



**California Energy Commission
September 11, 2024 Business Meeting
Backup Materials for Aspire Bakeries 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

[PROPOSED]

RESOLUTION NO: 24-0911-03fiv

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION: Aspire Bakeries 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-24-005 with Aspire Bakeries LLC for a \$710,463 grant. This agreement will replace an aging and inefficient freon (R-22) refrigeration system with a new ammonia refrigeration system at a bakery facility in Van Nuys. The upgraded facility will demonstrate the potential of high efficiency ammonia refrigeration and compressed air systems to reduce greenhouse gas emissions, gas consumption, electricity use, and enable on-peak demand 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 September 11, 2024.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

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: FPI-24-005

B. Division Information

1. Division Name: ERDD
2. Agreement Manager: Claire Sweeney
3. MS-: 51
4. Phone Number: 916-776-0817

C. Recipient's Information

1. Recipient's Legal Name: Aspire Bakeries LLC
2. Federal ID Number: 94-2536513

D. Title of Project

Title of project: R-22 Refrigeration System Conversion at the Aspire Bakeries Facility

E. Term and Amount

1. Start Date: 10/1/2024
2. End Date: 6/30/2028
3. Amount: \$710,463.00

F. Business Meeting Information

1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 9/11/2024 .
3. Consent or Discussion? Consenm
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:

ASPIRE BAKERIES LLC. Proposed resolution approving agreement FPI-24-005 with Aspire Bakeries LLC for a \$710,463 grant, and adopting staff's recommendation that this action is exempt from CEQA. This agreement will replace an aging and inefficient freon (R-22) refrigeration system with a new ammonia refrigeration system at a bakery facility in Van Nuys. The upgraded facility will demonstrate the potential of high efficiency ammonia refrigeration and compressed air systems to reduce greenhouse gas emissions, gas consumption, electricity use, and enable on-peak demand 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, 15302

California Code of Regulations, title 14, section 15301 provides that projects which consist of the operation, repair, maintenance, permitting, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of existing or former use, are categorically exempt from the provisions of the California Environmental Quality Act (CEQA). This project involves the replacement of an obsolete refrigeration system with a modern, energy efficient, low-GWP refrigeration system at an existing facility. The new refrigeration system is a minor alteration of an existing facility and will involve negligible or no expansion of existing or former use. No historical resources or buildings will be affected. Noise and odors will not be generated by this activity in excess of existing permitted amounts. The project will not increase traffic to the site and will not require permits for air, water, conditional use, building expansion, hazardous waste, or rezoning. Therefore, the project is exempt from CEQA under section 15301.



California Code of Regulations, title 14, section 15302 provides that projects involving the replacement or reconstruction of existing structures and facilities where the new structure will be located on the same site as the structure replaced and will have substantially the same purpose and capacity as the structure replaced are categorically exempt from the provision of CEQA. This project involves the replacement of the recipient's refrigeration system; the new system will be located on the same site as the existing refrigeration facility and will have substantially the same purpose and capacity as the system replaced. Therefore, the project is exempt from CEQA under section 15302.

This project does not involve impacts on any particularly sensitive environment; 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.

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.

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"?

No



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
Willdan Energy Solutions	\$ 20,000	\$0
Precision Refrigeration & Air Conditioning, LLC	\$ 24,000	\$0

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
Precision Refrigeration & Air Conditioning, LLC	\$666,463	\$550,292

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
No key partners to report

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	23-24	303.203	\$ 710,463

TOTAL Amount: \$ 710,463

R&D Program Area: ICMB: FPIP

Explanation for "Other" selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: 101 Local Assistance

M. Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Drew Harper



Address: 6500 Overlake PI
City, State, Zip: Newark, CA 94560-1083
Phone: 612-400-4039
E-Mail: drew.harper@aspirebakeries.com

3. Recipient's Project Manager

Name: David Allen
Address: 6500 Overlake PI
City, State, Zip: Newark, CA 94560-1083
Phone: 630-461-1378
E-Mail: david.allen@aspirebakeries.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-23-305
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

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

Agreement Manager: Claire Sweeney

Approval Date: 7/25/24

Branch Manager: Alex Horangic

Approval Date: 7/25/24

Director: Delegated to Branch Manager

Approval Date: N/A

Exhibit A Scope of Work

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2		Project Engineering Design
3		Site Preparation and Equipment Procurement
4	X	Equipment Installation
5		Measurement and Verification
6		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
GHG	Greenhouse Gas
GWP	Global Warming Potential
M&V	Measurement and Verification
PSM	Process Safety Management
RMP	Risk Management Plan
Recipient	Aspire Bakeries LLC

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

A. Purpose of Agreement

The purpose of this Agreement is to replace an existing aging and inefficient R-22 refrigeration system with a new ammonia refrigeration system at the Recipient's bakery facility located in Van Nuys, California. The new system will reduce both direct and indirect greenhouse gas (GHG) emissions by reducing electricity consumption, peak demand load, and eliminate high-global warming potential (GWP) refrigerant leaks. Energy usage and peak load during peak demand hours will be measured before and after the system is installed to quantify and validate the energy and GHG emissions reductions.

B. Problem/ Solution Statement

Problem

The refrigeration equipment currently in use at the Recipient's bakery is an aging and inefficient freon (R-22) system with high energy consumption, high-GWP refrigeration leaks, and elevated GHG emission. Additionally, manufacturing or importing new R-22 has been banned in the United States since January 1st, 2020, making it difficult to source parts and get outside support

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

Exhibit A

Scope of Work

for the system; however, the system has not been replaced due to the high capital cost. A system conversion to a low-GWP refrigerant would require the replacement of several refrigeration system components, including compressors, condensers, vessels, and piping.

Solution

The Recipient will replace three R-22 compressors with one ammonia compressor and integrate it into an existing ammonia refrigeration system. Four evaporators in a storage freezer will be replaced with new evaporators that are compatible with the ammonia system. A new control panel will be installed to control the new equipment. The new load will be handled by the existing ammonia condensers. These replacement technologies are estimated to reduce GHG emissions by approximately 80 percent through reduced use of electricity and reduced refrigerant leaks.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Reduce electricity and GHG emissions in the bakery production process at Recipient's facility.
- Eliminate GHG emissions associated with the use of the R-22 refrigeration system at Recipient's facility.
- Reduce electricity peak demand associated with the bakery production process at Recipient's facility.
- Benefit priority populations and low-income communities in California by reducing on-site GHG emissions generated and by creating high-quality jobs, job training, and advancement opportunities.

Agreement Objectives

The objectives of this Agreement are to:

- Install commercially available equipment including, the installation of a new compressor, four new evaporators, and a new control panel.
- Convert the existing R-22 refrigeration system to a zero GWP refrigerant (R-717) that is compliant with the California Air Resources Board's refrigerant regulations.
- Develop and implement Measurement and Verification (M&V) protocols to monitor and verify energy savings and GHG reductions of approximately 80 percent compared to the operation of the existing R-22 system.
- Share lessons learned, best practices, and benefits to industrial audiences inside and outside of California.

Exhibit A Scope of Work

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

Exhibit A

Scope of Work

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, 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.

Exhibit A

Scope of Work

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

- How Recipient plans to accomplish tasks it has described in the Scope of Work;
 - An updated Project Schedule;
 - Terms and conditions of the Agreement;
 - Invoicing and auditing procedures;
 - 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);
 - 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*)

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

Exhibit A

Scope of Work

Recipient. CPRs will help the CAM determine, among other things, that the Recipient is on-track to complete its project before CEC funds liquidate. 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:

- CPR Agenda(s)
- Progress Determination

Exhibit A

Scope of Work

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

Monthly Calls, Progress Reports, and Invoices will help the CAM determine that CEC funds to Recipient for its project are spent in accordance with the Agreement terms, and that the Recipient is on-track to complete its project before CEC funds liquidate.

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 Recipient's satisfactory and continued progress is made towards achieving the project objectives of this Agreement; and (2) ensure that invoices contain all required information for reimbursement.

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

Exhibit A

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Subtask 1.7 Final Report

The goal of this subtask is to prepare a comprehensive Final Report that describes the Recipient's 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)

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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:

- 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

Exhibit A Scope of Work

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 1.9 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*.

Exhibit A

Scope of Work

- 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 1.10 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 CEC will not participate in negotiation of subawards but may request a copy to monitor project progress.

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*)

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. **Subtask 1.1 (Products)** describes the procedure for submitting products to the CAM.*

TASK 2: PROJECT ENGINEERING DESIGN

The goal of this task is to design the necessary equipment and plan the equipment layout for the project site.

Exhibit A

Scope of Work

The Recipient shall:

- 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:
 - A list of necessary equipment;
 - Summary of the steps taken to reach the final engineering design and final layout;
 - Identification of barriers involved and discuss the steps taken to overcome those barriers;
 - Summary of the steps to prepare the site(s);
 - Performance specifications for each piece of equipment, including the refrigerants to be used;
 - Summary of the planned installation including a preliminary schedule for equipment delivery and installation for each site; and
 - Confirm finalized equipment needs and equipment specifications from California-based vendors. For the new refrigeration system, recipient will use ammonia refrigeration in compliance with the California Air Resources Board's regulations. Ammonia is a refrigerant with no GWP.

Products:

- Project Design Memo

TASK 3: SITE PREPARATION AND EQUIPMENT PROCUREMENT (*Mandatory task*)

The goal of this task is to procure the necessary equipment and materials for this project.

The Recipient shall:

- Compile equipment procurement list;
- Secure final equipment bids from California-based vendors;
- Secure preliminary schedule for equipment delivery and installation;
- Secure any needed non-discretionary permits to conduct site preparation and install new equipment;
- Order equipment and supplies for installation of equipment from California-based vendors;
- Conduct a thorough evaluation of all requirements needed under the project scope to meet process safety management (PSM) and risk management plan (RMP) requirements;
- Initiate a management of change and compile equipment documentation in alignment with PSM and RMP requirements; and
- Provide a *Site Preparation and Equipment Procurement 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 to prepare the site(s);
 - Identification of barriers involved and discussion of the steps needed to overcome those barriers

Exhibit A

Scope of Work

- 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 at each 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 each site.

Products:

- Site Preparation and Equipment Procurement Memo

TASK 4: EQUIPMENT INSTALLATION (*Mandatory task*)

The goal of this task is to install and commission the equipment for this project.

The Recipient shall:

- Receive delivery of finalized equipment at Recipient's Van Nuys facility.
- Conduct equipment installation, which will include:
 - Recover and safely remove R-22 refrigerant from the existing R-22 closed-loop refrigeration system;
 - Decommission and remove two existing evaporative condensers for the R-22 refrigeration system;
 - Decommission and remove three existing evaporators for the centralized storage freezer at the facility;
 - Decommission and remove three existing compressors for the R-22 refrigeration system;
 - Start-up and commissioning of affected equipment, making needed adjustments as necessary to meet stated performance specifications;
 - Execution of the requirements identified in Task 3 to meet PSM and RMP requirements; and
 - Conducting safety review with personnel and project team.
- Prepare a *CPR Report #1* and participate in a CPR Meeting midway through installation, in accordance with subtask 1.3.
- 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; and
 - Discuss results of equipment start-up and commissioning at each site with respect to whether the equipment as installed meets the stated performance specifications.

Exhibit A

Scope of Work

Products:

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

TASK 5: MEASUREMENT AND VERIFICATION (*Mandatory task*)

The goal of this task is to report the benefits resulting from this project by performing measurement and verification (M&V) of 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(s)
- 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 8 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 each project demonstration site to include but not be limited to:
 - Description of the monitoring equipment and instrumentation which will be used;
 - Description of the key input parameters and output metrics that will be measured;
 - Description of the M&V protocol and analysis methods to be employed; and
 - 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 pre-installation measurements (and calculations) based on the M&V protocol for pre-installation.
- Prepare and provide a *Pre-Installation M&V Findings Report* for each 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 8 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 post-installation 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:

Exhibit A

Scope of Work

- 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 each 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(s) (*draft and final*)

TASK 6: TECHNOLOGY/KNOWLEDGE TRANSFER ACTIVITIES (*Mandatory task*)

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 [Energize Innovation website \(www.energizeinnovation.fund\)](http://www.energizeinnovation.fund), 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 [Energize Innovation website \(www.energizeinnovation.fund\)](http://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.
- Include a summary of project highlights, impacts, and benefits in Recipient's Sustainability Report shared with customers, industry partners, and the public

Exhibit A

Scope of Work

- Develop Knowledge Sharing Plan to share project highlights, impacts, and benefits with industry associations (see Letters of Support in Attachment 8 that easily facilitate this knowledge sharing).
- Provide final Knowledge Sharing Report documenting actual publication of project highlights, impacts, and benefits; actual participation in meetings, workshops, and events; and reach of information shared.

Products:

- Documentation of Project Profile on EnergizeInnovation.fund
- Documentation of Organization Profile on EnergizeInnovation.fund
- Presentation Materials (*draft and final*)
- High Quality Digital Photographs
- Knowledge Sharing Report with summary of actual project publications

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.