

GRANT REQUEST FORM (GRF)



New Agreement FPI-19-002 (To be completed by CGL Office)

ERDD	Estella Shi	51	916-327-1351
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Saputo Cheese USA Inc.

Concentrated Solar Thermal for Sustainable Cheese Production in California

10/30/2019	3/31/2023	\$ 5,456,184
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ARFVTP agreements under \$75K delegated to Executive Director.

Proposed Business Meeting Date 10/14/2019 Consent Discussion

Business Meeting Presenter Cyrus Ghandi Time Needed: 5 minutes

Please select one list serve. Research (Energy RDD / PIER program)

Agenda Item Subject and Description

SAPUTO CHEESE USA INC. Proposed resolution approving grant Agreement FPI-19-002 and adopting CEQA Findings for Saputo Cheese USA Inc. to install a concentrated solar power plant at its Tulare cheese production facility.

- i. CEQA FINDINGS. Proposed resolution adopting findings that, based on the lead agency City of Tulare's Initial Study/Mitigated Negative Declaration, Mitigation Monitoring and Reporting Program, Conditional Use Permit 2019-20, and the Resolution approving and adopting the declaration and permit, the proposed project presents no new significant or substantially more severe impacts beyond those already considered.
- ii. Proposed resolution approving Agreement FPI-19-002 with Saputo Cheese USA Inc. for a \$5,456,184 grant to install a concentrated solar power plant at its Tulare cheese production facility. This project will reduce on-site natural gas usage and is expected to provide benefits to the priority populations where the cheese production facility is by reducing on-site criteria air pollutant emissions and creating jobs.

1. Is Agreement considered a "Project" under CEQA?
 Yes (skip to question 2) No (complete the following (PRC 21065 and 14 CCR 15378)):
 Explain why Agreement is not considered a "Project":
 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:
 a) Agreement **IS** exempt. (Attach draft NOE)
 Statutory Exemption. List PRC and/or CCR section number: _____
 Categorical Exemption. List CCR section number: _____
 Common Sense Exemption. 14 CCR 15061 (b) (3)
 Explain reason why Agreement is exempt under the above section:

b) Agreement **IS NOT** exempt. (Consult with the legal office to determine next steps.)
 Check all that apply
 Initial Study Environmental Impact Report
 Negative Declaration Statement of Overriding Considerations
 Mitigated Negative Declaration

GRANT REQUEST FORM (GRF)



List all subcontractors (major and minor) and equipment vendors: (attach additional sheets as necessary)	
Legal Company Name:	Budget
National Renewable Energy Laboratory (NREL)	\$ 84,150
Combined Power LLC, dba Hyperlight Energy	\$ 492,277
Nady Process Engineering, Inc.	\$ 34,995
Taylorred Software Solutions	\$ 16,762
Combined Power LLC, dba Hyperlight Energy (Match only)	\$ 14,850
NREL (Match only)	\$ 14,850
Nady Process Engineering, Inc. (Match only)	\$ 6,176
Taylorred Software Solutions (Match only)	\$ 2,958
	\$

Legal Company Name:

Funding Source	Funding Year of Appropriation	Budget List No.	Amount
GGRF	17-18	301.002A	\$5,456,184
			\$
			\$
R&D Program Area: EERO: IAW			\$5,456,184
Explanation for "Other" selection			
Reimbursement Contract #:		Federal Agreement #:	

Name:	Kalee Sanino	Name:	Kalee Sanino
Address:	2711 N Haskell Ave Ste 3700	Address:	2711 N Haskell Ave Ste 3700
City, State, Zip:	Dallas, TX 75204-2996	City, State, Zip:	Dallas, TX 75204-2996
Phone:	214-863-2410 /	Fax:	- -
E-Mail:	Kalee.Sanino@Saputo.com	E-Mail:	Kalee.Sanino@Saputo.com

<input checked="" type="checkbox"/> Competitive Solicitation	Solicitation #: GFO-18-903
<input type="checkbox"/> First Come First Served Solicitation	

1. Exhibit A, Scope of Work	<input checked="" type="checkbox"/> Attached
2. Exhibit B, Budget Detail	<input checked="" type="checkbox"/> Attached
3. CEC 105, Questionnaire for Identifying Conflicts	<input checked="" type="checkbox"/> Attached
4. Recipient Resolution	<input checked="" type="checkbox"/> N/A <input type="checkbox"/> Attached
5. CEQA Documentation	<input type="checkbox"/> N/A <input checked="" type="checkbox"/> Attached

Agreement Manager _____ Date _____ Office Manager _____ Date _____ Deputy Director _____ Date _____

EXHIBIT A

Scope of Work

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2	X	Project Engineering Design
3	X	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
CPR	Critical Project Review
CSP	Concentrated Solar Power
GHG	Greenhouse Gas
M&V	Measurement and Verification
Recipient	Saputo Cheese USA Inc.

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

A. Purpose of Agreement

The purpose of this Agreement is to design, install, and operate a concentrated solar power (CSP) plant that will enable the Recipient to reduce the greenhouse gas (GHG) emissions at its cheese production facility in the city of Tulare, CA.

B. Problem/ Solution Statement

Problem

Processing of milk into dairy products is an energy-intensive process requiring large amounts of heat, typically provided by burning natural gas. Supplementing heat required for thermal processes with solar thermal energy could significantly reduce natural gas consumption and GHG emissions in dairy processing industries. However, due to high upfront capital cost requirements and challenging integration requirements for connecting new power plants with existing equipment and facilities, there is a lack of successful, high-temperature demonstrations of solar thermal energy systems in dairy processing facilities.

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

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Solution

The Recipient will design, install, and operate an innovative solar thermal system at its facility. The system will employ Hylux, a novel CSP technology provided by the Subcontractor, and will convert solar energy into supplemental heat for thermal processes required to process milk into cheese. Once operational, the CSP plant will provide low-cost, renewable solar heat directly to the Recipient's cheese production facility, helping the Recipient reduce both natural gas consumption and GHG emissions.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Contribute to an overall reduction in California's food production costs.
- Reduce operating costs and GHG emissions associated with food production.
- Demonstrate the reliability and effectiveness of an innovative CSP technology at a California food processing plant.
- Continue working toward a low-carbon future.
- Benefit priority populations, specifically the disadvantaged community the facility is located in.

Agreement Objectives

The objectives of this Agreement are to:

- Measure the cheese production facility's natural gas consumption in order to establish a baseline to compare gas consumption post CSP plant.
- Design, manufacture, and commission an innovative CSP plant that will provide solar heat to the facility.
- Monitor and verify operational GHG emission reductions attained by the new CSP solar steam plant.
- Share knowledge about the project with other market segments in California that can use the technology demonstrated.
- Benefit priority populations by reducing on-site criteria air pollutant or toxic air contaminant emissions through reduction of fossil fuel consumption.

III. TASK 1 GENERAL PROJECT TASKS

PRODUCTS

Subtask 1.1 Products

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

EXHIBIT A

Scope of Work

The Recipient shall:

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

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

For products that require a final version only

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

For all products

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

Instructions for Submitting Electronic Files and Developing Software:

○ **Electronic File Format**

- Submit all data and documents required as products under this Agreement in an electronic file format that is fully editable and compatible with the Energy Commission's software and Microsoft (MS)-operating computing platforms, or with any other format approved by the CAM. Deliver an electronic copy of the full text of any Agreement data and documents in a format specified by the CAM, such as memory stick or CD-ROM.

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

- Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
- Text documents will be in MS Word file format, version 2007 or later.
- Documents intended for public distribution will be in PDF file format.
- The Recipient must also provide the native Microsoft file format.
- Project management documents will be in Microsoft Project file format, version 2007 or later.

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○ **Software Application Development**

Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:

- Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
- Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
- Visual Studio.NET (version 2008 and up). Recommend 2010.
- C# Programming Language with Presentation (UI), Business Object and Data Layers.
- SQL (Structured Query Language).
- Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
- Microsoft SQL Reporting Services. Recommend 2008 R2.
- XML (external interfaces).

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

MEETINGS

Subtask 1.2 Kick-off Meeting

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

The Recipient shall:

- Attend a "Kick-off" meeting with the CAM, the Commission Agreement Officer (CAO), and any other Energy Commission staff relevant to the Agreement. The Recipient will bring its Project Manager and any other individuals designated by the CAM to this meeting. The administrative and technical aspects of the Agreement will be discussed at the meeting. Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. The meeting may take place in person or by electronic conferencing (e.g., WebEx), with approval of the CAM.

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

- Terms and conditions of the Agreement;
- Administrative products (subtask 1.1);
- CPR meetings (subtask 1.3);
- Match fund documentation (subtask 1.6);
- Permit documentation (subtask 1.7);
- Subcontracts (subtask 1.8); and
- Any other relevant topics.

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

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
- An updated Project Schedule;
- Technical products (subtask 1.1);

EXHIBIT A

Scope of Work

- Progress reports and invoices (subtask 1.5);
- Final Report (subtask 1.6); and
- Any other relevant topics.
- Provide an *Updated Project Schedule*, *List of Match Funds*, and *List of Permits*, as needed to reflect any changes in the documents.

The CAM shall:

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

Recipient Products:

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

CAM Product:

- Kick-off Meeting Agenda

Subtask 1.3 Critical Project Review (CPR) Meetings

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

CPR meetings generally take place at key, predetermined points in the Agreement, as determined by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the CAM may schedule additional CPR meetings as necessary. The budget will be reallocated to cover the additional costs borne by the Recipient, but the overall Agreement amount will not increase. CPR meetings generally take place at the Energy Commission, but they may take place at another location, or may be conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

The Recipient shall:

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

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The CAM shall:

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

Recipient Products:

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

CAM Products:

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

Subtask 1.4 Final Meeting

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

The Recipient shall:

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

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

- The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
- The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
 - Disposition of any state-owned equipment.
 - Need to file a Uniform Commercial Code Financing Statement (Form UCC-1) regarding the Energy Commission's interest in patented technology.
 - The Energy Commission's request for specific "generated" data (not already provided in Agreement products).
 - Need to document the Recipient's disclosure of "subject inventions" developed under the Agreement.

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- “Surviving” Agreement provisions such as repayment provisions and confidential products.
- Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
- Prepare a *Schedule for Completing Agreement Closeout Activities*.
- Provide *All Draft and Final Written Products* on a CD-ROM or USB memory stick, organized by the tasks in the Agreement.

Products:

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

REPORTS AND INVOICES

Subtask 1.5 Progress Reports and Invoices

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

The Recipient shall:

- Submit a 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 Fund and in-state expenditures.

Products:

- Progress Reports
- Invoices

Subtask 1.6 Final Report

The goal of this subtask is to prepare a comprehensive Final Report that describes the original purpose, approach, results, and conclusions of the work performed under this Agreement. The CAM will review the Final Report according to the Project Schedule. When creating the Final Report, the Recipient must use the Style Manual provided by the CAM.

The Recipient shall:

- 1) Prepare a *Final Report* for this Agreement in accordance with the 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**)

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- Acknowledgements page (optional)
- Table of Contents (**required**, followed by List of Figures and List of Tables, if needed)
- Executive summary (**required**) following the Executive Summary Template
- Include a summary table that includes the following information, but is 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 therm equivalents) for renewable energy projects;
 - Other benefits or results;
 - Other market sectors that can benefit from the project
 - Benefits to priority populations.
- Appendices - Include a copy of the M&V report for each demonstration site funded by the Energy Commission grant). (**required**)
 - Follow the Style Guide format requirements for headings, figures/tables, citations, and acronyms/abbreviations.
 - Ensure that the document omits subjective comments and opinions. However, recommendations in the conclusion of the report are allowed.
- Submit a draft of the report to the CAM for review and comment according to the project schedule. The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt
- Consider incorporating all CAM comments into the Final Report. If the Recipient disagrees with any comment, provide a written response explaining why the comment was not incorporated into the final product
- Submit the revised Final Report and responses to comments within 10 days of notice by the CAM, unless the CAM specifies a longer time period or approves a request for additional time.
- Submit one bound copy of the *Final Report* to the CAM along with *Written Responses to Comments on the Draft Final Report*.

Products:

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

CAM Product:

- Written Comments on the Draft Final Report

EXHIBIT A Scope of Work

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

Subtask 1.7 Match Funds

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

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

The Recipient shall:

- Prepare a *Match Funds Status Letter* that documents the match funds committed to this Agreement. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state this in the letter.

If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter:

- A list of the match funds that identifies:
 - The amount of cash match funds, their source(s) (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied.
 - The amount of each in-kind contribution, a description of the contribution type (e.g., property, services), the documented market or book value, the source (including a contact name, address, and telephone number), and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient must identify its owner and provide a contact name, address, telephone number, and the address where the property is located.
 - 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)*

EXHIBIT A Scope of Work

Subtask 1.8 Permits

The goal of this subtask is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track. Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement, with the exception of costs incurred by University of California recipients. Permits must be identified and obtained before the Recipient may incur any costs related to the use of the permit(s) for which the Recipient will request reimbursement.

The Recipient shall:

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

The list of permits and the schedule for obtaining them will be discussed at the Kick-off meeting (subtask 1.2), and a timetable for submitting the updated list, schedule, and copies of the permits will be developed. The impact on the project if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in progress reports and will be a topic at CPR meetings.

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

Products:

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

Subtask 1.9 Subcontracts

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

The Recipient shall:

- Manage and coordinate subcontractor activities in accordance with the requirements of this Agreement.
- Incorporate this Agreement by reference into each subcontract.
- Include any required Energy Commission flow-down provisions in each subcontract, in addition to a statement that the terms of this Agreement will prevail if they conflict with the subcontract terms.
- If required by the CAM, submit a draft of each *Subcontract* required to conduct the work under this Agreement.
- Submit a final copy of the executed subcontract.

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- 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

*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 CSP plant and plan the equipment layout for the Recipient's facility.

The Recipient shall:

- Enter into agreement with Project Engineering Design subcontractor per Task 1.9.
- Determine the optimal amount of solar heat required from the CSP plant, which will inform overall plant size and capacity.
- Design the reflector mirrors, receiver tubes, water support system for the mirrors, heat transfer equipment, electrical equipment, control systems, and structural components of the CSP plant.
- Design the required site upgrades, including electrical systems, ground preparation, fencing, and heat transfer equipment.
- Design the physical connections between the CSP system and the plant.
- Design a heat distribution strategy for efficiency operations.
- Provide a *Project Design Memo* that shall include, but not be limited to:
 - Summary of the steps taken to reach the final design and final layout;
 - Identification of barriers and discuss the steps taken to overcome those barriers;
 - Discussion of the final design and equipment layout, including any special considerations and the heat distribution strategy.
- Prepare *CPR Report #1* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

Products:

- Project Design Memo (draft and final)
- CPR Report #1

TASK 3: SITE PREPARATION AND EQUIPMENT PROCUREMENT

EXHIBIT A

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The goal of this task is to procure the necessary equipment and materials and secure all required permits for installing a CSP plant at the Recipient's plant.

The Recipient shall:

- Prepare the site for installation of the equipment. Steps include:
 - Work with Subcontractor to establish requirements for site preparation and any third-party vendors or contractors required to build out the site and project.
 - Determine timeline of installations and onsite manufacture.
 - Identify drop sites for equipment.
- Procure equipment by finalizing performance specifications for each piece of equipment and securing bids.
- Secure building permits from the local permitting agency required for system installation.
- Accept delivery of equipment.
- 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 equipment purchased by the grant
 - Summary of the bids received and from whom
 - Copies of all required permits needed for installation site
 - Status of the planned installation including preliminary schedule for equipment delivery and installation.
- Prepare *CPR Report #2* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

Products:

- Site Preparation and Equipment Procurement Memo
- CPR Report #2

TASK 4: EQUIPMENT INSTALLATION

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

The Recipient shall:

- Install the CSP plant per the engineering design.
- Commission CSP plant:
 - Complete all inspections
 - Start-up and test the integrated CSP system and integration equipment
 - Make required adjustments to meet stated performance specifications
- Commence normal operations:
 - Conduct operations according to standard operating procedures.
- Provide an *Equipment Installation Memo* that shall include, but not be limited to:
 - Summary of the equipment installation requirements;
 - 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 *CPR Report #3* in accordance with subtask 1.3 (CPR Meetings).
- Participate in a CPR meeting.

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Products:

- Equipment Installation Memo (draft and final)
- CPR Report #3

TASK 5: MEASUREMENT AND VERIFICATION

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

The Recipient shall:

- Enter into agreement with M&V subcontractor per Task 1.9.
- Coordinate site visits with the M&V subcontractor at the demonstration site.
- Develop M&V protocol for pre-installation measurement (and calculations) following Section II.B.2 of the grant solicitation manual:
 - 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.
 - If necessary, ensure installation of sub-metering equipment and data loggers for pre/post data analysis.
- Prepare and provide a detailed *M&V Plan* to include, but not be limited to:
 - A description of the monitoring equipment and instrumentation which will be used.
 - A description of the key input parameters and output metrics which 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 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* that includes M&V protocol, pre-installation 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 12 months (or 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:
 - 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-install electrical, natural gas and/or other fossil fuel consumption and GHG emissions.

EXHIBIT A

Scope of Work

- Prepare and provide a *Post-Installation M&V Findings Report* that includes M&V protocol, pre and post install measurements (and calculations), analysis, and results performed in this task. Results must 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 6: 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:

- Develop a *Marketing and Public Relations Strategy* that will advertise the successful project to the public and SoCalGas's customer base.
- When directed by the CAM, develop *Presentation Materials* for an Energy Commission-sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in workshops symposium(s) sponsored by the California Energy Commission.
- Provide at least (6) six *High Quality Digital Photographs* (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project site(s) or related project photographs.

Products:

- Marketing and Public Relations Strategy (draft and final)
- Presentation Materials (draft and final)
- High Quality Digital Photographs

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.

M e m o r a n d u m

To: FPI-19-002, Saputo Hylux Concentrated Solar Energy Project CEQA Analysis

Date: September 24, 2019

From: Estella Shi

Telephone: 916-327-1351

Subject: California Environmental Quality Act Analysis for FPI-19-002

I am an Associate Energy Specialist in the Research and Development Division, California Energy Commission, and am the Commission's Agreement Manager for proposed Agreement FPI-19-002 ("Agreement").

Pursuant to my work in developing the Agreement, including the Scope of Work for the Agreement, I have reviewed the lead agency, City of Tulare ("City"), California Environmental Quality Act ("CEQA") documents prepared for the City of Tulare Community & Economic Development Department for the *Saputo Hylux Concentrated Solar Energy Project* ("Saputo Hylux"). The Saputo Hylux project will involve the construction, demonstration, and operation of a Concentrated Solar Power (CSP) system on a presently unused land at the site of Saputo's existing cheese production facility in Tulare, California. The City's CEQA documents for the project include an Initial Study, Mitigated Negative Declaration (MND), Mitigation Monitoring and Reporting Program (MMRP), and the City's Notice of Determination. The MND, MMRP, and Conditional Use Permit 2019-20 were approved and adopted by the Tulare Planning Commission on September 9, 2019 by Resolution No. 5343 as complete and accurate and prepared in accordance with CEQA. The City has the responsibility and jurisdiction to implement the mitigation measures in the MND.

In the MND, the City identified and analyzed 20 environmental factors for potential impacts, identifying 5 with "no impact" and 8 with "less than significant impact". The remaining 7 have at least one potential impact at the level of "less than significant with mitigation incorporated". These areas are: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, and Tribal Cultural Resources; for these areas, mitigation measures have been required by the lead agency that avoid or substantially lessen the impact to below significant levels.

Based on my review and consideration of the above CEQA documents, it is my independent and professional opinion that, since the above CEQA documents have been finalized, there have been no new project changes, and no new, additional, or increased significant environmental impacts have occurred. Furthermore, I have not identified any new information which would change the conclusions of the City's CEQA documents, or render those conclusions inadequate.

It is also my independent and professional opinion that the work to be performed under the proposed Agreement FPI-19-002 falls within the scope of the City's CEQA documents, and that the Agreement will not result in any new significant environmental impacts. Finally, I have not identified any new mitigation measures, within the Energy Commission's authority, that would lessen or further mitigate the impacts of the Saputo Hylux project.

The reasons for my conclusions are as follows:

The Agreement contains two main components with potential environmental impacts; construction of the Saputo Hylux project and operation of the Saputo Hylux project. Construction activities are short-term, occurring over a period of 10-12 months with a construction area footprint of approximately 5 acres. Construction activities will have short-term impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and tribal cultural resources. Long-term operation activities have minimal potential environmental impacts. These impacts are all categorized as "Impact can & will be mitigated". The mitigation measures are outlined below and a full list of mitigation measures is provided in Resolution No. 5343. All of the construction and operation activities described in the proposed Agreement fall within the activities evaluated by the City's CEQA documents identified above.

Aesthetics:

The proposed Agreement will have less-than-significant impact on aesthetics, and will not change the impacts identified in the City's CEQA documents. No mitigation is required.

Agricultural and Forestry Resources:

The proposed Agreement will not have any impact on agricultural and forestry resources, and will not change the impacts identified in the City's CEQA documents.

Air Quality:

The proposed Agreement will result in short-term construction-related emissions and long-term operation-related emissions. During construction, pollutant emissions would be temporary in nature and are not expected to result in the exceedance of any applicable thresholds or regulations. Long-term operation-related emissions would consist of fugitive dust emissions and exhaust emissions, but the proposed Agreement is not expected to result in substantial emissions of either these sources, and no mitigation measures are required. The proposed Agreement is also not expected to result in a considerable net increase of any criteria pollutant.

The proposed Agreement does have the potential to generate fugitive dust and suspend Valley Fever spores with the dust that could then reach nearby sensitive receptors, exposing onsite workers to airborne fungus (valley fever) during construction. Mitigation Measure AQ-1 addresses this potential impact. Therefore, the proposed Agreement will have a less than significant impact with incorporation of mitigation measures. A complete list of mitigation measures is provided in Appendix A of the MND.

Biological Resources:

The proposed Agreement will result in possible risk to the species inhabiting the area surrounding the project site. Through implementation of mitigation measures MM BIO-1 – MM BIO-6, impacts of the proposed Agreement would not have a substantial adverse effect. Therefore, the proposed Agreement will have a less than significant impact with incorporation of mitigation measures. A complete list of mitigation measures is provided in Appendix A of the MND.

Cultural Resources:

The proposed Agreement will likely not have any impact on cultural resources, but mitigation measures are proposed in the event that project-related excavation and construction lead to the discovery and potential damage of previously undiscovered cultural resources. Through implementation of mitigation measures MM CUL-1 and MM CUL-2, potential impacts would be reduced. Therefore, the proposed Agreement will have a less than significant impact with incorporation of mitigation measures. A complete list of mitigation measures is provided in Appendix A of the MND.

Energy:

The proposed Agreement will have a less-than-significant environmental impact on energy due to wasteful, inefficient, or unnecessary consumption of natural resources during project construction, and will not change the impacts identified in the City's CEQA documents. The proposed Agreement aligns with State legislation for renewable energy and will comply with all regulations and standards established by the San Joaquin Valley Air Pollution Control District to ensure the region meets its regulatory goals. No mitigation is required.

Geology and Soils:

The proposed Agreement will result in low to moderate risk increases for unique paleontological resources. It is possible that geological formations underlying Tulare have the potential for containing paleontological resources (i.e. fossils). The proposed Agreement is not anticipated to require excavation below five feet in depth but there remains the possibility for previously buried resources or sites to be uncovered during subsurface construction activities. Mitigation measure MM GEO-1 establishes standard inadvertent discovery procedures to be implemented in the event that paleontological resources are encountered. Therefore, the proposed Agreement will have a less than significant impact with incorporation of mitigation measures. A complete list of mitigation measures is provided in Appendix A of the MND.

Greenhouse Gas Emissions:

The proposed Agreement will have less-than-significant impact on greenhouse gas emissions, and will not change the impacts identified in the City's CEQA documents. No mitigation is required.

Hazards and Hazardous Materials:

The proposed Agreement will result in risk to the public or environment under accident conditions involving the release of hazardous materials into the environment. Specifically, project construction-related activities may involve the use and transport of hazardous materials. With the implementation of MM HAZ-1 of the MND, which involves the preparation and implementation of a Hazardous Materials Business Plan, the proposed Agreement would not create a significant hazard to the public or environment and would therefore result in a less than significant impact with incorporation of mitigation measures. A complete list of mitigation measures is provided in Appendix A of the MND.

Hydrology and Water Quality:

The proposed Agreement will result in low risk to water quality and discharge standards. Construction-related activities would cause a small amount of ground disturbance, which could result in soil erosion and subsequent water quality degradation offsite. Implementation of MM HAZ-1 would ensure the proposed Agreement does not violate any water quality standards or waste discharge requirements during the construction period, and would therefore result in a less than significant impact with incorporation of mitigation measures. A complete list of mitigation measures is provided in Appendix A of the MND.

Land Use and Planning:

The proposed Agreement will not have any impact on land use planning, and will not change the impacts identified in the City's CEQA documents.

Mineral Resources:

The proposed Agreement will not have any impact on mineral resources, and will not change the impacts identified in the City's CEQA documents.

Noise:

The proposed Agreement will have less-than-significant impact on noise, and will not change the impacts identified in the City's CEQA documents. No mitigation is required.

Population and Housing:

The proposed Agreement will not have any impact on population and housing, and will not change the impacts identified in the City's CEQA documents.

Public Services:

The proposed Agreement will have less-than-significant impact on public services, and will not change the impacts identified in the City's CEQA documents. The project would likely receive service from a fire station nearby, and construction would not directly affect the City Fire Department's ability to continue to provide a similar level of protection throughout its service area. No mitigation is required.

Recreation:

The proposed Agreement will not have any impact on recreation, and will not change the impacts identified in the City's CEQA documents.

Transportation:

The proposed Agreement will have less-than-significant impact on transportation, and will not change the impacts identified in the City's CEQA documents. The project is consistent with the City of Tulare General Plan and Regional Transportation Plan. No mitigation is required.

Tribal Cultural Resources:

The proposed Agreement will likely not have any impact on tribal cultural resources. The lead agency has not received information from a local tribal group indicating that the proposed Agreement would impact tribal cultural resources. With implementation of MM CUL-1 and MM CUL-2, impacts would be less-than-significant with mitigation incorporated. A complete list of mitigation measures is provided in Appendix A of the MND.

Utilities and Service Systems:

The proposed Agreement will have less-than-significant impact on utilities and service systems, and will not change the impacts identified in the City's CEQA documents. The project would not require construction of new water or wastewater treatment facilities and water will be obtained from the City similar to the existing facility. No mitigation is required.

Wildfire:

The proposed Agreement will have less-than-significant impact on wildfire risk, and will not change the impacts identified in the City's CEQA documents. No mitigation is required.

California Energy Commission

October 14, 2019 Business Meeting – Agenda Item #11b

Saputo Cheese USA Inc.: “Concentrated Solar Thermal for Sustainable Cheese Production in California” (FPI-19-002)

The full California Environmental Quality Act (CEQA) supporting documentation for FPI-19-002 can be obtained at:

https://ww2.energy.ca.gov/research/epic/environmental_review_documents.html

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION - RE: Saputo Cheese USA Inc.

WHEREAS, the City of Tulare is the Lead Agency for purposes of the California Environmental Quality Act ("CEQA") for the Concentrated Solar Thermal for Sustainable Cheese Production in California (hereinafter "Project"); and

WHEREAS, the City of Tulare prepared an Initial Study/Mitigated Negative Declaration for the Project ("MND"), Mitigation, Monitoring and Reporting Program ("MMRP"), and a Notice of Determination, evaluating the potential environmental impacts of implementing the Project, and all of which are on file with the California Energy Commission (CEC) and a link to the documents is provided in the back-up materials; and

WHEREAS, the City of Tulare, on September 9, 2019 considered and adopted the MND for the Project, approved the Conditional Use Permit 2019-20 (CUP) for the Project, adopted the MMRP, and adopted CEQA findings under Resolution No. 5343, copies of which are on file with the CEC and a link to the documents is provided in the back-up materials; and

WHEREAS, the CEC has reviewed and considered the City's MND, MMRP, CUP, Resolution No. 5343 containing CEQA findings, filed Notice of Determination, and the CEC staff's findings are contained in the September 24, 2019 Memorandum, FPI-19-002, Saputo Hylux Concentrated Solar Energy Project CEQA Analysis which is available in the back-up materials; and

WHEREAS, the CEC is considering proposed Agreement FPI-19-002, Concentrated Solar Thermal for Sustainable Cheese Production in California (hereinafter "FPI-19-002"), a grant to fund the installation of a concentrated solar power plant at the Saputo cheese production facility in Tulare, CA to reduce on-site natural gas usage and is expected to provide benefits to priority populations where the cheese production facility is located by reducing on-site criteria air pollutant emissions and creating quality jobs; and

Prior to acting on Agreement FPI-19-002, the CEC desires to make certain findings pursuant to CEQA Guidelines, title 14, sections 15091, 15092 and 15096;

NOW THEREFORE, BE IT RESOLVED:

1. To the extent relevant to FPI-19-002, the CEC has considered the information contained in the City of Tulare's MND, MMRP, CUP, Resolution No. 5343 containing CEQA findings, and staff's September 24, 2019 Memorandum identified above;
2. The City of Tulare has the authority and has already adopted the MMRP to implement mitigation measures or seek any required approvals for mitigation measures identified, to reduce the selected impacts to a less than significant level, and the CEC has no direct authority to implement the mitigation measures identified.

3. The CEC finds the City of Tulare's MND, MMRP, CUP and Resolution No. 5343 containing CEQA findings are adequate for its use as the decision-making body for its consideration of FPI-19-002.
4. Approval of FPI-19-002 is within the scope of the City of Tulare's MND, MMRP, CUP, and Resolution No. 5343.
5. Since the City of Tulare's MND, MMRP, CUP, and Resolution No. 5343 were finalized, there have been no substantial project changes and no substantial changes in the Project circumstances that would require major revisions to these documents due to the involvement of new significant environmental effects or an increase in the severity of previously identified significant impacts, and there is no new information of substantial importance that would change the conclusions set forth therein.
6. The CEC has not identified any feasible alternative or additional feasible mitigation measures within its power that would substantially lessen or avoid any significant effect the Project would have on the environment.

BE IT FURTHER RESOLVED, that the CEC finds, on the basis of the entire record before it, including the City of Tulare's CEQA documents and staff's September 24, 2019 Memorandum identified above, that the mitigation measures incorporated will prevent FPI-19-002 from having any significant environmental impacts; and

BE IT FURTHER RESOLVED, that this document authorizes the Executive Director or his or her designee to prepare and file a Notice of Determination on behalf of the CEC; and

BE IT FURTHER RESOLVED, that the CEC approves Agreement FPI-19-002 with Saputo Cheese USA Inc. for \$5,456,184; and

BE IT FURTHER RESOLVED, that the Executive Director or his or her 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 October 14, 2019.

AYE: [*List Commissioners*]

NAY: [*List Commissioners*]

ABSENT: [*List Commissioners*]

ABSTAIN: [*List Commissioners*]

Cody Goldthrite
Secretariat