



### J. 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	
No key partners to report	

### K. 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	17-18	301.002A	\$ 704,264

**TOTAL Amount:** \$ 704,264

### R&D Program Area: EERB: FPIP

Explanation for "Other" selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: Not applicable

### L. Recipient's Contact Information

# 1. Recipient's Administrator/Officer

Name: Luis Torga

Address: 18275 Arenth Ave

City, State, Zip: City Of Industry, CA 91748-1225

Phone: 626-201-6352

E-Mail: luis.torga@danone.com

# 3. Recipient's Project Manager

Name: Luis Torga

Address: 18275 Arenth Ave

City, State, Zip: City Of Industry, CA 91748-1225

Phone: 626-201-6352

E-Mail: luis.torga@danone.com

### M. Selection Process Used

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



Selection Process	Additional Information
Competitive Solicitation #	GFO-22-303
First Come First Served Solicitation #	Not applicable
Other	Not applicable

### N. Attached Items

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

ltem 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	Yes

# Approved By

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

# Agreement Manager: Matthew Stevens

Approval Date: 05/03/2023

Branch Manager: Virginia Lew

Approval Date: 05/04/2023

**Director:** Virginia Lew for Angela Gould

Approval Date: 05/04/2023

### I. TASK ACRONYM/TERM LISTS

### A. Task List

Task #	CPR <sup>1</sup>	Task Name
1		General Project Tasks
2		Site Preparation and Equipment Procurement
3	Х	Equipment Installation
4		Measurement and Verification
5		Technology/Knowledge Transfer Activities

### B. Acronym/Term List

Acronym/Term	Meaning
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CPR	Critical Project Review
M&V	Measurement and Verification
GHG	Green House Gas
Recipient	WWE Operating Company, LLC

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

### A. Purpose of Agreement

The purpose of this Agreement is to fund the installation of two new heat recovery systems that reduce water consumption, gas use, and greenhouse gas (GHG) emissions at the Recipient's dairy processing facility. The first system will repurpose waste steam condensate created during the direct contact sterilization stage while the second system captures flue gas heat from the boiler. Water and gas consumption will be measured before and after the systems are installed in order to quantify and validate the energy and GHG emissions reductions.

### **B.** Problem/ Solution Statement

### <u>Problem</u>

Dairy sterilization with steam is an energy intensive process that involves substantial natural gas and water use. During this process the steam condensate is being lost and underutilized. Additionally, there is heat loss in the steam boiler's flue gas, creating even more system inefficiencies. Both factors result in a large amount of energy waste, GHG emissions and water use. There is significant potential to reduce energy use, GHG emissions and water consumption by implementing two new heat recovery systems to utilize the waste steam condensate and capturing the flue gas energy.

<sup>&</sup>lt;sup>1</sup> 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.

### **Solution**

The Recipient will install two new heat recovery systems that can reduce gas use, GHG emissions, water consumption, and operating costs at the Recipient's dairy processing facility. By implementing these new systems at a large food processing facility, this project will demonstrate the potential for optimized heat recovery at similar food processing facilities.

### C. Goals and Objectives of the Agreement

### Agreement Goals

The goal of this Agreement is to demonstrate the reliability and effectiveness of implementing new heat recovery systems at the Recipient's dairy processing facility and measuring reductions in energy use, GHG emissions and water consumption.

### Agreement Objectives

The objectives of this Agreement are to:

- Measure the existing systems' gas and water consumption to establish a baseline for postproject comparisons.
- Specify and procure the necessary equipment and materials for the condensate recovery and flue gas heat recovery systems.
- Install and operate drop-in, commercially available, energy efficient equipment such as economizers, buffer tanks, pumps, heat exchangers, expansions tanks, valves, and process control equipment.
- Reduce facility GHG emissions by at least 4.5 percent with the implementation of the two heat recovery systems.
- Reduce gas energy and water usage.
- Benefit priority populations by reducing on-site criteria air pollutants through reduction in fossil gas consumption via energy project improvements.
- Measure and validate the pre- and post-gas consumption and calculate GHG emissions reductions resulting from the two heat recovery systems.
- Share the knowledge gained, projects results, and lessons learned with relevant industry and the public.

### 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.

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:

 Attend a "Kick-off" meeting with the CAM, the Commission Agreement Officer (CAO), and any other CEC 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 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;
- Invoicing and auditing procedures;
- 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 <u>technical portion</u> 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 (subtask 1.5);
- Final Report (subtask 1.6);
- Technical Advisory Committee meetings (subtasks 1.10 and 1.11); 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
- o 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)

### **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. 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 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)

### CAM Products:

- 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 and the CAO 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* on a USB memory stick, organized by the tasks in the Agreement.

### **Products:**

- Final Meeting Agreement Summary (*if applicable*)
- Schedule for Completing Agreement Closeout Activities
- All Final 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 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 preceding month, 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. See the Progress Report Format Attachment for the recommended specifications.
- Submit a quarterly Invoice that follows the instructions in the "Payment of Funds" section of the terms and conditions, including a financial report on Match Funds 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. When creating the Final Report Outline and the Final Report, the Recipient must use the CEC 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 *Energy Commission Style Manual* provided by the CAM.

#### **Recipient Products:**

• Final Report Outline (draft and final)

### **CAM Product:**

- Energy Commission Style Manual
- Comments on Draft Final Report Outline
- Acceptance 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, Energy Commission Style Manual, and Final Report Template provided by the CAM and include the following:
  - 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)
  - Table of Contents (required, followed by List of Figures and List of Tables, if needed)
  - Executive summary (required)
  - Body of the report/Summary table that includes the following information, but not limited to: (required)
    - Recipient name;
    - Project description;
    - Project location(s);
    - Census tract;
    - Dates: project selected and completed;
    - GGRF dollars allocated;
    - Leveraged and/or match funds;
    - Estimated/actual total project GHG emission reductions;
    - Estimated/actual energy saved (kWh, therms, or other fuels) for energy efficiency projects;
    - Estimated/actual energy generated (kWh or therms equivalents) for renewable energy projects;
    - Other benefits or results;
    - Other market sectors that can benefit from the project;
    - Benefits to priority populations;
  - References (if applicable)
  - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
  - Bibliography (if applicable)
  - Appendices (required) (Create a separate volume if very large.)
  - Include a copy of the M&V report for each demonstration site funded by the grant.
  - Attachments (if applicable)
- 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:

- Draft Final Report
- Written Responses to Comments (*if applicable*)
- Final Report

#### **CAM Product:**

# Written Comments on the Draft Final Report 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 CEC 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 <u>no match funds</u> were part of the proposal 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 proposal 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 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 1.8 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 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 <u>no permits</u> 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.
- If required by the CAM, submit a draft of each *Subcontract* required to conduct the work under this Agreement.
- Submit a final copy of each 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)

### IV. TECHNICAL TASKS

### TASK 2 SITE PREPARATION AND EQUIPMENT PROCUREMENT

The goal of this task is to procure the necessary equipment and materials for this project. This includes heat exchangers, specialty pumps, control valves, tanks, transmitters, manual valves, and pipework / pipework ancillary items to allow for installation.

#### The Recipient shall:

- Prepare the site by determining the optimal location for new equipment while removing existing equipment and any additional materials as necessary. Equipment removal may occur in tandem with equipment installation to reduce facility downtime.
- Procure the equipment, including performance specifications for each equipment and securing bids.
- Request bids from suppliers and select a bid winner based upon scheduling, availability, and plant knowledge criteria.
- Secure needed permits and certifications for installation.
- Provide a *Site Preparation and Equipment Procurement Memo* that shall include, but not be limited to:
  - Summary of the steps to prepare the site;
  - Copy of the performance specifications for each piece of equipment purchased by the grant;
  - Summary of the bids received and from whom;
  - Copies of all required permits needed for installation;
  - $\circ$   $\,$  Copies of the final procurement documents and purchase orders; and
  - Status of the planned installation including a preliminary schedule for equipment delivery and installation.

#### Products:

• Site Preparation and Equipment Procurement Memo

### TASK 3 EQUIPMENT INSTALLATION

The goal of this task is to install and commission the equipment. The Recipient will install a new condensate heat recovery system and a flue gas heat recovery system.

### The Recipient shall:

- Complete installation and programming of the new condensate and flue gas heat recovery systems, including any mechanical or electrical connections that may be needed.
- Commission and test equipment and adjust as needed to meet stated performance specifications.
- Develop informative materials on best practices, safety protocols and maintenance.
- Provide an *Equipment Installation Memo* that shall include, but not be limited to:
  - o Summary of the equipment installation requirements for the demonstration site;
  - Identification of barriers involved during installation and discuss the steps taken to overcome those barriers;
  - Discuss results of equipment start-up and commissioning with respect to whether the equipment as installed meets the stated performance specifications.
- Prepare a CPR Report #1 in accordance with subtask 1.3.
- Participate in a CPR Meeting.

### **Products:**

- Equipment Installation Memo (draft and final)
- CPR Report #1

### **TASK 4 MEASUREMENT AND VERIFICATION**

The goal of this task is to report the benefits resulting from this project by performing measurement and verification (M&V) of greenhouse gas (GHG) and energy consumption reduction.

#### The Recipient shall:

- Enter into an agreement with M&V subcontractor per Task 1.9 (if using an outside vendor)
- Coordinate site visits with the M&V subcontractor at the demonstration site
- Develop M&V protocol for pre-installation measurement (and calculation):
  - Electric, natural gas and/or other fossil fuel consumption and GHG emissions (use appropriate emissions factor from Attachment 9 of the grant solicitation) of the equipment/process/system(s)/sub-system(s) that are to be upgraded and/or replaced and/or modified.
  - Ensure installation of sub-metering equipment and data loggers for pre/post data analysis.
- Prepare and provide a detailed *M&V Plan* for the project demonstration site to include but not be limited to:
  - A description of the monitoring equipment and instrumentation which will be used.
  - $\circ$  A description of the key input parameters and output metrics that will be measured.
  - A description of the M&V protocol and analysis methods to be employed.
  - A description of the independent, third-party M&V services to be employed, if applicable.
- Perform three months (or a shorter period as approved in writing by the CAM) of preinstallation measurements (and calculations) based on the M&V protocol for pre-installation.
- Prepare and provide a *Pre-Installation M&V Findings Report* for the demonstration site that includes M&V protocol, pre-install measurements (and calculations), analysis, and results performed in this task.

- Develop M&V protocol for post-installation measurements (and calculations) of:
  - Electric, natural gas and/or other fossil fuel consumption and GHG emissions (use appropriate emissions factor from Attachment 9 of the grant solicitation) of the equipment/process/system(s)/sub-system(s) that will be upgraded and/or replaced and/or modified
- Perform at least 12 months (or a shorter period as approved in writing by the CAM) of postinstallation measurements based on M&V protocol for post-installation.
- Provide a summary of post-installation M&V progress in Progress Report(s) (see subtask 1.5) which shall include but not be limited to:
  - A narrative on operational highlights from the reporting period, including any stoppages in operation and why; and
  - A summary of M&V findings from the reporting period.
- Analyze post-installation electrical, natural gas and/or other fossil fuel consumption and GHG emissions.
- Prepare and provide a *Post-Installation M&V Findings Report* for the demonstration site that includes M&V protocol, pre and post-install measurements (and calculations), analysis, and results performed in this task. Results should at a minimum report on the reduction of electricity, natural gas and/or other fossil fuel usage and reductions of GHG emissions that directly result from this project.
- Provide all key assumptions used to estimate and determine energy and GHG reductions (and additions, if applicable).
- 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.

### Products:

- M&V Plan (draft and final)
- Pre-Installation M&V Findings Report (*draft and final*)
- Post-Installation M&V Findings Report (draft and final)

### TASK 5 TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES

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

### The Recipient shall:

- Complete and update the project profile on the CEC's public online project and recipient directory on the <u>Energize Innovation website</u> (<u>www.energizeinnovation.fund</u>), and provide *Documentation of Project Profile on EnergizeInnovation.fund*, including the profile link, as determined by the CAM.
- 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 <u>Energize Innovation website</u> (www.energizeinnovation.fund), and provide *Documentation of Organization Profile on EnergizeInnovation.fund*, including the profile link, as determined by the CAM.
- When directed by the CAM, develop *Presentation Materials* to be presented at 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:**

- Documentation of Project Profile on EnergizeInnovation.fund
- Documentation of Organization Profile on EnergizeInnovation.fund
- Presentation Materials (*draft and final*)
- High Quality Digital Photographs

### V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.