



**California Energy Commission
March 12, 2026 Business Meeting
Backup Materials for Blue Planet Systems Corporation**

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
4. CEQA Materials

CALIFORNIA ENERGY COMMISSION

PROPOSED RESOLUTION: Blue Planet Systems Corporation

RESOLUTION NO: 26-0312-XX

WHEREAS The Planning Department of the City of Pittsburg, California, and its associated Planning Commission are the Lead Agency for San Francisco Bay Aggregate's Global Innovation Center, at which location Blue Planet Systems Corporation would implement the Concrete Carbon Capture & Mineralization Field Demonstration (CCCMFD) project (the grant project); and

WHEREAS, the City of Pittsburg's Planning Commission has considered and approved in several stages both the San Francisco Bay Aggregate's Global Innovation Center and the CCCMFD (also known as the "Temporary Carbon Capture and Mineralization Facility Pilot Project"), as follows: The Planning Commission approved a 2019 Mitigated Negative Declaration (MND) (Resolution No. 10130) and Use Permit; a 2021 Addendum #1 to the MND (Resolution No. 10179) (to construct and operate an 880-foot pipeline to the site); a 2022 Addendum #2 to the MND (to determine if a full-scale operation is feasible at the project site and approve application No. 22-0097, subject to conditions) with a 24-month time extension (Resolution No. 10208); and a January 27, 2026, Resolution No. 10282, approving another 24-month time extension (to Dec. 31, 2026). In the January 2026 approval, the Planning Commission reasoned that there were "no changed circumstances and new information is not expected to have a significant effect on the environment," citing the CEQA Common Sense Exemption, i.e., title 14, California Code of Regulations, Section 15061(b)(3); and

WHEREAS, the Energy Commission is considering approval of agreement PIR-25-001 with Blue Planet Systems Corporation for a \$2,100,000 grant to fund the CCCMFD project for optimization of the performance of its concrete mix designs to improve strength and durability, as well as displace the carbon footprint of cement, with the intent to transform concrete production from an emissions-intensive process to an adaptable, robust decarbonization method in the State of California

WHEREAS, CEC staff prepared a Staff CEQA Memorandum regarding the CCCMFD grant project describing substantial evidence collected by CEC staff about the potential environmental impacts of the proposed grant project, concluding that the proposed CCCMFD project presents no new significant or substantially more severe environmental impacts beyond those already considered and mitigated by the Lead Agency. Implementation of applicable mitigation measures in the Lead Agency's CEQA documents will mitigate the potential environmental impacts of the proposed CCCMFD project to a less than significant level; and

WHEREAS, The Energy Commission has reviewed and considered the Lead Agency's CEQA documentation described above, and the Energy Commission

Staff's Findings, which are contained in the Staff CEQA Memorandum regarding PIR-25-001, which is included in the backup materials; and

WHEREAS, Prior to acting on the Agreement PIR-25-001, the Energy Commission desires to make certain findings pursuant to CEQA and the State CEQA Guidelines;

THEREFORE, THE CALIFORNIA ENERGY COMMISSION FINDS:

1. The Energy Commission has reviewed the information contained in the Lead Agency's Mitigated Negative Declaration, Addenda, and additional documents described above, which are adopted to the extent that they are relevant to the Energy Commission's decision to approve PIR-25-001, and has reviewed the Staff CEQA Memorandum identified above.
2. The City of Pittsburg has already adopted the mitigation measures recommended in its Mitigated Negative Declaration, Addenda, and associated Planning Commission Resolutions, and has authority to implement the mitigation measures.
3. The Energy Commission has reviewed and considered the City of Pittsburg's CEQA documents described above, and the Staff CEQA Memorandum, and finds that these documents are adequate for its use as the decision-making body for its consideration of PIR-25-001.
4. None of the circumstances within CCR, title 14, section 15162 are present and there have been no substantial project changes and no substantial changes in the project circumstances that would require major revisions to the MND and Addenda, either due to the involvement of new significant environmental effects, or to 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 in the MND and Addenda.

FURTHER BE IT RESOLVED, that the Energy Commission finds, on the basis of the entire record before it, that the mitigation measures incorporated in the MND and Addenda will prevent PIR-25-001 from having any significant environmental impacts; and

FURTHER BE IT RESOLVED, that the Energy Commission approves PIR-25-001 with Blue Planet Systems Corporation for \$2,100,000.00. This agreement will initially provide \$525,000 for calendar year 2026, and if the Recipient receives further extension of the Use Permit from the City of Pittsburg's Planning Commission past December 31, 2026, up to an additional \$1,575,000 may be added, by CEC approval through an amendment, for completing the grant project implementation at the facility in Pittsburg; 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 12th day of March 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 the affirmative vote of the CEC at a meeting held on March 12, 2026.

Kim Todd
Secretariat



GRANT REQUEST FORM (GRF)

A. New Agreement Number

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

New Agreement Number: PIR-25-001

B. Division Information

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

C. Recipient's Information

1. Recipient's Legal Name: Blue Planet Systems Corporation
2. Federal ID Number: 98-1231161

D. Title of Project

Title of project: Concrete Carbon Capture & Mineralization Field Demonstration (CCCMFD)

E. Term and Amount

1. Start Date: 03/31/2026
2. End Date: 3/31/2030
3. Amount: \$2,100,000.00

F. Business Meeting Information

1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 03/12/2026.
3. Consent or Discussion? Consent
4. Business Meeting Presenter Name: Colin Lee
5. Time Needed for Business Meeting: 0 minutes.
6. The email subscription topic is: General Natural Gas and LNG Issues.

Agenda Item Subject and Description:

Blue Planet Systems Corporation. Proposed resolution adopting CEQA findings for Blue Planet Systems Corporation's Temporary Carbon Capture and Mineralization Facility Pilot Project, and approving grant agreement PIR-25-001 with Blue Planet Systems Corporation. (PIER NG funding) Contact: Colin Lee

i. CEQA Findings. Findings that, based on the City of Pittsburg's environmental analysis and documentation as CEQA Lead Agency (including mitigation measures), Planning Department staff report(s), and Planning Commission Resolutions and use permit approval, and substantial evidence collected by CEC staff about the potential environmental impacts of the proposed project, the proposed project presents no new significant or substantially more severe environmental impacts beyond those already considered and mitigated by the Lead Agency. Implementation of the Lead Agency's mitigation measures will mitigate the potential environmental impacts of the proposed grant project to a less than significant level. The City's documentation includes the Pittsburg Planning Commission's approval of a 2019 Mitigated



Negative Declaration (MND) (Resolution No. 10130) and use permit; a 2021 Addendum #1 to the MND (Resolution 10179); a 2022 Addendum #2 with a 24-month time extension (Resolution No. 10208), and a January 27, 2026, Resolution No. 10282, approving another 24-month time extension. The Planning Commission reasoned that there were “no changed circumstances and new information is not expected to have a significant effect on the environment,” citing the CEQA Common Sense Exemption, i.e., title 14, California Code of Regulations, Section 15061(b)(3).

ii. Blue Planet Systems Corporation. Proposed approval of agreement PIR-25-001 with Blue Planet Systems Corporation for a \$2,100,000 grant to fund the optimization of the performance of its concrete mix designs to improve strength and durability, as well as displace the carbon footprint of cement, transforming concrete production from an emissions-intense process to an adaptable, robust decarbonization method in the State of California. This agreement will initially provide \$525,000 for calendar year 2026, and if the Recipient receives further extension of the Conditional Use Permit past 12/31/2026, up to an additional \$1,575,000 may be added, by CEC approval through an amendment, for completing the project implementation at a facility in Pittsburg.

G. California Environmental Quality Act (CEQA) Compliance

1. Is Agreement considered a “Project” under CEQA?

Yes

If yes, skip to question 2.

If no, complete the following (PRC 21065 and 14 CCR 15378) and explain why Agreement is not considered a “Project”:

Agreement will not cause direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment because:

2. If Agreement is considered a “Project” under CEQA answer the following questions.

a) Agreement **IS** exempt?

No

Statutory Exemption?

Yes or 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:

CCR section number: CCR section number 1, CCR section number 2. Or, None

Categorical Exemption?

Yes or No

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:

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

No



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

b) Agreement **IS NOT** exempt.

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

Yes

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	Yes
Negative Declaration	No
Mitigated Negative Declaration	Yes
Environmental Impact Report	No
Statement of Overriding Considerations	No
None	

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
No subcontractors to report	\$	\$

J. Vendors and Sellers for Equipment and Materials/Miscellaneous

List all Vendors and Sellers listed in Budget(s) for Equipment and Materials/Miscellaneous.

Insert additional rows if needed. If no vendors or sellers to report, enter "No vendors or sellers to report" and "0" to funds. **Delete** any unused rows from the table.

Vendor/Seller Legal Company Name	CEC Funds	Match Funds
Build Momentum, Inc.	\$0	\$180,000
TBD (M&V monitoring and instrumentation)	\$0	\$120,000
Home Depot U.S.A., Inc.	\$13,300	\$0

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

Clark Pacific Precast, LLC
Argent Materials, Inc.
Habitat for Humanity East Bay/Silicon Valley, Inc.
Rebrick LMD, LLC
SAN FRANCISCO BAY AGGREGATES, LLC

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
NG Subaccount, PIERDD	21-22	501.001	\$ 2,100,000
TOTAL Amount:			\$ 2,100,000

R&D Program Area: ICMB: IAW
Explanation for "Other" selection Not applicable
Reimbursement Contract #: Not applicable
Federal Agreement #: 601 Program Continuous Appropriation

M. Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Jong Seto
Address: 100 Cooper Ct Ste 100
City, State, Zip: Los Gatos, CA 95032-7700
Phone: 408-458-3911
E-Mail: jong@blueplanetsystems.com

2. Recipient's Project Manager

Name: Jong Seto
Address: 100 Cooper Ct Ste 100
City, State, Zip: Los Gatos, CA 95032-7700
Phone: 408-458-3911
E-Mail: jong@blueplanetsystems.com

N. Selection Process Used

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



Selection Process	Additional Information
Competitive Solicitation #	GFO-23-502
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	

Approved By

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

Agreement Manager: Colin Lee

Approval Date: 10/22/2025

Branch Manager: Cody Taylor

Approval Date: 10/24/2025

Director: Cody Taylor for Jonah Steinbuck

Approval Date: 10/24/2025

**Exhibit A
Scope of Work
Blue Planet Systems Corporation**

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR ¹	Task Name
1		General Project Tasks
2		Research and Development
3	X	Production
4	X	Demonstration
5		Measurement and Verification
6		Evaluation of Project Benefits
7		Technology/Knowledge Transfer Activities

B. Acronym/Term List

Acronym/Term	Meaning
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CPR	Critical Project Review
SCMs	Supplemental Cementitious Materials
TAC	Technical Advisory Committee

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

A. Purpose of Agreement

The purpose of this Agreement is to fund the optimization of the performance of the Recipient's concrete mix designs to improve strength and durability as well as displace the carbon footprint of cement, transforming concrete production from an emissions-intense process to an adaptable, robust decarbonization method in the State of California.

B. Problem/ Solution Statement

Problem

Decarbonizing concrete faces significant challenges, primarily due to the energy-intensive production of Portland cement, which contributes substantially to CO₂ emissions. The process requires large-scale production, intense heat, and heavy mechanical manipulation, making it difficult to decarbonize without a viable technical or market-ready solution. Manufacturers attempt to reduce emissions by minimizing Portland cement use in concrete mixes through strategies like Supplemental Cementitious Materials (SCMs) and chemical admixtures.

SCMs, which include industrial byproducts such as fly ash, steel slag, and silica fume, reduce the need for Portland cement by blending with or partially replacing it. Chemical admixtures

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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Blue Planet Systems Corporation

modify the chemical properties of concrete to enhance hydration and curing, further reducing cement requirements. However, these methods face limitations. High SCM content can affect curing conditions, necessitating stringent quality control. Availability and quality of SCMs vary by region, impacting concrete uniformity. Additionally, the expertise required for widespread adoption is not universally available, and a complete replacement of Portland cement with SCMs has not been successfully demonstrated. These factors collectively hinder the full decarbonization of concrete production.

Solution

The Recipient's methodology offers a technologically advanced and scalable solution for decarbonizing concrete without altering industry fundamentals. By replacing virgin aggregates with carbon-negative alternatives, it avoids the need to substitute ordinary Portland cement with untested materials. This approach transforms solid waste and process emissions into valuable resources, addressing emissions at their source and eliminating the need for complex storage and transport. Traditional concrete is enhanced to sequester carbon while preserving its performance characteristics. The Recipients method circumvents the performance and cost issues of other GHG reduction techniques, contributing positively to the concrete's lifecycle emissions profile. With broadly available components and reasonable deployment costs, this approach supports a compelling business case for an industry-wide shift towards sustainability, where environmental responsibility and material performance are synergistically enhanced.

The Recipient's system of sequestering CO₂ into sand and aggregate for concrete use offers multiple resource benefits. It leverages a decarbonizing electricity market to maximize renewable energy use, reducing lifecycle emissions. The process can eliminate emissions by sequestering more CO₂ than it emits, using external CO₂ feedstocks, thus supporting further decarbonization of heavy industries and legacy natural gas power plants. Broad adoption could create a market for captured CO₂ in the built environment. Additionally, the system uses water efficiently, ensuring that water quality remains high when reentering the environment.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- Drive Product Development Activities
 - Develop concrete mix designs for diverse partner applications
 - Optimize the performance (strength, durability, etc) of the concrete mix designs
 - Demonstrate the use of mix designs in various products like lightweight (pavement, sidewalks, etc.) and structural concrete (load-bearing bricks > 6000 psi) applications
 - Demonstrate the production of 100 metric tons of lithified calcium carbonate, equivalent to approximately 125cubic yards or more of low-carbon concrete from an industrial facility's carbon feedstock
 - Test and verify the properties of the 60%-99% aggregate replacement mix designs concrete for various applications
- Accelerate CCUS Adoption and Deployment:
 - Advance the technology readiness level of the demonstrated process and technology through measured and validated performance.
 - Accelerate the cement sector's decarbonization through knowledge and technology transfer.

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- Scalable and Cost-effective Deployment:
 - Validate and quantify the scalability, cost-effectiveness, performance, profitability, and commercialization potential of delivering carbon-negative concrete to the construction industry using cement co-produced with the Recipient's carbon-negative aggregates.
- Leverage Public-Interest Research Investment to Commercialize:
 - Transition to a post-demonstration commercialization partnership once the Project is complete.

Ratepayer Benefits: This Agreement will result in the ratepayer benefits of lower energy demand, greater reliability, increased safety, and decreased opportunity cost emissions by via the following approach:

Energy Benefits: The Recipient's CO₂ capture process is highly energy efficient, with a Specific Primary Energy Consumption for CO₂ Avoided (SPECCA) of 4.2 MJLHV/kg CO₂e, which is a 50% reduction compared to the 8.5 MJLHV/kg CO₂e of monoethanolamine capture and underground storage. This efficiency is achieved through advancements in the Recipient's mechanical lithification process, eliminating the need for gas or hydrocarbon combustion. The electricity-driven CCUS system offers enhanced grid management and planning, as it creates a stable and predictable load, allowing for better utility coordination. By leveraging abundant renewable energy, the system can continue to capture CO₂ while reducing load during high demand or periods of emissions-intensive energy mixes.

Non-Energy Benefits: The Recipient's process increases safety and reduces opportunity cost emissions. Unlike underground storage methods that require extensive pipeline networks prone to ductile fractures and potential explosions, the Recipient transports carbon in the form of calcium carbonate by truck and rail, minimizing pipeline transportation risks. Additionally, the existing aggregate transportation infrastructure at cement plants allows the Recipients process to begin capturing and mineralizing CO₂ immediately upon installation, avoiding the delays often associated with constructing long-distance pipelines. This immediacy reduces opportunity cost emissions, making the Recipient's approach both safer and more efficient.

Technological Advancement and Breakthroughs: This Agreement will lead to technological advancement and breakthroughs to overcome barriers to the achievement of the State of California's statutory energy goals by driving technological advancements and breakthroughs essential for achieving California's statutory energy goals. By implementing the Recipient's innovative CCUS technology, the project will significantly reduce the Specific Primary Energy Consumption for CO₂ Avoided (SPECCA) to 4.2 MJLHV/kg CO₂e, achieving a 50% reduction in energy use compared to traditional methods. This efficiency, combined with recent mechanical lithification advancements eliminating the need for gas or hydrocarbon combustion, supports broad adoption for rapid and cost-effective emissions abatement. Additionally, the project will enhance grid management by creating a stable, predictable load using electricity-driven CCUS, leveraging renewable energy to reduce lifecycle emissions. The existing infrastructure at cement plants allows immediate implementation, minimizing opportunity cost emissions and paving the way for industry-wide adoption. This approach not only aligns with California's ambitious climate objectives but also sets a precedent for other regions aiming to decarbonize the cement sector.

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Agreement Objectives

The objectives of this Agreement are to:

- Produce an Industry Leading Product
 - Create a concrete aggregate that minimizes carbon footprint and electricity usage, while maximizing concrete functionality (strength, durability, etc).
 - Establish a range of carbon neutral and negative concrete aggregates to make 60%-99% replacement mix design concrete.
 - Deliver a finalized measurement and verification (M&V) report illustrating the processes benefits as compared to industry standards.
- Demonstrate Feasibility and Performance of Electricity-driven CCUS:
 - Demonstrate the ability to capture, mineralize, and utilize at least 85% of an industrial facility's process CO₂ emissions.
 - Calculate estimated CO₂ emissions reduction at scale
- Advance Technology Readiness Level:
 - Advanced technology readiness level of the demonstration system from 6 to 8 with measured and validated performance.
 - Decreased specific energy consumption per carbon avoided (SPECCEA) compared to monoethanolamine capture and underground storage from 8.5 MJ_{LHV}/kg CO_{2e} to 4.2 MJ_{LHV}/kg CO_{2e}
 - Demonstrate carbon mineralization capacity of 3 tonnes of CaCO₃ per week
- Quantify and Deliver Benefits to California Ratepayers:
 - Quantify and deliver benefits to California ratepayers, including anticipated reductions in electricity costs, improved safety, and improved energy reliability.
- Validate and Quantify Scalability, Cost-effectiveness, and Performance:
 - Deliver cost parity, or illustrate a path to parity, between carbon-negative concrete prepared via the Recipient's process and carbon-negative concrete prepared by other processes.

III. TASK 1 GENERAL PROJECT TASKS

PRODUCTS

Subtask 1.1 Products

The goal of this subtask is to establish the requirements for submitting project products (e.g., reports, summaries, plans, and presentation materials). Unless otherwise specified by the Commission Agreement Manager (CAM), the Recipient must deliver products as required below by the dates listed in the **Project Schedule (Part V)**. All products submitted which will be viewed by the public, must comply with the accessibility requirements of Section 508 of the federal Rehabilitation Act of 1973, as amended (29 U.S.C. Sec. 794d), and regulations implementing that act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations. All technical tasks should include product(s). Products that require a draft version are indicated by marking “**(draft and final)**” after the product name in the “Products” section of the task/subtask. If “(draft and final)” does not appear after the product name, only a final version of the product is required. With respect to due dates within this Scope of Work, “**days**” means working days.

The Recipient shall:

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

- Submit all draft products to the CAM for review and comment in accordance with the Project Schedule (Part V). The CAM will provide written comments to the Recipient on

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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.

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- XML (external interfaces).

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

MEETINGS

Subtask 1.2 Kick-off Meeting

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

The Recipient shall:

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

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

- Terms and conditions of the Agreement;
- Invoicing and auditing procedures;
- Administrative products (subtask 1.1);
- CPR meetings (subtask 1.3);
- Match fund documentation (subtask 1.7);
- Permit documentation (subtask 1.8);
- Subcontracts (subtask 1.9); and
- Any other relevant topics.

The 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);
 - Progress reports (subtask 1.5);
 - Final Report (subtask 1.6);
 - Technical Advisory Committee meetings (subtasks 1.10 and 1.11); and
 - Any other relevant topics.
- Provide *Kick-off Meeting Presentation* to include but not limited to:
 - Project overview (i.e. project description, goals and objectives, technical tasks, expected benefits, etc.)
 - Project schedule that identifies milestones
 - 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.

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The CAM shall:

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

Recipient Products:

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

CAM Product:

- Kick-off Meeting Agenda

Subtask 1.3 Critical Project Review (CPR) Meetings

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

CPR meetings generally take place at key, predetermined points in the Agreement, as determined by the CAM and as shown in the Task List on page 1 of this Exhibit. However, the CAM may schedule additional CPR meetings as necessary. 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 CEC, but they may take place at another location, or may be conducted via electronic conferencing (e.g., WebEx) as determined by the CAM.

The Recipient shall:

- Prepare and submit a *CPR Report* for each CPR meeting that: (1) discusses the progress of the Agreement toward achieving its goals and objectives; and (2) includes recommendations and conclusions regarding continued work on the project.
- Attend the CPR meeting.
- Present the CPR Report and any other required information at each CPR meeting.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient's input.
- Send the Recipient a *CPR Agenda* with a list of expected CPR participants in advance of the CPR meeting. If applicable, the agenda will include a discussion of match funding and permits.
- Conduct and make a record of each CPR meeting. Provide the Recipient with a schedule for providing a Progress Determination on continuation of the project.
- Determine whether to continue the project, and if so whether modifications are needed to the tasks, schedule, products, or budget for the remainder of the Agreement. If the

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CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Deputy Director of the Energy Research and Development Division.

- Provide the Recipient with a *Progress Determination* on continuation of the project, in accordance with the schedule. The Progress Determination may include a requirement that the Recipient revise one or more products.

Recipient Products:

- CPR Report(s)

CAM Products:

- CPR Agenda
- Progress Determination

Subtask 1.4 Final Meeting

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

The Recipient shall:

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

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

- The technical portion of the meeting will involve the presentation of findings, conclusions, and recommended next steps (if any) for the Agreement. The CAM will determine the appropriate meeting participants.
- The administrative portion of the meeting will involve a discussion with the CAM and the CAO of the following Agreement closeout items:
 - Disposition of any procured equipment.
 - The CEC's request for specific "generated" data (not already provided in Agreement products).
 - Need to document the Recipient's disclosure of "subject inventions" developed under the Agreement.
 - "Surviving" Agreement provisions such as repayment provisions and confidential products.
 - Final invoicing and release of retention.
- Prepare a *Final Meeting Agreement Summary* that documents any agreement made between the Recipient and Commission staff during the meeting.
- Prepare a *Schedule for Completing Agreement Closeout Activities*.
- Provide copies of *All Final Products* on a USB memory stick, organized by the tasks in the Agreement.

Products:

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

Exhibit A
Scope of Work
Blue Planet Systems Corporation

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 monthly *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 monthly or quarterly *Invoice* that follows the instructions in the “Payment of Funds” section of the terms and conditions, including a financial report on Match Funds and in-state expenditures.

Products:

- Progress Reports
- Invoices

Subtask 1.6 Final Report

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

Subtask 1.6.1 Final Report Outline

The Recipient shall:

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

Recipient Products:

- Final Report Outline (draft and final)

CAM Product:

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

Subtask 1.6.2 Final Report

The Recipient shall:

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Energy Commission Style Manual, and Final Report Template provided by the CAM with the following considerations:
 - Ensure that the report includes the following items, in the following order:

Exhibit A Scope of Work Blue Planet Systems Corporation

- Cover page (**required**)
 - Credits page on the reverse side of cover with legal disclaimer (**required**)
 - Acknowledgements page (optional)
 - Preface (**required**)
 - Abstract, keywords, and citation page (**required**)
 - Table of Contents (**required**, followed by List of Figures and List of Tables, if needed)
 - Executive summary (**required**)
 - Body of the report (**required**)
 - References (if applicable)
 - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
 - Bibliography (if applicable)
 - Appendices (if applicable) (Create a separate volume if very large.)
 - Attachments (if applicable)
- Submit a draft of the Executive Summary to the TAC for review and comment.
 - Develop and submit a *Summary of TAC Comments on Draft Final Report* received on the Executive Summary. For each comment received, the recipient will identify in the summary the following:
 - Comments the recipient proposes to incorporate.
 - Comments the recipient does propose to incorporate and an explanation for why.
 - 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 1.7 Match Funds

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

While the costs to obtain and document match funds are not reimbursable under this Agreement, the Recipient may spend match funds for this task. The Recipient may only spend match funds during the Agreement term, either concurrently or prior to the use of CEC funds.

Exhibit A Scope of Work Blue Planet Systems Corporation

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 1.8 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.

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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 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. CAMs delete this bullet-point and the one below if there is no site host. Note that these bullet-points can also be edited for unique agreements such as projects with dozens of sites where it may be administratively burdensome to require site agreements for all sites. Please work with CCO on any edits.
- 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.

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- 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 1.10 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;

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- 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 1.11.
- 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 1.11 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.

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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 1.12 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.

Products:

- TAC Performance Metrics Summary

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- Project Performance Metrics Results

Subtask 1.13 Obtain and Execute Subawards and Agreements with Site Hosts

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

The Recipient shall:

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

Products:

- Subawards and Site Host Letter

IV. TECHNICAL TASKS

NOTE: Calendar limitation on Recipient's CEC reimburseable funds of Dec. 31, 2026, pending Recipient obtaining an extension of the Use Permit from the City of Pittsburg for project work beyond that date, and subsequent extension(s) from the City, if necessary to cover the remaining grant term.

(A) The Recipient obtained an extension of its previously expired Use Permit by action of the City of Pittsburg Planning Commission on January 27, 2026, in Resolution No. 10282, which extended the City's Use Permit to December 31, 2026, with a modified Condition #22, providing: "22. Expiration of Approval: This use permit will expire on December 31, 2026, unless the use has been legally established, or a written request for extension is filed with the Planning Division prior to the expiration date and subsequently approved by the Planning Commission."

(B) Regarding the phrase, "the use has been legally established," the Recipient and CEC acknowledge that the grant project schedule plans for project implementation in 2027 and subsequent years, with the grant term ending on March 21, 2030. It is not clear when "the use" will be regarded as "legally established" by the City, but a reasonable inference is that this point would be when the project has been installed and is operational. Thus, Resolution No. 10282's extended Use Permit does not cover the grant project's full implementation schedule.

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Therefore, the CEC and Recipient anticipate that Recipient will submit and file a written request for further extension with the City's Planning Division prior to the Dec. 31, 2026 deadline. However, even with filing such request, the extension will only take place if subsequently approved by the Planning Commission.

(C) In light of the above, the Energy Commission's approval of agreement PIR-25-001 with Blue Planet Systems Corporation for a \$2,100,000 grant is subject to this time-related condition: This Agreement will initially provide \$525,000 for calendar year 2026, and if the Recipient receives further extension of the Use Permit past Dec. 31, 2026, up to an additional \$1,575,000 may be added, by CEC approval through (one or more) amendments, for completing the project implementation at the facility in Pittsburg. The Recipient shall not incur CEC-reimbursable costs (as described in the Agreement and the budget) of more than \$525,000 by Dec. 31, 2026, unless the Planning Commission has approved a further time extension. To be clear, "incur" means (1) direct labor, expenses, etc. that create a Recipient claim on CEC funds, and (2) as further explained in Exhibit C to the Agreement. In other words, Recipient may not incur costs greater than \$525,000 during calendar year 2026, and then expect to invoice the portion exceeding \$525,000 during 2027. (Of course, CEC-reimbursable costs incurred in 2026 may be invoiced to the CEC during 2027, as long as those costs are within \$525,000 during 2026.)

(D) Furthermore, if the Planning Commission's further time extension is of a limited time period that does not extend all the way to March 31, 2030, then the CEC will only allow Recipient to further incur CEC funds in line with the new time period. Based on the City's past actions, it is foreseeable that the Recipient may have to repeat the process of requesting further extension(s) from the Planning Commission (one or more times), and the CEC would then consider further amendment(s) allowing a commensurate amount of the \$2,100,000 grant funds to be expended each time. CEC approval of such amendments is within the sole discretion of the CEC.

(E) If the City of Pittsburg Planning Commission continues to extend the Use Permit through the full grant term (to March 31, 2030), then the above process should hopefully result in a smooth implementation of the grant project by the Recipient, and a correspondingly smooth process of the CEC reimbursing the Recipient along the way.

TASK 2: RESEARCH AND DEVELOPMENT

The goals of this task are to develop concrete mix designs for a diversity of partner applications, and to optimize the performance (strength, durability, etc.) of the concrete mix designs.

The Recipient shall:

- Determine product specifications and requirements for partners' applications
- Work with partners to develop concise mix designs for applications
- Evaluate performance and effectiveness of product
- Create a *Test Plan* that will include but is not limited to the following:
 - Test methods to lithify, shape, and densify calcium carbonate aggregates
 - Test concrete mixed designs with 60%, 80%, 99% aggregate replacement with the Recipients CaCO₃ (including standard ASTM testing such as C33 and C330 tests)
 - Improve aggregate mixed designs properties like strength, durability, agglomeration, hardness, etc.

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- Prepare a *Concrete Product Specification Report* that includes but is not limited to the following:
 - Section 1: Calcium Carbonate Lithification
 - Section 2: Carbon Dioxide Storage in Concrete
 - Section 3: Low Carbon Concrete Performance
 - Section 4: California Concrete and Construction Materials Market Analysis

Products:

- Test Plan
- Concrete Product Specification Report

TASK 3: PRODUCTION

The goals of this task are to produce enough carbon negative calcium carbonate aggregates to research and test their performance in concrete and deliver low carbon and carbon negative concrete products to offtakers.

The Recipient shall:

- Operate the carbon mineralization facility to produce 100 metric tons (Mt) of lithified calcium carbonate from an industrial facility's carbon feedstock
- Document the production amount, and specification of that aggregate in a *Production Report*
 - Section 1: Aggregate production timeline
 - Section 2: Plant material and energy balances
 - Section 3: Aggregate quality control
- Prepare a *CPR Report #1* in accordance with subtask 1.3 (CPR Meetings)

Products:

- Production Report
- CPR Report #1

TASK 4: DEMONSTRATION

The goals of this task are to demonstrate the production of 100 Mt of aggregate and the use of low carbon and carbon negative mix designs in various products like lightweight (pavement, sidewalks, etc.) and structural concrete (load bearing bricks > 6000 psi) applications.

The Recipient shall:

- Create a *Product Development Plan* with partners that specifies the construction needs of the offtakers and determines the performance standards and desired Carbonstar scores of their requested concrete mix designs
- Produce and deliver 100 tonnes lithified calcium carbonate to offtakers for use in construction projects
- Create a *Offtaker Construction Project Completion Report* to document the completion of a Offtaker Construction Project (sidewalk, bench, building, foundation, etc.) including but not limited to a project timeline, materials list, budget, and testing results
- Prepare a *CPR Report #2* in accordance with subtask 1.3 (CPR Meetings)

Products:

- Product Development Plan

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- Offtaker Construction Project Completion Report
- CPR Report #2

TASK 5: MEASUREMENT AND VERIFICATION

The goal of this task is to test and verify the properties of the 60%-99% mixed design concrete for various applications.

The Recipient shall:

- Create a Measurement and Verification Plan that includes but is not limited to:
 - Conduct a loss on aggregate testing process to quantify the amount of sequestered CO₂
 - Measure electricity consumption of the production process and calculate the CO₂ emitted based on the energy use
 - Measure strength, durability, agglomeration, hardness, etc. properties of mixed design concrete using ASTM standards (ASTM C330/C330M)
 - Calculate process emissions and criteria pollutant reductions
 - Projected cost benefit analyses at scale
- Hire an independent third-party measurement and verification firm to verify the results that the Project team measures
- Create a Measurement and Verification Report that summarizes what the Project Team and third-party measurement and verification firm found

Products:

- Measurement and Verification Plan
- Measurement and Verification Report

TASK 6: EVALUATION OF PROJECT BENEFITS

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

The Recipient shall:

- Complete the *Initial Project Benefits Questionnaire*. The Initial Project Benefits Questionnaire shall be initially completed by the Recipient with 'Kick-off' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Complete the *Annual Survey* by December 15th of each year. The Annual Survey includes but is not limited to the following information:
 - Technology commercialization progress
 - New media and publications
 - Company growth
 - Follow-on funding and awards received
- Complete the *Final Project Benefits Questionnaire*. The Final Project Benefits Questionnaire shall be completed by the Recipient with 'Final' selected for the 'Relevant data collection period' and submitted to the CAM for review and approval.
- Respond to CAM questions regarding the questionnaire drafts.
- Complete and update the project profile on the CEC's public online project and recipient directory on the [Energize Innovation website \(www.energizeinnovation.fund\)](http://www.energizeinnovation.fund), and provide *Documentation of Project Profile on EnergizeInnovation.fund*, including the profile link.

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- If the Prime Recipient is an Innovation Partner on the project, complete and update the organizational profile on the CEC's public online project and recipient directory on the Energize Innovation website (www.energizeinnovation.fund), and provide *Documentation of Organization Profile on EnergizeInnovation.fund*, including the profile link.
- Establish CarbonStar metrics for evaluation of product
- Utilize GHG protocols to refine standards

Products:

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

TASK 7: TECHNOLOGY/KNOWLEDGE 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

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.

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- 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 an CEC- sponsored conference/workshop(s) on the project.
- 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.
- Establish an online central source of information on the Recipients product and processes
- Establish intellectual property portfolio
- Scientific communication at conferences and publications
- Joint engineering partnerships to build out a network of plants for decarbonization
- Introduce and establish BPS process variants in other heavy industries (i.e. oil and gas, steel mills, cement plants, etc)

Products:

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

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.



MEMORANDUM

TO: Chair David Hochschild
Vice Chair Siva Gunda
Commissioner Andrew McAllister
Commissioner Noemí Gallardo
Commissioner Nancy Skinner

FROM: Colin Lee
Industrial Decarbonization Specialist, Energy Research and Development Division

SUBJECT: California Environmental Quality Act Analysis for PIR-25-001, Blue Planet Systems Corporation Concrete Carbon Capture & Mineralization Field Demonstration (CCCMFD) Project

DATE: March 12, 2026

I am an Industrial Decarbonization Specialist in the Research and Development Division, California Energy Commission (CEC), and the CEC's Agreement Manager for proposed Agreement, PIR-25-001. I have reviewed the City of Pittsburg's CEQA documents for the San Francisco Bay Aggregates (SFBA) carbon capture and mineralization facility, where the Agreement with Blue Planet Systems Corporation CCCMFD project will be implemented and operated. It is my opinion that the work to be performed under the Agreement is consistent with the City of Pittsburg's CEQA documents. It is also my opinion that implementation of mitigation measures in the City of Pittsburg's CEQA documents would mitigate the potential environmental impacts of the proposed project to a less than significant level.

This memo analyzes the potential for environmental effects of the proposed grant PIR-25-001 Agreement project, entitled Concrete Carbon Capture & Mineralization Field Demonstration (CCCMFD).¹ The CEC-funded grant project will be located at a carbon capture and mineralization facility. The carbon capture and mineralization facility was considered and approved by the CEQA Lead Agency, the Pittsburg Planning Department (PPD) (the City of Pittsburg), and its associated Planning Commission. On September 10, 2019,

¹ The overall facility is also known as San Francisco Bay Aggregate's Global Innovation Center in documents presented to, and of, the City of Pittsburg, California, its Planning Department, and its Planning Commission. The grant project is also known as the "Temporary Carbon Capture and Mineralization Facility Pilot Project" and similar names in documents presented to, and of, the City of Pittsburg, California, its Planning Department, and its Planning Commission.

the Planning Commission adopted the project Mitigated Negative Declaration (MND) via Resolution No. 10130 and on November 9, 2021, the Planning Commission adopted Resolution 10179 to approve the first Addendum to the adopted Mitigated Negative Declaration and Use Permit to construct and operate an 880-foot pipeline to the site. On November 22, 2022, the Planning Commission adopted Resolution No. 10208 adopting a Mitigated Negative Declaration Addendum #2 for the SFBA Carbon Capture & Mineralization Facility Pilot Project, and approving the request for an additional 24-month time extension to determine if a full-scale operation is feasible at the project site and approve application No. 22-0097, subject to conditions. On January 27, 2026, the Planning Commission adopted Resolution No. 10282, approving a 24-month time extension for the project, ending Dec. 31, 2026, with the possibility of further extension. The Planning Commission reasoned that there were “no changed circumstances and new information is not expected to have a significant effect on the environment,” citing the CEQA Common Sense Exemption, i.e., title 14, California Code of Regulations, Section 15061(b)(3).

The facility demonstrates the feasibility of SFBA’s proprietary technology, which uses carbon dioxide gas (CO₂) and waste concrete as raw materials to produce ‘upcycled’ and carbon-sequestered rocks for use in fresh concrete.

The proposed Agreement will partially fund the grantee, Blue Planet Systems Corporation (“Blue Planet”), to optimize the performance of concrete mix designs to improve strength and durability as well as displace the carbon footprint of cement. Blue Planet’s intent is to transform concrete production from an emissions-intense process to an adaptable, robust decarbonization method in the State of California. The project will be performed at the carbon capture and mineralization facility owned and operated by San Francisco Bay Aggregate (“SFBA”), a subsidiary of Blue Planet Systems Corporation. Blue Planet Systems Corporation and SFBA promise to follow all City of Pittsburg requirements regarding development and/or site modification activities pertaining to the SFBA site, as applicable to the CCCMFD project. Because the CEC will be making a discretionary decision regarding approving the grant agreement, the CEC will act as a Responsible Agency and consider the grant activities are a “project” under CEQA.

Pursuant to my work on the Agreement, including the scope of work for the Agreement, I have reviewed the City of Pittsburg’s CEQA documents relevant to the Agreement. These CEQA documents include: (1) the 2025 Initial Study for the San Francisco Bay Aggregate’s Global Innovation Center; (2) 2022 City of Pittsburg Planning Commission Staff Report; (3) 2019 Bay Area Air Quality Management District (BAAQMD) Letter of Exemption; (4) Resolution No. 10282 Approval Documentation.

Based on my review and consideration of the above documents, it is my independent and professional opinion that, there have been no new changes since the above CEQA documents have been finalized, and no new, additional, or increased significant environmental impacts have occurred. There are no substantial changes by implementing the proposed CCCMFD grant Agreement project, or with respect to the circumstances under which the project will be undertaken, which would require a subsequent or supplemental Environmental Impact Report (EIR), Mitigated Negative Declaration (MND), or other environmental documentation. Furthermore, I have not identified any new information which would change the conclusions of the City of Pittsburg’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 CCCMFD project falls within the scope of the City of Pittsburg’s CEQA documents, and that CCCMFD will not result in any new significant environmental impacts beyond those already considered. It is also my opinion that implementation of mitigation measures in the City of Pittsburg’s CEQA documents would mitigate the potential environmental impacts of the proposed project to a less than significant level. The reasons for my conclusions are as follows:

Previous to the SFBA Project, this location was host to a 20-megawatt cogeneration power plant, owned and operated by GWF Power Systems Company, Inc. (GWF). The facility was decommissioned in 2012, and

the site has since been an empty lot used for truck parking. The Project site has a perimeter chain link fence. Two buildings and a trailer remain in place, with the potential to add an additional trailer. Site remedial actions, prior to the construction of the GWF plant, resulted in contaminated soil excavation, consolidation and capping under building floors, asphalt pavements, and landscaped areas that remain intact. A Phase 1 environmental site assessment carried out in August 2018 by Groundwater & Environmental Services, Inc. verified that the capping infrastructure remains in place, sealing any contaminated soil from exposure to the environment and workers. Surrounding land uses are industrial and include Koch Carbon to the west, Los Medaños Energy (Calpine) center to the northwest, Corteva Agriscience campus to the east. The site does not abut a public right of way. Access to the site is via a private road at the end of the public portion of 3rd Street. Pedestrian access to the site is along the same route.

The primary function of the Proposed Project is to utilize an industrial facility's carbon feedstock to develop, test, and optimize concrete mix designs for diverse partner applications; and demonstrate the production of 100 tons of low-carbon concrete.

All the construction, operation, and other activities described in the scope of work of the proposed CCCMFD project fall within the nature of the activities evaluated by the City of Pittsburg's CEQA documents identified above.

Aesthetics

The Initial Study found the facility's impact on Aesthetics would be less than significant. The Proposed Project is in an Industrial District. The existing visual character of the surrounding locale is primarily industrial, and the Project site is not located within or along a designated scenic corridor. Views in the vicinity of the Project site are largely constrained by adjacent structures, to the west by Koch Carbon Inc., by a PG&E substation and by land owned by UPI to the east, and to the south by an easement that runs along E 3rd Street. The proposed CCCMFD project will not have additional impacts on aesthetics and will not change the impacts identified in the City of Pittsburg's CEQA documents.

Agricultural Resources

The Initial Study found that the facility would have no impact on Agricultural resources. There is no farmland or forestland near the Proposed Project. According to the Department of Conservation (DOC) the land south, east, and west of the Proposed Project is Urban and Built-up Land (DOC 2022). To the north is Water Area (DOC 2022).

Air Quality

The Initial Study found that Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard. Construction activities for the Proposed Project include installing equipment, new tanks, new conveyors, new absorption column, and connecting the separate modules together. The Project site is approximately 2.5 acres, or approximately 109 thousand square feet (KSF) which is smaller than the 452 KSF screening criteria identified in the BAAQMD CEQA Guidelines for General Heavy Industry and General Industry construction. Construction emissions are well below the BAAQMD significance thresholds.

The Initial Study found that ongoing operation of the Proposed Project would result in a long-term increase in air quality emissions. This increase would be due to emissions from on-site area sources and energy usage emissions created from the ongoing use of the Proposed Project. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. Construction and operational air quality impacts would be less than significant. Additionally, the closest sensitive receptors to the Project site are 2,500 feet away. Therefore, a less than significant impact would occur to sensitive receptors.

The Initial Study also found that the Proposed Project has the potential to cause odor impacts due to the use of ammonia in scrubbing equipment as well as the storage of aqueous ammonia. The pilot plant has not shown any odor complaints associated with ammonia storage and the storage is not expected to impact a substantial number of people. If an odor complaint were to occur, BAAQMD Regulation 7 would be implemented. BAAQMD places general limitations on odorous substances and specific emission limitations on certain odorous compounds. With the implementation of MM AQ-1, as well as compliance with BAAQMD Regulation 7, impacts with regard to odors adversely affecting a substantial number of people would be less than significant.

Biological Resources

The Initial Study found that with the implementation of the mitigation measures, the facility's impacts to biological resources would be reduced to a less than significant level. A Biological Resources Assessment (BRA) was completed for the Proposed Project in May 2019 by Wood Biological Consulting. In November 2024, Chambers Group, Inc. prepared a Biological Resources Letter Report (BRLR) which included a literature review of the BRA and a desktop analysis. The results of the literature review were analyzed to determine whether any new biological resources or constraints may be present on the Project site since the BRA for the Pilot Project was prepared in 2019. As minimal changes will occur between the Pilot Project for which the BRA was prepared and the Proposed Project which will convert the existing SFBA facility to a continuous production operation, no additional field visits or biological surveys were conducted.

Cultural Resources

The Initial Study found that the Project site was previously host to a 20-megawatt cogeneration power plant, owned and operated by GWF which commenced operations in August 1990 and was decommissioned in 2012. Two buildings remain in place that are not significant historical resources.

As discussed in Appendix C of the Initial Study, based on the records search conducted by the NWIC, six cultural resources have previously been identified within a half-mile records search radius of the Project site. Of the six previously identified resources, none are mapped within the Project site. As discussed in Appendix C of the Initial Study, no evidence of archaeological resources was found within the Project site. The general Pittsburg area is associated with the traditional use area of the Bay Miwok, and as such, has the potential to yield tribal cultural resources (TCRs) or prehistoric archaeological materials. Based on the results of the current study in accordance with the City of Pittsburg Policies and Actions detailed in Goal-10-7 (City 2024a), the subsurface context within the Project site is considered low sensitivity for buried resources. However, because there is a possibility that TCRs are present, ground disturbing activities could result in inadvertent discovery of TCRs. Therefore, implementation of MM CUL-1 would reduce impacts to archaeological resources to less than significant.

As provided in Appendix C of the Initial Study, in the event that human remains are discovered during ground-disturbing activities, then the Project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California PRC Section 5097.98. If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a MLD. The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Although there is a low probability of inadvertent discovery of human remains, legal requirements are in place to ensure the discovery would have a less than significant impact.

Tribal Cultural Resources

The Initial Study found that neither the cultural resources records search nor SLF search identified cultural resources listed on or eligible for listing on the CRHR or a local register within the Project site as provided in Appendix C of the Study. However, there is always potential to uncover buried archaeological and Tribal cultural resources during ground disturbing activities, which could potentially be considered Tribal cultural resources eligible for listing in the CRHR or a local register or be considered tribal cultural resources. Should project construction activities encounter and damage or destroy a Tribal cultural resource or resources, impacts would be potentially significant. Mitigation Measures CUL-1, TCR-2, and TCR-3 in the Initial Study would ensure that Tribal cultural resources are preserved in the event they are uncovered during construction and would reduce impacts regarding disrupting Tribal cultural resources to less than significant.

Geology and Soils

As noted in the 2040 General Plan Draft EIR, there are no faults designated by Alquist-Priolo Earthquake Fault Zoning Map in the City (City 2023a). The nearest Alquist-Priolo designated fault is the Concord fault that is located approximately four miles west of the City. There are no known faults that traverse the Project site (DOC 2019). As a result, the potential to expose people or structures to adverse impacts associated with surface fault rupture is less than significant.

The Initial Study found that the Project site is relatively flat and adjacent to Suisun Bay to the north. According to the USDA Web Soil Survey, the Project area is dominantly covered with Clear Lake clay below the asphalt and concrete cap. Clear Lake clay is a clay alluvium derived from metamorphic and sedimentary rock. As with most clays, it is prone to subsidence and less prone to lateral spreading (NRCS 2024). Therefore, there is potential for liquefaction and subsidence with the soil underlying the Project site. However, the soils have been covered by asphalt or concrete for over 20 years and the cap has remained in place indicating there has not been an issue with liquefaction or subsidence in that time. Strong seismic events could create liquefaction. The buildings where workers reside are on-site. Much of the operations are conducted outdoors. The facility has safety plans in place that dictate worker protocols in the event of seismic shaking. Construction would be in accordance with the California Building Standards Code (CBSC), the City will review the Project design during the permitting process to ensure the design has been completed to accommodate liquefaction in the event of strong seismic shaking. Being close to the water, it is likely that groundwater level in the area is high enough to prevent subsidence on the site, as indicated by the intact concrete cap. Most of the construction on-site will be on the concrete cap and not in contact with soils, except if utilities are installed underground which would be in a short term event in a limited area and abide by the 2022 Soil Management Plan requiring excavation may be backfilled (if needed) in accordance with the grading plan. If imported fill soil is required from offsite, the source of the import soil will be an operating quarry or a borrow Site completed in accordance with the grading plan. Therefore, impacts associated with landslides and lateral spreading are not likely to occur due to the flat topography and clay soil on-site. Impacts associated with liquefaction and subsidence would be less than significant due to compliance with California Building Code that is enforced by the City during the permit process.

Greenhouse Gases

The Initial Study found that the proposed Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. As provided in the Initial Study Section 4.8.1, Environmental Setting, the City has a Sustainability Plan that provides a GHG reduction strategy. The Proposed Project supports the Plan's Cornerstone Goal by providing job opportunities for Pittsburg residents in the sustainability industry of CO₂ sequestering and production of upcycled rock products for construction projects (City 2023c). In addition, the Proposed Project would reduce waste generation by recycling concrete from local sources.

Energy

All industrial processes utilize energy to some extent, but there is nothing in the Initial Study to indicate that there would be “wasteful, inefficient, or unnecessary” consumption of energy resources for this project, and the applicant is already financially incentivized to not have those types of consumption. The project description identifies that the hauling plan is for trucks to complete round trips to and from the Project site with “full” loads, to the extent possible.

Construction activities for the Proposed Project include installing equipment, new tanks, new conveyors, new absorption column, and connecting the separate modules together. Construction associated with the Proposed Project would result in a temporary increase in energy consumption due to the energy requirements associated with operating construction equipment. As mentioned in Section 1.4 of the Initial Study Project Description, the hauling plan for trucks includes completing round trips to and from the Project site with “full” loads to the extent possible to utilize the least amount of energy. Additionally, construction impacts would be temporary in nature and would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. The Initial Study concluded that the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. The Proposed Project does not materially alter the nature of the facility’s operations in a manner that would increase or change energy use beyond what was previously evaluated. Therefore, impacts related to energy consumption would remain less than significant.

Wildfire

The Initial Study found that the Project site was previously developed and is industrial with a concrete cap covering most of the ground surface. The area does not contain, nor is it adjacent to, any wildlands. The area is generally on level ground bounded to the north by New York Slough; to the east by land owned by UPI and by a PG&E substation; to the south by an easement that runs along E 3rd Street; and to the west by Koch Carbon Inc. The developed area surrounding the facility is also industrial. The Contra Costa County Fire Protection District (CCCFPD) Stations 84 and 85 are nearest to the Project site, are fully equipped, staffed in accordance with current CCCFPD policies, and are 2.1 and 3.3 miles from the facility. The area is not susceptible to the spread of uncontrolled wildfire; therefore, the Proposed Project would have a less than significant impact associated with exacerbating wildfire risks.

Hazards and Hazardous Materials

The Initial Study found that access to and from SR 4 follows established truck routes (10th Street/Willow Pass to Harbor Street to E 3rd Street, or Pittsburg-Antioch Highway to Harbor to E. 3rd Street), would be used by employees and contractors to access the facility. There would be ten roundtrip truck trips per week of supplies needed for the process; therefore, approximately 520 roundtrip truck trips containing hazardous materials would be transported per year for the operations of the Project. The supply deliveries would use roadways that have been approved by the City for use for the transport of hazardous materials to an industrialized area. Access to the site is via a private road at the end of the public portion of 3rd Street. As discussed above, the chemicals used in the process are not reactive under normal conditions, therefore, proper handling by trained workers would not create a risk to the public or the environment. In addition, all areas where the substances are being used are outdoors, where it is properly ventilated and includes secondary containment. No hazardous materials would be produced as a byproduct of the process of making carbonate coated aggregate products. As noted above, regulations are in place to prevent a significant hazard to the public and the environment through the routine transport, use, and disposal of hazardous materials associated with the Proposed Project. Impacts would be less than significant.

The Project site is located on a 2.5-acre parcel categorized as Voluntary Cleanup site, and DTSC was the Lead Agency (DTSC 2024). As provided on the EnviroStor website, Site remedial investigations, prior to the construction of the co-generation power plant, were completed. The investigations determined that soil concentrations of chemicals of concern were higher than the site screening levels USEPA Preliminary Remedial Goals (PRGs). Based on the proposed future land use, the contaminated soil was excavated, consolidated, and capped under the building floors, asphalt pavements, and landscaped areas. The Geotracker database did not include the site in their database (SWRCB 2024).

A Phase 1 environmental site assessment completed in August 2018 by Groundwater & Environmental Services, Inc. verified that the capping infrastructure remains in place, sealing any potentially remaining contaminated soil from exposure to the environment and workers. As discussed in Section 1.4 of the Initial Study Project Description, most of the equipment would be skid mounted for mobilization to and from the Project site. Therefore, impacts associated with operation of the facility would be less than significant.

The construction of a new utility trench or future tasks identified that will require breach of the cap could expose workers to the contaminated soil beneath the existing site cap. Although soil disturbance activities will adhere to the current Soil Management Plan (SMP) where the DTSC will be notified of soil disturbance activities, and soil sampling would occur, every task requiring a breach of the cap may not match the requirements of the current SMP. Each task should have a detailed SMP specifically addressing the size, methods, and contingencies required for that task to reduce potential hazardous material exposure to workers and the environment. Implementation of MM HAZ-1 will reduce impacts associated a known hazardous waste site to less than significant.

Hydrology and Water Quality

The Initial Study found that with the implementation of mitigation measures, the facility's impacts related to water quality would be less than significant. The Project site is capped with concrete, therefore, groundwater would not be impacted during operations and if the cap is breached for underground infrastructure construction, it would be for a very short time during the dry season and would not impact groundwater.

Runoff of sediment and contaminants during construction activities would be minimized through compliance with the State General Permit for Discharges of Stormwater Associated with Construction Activity (Water Quality Order 2009-0009-DWQ) and a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would comply with current San Francisco Bay Regional Water Quality Control Board guidelines and would incorporate acceptable BMPs for control of on-site materials, dust, and sediment and stabilization and proper handling of materials in the Project area.

BMP resources discussed in PMC 13.28 will be implemented and the required operations SWPPP will be developed for the Proposed Project to reduce potential for polluted runoff during operations. As discussed in Section 1.4 Project Description, prior to opening the valves to release stormwater, all areas of the New York Slough would be inspected for sheen during a rain event. However there remains a possibility that during a rain event, contaminants could be discharged into New York Slough from months of build up during the 24-hour a day production in the dry season. As New York Slough is within Suisun Marsh, which is the largest contiguous brackish-water wetland in California providing habitat for migratory birds and sensitive plants, fish, and wildlife (Water Education Foundation 2024) impacts to water quality by the Proposed Project or cumulatively with other discharges in the area would be significant. Therefore, implementation of MM HYDRO-1 and 2 would prevent water quality and discharge requirements from being violated, resulting in a less than significant impact with mitigation incorporated.

Land Use and Planning

The Initial Study found that the facility has no impacts relating to land use and planning. The Project site is currently occupied by and is zoned for industrial uses. The site is surrounded by industrial uses to the east and west, and vacant land uses to the south, and the New York Slough of the Suisun Bay to the north. The Proposed Project is located in the northwestern portion of the Northeast River Planning Subarea. This Subarea is primarily characterized by established, large-scale heavy industrial operations and open space (City 2024a). Therefore, development of the site would not physically divide an established community. No impact would occur.

Mineral Resources

The Initial Study found the facility would have no impact on mineral resources, as the site is not used for mining or other mineral extraction activities. As presented on Figure 3.11-1 of the General Plan EIR (City 2023a), most of the City, including the Project site, is designated MRZ-1, which indicates no significant mineral deposits are present and there is little likelihood that they exist. In addition, the Project site is located on a currently developed industrial site. Therefore, no impacts would occur to known mineral resources or their availability by constructing or operating the Proposed Project.

Noise

The Initial Study found that the Facility impacts would have a less than significant impact on noise due to construction activities located in an industrial use area. The Proposed Project would be in an area of existing industrial land use, and no noise sensitive land uses adjoin the Project site. The nearest residence is at approximately 2,500 feet on E. Santa Fe Ave. to the south and 3rd Street to the east. The loader would likely produce the most noise during construction at 85 DBA at 50 feet from source (FTA 2006). At 2,500 feet away, it should be significantly lower, and the loader would not be in operation 8 hours a day for 18 months, including the effects of local shielding from buildings, topography, walls, or other barriers, which may reduce sound levels further. Noise due to temporary construction activities is therefore not expected to exceed 65 decibels at the nearest noise sensitive land use. Excessive construction noise would not be generated outside of the hours of 8:00 am to 5:00 pm.

Population and Housing

The Initial Study found the Facility would have no impact on population and housing. The Proposed Project does not propose the construction of new homes or require the expansion of existing infrastructure that may directly or indirectly result in population growth. It is anticipated that approximately 25 employees would be required to operate the facility during three shifts. The maximum of 20 construction crew members at any one-time during construction would be drawn from the local or regional labor pool through the existing labor agreement. As a result, the Proposed Project would have no impact on population growth.

Public Services

The Initial Study found the Facility would have a less than significant impact relating to Public Services. The Project site is fenced and has a security gate preventing anyone from entering the facility. The Project is continuing what initiated with the Pilot Project five years ago but at a larger scale, and work will be 24 hours a day. Construction and operation of the Project facility would not substantially increase the need for police services. In the event of an emergency, the Pittsburg Police Department (PPD), operating from City Hall, at 65 Civic Ave is approximately 1.9 miles west of the Project site and would initially respond. In the event all PPD personnel were dispatched on calls, the County Sheriff would be dispatched as standard protocol.

There are no residential or recreational land uses proposed as part of the Project, so there would not be an increase the amount of people near the facility which could increase the need for police presence. Impacts on police protection services as a result of the Proposed Project would be less than significant.

Recreation

The Initial Study found the Facility would have no impact on recreation. The Proposed Project does not include any new residential development. The additional 20 construction workers for 12 to 18 months of construction and the 25 staff operating the facility would not increase the local population. As a result, the Proposed Project would not result in an increase in population or housing in the City of Pittsburg. Thus, the Proposed Project would not increase demand for or use of local recreational facilities. As a result, the Proposed Project would have no impact.

Transportation

The Initial Study found that with the Facility would have a less than significant impact on transportation. The Project construction would include a maximum of 20 workers for 40 total daily trips and would not require daily truck trips of materials. Operations would include five trucks delivering and picking up materials at the site using City designated STAA routes, which is not a significant increase over what was previously analyzed for the Pilot Project which analyzed during an 8-hour day of operation roughly three (3) round trip trucks per day (City 2019). The number of peak hour trips generated as a result of the Proposed Project (20 trucks and 15 workers on the day shift) does not create a significant increase in traffic volume in the City. As described in Section 1.4 Project Description, the Project site is located on a private section at the end of the public section of 3rd Street. There are no bicycle or pedestrian facilities near the entrance of the facility. The Proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities resulting in a less than significant impact to transportation.

Utilities and Service Systems

The Initial Study found that the Facility's impacts on utilities and service systems would be less than significant. The Proposed Project would use existing utility service and/or service connections in place including electric, potable and non-potable water hookups, and an existing stormwater outfall pipe that extends into New York Slough. Gas service is not used on the Project site as discussed in Section 1.4 of the Initial Study Project Description. This stormwater pipe is planned to only be used for stormwater drainage during heavy rain events. The Proposed Project would not produce any change in the anticipated volume of storm water drainage to be discharged because it is being constructed on existing impervious ground. The Proposed Project would use existing power connections from the previous property owners. Telecommunication would require one connection. Recycled water would be used for washing materials and reused on-site as much as possible. Potable water would only be used by the employees on-site. The minimalist approach to use of facilities and natural resources during construction and operations would result in less than significant impacts to relocation or construction of water, wastewater treatment, stormwater drainage, electric power, or telecommunications facilities and would not require new or expanded facilities.

REFERENCES

California Environmental Quality Act (CEQA) supporting documentation for PIR-25-001 will be provided as linked documents (*.pdf files) on Blue Planet Corporation's Google Drive:

<https://drive.google.com/drive/folders/1m60gkIN4VG5yzW7wEiAFBJLioiew2wVo?usp=sharing>

- 1) 2026 Use Permit Extension. City of Pittsburg's Planning Commission's Resolution No. 10282 (Jan. 27, 2026) (approval documentation for extension of time for Use Permit, etc.)
- 2) 2025 Initial Study (Citation: Initial Study: San Francisco Bay Aggregate's Global Innovation Center, Pittsburg, California, Car & Associates, LLC, Sept. 2025, prepared for the City of Pittsburg)
- 3) 2022 City of Pittsburg Planning Commission Staff Report (on SFBA Carbon Capture & Mineralization Facility Pilot Project, Addendum (#2), AP-22-0097 - Associated Application Numbers: AP-21-1590 & AP-19-1412(UP))
- 4) 2019 Bay Area Air Quality Management District (BAAQMD) Letter of Exemption

In addition, the California Energy Commission maintains an administrative record regarding the PIR-25-001 grant agreement.