



**CALIFORNIA
ENERGY COMMISSION**



**California Energy Commission
October 08, 2025 Business Meeting
Backup Materials for City of Richmond**

The following backup materials for the above-referenced agenda item are available in this PDF packet as listed below:

1. Proposed Resolution
2. Grant Request Form
3. Scope of Work

[PROPOSED]

RESOLUTION NO: 25-1008-XX

STATE OF CALIFORNIA

**STATE ENERGY RESOURCES
CONSERVATION AND DEVELOPMENT COMMISSION**

RESOLUTION: City of Richmond

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

RESOLVED, that the CEC approves agreement OSW-25-003 with the City of Richmond for a \$750,000 grant. This project will conduct a conceptual study of potential sites for offshore wind activities in the Port of Richmond and support the development of a Port of Richmond Master Plan. The project includes conceptual design and preliminary engineering to evaluate, plan, and design purpose-built offshore wind infrastructure; and

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

CERTIFICATION

The undersigned Secretariat to the CEC does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the CEC held on October 08, 2025.

AYE:

NAY:

ABSENT:

ABSTAIN:

Dated:

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: OSW-25-003

B. Division Information

1. Division Name: Siting, Transmission, and Environmental Division
2. Agreement Manager: Reid Boggiano
3. MS-: Not Applicable
4. Phone Number: 279-226-1139

C. Recipient's Information

1. Recipient's Legal Name: The City of Richmond
2. Federal ID Number: 94-6000403

D. Title of Project

Title of project: Port of Richmond Offshore Wind Terminal Conceptual Design and Preliminary Engineering

E. Term and Amount

1. Start Date: 10/09/2025
2. End Date: 03/31/2030
3. Amount: \$750,000

F. Business Meeting Information

1. Are the ARFVTP agreements \$75K and under delegated to Executive Director? No
2. The Proposed Business Meeting Date: 10-08-2025
3. Consent or Discussion? Discussion
4. Business Meeting Presenter Name: Reid Boggiano
5. Time Needed for Business Meeting: 5 minutes
6. The email subscription topic is: Offshore Renewable Energy

Agenda Item Subject and Description:

CITY OF RICHMOND. Proposed resolution approving agreement OSW-25-003 with the City of Richmond for a \$750,000 grant, and adopting staff's recommendation that this action is exempt from CEQA. This project will conduct a conceptual study of potential sites for offshore wind activities in the Port of Richmond and support the development of a Port of Richmond Master Plan. The project includes conceptual design and preliminary engineering to evaluate, plan, and design purpose-built offshore wind infrastructure. (Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Fund) Contact: Reid Boggiano

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: Project is paper study and will cause no direct physical change to the environment.

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

a) Agreement **IS** exempt?

Yes

Statutory Exemption?

Yes

If yes, list PRC and/or CCR section number(s) and separate each with a comma. If no, enter “None” and go to the next question.

PRC section number: None

CCR section number: Cal. Code Regs., tit 14, § 15262

Categorical Exemption?

Yes

If yes, list CCR section number(s) and separate each with a comma. If no, enter “None” and go to the next question.

CCR section number: Cal. Code Regs., tit 14, § 15301

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

No

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

Not Applicable

The City of Richmond, Port Department, Port Director, provided the CEC with a draft Notice of Exemption for “Port of Richmond Offshore Wind Terminal Conceptual Design and Preliminary Engineering.” The NOE found that the feasibility and planning studies are exempt from CEQA under Cal. Code Regs., tit 14, Section 15262. (See below.)

Code Regs., tit. 14 Section 15306 provides that projects which consist of basic data collection, research, experimental management, and resource evaluation activities, and which do not result in a serious or major disturbance to an environmental resource are categorically exempt from the provisions of the California Environmental Quality Act. This project consists of data collection, research, and resource evaluation activities. For these reasons, the proposed work will not have any significant effect on the environment and is exempt under Cal. Code Regs., tit 14, Section 15306.

In addition, this contract involves only feasibility or planning studies for possible future actions that appropriate agencies boards, or commissions have not approved, adopted, or funded. Environmental factors of this research have been considered. Therefore, the project is exempt from Cal. Code Regs., tit 14, Section 15262.



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

b) Agreement **IS NOT** exempt.

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

No

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

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

H. Is this project considered "Infrastructure"?

No

I. Subcontractors

List all Subcontractors listed in the Budget (s) (major and minor). Insert additional rows if needed. If no subcontractors to report, enter "No subcontractors to report" and "0" to funds.

Delete any unused rows from the table

Subcontractor Legal Company Name	CEC Funds	Match Funds
To Be Determined	\$750,000	\$0

J. Vendors and Sellers for Equipment and Materials/Miscellaneous

List all Vendors and Sellers listed in Budget(s) for Equipment and Materials/Miscellaneous. Insert additional rows if needed. If no vendors or sellers to report, enter "No vendors or sellers to report" and "0" to funds. **Delete** any unused rows from the table.

Vendor/Seller Legal Company Name	CEC Funds	Match Funds
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No vendors or sellers to report	\$N/A	\$N/A
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K. Key Partners

List all key partner(s). Insert additional rows if needed. If no key partners to report, enter "No key partners to report." **Delete** any unused rows from the table.

Key Partner Legal Company Name
No Key Partners to report

L. Budget Information

Include all budget information. Insert additional rows if needed. If no budget information to report, enter "N/A" for "Not Applicable" and "0" to Amount. **Delete** any unused rows from the table.

Funding Source	Funding Year of Appropriation	Budget List Number	Amount
6093 (Safe Drinking Water, Wildfire Prevention, Drought Preparedness, and Clean Air Fund)	2025	701.693	\$750,000

TOTAL Amount: \$750,000

R&D Program Area: Enter R&D Program Area. Example: EDMFO: EDMF

Explanation for "Other" selection Enter explanation for "Other"

Reimbursement Contract #: Enter Reimbursement Contract Number

Federal Agreement #: Enter Federal Agreement Number

M. Recipient's Contact Information

1. Recipient's Administrator/Officer

Name: Charles Gerard

Address: 1322 Canal Boulevard

City, State, Zip: Richmond, CA 94804

Phone: 510-620-6792

E-Mail: Charles_Gerard@ci.richmond.ca.us

2. Recipient's Project Manager

Name: Charles Gerard

Address: 1322 Canal Boulevard

City, State, Zip: Richmond, CA 94804

Phone: 510-620-6792



E-Mail: Charles_Gerard@ci.richmond.ca.us

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-24-701
First Come First Served Solicitation #	N/A
Other	N/A

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	Yes

Approved By

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

Agreement Manager: Reid Boggiano

Approval Date: 3-26-2025

Office Manager: Sean Simon

Approval Date: 3/27/2025

Deputy Director: Elizabeth Huber

Approval Date: 3/27/2025

EXHIBIT A
Scope of Work
City of Richmond

I. TASK ACRONYM/TERM LISTS

A. Task List

Task #	CPR¹	Task Name
1		General Project Tasks
2		Conceptual Study and Port Master Plan
3		Community Engagement Strategy
4		Tribal Government Engagement Strategy
5		Agency Engagement Strategy
6		Stakeholder Outreach Strategy
7		Preliminary Engineering
8		Cost Estimate and Schedule
9		Emissions Reduction Strategy
10		Workforce Development Strategy
11		Evaluation of Project Benefits

B. Acronym/Term List

Acronym/Term	Meaning
BOEM	Bureau of Ocean Energy Management
BOD	Basis of Design
CAM	Commission Agreement Manager
CAO	Commission Agreement Officer
CEC	California Energy Commission
CPR	Critical Project Review
GW	Gigawatt
MF	Manufacturing and Fabrication
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
OSW	Offshore Wind
TAC	Technical Advisory Committee
SOV	Service Operation Vessel
TAC	Technical Advisory Committee

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

A. Purpose of Agreement

The purpose of this Agreement is to fund the planning and design of terminal(s) at the Port of Richmond to support offshore wind (OSW) supply chain operations. The project will focus on identifying site boundaries within the Port for OSW industry use, determining required infrastructure improvements, and advancing the site(s) to up to a 30% engineering design stage.

The conceptual design and preliminary engineering project will identify, evaluate, and design purpose-built OSW infrastructure across up to 216 acres of existing sites, including Terminal 1, Terminal 2, Terminal 3, and the Point Potrero Marine Terminal. These sites offer extensive berth availability, access to deep-water navigation channels, and a strategic location within the San Francisco Bay, close to the five current California offshore wind lease areas.

Port of Richmond is determined to support OSW supply chain needs at the state and national levels, facilitating various tier-level sub-component manufacturing, floating platform assembly operations, flexible laydown and storage, and service operation vessel (SOV) activities. This Agreement will lay the groundwork for future investment and permitting needs, transforming the historically underfunded and underserved Port of Richmond located in an energy community²—into a critical OSW supply chain hub. The City of Richmond residents experience high energy burden and high pollution burden, which is exacerbated by proximity to heavy industry and oil refineries. Furthermore, the diverse population in the City of Richmond has a high percentage of low-income residents. Developing an offshore wind terminal in the Port of Richmond will significantly contribute to California's energy transition which will help to reduce the negative impacts of industry on Richmond's residents while providing job opportunities for residents to participate in the clean energy transition.

The Port handles the third largest volume of tonnage in the state of California annually; a total of 19 million short tons. It ranks number one for ports in the *San Francisco Bay* in vehicles and liquid bulk. In addition, the Port can also handle dry-bulk, break-bulk, and containers. The Port is served by a sophisticated rail network served by four major rail companies. Seven of the terminals are city-owned, which includes five dry-docks, while there are 11 privately owned terminals where 90% of the tonnage moves through. This project provides an opportunity for the Port to utilize one or more of its underutilized and available terminals to support the offshore wind industry.

B. Problem/ Solution Statement

Problem

The federal government has set a target of deploying 15 GW of floating OSW in the U.S. by 2035, with California State aiming for 25 GW by 2045. To meet these goals, the Bureau of Ocean Energy Management (BOEM) has leased sites off Morro Bay and Humboldt Bay that can potentially support up to 5 GW OSW installations or more, with additional lease sales expected

² Richmond, California Communities LEAP: <https://www.energy.gov/communitiesLEAP/richmond-california>

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along the Pacific Coast by 2028. However, California faces significant waterfront infrastructure challenges in supporting this large-scale OSW deployment.

Key Problems:

- **Lack of Waterfront Infrastructure:** No existing port facilities in California or along the Pacific Coast are equipped to manufacture, stage, assemble, and assist with maintenance operations of large-scale floating OSW components.
- **Limited Port Space:** There is a lack of port sites capable of meeting OSW requirements, such as large acreage availability, high bearing capacity uplands and wharf, heavy-lift equipment, deep-water navigation channel access, and unrestricted air draft.
- **Manufacturing / Fabrication (MF) Facilities:** California has no purpose-built MF facilities or sites with direct access to waterborne transportation for efficient logistics to support manufacturing of floating OSW Tier 1 and 2 components. The AB 525 Port Readiness Plan Final Report³ identifies the need for MF sites to manufacture blades, towers, nacelles, foundation subcomponents, and assembly, requiring between 5 to 18 sites to sufficiently meet 2045 goals.
- **Flexible Laydown and Operations and Maintenance Sites:** There are no readily available terminals or laydown areas of adequate size for OSW staging and supply chain operations. The AB 525 Port Readiness Plan Final Report³ identifies the need for berths to support service operation vessels (SOVs) for 2045 goals, estimating 9 to 16 berths for medium installation capacity rates (1.5 GW/year) and 15 to 23 berths for high installation rates (2.5 GW/year).
- **Workforce Training Gaps and Facilities:** The state lacks dedicated workforce training and safety centers for OSW industry skills development.
- **Engagement and Knowledge Gaps:** There is a lack of optimized port design knowledge and planning for the OSW industry, as well as insufficient stakeholder engagement. These infrastructure needs must be addressed immediately to meet the State's renewable energy goals and ensure that the California ports are positioned as critical hubs for OSW industry growth.

Solution

The proposed project will address the infrastructure needs identified above and advance the Port of Richmond's position to support California's OSW goals by identifying appropriate site(s) for OSW supply chain operations and evaluating the potential readiness of each. The project will take action towards the gaps in port infrastructure that can sufficiently support OSW component manufacturing, staging, operations and maintenance tasks, and workforce development while fostering industry collaboration to ensure the successful deployment of OSW along the Pacific Coast.

Key Solutions:

- **Integrated Port Planning:** The project will assess regional Port plans to support the OSW industry and identify key requirements that are not presently being addressed

³ AB525 PORT READINESS PLAN Final Report:

https://sleprdwordpressstorage.blob.core.windows.net/wordpressdata/2023/07/AB525-Port-Readiness-Plan_acc.pdf

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which could occur in Richmond. This will reduce duplication in development plans for the entire program.

- **Site Identification, Conceptual Study, & Preliminary Engineering:** The project will evaluate the existing underutilized and available terminals within the Port of Richmond that are suitable for OSW industry use. It will evaluate and plan site functions. The conceptual study and preliminary engineering will address infrastructure requirements, design and plan for heavy-lift wharf and high-bearing capacity uplands, positioning the site for further investment and permitting phases. For sites that are presently privately leased, this task will identify contractual pathways to make the sites available for OSW.
- **Manufacturing / Fabrication Site Planning:** The project will assess and develop technical feasibility plans for the Port of Richmond terminals to host Tier 1 and Tier 2 and secondary steel OSW component manufacturing and assembly facilities. The project will design sites, laydown areas, and berths with wharf lengths exceeding 350 – 800 feet to support flexible laydown operations for various OSW supply components, ensuring efficient logistical operations. Additionally, the infrastructure will be capable of accommodating SOVs that will support OSW plant operations over their lifecycle. The conceptual study and preliminary engineering will develop specifications for manufacturing sites and detail the logistical requirements for waterborne transportation of raw material and finished OSW components, such as blades, towers, floating foundation subcomponents, and station-keeping components like mooring lines and anchors. The plans will also consider the land-based requirements for transportation and delivery of the raw materials and supporting equipment required for manufacturing the components. These plans will directly align with the AB 525 Port Readiness Plan by addressing the specified site and berth needs for OSW supply chain and logistics operations.
- **CEQA and Permitting Screening:** The site plans and evaluation will consider the feasibility, challenges, and risks that may occur during the CEQA and permitting phases of the project. They will also provide high-level screening of potential mitigation measures that may be required to offset any development impacts. Methods to reduce emissions during construction and operation of the sites will also be developed.
- **Workforce Training and Safety Strategy:** The project will include plans to develop a dedicated OSW Workforce and Safety Training facility at the Port to address gaps in OSW industry skills development. These training centers will help prepare a skilled workforce to meet future operational demands and provide economic benefits to the local community.
- **Stakeholder Engagement:** A robust engagement strategy will ensure input from OSW developers, manufacturers, community members, and Tribal governments. This collaborative approach will align the project with industry requirements and stakeholder expectations, fostering inclusivity and support. Close industry collaboration and coordination with OSW supply chain providers will be prioritized, ensuring alignment with California's OSW development plans. The Technical Advisory Committee (TAC) will include industry representatives, research institutes, and other agencies to integrate their needs, plans, and suggestions into the project.

This Agreement will result in an investment-ready and entering permitting process-ready OSW terminal project for the Port of Richmond, complete with detailed site layouts, preliminary engineering design, budgets and schedule estimates. These outcomes will position the Port for

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future investment and funding opportunities, prepare the Port for the environmental approvals phase, and transform the Port into a critical OSW supply chain hub.

C. Goals and Objectives of the Agreement

Agreement Goals

The goals of this Agreement are to:

- **Strengthen OSW Port Readiness:** Position the Port of Richmond as a foundational OSW supply chain hub by improving its infrastructure to accommodate OSW industry needs.
- **Enable OSW Manufacturing and Supply Chain Activities:** Plan and design essential infrastructure, such as upland areas and heavy-lift wharves and berths to support the manufacturing, assembly, staging, and transportation of OSW components. Develop detailed cost, schedule, and regulatory approval requirements to prepare the site for phased development and further investment.
- **Support Resilient OSW Operations:** Plan and design port facilities to ensure long-term adaptability and resilience, including accommodating future OSW technology advancements and addressing climate-related risks such as sea level rise and extreme weather events. Utilize existing facilities to the largest extent possible.
- **Create Workforce Development Strategy and Emissions Reduction Strategy:** Create actionable strategies for workforce training, skill development, and emissions reduction to align with state goals and the Port's sustainability objectives.
- **Reduce the Pollution Burden on Richmond Residents:** Support the clean energy transition by designing OSW port infrastructure and operations that will lead minimizing emissions, improve regional air quality, and reduce environmental impacts on surrounding communities.
- **Provide Good Quality Port Jobs for Richmond Residents:** Prioritize the creation of high-quality, accessible jobs for Richmond residents in port infrastructure development, OSW supply chain activities, and long-term operations.
- **Limit Potential Environmental Impacts:** Utilize existing facilities and minimize impacts to a reasonable extent. Identify environmental and community benefit opportunities to be incorporated into the plans.
- **Facilitate Comprehensive Stakeholder Engagement:** Conduct extensive engagement with industry stakeholders, local communities, and Tribal governments to guide project planning, and its future development, and maximize equitable benefits.

Agreement Objectives

The objectives of this Agreement are to:

- **Coordinate with Key OSW Stakeholders:** Engage with up to 15 OSW stakeholders, including three to five West Coast leaseholders, two to four floating platform OEMs, two to three wind turbine OEMs, and two to three federal and state agencies to integrate their operational and logistical needs and requirements into the Port's planning and design process. Also, create a TAC group consisting of representatives from stakeholders to advise and guide the Port during the project.

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- **Define Site Boundaries and Conduct Conceptual Site Use Study:** Conduct a detailed assessment of site availabilities within the Port, and identify the boundaries, three to five OSW port site uses, infrastructure improvement needs, and master plan alternatives to be evaluated further before preliminary engineering design.
- **Complete Preliminary Engineering Design:** Advance selected sites to up to a 30% engineering design stage, detailing infrastructure needs, Class 5 cost estimates, and preliminary schedules to support future permitting and investment.
- **Enhance Port Resilience for OSW Operations:** Integrate adaptability measures into the planning and design process to address future OSW technology advancements and mitigate climate-related risks, including sea level rise and extreme weather.
- **Establish Workforce Development and Community Collaboration Strategies:** Create specific engagement plans to involve communities and Tribal governments in the planning and development processes.

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III. TASK 1 GENERAL PROJECT TASKS

PRODUCTS

Subtask 1.1 Products

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

The Recipient shall:

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

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

For products that require a final version only

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

For all products

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

Instructions for Submitting Electronic Files and Developing Software:

○ **Electronic File Format**

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

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

- Data sets will be in MS Access or MS Excel file format (version 2007 or later), or any other format approved by the CAM.
 - Text documents will be in MS Word file format, version 2007 or later.
 - Project management documents will be in Microsoft Project file format, version 2007 or later.
- **Software Application Development**
- Use the following standard Application Architecture components in compatible versions for any software application development required by this Agreement (e.g., databases, models, modeling tools), unless the CAM approves other software applications such as open source programs:
- Microsoft ASP.NET framework (version 3.5 and up). Recommend 4.0.
 - Microsoft Internet Information Services (IIS), (version 6 and up) Recommend 7.5.
 - Visual Studio.NET (version 2008 and up). Recommend 2010.
 - C# Programming Language with Presentation (UI), Business Object and Data Layers.
 - SQL (Structured Query Language).
 - Microsoft SQL Server 2008, Stored Procedures. Recommend 2008 R2.
 - Microsoft SQL Reporting Services. Recommend 2008 R2.
 - XML (external interfaces).

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

MEETINGS

Subtask 1.2 Kick-off Meeting

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

The Recipient shall:

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

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

- The CAM's expectations for accomplishing tasks described in the Scope of Work;
- An updated Project Schedule;
- Terms and conditions of the Agreement;
- Invoicing and auditing procedures;
- Travel;

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- Equipment purchases;
 - Administrative and Technical products (subtask 1.1);
 - CPR meetings (subtask 1.3);
 - Monthly Calls (subtask 1.5)
 - Quarterly Progress reports (subtask 1.6)
 - Final Report (subtask 1.7)
 - Match funds (subtask 1.8);
 - Permit documentation (subtask 1.9);
 - Subawards(subtask 1.10);
 - Technical Advisory Committee meetings (subtasks 1.11 and 1.12);
 - Agreement changes;
 - Performance Evaluations; and
 - Any other relevant topics.
- Provide *Kick-off Meeting Presentation* to include but not limited to:
 - Project overview (i.e. project description, goals and objectives, technical tasks, expected benefits, etc.)
 - Project schedule that identifies milestones
 - List of potential risk factors and hurdles, and mitigation strategy
 - Provide an *Updated Project Schedule, Match Funds Status Letter, and Permit Status Letter*, as needed to reflect any changes in the documents.

The CAM shall:

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

Recipient Products:

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

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However, the CAM may schedule additional CPR meetings as necessary. The budget may be reallocated to cover the additional costs borne by the Recipient, but the overall Agreement amount will not increase. CPR meetings generally take place at the CEC, but they may take place at another location, or may be conducted via electronic conferencing (e.g., Microsoft Teams, Zoom, and WebEx) as determined by the CAM.

The Recipient shall:

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

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient's input.
- Send the Recipient a *CPR Agenda* with a list of expected CPR participants in advance of the CPR meeting. If applicable, the agenda may include a discussion of match funding and permits.
- Conduct and make a record of each CPR meeting. Provide the Recipient with a schedule for providing a Progress Determination on continuation of the project.
- Determine whether to continue the project, and if so whether modifications are needed to the tasks, schedule, products, or budget for the remainder of the Agreement. A determination of unsatisfactory progress This may result in project delays, including a potential Stop Work Order, while the CEC determines whether the project should continue.
- Provide the Recipient with a *Progress Determination* on continuation of the project, in accordance with the schedule. The Progress Determination may include a requirement that the Recipient revise one or more products.

Recipient Products:

- CPR Report(s)

CAM Products:

- CPR Agenda(s)
- Progress Determination

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.

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

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

Products:

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

MONTHLY CALLS, REPORTS, AND INVOICES

Subtask 1.5 Monthly Calls

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

The objectives of this task are to verbally summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, to verify match funds are being proportionally spent concurrently or in advance of CEC funds or are being spent in accordance with an approved Match Funding Spending Plan, to form the basis for determining whether invoices are consistent with work performed, and to answer any other questions from the CAM. Monthly calls might not be held on those months when a quarterly progress report is submitted, or the CAM determines that a monthly call is unnecessary.

The CAM shall:

- Schedule monthly calls.
- Provide questions to the Recipient prior to the monthly call.
- Provide call summary notes to Recipient of items discussed during call.

The Recipient shall:

- Review the questions provided by CAM prior to the monthly call.
- Provide verbal answers to the CAM during the call.

EXHIBIT A

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Product:

- Email to CAM concurring with call summary notes.

Subtask 1.6 Quarterly Progress Reports and Invoices

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

The Recipient shall:

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

Recipient Products:

- Quarterly Progress Reports
- Invoices

CAM Product:

- Invoice template

Subtask 1.7 Final Report

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

Subtask 1.7.1 Final Report Outline

The Recipient shall:

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

Recipient Products:

- Final Report Outline (draft and final)

CAM Products:

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

Subtask 1.7.2 Final Report

EXHIBIT A

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The Recipient shall:

- Prepare a *Final Report* for this Agreement in accordance with the approved Final Report Outline, Energy Commission Style Manual, and Final Report Template provided by the CAM with the following considerations:
 - Ensure that the report includes the following items, in the following order:
 - Cover page (**required**)
 - Credits page on the reverse side of cover with legal disclaimer (**required**)
 - Acknowledgements page (optional)
 - Preface (**required**)
 - Abstract, keywords, and citation page (**required**)
 - Table of Contents (**required**, followed by List of Figures and List of Tables, if needed)
 - Executive summary (**required**)
 - Body of the report (**required**)
 - References (if applicable)
 - Glossary/Acronyms (If more than 10 acronyms or abbreviations are used, it is required.)
 - Bibliography (if applicable)
 - Appendices (if applicable) (Create a separate volume if very large.)
 - Attachments (if applicable)
- Submit a draft of the Executive Summary to the TAC for review and comment.
- Develop and submit a *Summary of TAC Comments on Draft Final Report* received on the Executive Summary. For each comment received, the Recipient will identify in the summary the following:
 - Comments the Recipient proposes to incorporate.
 - Comments the Recipient does 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

EXHIBIT A Scope of Work City of Richmond

MATCH FUNDS, PERMITS, AND SUBAWARDS

Subtask 1.8 Match Funds

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

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

The Recipient shall:

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

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

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

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Subtask 1.9 Permits

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

The Recipient shall:

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

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

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

Products:

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

Subtask 1.10 Obtain and Execute Subawards and Agreements with Site Hosts

The 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.

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- Submit a 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 Recipient intends to add new subrecipients or change subrecipients, then the Recipient shall notify the CAM.

Products:

- Letter describing the subawards needed, or stating that no subawards are required
- Draft subaward (if requested)
- Final subaward (if requested)
- Draft site host agreement (if requested)
- Final site host agreement (if requested)

TECHNICAL ADVISORY COMMITTEE

Subtask 1.11 Technical Advisory Committee (TAC)

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

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

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

- Researchers knowledgeable about the project subject matter;
- Members of trades that will apply the results of the project (e.g., designers, engineers, architects, contractors, and trade representatives);
- Public interest market transformation implementers;
- Product and project developers relevant to the project;
- U.S. Department of Energy, U.S. Department of Transportation, U.S. Army Corps. of Engineers, California Coastal Commission, California State Lands Commission, California Department of Fish and Wildlife, research managers, or experts from other federal or state agencies relevant to the project;
- Public interest environmental groups;
- Public interest environmental justice organizations;
- Tribal governments an/or their representatives;
- 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 or organizations, physical and electronic addresses, and phone numbers of potential members. The list will be discussed at the Kick-off meeting at which time the CAM will provide input on the TAC member list, and a schedule for recruiting members and holding the first TAC meeting will be developed.
- Recruit TAC members. Ensure that each individual understands member obligations and the TAC meeting schedule developed in subtask 1.12.
- Prepare a *List of TAC Members* once all TAC members have committed to serving on the TAC.
- Submit *Documentation of TAC Member Commitment* (such as Letters of Acceptance) from each TAC member.

Products:

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

Subtask 1.12 TAC Meetings

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

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The Recipient shall:

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

The TAC shall:

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

Products:

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

Subtask 1.13 Project Performance Metrics

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

The Recipient shall:

- Complete and submit the project performance metrics section of the *Initial Project Benefits Questionnaire*, developed in the Evaluation of Project Benefits task, to the CAM.
- Present the draft project performance metrics at the first TAC meeting to solicit input and comments from the TAC members.

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- 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
- Project Performance Metrics Results

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IV. TECHNICAL TASKS

TASK 2 CONCEPTUAL STUDY AND PORT MASTER PLAN

The goal of this task is to conduct a comprehensive Conceptual Study and develop a Port Master Plan that aligns the Port of Richmond's infrastructure with OSW industry needs. This task includes project activities that will support the preparation of other technical tasks and provide a foundation for subsequent project activities.

The Recipient shall:

- Perform a Data Review
 - Collect and review existing data, including as-built drawings, geotechnical data, environmental reports, permits, Port Master Plan, and other foundational documents.
 - Identify and confirm data requirements, noting gaps necessary for progressing the study.
- Conduct a Conceptual Study of the Port
 - Identify and evaluate potential sites within the Port based on OSW industry needs, requirements, considering factors such as location, size, and navigation channel characteristics, and current infrastructure conditions.
 - Define potential site uses for the identified boundaries, including manufacturing, assembly, laydown areas, operations and maintenance support, and workforce training centers for OSW.
 - Prepare a Basis of Design for selected sites and uses and conduct stakeholder and TAC workshops to align design criteria for those selected sites and purposes of use.
- Prepare an update to the Port Master Plan
 - Incorporate findings from prior subtasks to update the Port Master Plan, addressing OSW infrastructure needs, environmental considerations, and community benefits.
 - Align land use, in-water and landside infrastructure, and environmental reserves with OSW activities.
 - Develop strategies for phased development, funding, and maximizing community economic and social benefits.
- Develop Project Graphics
 - Develop project graphics that will consist of:
 - 3D renderings representing proposed site configurations and operational layouts.
 - Visual Port Master Plan illustrations and models from multiple perspectives to support stakeholder outreach and further applications.
- Prepare a Report
 - Prepare a *Draft Conceptual Study and Port Master Plan Report* which will include:
 - Conceptual Study:
 - ❖ Site boundaries and conditions
 - ❖ Selected site OSW use purpose

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- ❖ Design criteria (e.g., OSW component manufacturing, assembly, flexible laydown, and dimensions of components, design vessels, and operational loads)
- ❖ Governing codes
- ❖ Recommendations for future design development
- Port Master Plan:
 - ❖ Port Master Plan maps and illustrative site graphics
 - ❖ High-level timelines and implementation strategies
- Project Graphics
- Submit the *Draft Conceptual Study and Port Master Plan Report* to the CAM for feedback and incorporate comments into the final versions.
- Submit the *Final Conceptual Study and Port Master Plan Report* to the CAM, noting how feedback was addressed.

Products:

- Draft Conceptual Study and Port Master Plan Report
- Final Conceptual Study and Port Master Plan Report

TASK 3 COMMUNITY ENGAGEMENT STRATEGY

The goal of this task is to inform, educate, and involve local community members, including under-resourced communities, in project planning. The task also aims to identify tangible community benefits such as workforce development opportunities, economic growth, and improved local health outcomes while addressing potential project impacts.

The Recipient shall:

- Develop a *Community Engagement Strategy* that describes how the port will identify and engage community stakeholders, including under-resourced groups, to ensure diverse participation and representation.
 - Stakeholders include but are not limited to individuals and associations of residents near the project site, local/regional environmental and conservation advocacy NGOs and non-profits, labor advocacy organizations and labor unions, advocacy NGOs, non-profits, community organizations, elected officials, educational institutions, and private citizens.
- Prepare pre-planning, post-planning, and end-of-project *Community Engagement Strategy Reports* that will summarize community outreach efforts, stakeholder concerns, and community benefits.

Products:

- Community Engagement Strategy
- Pre-planning Community Engagement Strategy Report
- Post-planning Community Engagement Strategy Report
- End-of-project Community Engagement Strategy Report

TASK 4 TRIBAL GOVERNMENT ENGAGEMENT STRATEGY

The goal of this task is to establish meaningful consultation and engagement with California Native American Tribes to incorporate their input into project planning and address cultural, environmental, and historical concerns.

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The Recipient shall:

- Develop a *Tribal Government Engagement Strategy* that describes how the port will identify California Native American Tribes in the region surrounding the Port and establish consultation channels.
- Prepare pre-planning, post-planning, and end-of-project *Tribal Government Engagement Strategy Reports* that will summarize consultation efforts, feedback received, and actions taken to incorporate Tribal input into project planning.

Products:

- Tribal Government Engagement Strategy
- Pre-planning Tribal Government Engagement Strategy Report
- Post-planning Tribal Government Engagement Strategy Report
- End-of-project Tribal Government Engagement Strategy Report

TASK 5 AGENCY ENGAGEMENT STRATEGY

The goal of this task is to collaborate with Federal, State, and local agencies to ensure regulatory compliance, and alignment with permitting requirements, and to foster coordination for successful project implementation.

The Recipient shall:

- Develop an *Agency Engagement Strategy* that describes how the port will identify key Federal, State, and local agencies relevant to the project and establish communication channels.
 - Regulatory/permitting agencies, utility providers, funding entities, and other relevant government agencies at local, State, and Federal levels.
- Prepare pre-planning, post-planning, and end-of-project *Agency Engagement Strategy Reports* that will summarize agency coordination efforts, concerns addressed, and outcomes of engagement activities.

Products:

- Agency Engagement Strategy
- Pre-planning Agency Engagement Strategy Report
- Post-planning Agency Engagement Strategy Report
- End-of-project Agency Engagement Strategy Report

TASK 6 STAKEHOLDER OUTREACH STRATEGY

The goal of this task is to engage with key OSW stakeholders to confirm port infrastructure needs for the California OSW supply chain and logistical operations, as well as align the Port of Richmond's potential role in OSW development with California's multi-port strategy. This outreach will help identify the specific needs and opportunities that best align with the State of California and the Port's long-term objectives, the OSW industry requirements, and what particular role Richmond can play. This process will be ongoing throughout the project.

The Recipient shall:

- Develop a *Stakeholder Engagement Strategy* that describes how the port will identify OSW Industry Stakeholders: Develop a list of key OSW industry stakeholders, including West Coast OSW leaseholders, floating platform OEMs, wind turbine OEMs as well as

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community and Tribal government representatives to address local impact considerations.

- Conduct Stakeholder Outreach Meetings: Schedule and hold meetings with the identified stakeholders. Engage them to confirm infrastructure and equipment needs, gather insights on the anticipated role of the Port of Richmond in the OSW industry, and ensure alignment with California's multi-port strategy.
- Prepare pre-planning, post-planning, and end-of-project *Stakeholder Outreach Reports* that will summarize stakeholder feedback, infrastructure and logistical needs, and outcomes of engagement activities.

Products:

- Stakeholder Engagement Strategy
- Pre-planning Stakeholder Outreach Strategy Report
- Post-planning Stakeholder Outreach Strategy Report
- End-of-project Stakeholder Outreach Strategy Report

TASK 7 PRELIMINARY ENGINEERING

The goal of this task is to perform preliminary engineering for waterfront manufacturing and supply chain site infrastructure upgrades. This task aims to align the project with the requirements of Assembly Bill (AB) 3 (2023) by establishing offshore wind manufacturing and supply chain waterfront facilities within California and preparing the project to begin the CEQA environmental document process.

The Recipient shall:

- Conduct field investigations and survey
 - Evaluate data gaps identified in Task 2 and develop a comprehensive site investigation plan.
 - Conduct geotechnical investigations and site surveys, including topographic, bathymetric, submerged aquatic vegetation, and subsurface utility assessments.
 - Prepare a *Field Investigations and Surveys Report*, documenting findings and results of all investigations.
- Complete preliminary engineering to a 30% design level for waterfront manufacturing and supply chain site infrastructure upgrades to the extent that the CEQA environmental document process can begin.
- Prepare *Draft Preliminary Engineering Design Drawings* documenting waterfront and operational site infrastructure upgrades.
- Prepare *Draft Preliminary Engineering Design Report* which will include:
 - Process and results of the preliminary engineering design.
 - Level of preparedness for environmental review.
 - List of environmental permits and regulatory approvals required.
 - Recommended path forward for the next steps of the project.
- Submit the *Draft Preliminary Engineering Design Report* and *Draft Preliminary Engineering Design Drawings* to the CAM for feedback and incorporate comments into the final versions.
- Submit the *Final Preliminary Engineering Design Report* and *Final Preliminary Engineering Design Drawings* to the CAM, noting how feedback was addressed.

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Products:

- Field Investigations and Surveys Report
- Draft Preliminary Engineering Design Report
- Draft Preliminary Engineering Design Drawings
- Final Preliminary Engineering Design Report
- Final Preliminary Engineering Design Drawings

TASK 8 COST ESTIMATE AND SCHEDULE

The goal of this task is to develop a comprehensive Class 5 cost estimate and schedule for the final project which will serve as a foundation for determining the necessary revenue to cover project costs, including financing. This estimate will incorporate detailed assumptions, methodologies, and projected expenses based on the preliminary engineering designs and site-specific requirements.

The Recipient shall:

- Prepare a *Cost Estimate Memorandum*, which will include the following sections:
 - Class 5 Cost Estimate: Estimate anticipated costs associated with construction, equipment, operations, and financing with an accuracy range of -30% to +50%.
 - The estimate will serve as a foundational basis for determining the revenue required to recover project costs, including financial planning and investment forecasting.
 - Basis of Cost Estimate: Document all assumptions, methods, and data sources for the Cost Estimate.
- Prepare *Project Schedule Memorandum* to estimate timelines for permitting, approvals, and critical milestones.

Products:

- Draft Cost Estimate Memorandum
- Draft Project Schedule Memorandum
- Final Cost Estimate Memorandum
- Final Project Schedule Memorandum

TASK 9 EMISSIONS REDUCTION STRATEGY

The goal of this task is to develop a comprehensive strategy to minimize emissions associated with the construction and operational phases of the selected purpose-built OSW terminal(s). This strategy will address equipment options and operational practices that lower emissions across construction machinery, terminal equipment, and vessel operations.

The Recipient shall:

- Develop an *Emissions Reduction Strategy*:
 - Outline emissions reduction approaches for construction equipment and on-site operations.
 - Identify low-emission or zero-emission options for terminal and vessel operations.
 - Analyze projected emissions based on equipment usage and identify strategies for mitigation.

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- Explore opportunities to integrate electric or alternative fuel-powered equipment where feasible.
- Coordinate with equipment manufacturers and contractors:
 - Engage with vendors and contractors to determine the availability of low-emission machinery.
 - Document findings for equipment costs, operational impact, and emissions reduction potential.
- Document and summarize findings into an *Emissions Reduction Strategy Memorandum*:
 - Summarize strategies for emissions mitigation across construction and operational phases and include a list of recommended equipment and practices.

Products:

- Emissions Reduction Strategy Memorandum

TASK 10 WORKFORCE DEVELOPMENT STRATEGY

The goal of this task is to assess and identify the workforce needs required for the project both during the construction and operational phases, as well as compare these needs with the existing labor pool in Richmond, the East Bay, and the greater San Francisco Bay Area. This task will outline a strategy for workforce development, addressing gaps in skills and training that may exist and recommend steps to close these gaps.

The Recipient shall:

- Conduct a Workforce Needs Assessment:
 - Identify specific job roles required for the construction and operation of the OSW terminal.
 - Evaluate the skills and experience available in the local labor pool for these roles.
 - Determine existing workforce gaps in OSW-specific skills and qualifications.
- Develop a Workforce Development Strategy:
 - Outline training programs, partnerships, or resources needed to close identified skill gaps.
 - Recommend pathways for workforce advancement, focusing on under-resourced and underserved communities in the region.
 - Provide strategies for long-term workforce sustainability and talent retention.
- Document and summarize findings into a *Workforce Development Strategy Memorandum*:
 - Document job role requirements, current workforce capabilities, gaps, and recommended training or partnerships.

Products:

- Workforce Development Strategy Memorandum

TASK 11 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.

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- Complete the *Annual Survey* by January 31st of each year. The Annual Survey includes but is not limited to the following information:
 - Project progress
 - New media and publications
 - 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.

Products:

- Initial Project Benefits Questionnaire
- Annual Survey(s)
- Final Project Benefits Questionnaire

V. PROJECT SCHEDULE

Please see the attached Excel spreadsheet.