California Energy Commission
June 22, 2026 Business Meeting
Backup Materials for C-Crete Technologies 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

CALIFORNIA ENERGY COMMISSION

PROPOSED RESOLUTION: C-Crete Technologies LLC

RESOLUTION NO: 26-0622-XX

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 EPC-25-053 with C-Crete Technologies LLC for a $3,218,538 grant to develop and demonstrate a decentralized manufacturing process to create low-carbon cementitious binders that can be used by ready-mix concrete suppliers. The manufacturing process will take place at a facility in San Leandro and will replace ordinary Portland cement by 90 percent by using industrial waste, natural pozzolans, and C-Crete Technologies LLC's binder; and

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

APPROVED AND ADOPTED this 22 day of June 2026, by the following vote:

AYE:
NAY:
ABSENT:
ABSTAIN:

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 approved and adopted by affirmative vote of the CEC at a meeting held on June 22, 2026.

Kim Todd
Secretariat

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION

CEC-270 (Revised 01/2026)

GRANT REQUEST FORM (GRF)

A. New Agreement Number

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

New Agreement Number: EPC-25-053

B. Division Information

1. Division Name: ERDD
2. Agreement Manager: Neeva Benipal
3. MS-:None
4. Phone Number: 916-776-0811

C. Recipient's Information

1. Recipient's Legal Name: C-Crete Technologies LLC

D. Title of Project

Title of project: De-centralized Manufacturing of Low-Cost, Sustainable Cementitious Binders

E. Term and Amount

1. Start Date: 7/1/2026
2. End Date: 6/30/2030
3. Amount: $3,218,538.00

F. Business Meeting Information

1. Are the ARFVTP agreements $75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 6/22/2026 .
3. Consent or Discussion? Discussion
4. Business Meeting Presenter Name: Anish Gautam
5. Time Needed for Business Meeting: 5 minutes.
6. The email subscription topic is: Electric Program Investment Charge (EPIC) .

Project Description:

G. C-Crete Technologies LLC. Proposed resolution approving agreement EPC-25-053 with C-Crete Technologies for a $3,218,538 grant to develop and demonstrate a decentralized manufacturing process to create sustainable low-carbon cementitious binders that can be used by all cement ready-mix concrete suppliers and adopting staff's recommendation that this action is exempt from CEQA. The pilot facility manufacturing process in San Leandro will allow up to 90 percent of Portland cement to be replaced with industrial waste, natural pozzolans, and C-Crete's binder. (EPIC funding) Contact: Anish Gautam

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":

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 ;

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.

Cal. Code Regs., tit. 14, §15301, provides that projects which consist of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public and private structures, facilities, mechanical equipment, or topographical features, and which involve negligible or no expansion of use beyond that at the time of the lead agency's determination, are categorically exempt from CEQA.This project will be conducted entirely within the existing facility footprint and will utilize existing utility connections and operational areas. Project activities are limited to the purchase, installation, and operation of several pilot-scale equipment components within the existing facility. All new equipment will be integrated into the current existing infrastructure. There will be no construction on the outside of the facility. The facility use, of creating cement, will remain the same. There will be no change in use. These activities involve negligible or no expansion of the existing use the project is categorically exempt from CEQA under CCR tit. 14 15301 exemption.

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

CEQA Guidelines section 15300.2 apply to this project, and this project will not have a significant effect on the environment.

b) Agreement **IS NOT** exempt.
IMPORTANT: consult with the legal office to determine next steps.

No

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

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

H. 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
Holliday Rock Co., Inc.	$6,000	
Cision US Inc.		$6,000

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
No vendors to report		

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
EPIC	24-25	301.001L	$ 2,848,616
EPIC	25-26	301.001M	$ 369,922

TOTAL Amount: $ 3,218,538

R&D Program Area: ICMB: IAW

Explanation for "Other" selection Not applicable

Reimbursement Contract #: Not applicable

Federal Agreement #: Not applicable

M. Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Rouzbeh Savary

Address: 14421 Catalina St

City, State, Zip: San Leandro, CA 94577-5515

Phone: 617-872-6507

E-Mail: rouzbeh@ccretetech.com

2. Recipient's Project Manager

Name: Rouzbeh Savary

Address: 14421 Catalina St

City, State, Zip: San Leandro, CA 94577-5515

Phone: 617-872-6507

E-Mail: rouzbeh@ccretetech.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-22-301r3
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: Neeva Benipal

Approval Date: 5/11/2026

Branch Manager: Cody Taylor

Approval Date: 5/15/2026

Director: Jonah Steinbuck (delegated to Branch Manager)

Approval Date: n/a

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR[1]	Task Name
1		General Project Tasks
2		Design and Engineering of the Pilot plant
3	X	Construction and Installation of the Pilot Plant
4		Test Unit Start-up
5	X	Commission and Operation of the Pilot Test Facility
6		Development of Test Plans
7		Parametric Testing of Operating Conditions
8		Analyze the Long-Term Performance Data and Decommission
9		Fabrication and Testing of Recipient Binders, Mortars and Concrete
10		Incorporation of Ultra-low Carbon binder to Ready Mix Batch Plants and Pouring Cast-in-Place Concrete
11		Evaluation of Project Benefits
12		Technology/Knowledge Transfer Activities

B. Acronym/Term List

Acronym/Term	Meaning
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ASTM	American Society of Testing and Materials
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CO2	Carbon Dioxide
CPR	Critical Project Review
FOAK	First-Of-A-Kind
M&V	Measurement and Verification
OPC	Ordinary Portland Cement
TAC	Technical Advisory Committee
SCM	Supplementary Cementitious Materials

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

A. Purpose of Agreement

To support the development and demonstration of a first-of-a-kind (FOAK) de-centralized manufacturing process that produces binders made of supplementary cementitious materials (SCMs) or natural pozzolans, and other low-carbon materials to reduce the use of ordinary Portland cement (OPC) by up to 90%. The goal is to deliver a low-cost, easy-to-adopt process

[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.

for ready-mix concrete suppliers through a pilot- scale demonstration of cementitious binder production. The technology will enable the high utilization of industrial wastes and natural pozzolans in low-carbon cementitious binders, significantly reducing carbon dioxide (CO2) emissions from concrete production.

Problem / Solution Statement

Problem
California's cement and concrete industries are major contributors to statewide emissions. Reducing the carbon intensity of cement manufacturing is difficult due to complex, high-temperature processes that are not readily compatible with electrification. Thus, like many other hard-to-abate sectors, these industries lag in achieving emissions reduction goals.

Solution
The Recipient has developed a novel, electricity-driven manufacturing process that uses industrial wastes and natural pozzolans to produce low-carbon cementitious binders. This process creates an opportunity to transform industrial wastes and naturally occurring materials into valuable construction products that can reduce reliance on OPC. The process works with many different industrial wastes such as slag (both blast furnace slag and electric arc furnace slag where the latter is produced locally in California), ashes (like fly ash or municipal solid waste incineration ash), mine tailings, natural pozzolans (e.g., volcanic ash, pumice, which are abundant in California) and many others. By using electricity rather than fossil fuels as its primary energy source, the process further reduces the carbon intensity of cement and concrete production.

B. Goals and Objectives of the Agreement

Agreement Goals
The goals of this Agreement are to:

- Develop a FOAK decentralized pilot-scale manufacturing process to incorporate up to 90% waste materials and natural pozzolans into OPC
- Design, engineer, install and operate a FOAK pilot-scale system (>100 tons/day feed capacity) at the Recipient site
- Conduct a comprehensive parametric study to identify optimal operating conditions
- Perform and test ultra-low carbon cementitious binders and concrete in accordance with industry accepted American Society for Testing and Materials (ASTM), American Concrete Institute (ACI) and American Association of State Highway and Transportation Officials (AASHTO) standards
- Demonstrate use of the binders in ready-mix concrete operations through large-volume concrete pours at the Recipient's site
- Collaborate with industry partners to identify and address barriers to commercial adoption of binder technology and perform measurement and verification (M&V)

Ratepayer Benefits:[2] This Agreement is expected to provide ratepayer benefits through improved grid reliability, lowered system costs, and reduced greenhouse emissions. Unlike conventional cement production, the Recipient's manufacturing process uses electricity as its primary energy source and has the potential to operate as a flexible load. By increasing electricity consumption during periods of overgeneration, the process may help reduce curtailment, improve utilization of renewable energy resources, and support grid stability. Additionally, Recipient's technology has the potential to significantly reduce the approximately 8 million metric tons of CO_2 emitted annually by California's cement industry, helping mitigate climate impacts for California residents.

Technological Advancement and Breakthroughs: This Agreement will lead to technological advancement by demonstrating and validating an electricity-driven process for producing alternative cementitious binders in the high-emissions cement industry, thereby addressing barriers to commercialization. Statewide adoption of alternative cementitious binder technology could expand renewable electricity demand and support California's goal of 100% renewable and zero-carbon electricity by 2045.

Agreement Objectives

The objectives of this Agreement are to:

- Design, commission and operate a FOAK de-centralized pilot plant that utilizes waste and pozzolans at high ratios (up to 90%) in Portland cement with a capacity of 100 tons/day
- Achieve stable operation of all key equipment and the full plant at >90% capacity
- Demonstrate continuous, stable plant operation, followed by M&V
- Meet ASTM C1157 performance standards (General Construction use) for binders produced during long-duration operation
- Validate integration of the new binder into industrial concrete production processes such as ready-mix batch plants through testing at industrial partner's facility in California
- Demonstrate of a pilot cast-in-place concrete via pouring new concrete into a prototypical small single floor concrete house

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

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

marking **"(draft and final)"** after the product name in the "Products" section of the task/subtask. If "(draft and final)" does not appear after the product name, only a final version of the product is required. With respect to due dates within this Scope of Work, **"days"** means working days.

The Recipient shall:

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

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

For products that require a final version only

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

For all products

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

Instructions for Submitting Electronic Files and Developing Software:

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

  The following describes the accepted formats for electronic data and documents provided to the CEC as products under this Agreement, and establishes the software versions that will be required to review and approve all software products:
  - Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
  - Text documents will be in MS Word file format, version 2007 or later.
  - Project management documents will be in Microsoft Project file format, version 2007 or later.

- **Software Application Development**
  Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:
  - Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
  - Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
  - Visual Studio.NET (version 2008 and up). Recommend 2010.
  - C# Programming Language with Presentation (UI), Business Object and Data Layers.
  - SQL (Structured Query Language).
  - Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
  - Microsoft SQL Reporting Services. Recommend 2008 R2.
  - XML (external interfaces).

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

MEETINGS

Subtask 1.2 Kick-off Meeting

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

The Recipient shall:

- Attend a "Kick-off" meeting with the CAM, and other CEC staff relevant to the Agreement. The Recipient's Project Manager and any other individuals deemed necessary by the CAM or the Project Manager shall participate in this meeting. The administrative and technical aspects of the Agreement will be discussed at the meeting. Prior to the meeting, the CAM will provide an agenda to all potential meeting participants. The meeting may take place in person or by electronic conferencing (e.g., Teams, Zoom), with approval of the CAM.

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

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
- An updated Project Schedule;
- Terms and conditions of the Agreement;
- Invoicing and auditing procedures;
- Travel;
- Equipment purchases;
- Administrative and Technical products (subtask 1.1);
- CPR meetings (subtask 1.3);
- Monthly Calls (subtask 1.5)
- Quarterly Progress reports (subtask 1.6)
- Final Report (subtask 1.7)
- Match funds (subtask 1.8);
- Permit documentation (subtask 1.9);
- Subawards (subtask 1.10);

  - Technical Advisory Committee meetings (subtasks 1.11 and 1.12);
  - Agreement changes;
  - Performance Evaluations; and
  - Any other relevant topics.

- Provide *Kick-off Meeting Presentation* to include but not limited to:
  - Project overview (i.e. project description, goals and objectives, technical tasks, expected benefits, etc.)
  - Project schedule that identifies milestones
  - List of potential risk factors and hurdles, and mitigation strategy

- Provide an *Updated Project Schedule, Match Funds Status Letter,* and *Permit Status Letter*, as needed to reflect any changes in the documents.

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

Recipient Products:
- Kick-off Meeting Presentation
- Updated Project Schedule *(if applicable)*
- Match Funds Status Letter (subtask 1.8) *(if applicable)*
- Permit Status Letter (subtask 1.9) *(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 should be made to the tasks, products, schedule, or budget. CPR meetings are a key opportunity for open and candid discussions between the CEC and the Recipient about project progress, challenges, and next steps. CPR meetings may also provide a forum for the Recipient to share project insights with interested CEC staff and CEC partners, at the CAM's discretion.

CPR meetings are typically scheduled at key inflection points in the project, as identified in the Task List on page 1 of this Exhibit. They should align with natural phase transitions, such as after design completion but before major procurement decisions, so that the CEC can make an informed Progress Determination based on project performance and risk. CPR meetings are generally conducted virtually but may be held at a project site, at the CEC, or another location, as determined by the CAM. Site visits are typical for demonstration projects or when in-person observation would enhance the CEC's understanding of project progress.

The CAM may schedule additional CPR meetings as needed to address emerging issues or concerns. The budget may be reallocated to cover the additional costs borne by the Recipient, but the overall Agreement amount will not increase.

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

The Recipient shall:

- Prepare and submit a CPR Presentation for each CPR meeting, structured to (1) report on progress with respect to the Scope of Work, budget, and schedule; identify any risks or needed changes to the Agreement; provide justification for continued funding; and (2) share project insights and progress towards achieving the Agreement's goals and objectives.
- Attend the CPR meeting and deliver the CPR Presentation and any other requested material, as outlined in the CPR Agenda provided by the CAM.

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. The CPR Agenda will outline the structure and expectations for the CPR Presentation.
- Conduct each CPR meeting.
- Issue a Progress Determination summarizing the meeting, stating whether the project will continue, and identifying any potential modifications to the Agreement or its products. The Progress Determination may include conditions that the Recipient must meet for the project to continue to receive CEC funding.

Recipient Products:

- CPR Presentation(s)

CAM Products:

- CPR Agenda(s)
- Progress Determination(s)

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., Teams, Zoom), with approval of the CAM.

  The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be divided into two separate meetings at the CAM's discretion.
  - The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
  - The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
    - Disposition of any procured equipment.
    - The CEC's request for specific "generated" data (not already provided in Agreement products).
    - Need to document the Recipient's disclosure of "subject inventions" developed under the Agreement.

  - "Surviving" Agreement provisions such as repayment provisions and confidential products.
  - Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
- Prepare a *Schedule for Completing Agreement Closeout Activities*.
- Provide copies of All Final Products organized by the tasks in the Agreement.

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

MONTHLY CALLS, REPORTS AND INVOICES

Subtask 1.5 Monthly Calls

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

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.

Products:
- Progress Reports Email to CAM concurring with call summary notes.

Subtask 1.6 Quarterly Progress Reports and Invoices

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

The Recipient shall:

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

Recipient Products:

- Quarterly Progress Reports
- Invoices

CAM Product:

- Invoice template

Subtask 1.7 Final Report

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

Subtask 1.7.1 Final Report Outline

The Recipient shall:

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

Recipient Products:

- Final Report Outline (draft and final)

CAM Products:

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

Subtask 1.7.2 Final Report

The Recipient shall:

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Energy Commission Style Manual, and Final Report Template provided by the CAM with the following considerations:
  - Ensure that the report includes the following items, in the following order:
    - Cover page (**required**)
    - Credits page on the reverse side of cover with legal disclaimer (**required**)

  - Acknowledgements page (optional)
  - Preface (**required**)
  - Abstract, keywords, and citation page (**required**)
  - Table of Contents (**required**, followed by List of Figures and List of Tables, if needed)
  - Executive summary (**required**)
  - Body of the report (**required**)
  - References (if applicable)
  - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
  - Bibliography (if applicable)
  - Appendices (if applicable) (Create a separate volume if very large.)
  - Attachments (if applicable)
- Submit a draft of the Executive Summary to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments on Draft Final Report* received on the Executive Summary. For each comment received, the Recipient will identify in the summary the following:
  - Comments the Recipient proposes to incorporate.
  - Comments the Recipient does not propose to incorporate and an explanation for why.
- Submit a draft of the report to the CAM for review and comment. The CAM will provide written comments to the Recipient on the draft product within 15 days of receipt.
- Incorporate all CAM comments into the *Final Report*. If the Recipient disagrees with any comment, provide a *Written Responses to Comments* explaining why the comments were not incorporated into the final product.
- Submit the revised *Final Report* electronically with any Written Responses to Comments within 10 days of receipt of CAM's Written Comments on the Draft Final Report, unless the CAM specifies a longer time period or approves a request for additional time.

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

CAM Product:
- Written Comments on the Draft Final Report

MATCH FUNDS, PERMITS, AND SUBCONTRACTS

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 proposal that led to the CEC awarding this Agreement and none have been identified at the time this Agreement starts, then state this in the letter.

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

Products:

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

Subtask 1.9 Permits

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

The Recipient shall:

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

  The list of permits and the schedule for obtaining them will be discussed at the Kick-off meeting (subtask 1.2), and a timetable for submitting the updated list, schedule, and copies of the permits will be developed. The impact on the project if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in progress reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, then provide the CAM with an *Updated List of Permits* (including the appropriate information on each permit) and an *Updated Schedule for Acquiring Permits*.
- Send the CAM a *Copy of Each Approved Permit*.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the CAM within 5 days. Either of these events may trigger a CPR meeting.

Products:

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

Subtask 1.10 Obtain and Execute Subawards and Agreements with Site Hosts

The goals of this subtask are to: (1) procure and execute subrecipients and site host agreements, as applicable, required to carry out the tasks under this Agreement; and (2) ensure that the subrecipients and site host agreements are consistent with the Agreement terms and conditions and the Recipient's own contracting policies and procedures.

The Recipient shall:

- Execute and manage subawards and coordinate subrecipients activities in accordance with the requirements of this Agreement.
- Execute and manage site host agreements and ensure the right to use the project site throughout the term of the Agreement, as applicable. A site host agreement is not required if the Recipient is the site host.
- Notify the CEC in writing immediately, but no later than five calendar days, if there is a reasonable likelihood the project site cannot be acquired or can no longer be used for the project.
- 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.

- Submit a *Subaward and Site Letter* to the CAM describing the subawards and any site host agreement needed or stating that no subawards or site host agreements are required.
- If requested by the CAM, submit a draft of each *Subaward* and any *Site Host Agreement* required to conduct the work under this Agreement.
- If requested by the CAM, submit a final copy of each executed *Subaward* and any *Site Host Agreement*.
- Notify and receive written approval from the CAM prior to adding any new subrecipient (see the terms regarding subrecipient additions in the terms and conditions).

Products:

- Subaward and Site Letter
- Draft Subawards *(if requested by the CAM)*
- Draft Site Host Agreement *(if requested by the CAM)*
- Final Subawards *(if requested by the CAM)*
- Final Site Host Agreement *(if requested by the CAM)*

TECHNICAL ADVISORY COMMITTEE

Subtask 1.11 Technical Advisory Committee (TAC)

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

- Provide guidance in project direction. The guidance may include scope and methodologies, timing, and coordination with other projects. The guidance may be based on:
  - Technical area expertise;
  - Knowledge of market applications; or
  - Linkages between the agreement work and other past, present, or future projects (both public and private sectors) that TAC members are aware of in a particular area.
- Review products and provide recommendations for needed product adjustments, refinements, or enhancements.
- Evaluate the tangible benefits of the project to the state of California, and provide recommendations as needed to enhance the benefits.
- Provide recommendations regarding information dissemination, market pathways, or commercialization strategies relevant to the project products.
- Help set the project team's goals and contribute to the development and evaluation of its statement of proposed objectives as the project evolves.
- Provide a credible and objective sounding board on the wide range of technical and financial barriers and opportunities.
- Help identify key areas where the project has a competitive advantage, value proposition, or strength upon which to build.
- Advocate, to the extent the TAC members feel is appropriate, on behalf of the project in its effort to build partnerships, governmental support, and relationships with a national spectrum of influential leaders.

- Ask probing questions that insure a long-term perspective on decision-making and progress toward the project's strategic goals.

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

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

The Recipient shall:

- Prepare a *List of Potential TAC Members* that includes the names, companies, physical and electronic addresses, and phone numbers of potential members. The list will be discussed at the Kick-off meeting, and a schedule for recruiting members and holding the first TAC meeting will be developed.
- Recruit TAC members. Ensure that each individual understands member obligations and the TAC meeting schedule developed in subtask 1.12.
- Prepare a *List of TAC Members* once all TAC members have committed to serving on the TAC.
- Submit *Documentation of TAC Member Commitment* (such as Letters of Acceptance) from each TAC member.

Products:

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

Subtask 1.12 TAC Meetings

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

The Recipient shall:

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

- Prepare *TAC Meeting Summaries* that include any recommended resolutions of major TAC issues.

The TAC shall:

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

Products:

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

Subtask 1.13 Project Performance Metrics

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

The Recipient shall:

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

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

Products:

- TAC Performance Metrics Summary
- Project Performance Metrics Results

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

TECHNICAL TASKS

TASK 2: Design and Engineering of the Pilot plant

The goal of this task is to prepare the Recipient's site for installation and operation of the FOAK de-centralized pilot plant, including development of the site engineering package and design of all required ancillary equipment and instrumentation.

The Recipient shall:

- Prepare the Site Design Package which includes:
    - Site layout drawings that indicate system integration with Recipient's existing process, the facility utilities and the overall infrastructure. This also includes utility connections and locations for installation of instrumentation.
    - A bill of materials identifying the ancillary equipment (pressure/flow regulators, valves, etc.) and materials (pipe, fittings, etc.) required for the installation.
    - Specifications for the instrumentation in accordance with the pilot system design and site design package.
    - Description of any other activities and/or resources required to decommission and remove pre-existing equipment and support installation of the pilot system.
- Calculate and prepare an Engineering Package for the pilot demonstration system, which includes block diagrams (BFD), identification of bottlenecks, and plans for mitigation, and safety protocols.
- Prepare and submit *Design and Engineering Summary Report* summarizing the Site Design Package and Engineering Package including:
    - Description of top-level assembly and integration concept for the FOAK pilot plant.
    - Summary of the BFDs, bottleneck analyses, mitigation plans, and safety protocols.
    - Block flow diagram of the proposed integrated plant.

Products:

- Design and Engineering Summary Report

TASK 3: Construction and Installation of the Pilot Plant

The goal of this task is to procure all key equipment, ancillary equipment, and instrumentations identified in Task 2 and install them at the Recipient's site.

The Recipient shall:

- Solicit bids from California-based equipment fabricators and establish an agreement with a selected contractor to fabricate major components of the pilot system.
- Procure the ancillary equipment (pressure/flow regulators, valves, etc.) and materials (pipe, fittings, etc.) required for the installation through California-based vendors.
- Procure the instrumentation required to satisfy the engineering design through California-based vendors.
- Solicit bids from California-based installation contractors and establish agreement with a selected contractor capable of fulfilling the installation effort
- Conduct a site visit and meet with the installation contractor prior to beginning installation of equipment to coordinate and review the installation scope of work.
- Monitor the removal of any pre-existing equipment and supervise the installation of the pilot system and the ancillary equipment required per the installation specifications.

- Prepare *Pilot Plant Construction and Installation Summary* including:
    - Summary of equipment procurement activities
    - Description of construction and installation activities performed
    - Summary of instrumentation and ancillary equipment installed
    - Description of any deviation from approved design package
    - Construction and installation changes encountered and resolutions implemented
    - Documentation demonstrating readiness for commissioning
- Prepare a *Task 3 CPR Report* and participate in a CPR meeting in accordance with subtask 1.3 (CPR Meetings).

Products:
- Pilot Plant Construction and Installation Summary
- Task 3 CPR Report

TASK 4: Test Subsystem Start-up
The goal of this task is to conduct a pre-start-up safety review and commission each major subsystem ("unit") of the FOAK pilot plant individually prior to integrated plant operation.

The Recipient shall:
- Perform comprehensive safety review of all units prior to testing
- Commission each unit for continued operation, ensuring the primary and ancillary components are operating properly within design specifications.
- Prepare and submit *Safety and Operations Analysis Report* to summarizing the results the pre-startup safety review, commissioning activities, startup testing, and operation under steady-state and boundary conditions for each major subsystem of the pilot plant.

Products:
- Safety and Operation Analysis Report

TASK 5: Commission and Operation of the Pilot Test Facility
The goal of this task is to commission, test, and validate the full pilot facility by ensuring all components work together for continued and stable operation

The Recipient shall:
- Perform safety review for the entire pilot plant
- Configure a master shutdown and emergency alarm function within the control system that can safely shut down the entire pilot plant in the event of an emergency
- Validate the stable performance of the entire pilot plant
- Test all automated process control systems and associated control loops required for operation of the pilot plant.
- Iterate and adjust control loops as needed for smooth operation
- Prepare and submit *Pilot Plant Stability Report* that documents automation parameters and performance results.
- Prepare and submit a *Pilot Plant Stability Report* documenting commissioning activities, validation of stable plant operation, automation and control system performance, and key lessons learned.
- Prepare a *Task 5 CPR Report* and participate in a CPR meeting in accordance with subtask 1.3 (CPR Meetings).

Products:
- Pilot Plant Stability Report
- Task 5 CPR Report

TASK 6: Development of Test Plans
The goal of this task is to prepare a detailed Test Plan to evaluate long term performance of the pilot plant and support demonstration and M&V activities.

The Recipient shall:
- Develop a detailed *Draft Test Plan* consisting of:
    - demonstration objectives and performance targets;
    - rationale for selection of the test conditions,
    - predicted technology performance based on prior development work,
    - a test matrix identifying test conditions and replicated runs,
    - descriptions of the facilities, equipment, and instrumentation required for testing
    - test procedures, and operating conditions; and
    - data collection and analysis procedures.
- Develop a detailed *Draft Demonstration Test Plan* consisting of:
    - project overview
    - binder quality evaluation procedures
    - quality criteria and performance targets
    - baseline conditions;
    - performance measurements; and
    - M&V activities and reporting requirements.
- Prepare and submit a *Final Test Plan* that includes the performance objectives, test conditions, testing procedures, required equipment and instrumentation, and data collection and analysis methods for evaluating pilot plant performance.
- Prepare and submit a *Final Demonstration Test Plan* that includes demonstration objectives, performance targets, and M&V requirements to be implemented by an independent third-party M&V contractor.
- Review the draft Test Plan and Draft Demonstration Test Plan with the project team, incorporate feedback, and submit final versions

Products:
- Test Plan (draft and final)
- Demonstration Test Plan (draft and final)

TASK 7: Parametric Testing of Operating Conditions
The goal of this task is to execute the approved Test Plan by evaluating pilot-scale performance across a range of operating conditions and documenting the resulting performance data, observations, and key findings.

The Recipient shall:
- Study variable temperature and flowrate of waste feed or pozzolan feed.
- Identify tolerance and homogeneity for mixing wastes/pozzolans/activator and OPC.

- Collaborate across Recipient's internal technical development and plant design teams to create mitigation plans to eliminate any negative effects of feedstock composition variations.
- Perform quick start-up and shutdown of the plant to identify any irregularities.
- For each parametric condition, create representative binders from the product to make 2" mortar cubes and 4"x8" concrete cylinders and rapidly screen their select properties such as 3 and 7 day strength.
- Prepare and submit a *Parametric Testing of Operating Conditions Memo* summarizing the operating conditions evaluated, testing activities performed, feedstock and process parameters assessed, startup and shutdown observations, binder performance results, impacts of process and feedstock variations on plant performance, identified operating limits, mitigation measures, and key findings and recommendations from the parametric testing activities.

Products:
- Parametric Testing of Operating Conditions Memo

TASK 8: Analyze the Performance Data and Decommission
The goal of this task is to evaluate and validate long-term pilot plant performance through operational testing and M&V activities, analyze performance data, identify opportunities for performance improvement, and complete decommissioning or transition of the pilot facility.

The Recipient shall:
- Gather and analyze data on the performance of the system over a period in accordance with the M&V aspects of the *Test Plan*.
- Complete independent third-party testing by the M&V partner in accordance with the M&V aspects of the *Test Plan.*
- Analyze the data and, if warranted by the results, modify testing conditions or operating parameters to improve binder performance and identify operating conditions that support optimal performance.
- Dismantle the skids and pilot facility and move all equipment to Recipient's warehouse for future use and/or make an arrangement to continue using them onsite
- Prepare and submit a *Performance Test Summary and M&V Report,* including: a summary of operational performance collected during long term testing; results of independent third-party M&V activities; evaluation of pilot plant performance relative to the objectives established in the Test Plan; identification of operational limitations, risks, and barriers observed during testing; and recommended mitigation measures and opportunities for performance improvement.

Products:
- Performance Test Summary and M&V Report

TASK 9: Fabrication and Testing of Ultra-low Carbon Binders, Mortars and Concrete
The goal of this task is to perform fabrication and standard testing of new mortars and concrete via samples taken from pilot plant operations to ensure martials sampled meet rigorous technical requirements of the product. The binder will be analyzed before any mortar or concrete fabrications as well.

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

The Recipient shall:

- Perform standard structural and compositional characterizations on the dry feedstocks, akin to those done on Portland cement.
- Fabricate several representative mortar cubes or concrete cylinders or beams for various standard mechanical, durability and placing properties of concrete in accord with ASTM, ACI and AASHTO standards. A particular focus will be placed on ASTM C1157.
- If desired properties are not met, adjust the composition of the binder, ratio of activators or surface area of feedstocks
- Collaborate across Recipient's internal technical development and plant design teams to create mitigation plans to eliminate any insufficient performance data.
- Develop Product Datasheet and Materials Safety Data Sheet
- Prepare and submit *Fabrication and Testing Results Report* to summarize the above findings.

Products:

- Fabrication and Testing Results Report

TASK 10: Incorporation of Ultra-low Carbon Binder to Ready Mix Batch Plants and Pouring Cast-in-Place Concrete

The goal of this task is to integrate the new binder from Recipient into a workstream. A third party will perform independent standard analytical tests to evaluate integration to a ready-mix batch plant for normal operation in ready mix trucks including mixing and pouring in a prototypical small single-floor concrete house.

The Recipient shall:

- Provide new binder to industrial partner.
- Provide technical assistance to industrial partner and the 3rd party as they perform independent standard ASTM/ACI/AASHTO tests (part of M&V) to assess any potential differences between the new ultra-low carbon binder and traditional Portland cement to evaluate its compatibility with their existing industrial processes.
    - Tests may include but are not limited to evaluation of compressive strength, setting time, flowability, slump loss during travels, etc.
    - Prepare and evaluate at least 10 cubic yards of concrete using the new binder in a conventional drum truck, drive to a jobsite (or mock-up site) for at least 60 min, pour and monitor slump, workability, setting time and surface finish. This represents actual data and information on operation of Recipient product in real construction settings.
- Prepare and submit an *Analytical and Field Test Result Summary Report.* that summarizes testing methods, operating conditions, performance results, compatibility with ready-mix operations, field demonstration activities, and key findings and recommendations.

Products:

- Analytical and Field Test Result Summary Report

TASK 11: EVALUATION OF PROJECT BENEFITS

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

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

The Recipient shall:

- Complete *the Initial Project Benefits Questionnaire*. The Initial Project Benefits Questionnaire shall be completed by the Recipient with 'Kick-off' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Complete the *Annual Survey* if requested by the CAM. The survey covers, but is not limited to the following topics, as applicable to the project:
  - Changes in energy consumption, utility bills, and emissions
  - Public and private funding
  - Demonstration and deployment beyond the project Community engagement
  - Improvements in codes and standards
- Confirm and revise survey responses as directed by the CAM.
- Complete the *Final Project Benefits Questionnaire*. The Final Project Benefits Questionnaire shall be completed by the Recipient with 'Final' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Respond to CAM questions regarding the benefits questionnaire drafts.
- Complete the project profile on the CEC's public online project on the Energize Innovation website (www.energizeinnovation.fund), and provide *Documentation of Initial Project Profile on EnergizeInnovation.fund*, including the profile link, to the CAM.
- Address any edits or questions from the CAM regarding the Energize Innovation Project Profile content.
- If the 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), and provide *Documentation of Organization Profile on EnergizeInnovation.fund*, including the profile link, to the CAM.
- If the Recipient's organizational profile is changed, update the organizational profile on the CEC's public online project and recipient directory on the Energize Innovation website (www.energizeinnovation.fund), and provide an *Documentation of Updated Organization Profile on EnergizeInnovation.fund*, including the profile link, as needed.
- If the Recipient's project profile is changed, update the project profile on the CEC's public online project and recipient directory on the Energize Innovation website (www.energizeinnovation.fund), and provide *Documentation of Updated ([Year]) Project Profile on EnergizeInnovation.fund*, including the profile link, to the CAM.
- Address any edits or questions from the CAM regarding the Project Profile content.

Products:

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

TASK 12: TECHNOLOGY TRANSFER ACTIVITIES

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

Exhibit A
Scope of Work Template
C-Crete Technologies LLC

The Recipient Shall:

- Develop and submit a *Project Case Study Plan* that outlines how the Recipient will document the planning, construction, commissioning, and operation of the technology or system being demonstrated. The Project Case Study Plan should include:
    - An outline of the objectives, goals, and activities of the case study.
    - The organization that will be conducting the case study and the plan for conducting it.
    - A list of professions and practitioners involved in the technology's deployment.
    - Specific activities the recipient will take to ensure the learning that results from the project is disseminated to those professions and practitioners.
    - Presentations/webinars/training events to disseminate the results of the case study.
- Present the draft *Project Case Study Plan* to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments* that summarizes comments received from the TAC members on the draft *Project Case Study Plan*. This document will identify:
    - TAC comments the recipient proposes to incorporate into the final *Technology Transfer Plan*.
    - TAC comments the recipient does not propose to incorporate with and explanation why.
- Submit the final *Project Case Study Plan* to the CAM for approval.
- Execute the final Project Case Study Plan and develop and submit a Project Case Study.
- When directed by the CAM, develop presentation materials for a CEC sponsored conference/workshop(s) on the project.
- When directed by the CAM, participate in annual EPIC symposium(s) sponsored by the California CEC.
- Provide at least (6) six High Quality Digital Photographs (minimum resolution of 1300x500 pixels in landscape ratio) of pre and post technology installation at the project sites or related project photographs.

Products:

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

IV. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.