

**Questions and Answers for the Fiscal Year 2019 – 2020  
Capture and Control System for Oil Tankers Project  
October 16, 2020**

**I. Introduction**

On September 24, 2020, California Air Resources Board (CARB) staff held a Zoom conference to answer questions regarding the Fiscal Year (FY) 2019 – 2020 Capture and Control System for Oil Tankers at Berth Project Solicitation. The total funding available for this project is up to \$10 million from CARB's FY 2019 – 20 Funding Plan for Clean Transportation Incentives for Low Carbon Transportation Investments and the Air Quality Improvement Program. CARB's goal under this competitive solicitation is to demonstrate that commercially available capture and control technologies currently used by container vessels can continue to be adapted, or demonstrate new, innovative emission treatment strategies for use on oil tanker vessels or other liquid bulk tanker vessels at berth.

This document provides staff's responses to both the questions received via email by 5:00 pm PDT on or before Tuesday, September 22, 2020 and the questions asked during the conference. Staff encourages applicants to read through this document as in some cases CARB has provided more written detail in their responses to stakeholder questions than what was discussed during the September 24, 2020 Zoom conference. The following written responses take precedence over any verbal responses provided at the Zoom conference.

**II. Questions and Written Responses**

**A. Project Implementation**

1. Question: How will this project address the safety concerns regarding capture and control operations during the off-loading of hazardous liquid bulk cargo?

Response: As described on pages 14 and 30 of the Grant Solicitation, the applicant must submit a work plan that clearly and concisely details how the project will address safety concerns due to the combustible nature of the cargo. The explanation must include a detailed step by step process for the hazardous operations assessment and certification (if applicable) from a marine classification society. The explanation should include anticipated timelines for the start and completion of tasks. Ultimately, it will be the grantee's responsibility to submit a hazard or safety assessment by a classification society (or equivalent), including a consultation with the U.S. Coast Guard and subsequently, the grantee must acquire any applicable certifications or approvals needed for safe operations.

2. Question: How can a port guarantee a set number of port visits from oil tankers when the market is so volatile right now?

Response: CARB expects the grantee to establish agreements with tanker vessel operators and/or terminals to ensure that the equipment at least meets the minimum demonstration requirement of 200 hours. However, CARB understands that market forces could change the number of visits to terminals and acknowledges that the grantee may need to be flexible with vessel operators and/or terminals to ensure the minimum demonstration requirements are met. However, CARB encourages the applicant and project partners to utilize the control strategy to the maximum extent possible.

3. Question: What is the purpose of the hydrogen fueling station as part of the project?

Response: A hydrogen fueling station is not a required element of the project. However, in order to ensure that the solicitation does not limit technological possibilities, CARB has included an option to use zero-emission equipment, such as hydrogen-powered fuel cells, for powering the emission control system (as one example). The fuel cells must support the capture and control system and cannot be used as a strategy to reduce emissions in lieu of the capture and control system. Specifically, this project does not allow fuel cells to supply shore power to the vessel as an alternative to the capture and control system. Appendix C of the solicitation documents provides requirements for hydrogen refueling stations under the solicitation. Furthermore, on page 14 of the solicitation, under "Eligible Technologies," CARB discusses eligible technologies which includes zero-emission fuel cell system as a possible system support option (i.e., supplying power for the capture and control system).

4. Question: Does this solicitation include production of a Low-Sulfur Marine Fuel from organics in California?

Response: The production of fuels is not eligible for funding under this grant, but the use of fuels could be an eligible component if the fuel provides greenhouse gas emission benefits when compared to conventional diesel fuel.

5. Question: Do recharging stations for battery operation need to be specifically identified?

Response: Yes, recharging stations need to be specifically identified in the project application. Only items that are identified in the application will be eligible for funding.

Additionally, the application should describe as explicitly as possible how all funded equipment will be used as part of the proposed project.

6. Question: What would happen if there are delays in meeting milestones that might make the project go past the project completion deadline, such as the safety assessment?

Response: The grant's implementation is structured so that CARB will know if there are delays with deliverables, and will be able to take corrective action given that payment by CARB is based on meeting milestones. CARB only issues payments on a reimbursement basis that are tied to specific milestones, which is a way to provide oversight over the funds to ensure they are being used properly while making sure milestones are being met. Since the safety assessment is an essential milestone, the grantee has to meet this milestone prior to moving forward with subsequent milestones. The grantee must spend funds by the project completion date, which is January 1, 2025 since no payments can be made after this deadline.

7. Question: Can you elaborate on the treatment of proprietary technology beyond what is described in the Grant Solicitation, regarding confidentiality?

Response: Even though CARB aims to keep proprietary information confidential, certain information cannot be kept confidential such as emissions to the atmosphere. (Note that air pollution emissions data are expressly public data, per section 6254.7(e) of the California Health & Safety Code.) As noted in Appendix A, if the applicant wants to make certain that confidential information is not released, then the applicant should not submit information it deems confidential and prefers not to be released. If the applicant desires to submit confidential information, see Appendix A, page 11, which describes the confidentiality provisions.

8. Question: Will the grantee have to meet the requirements of the recently adopted Assembly Bill (AB) 841 which was approved after the release of this solicitation?

Response: Yes, the grantee must comply with AB 841 if the agreement is entered into on or after January 1, 2021 and if the project includes any components subject to AB 841 requirements. The sample grant agreement (Appendix B of the solicitation documents) will be amended as applicable to reflect AB 841 requirements. For background, AB 841 requires the following:

- All Electric Vehicle (EV) infrastructure on the customer side of the electrical meter that is "funded or authorized, in whole or in part" by CARB, California Energy Commission (CEC), or California Public Utilities Commission (CPUC) must meet specified labor certification requirements. Specifically, at least one

electrician on each crew, at any given time, must hold an Electric Vehicle Infrastructure Training Program (EVITP) certification; and

- Projects funded or authorized, in whole or in part, by CARB, CEC, or CPUC, that install a charging port supplying 25 kilowatts (kW) or more, must have at least 25 percent of the total electricians working on the crew for the project, at any given time, who hold EVITP certification.

## **B. Funding/Match Requirements**

9. Question: What are the match fund requirements?

Response: The grantee is required to match a minimum of 25 percent of the total project cost. Of the 25 percent, a minimum of 10 percent of the total project cost must be in the form of cash committed by the project team. The remaining 15 percent of the total project cost can be in the form of in-kind contributions from the applicant or project team. For a detailed explanation, please refer to page 8 of the Grant Solicitation document and page 6 of Appendix A – Application.

10. Question: Can in-kind contributions be used as match funds or do match funds have to be cash?

Response: A minimum of 10 percent the total project cost must be in the form of cash committed by the grantee, federal and local public agencies, project partners, and/or technology manufacturer (exclusive of providing in-kind contributions). Cash includes labor and capital outlays that occur during the term of the Grant Agreement. Currently budgeted and programmed Federal funds may be considered as cash.

The remaining 15 percent match may be combination of in-kind contributions committed by the grantee, federal and local public agencies, project partners, and/or technology manufacturer such as equipment, materials, consumables, equipment transportation, private financing, labor and federal or State funds. However, public funds committed as part of an in-kind match cannot be sourced from Greenhouse Gas Reduction Funds (GGRF). Match funds and in-kind contributions are explained, in detail, on page 9 of the grant solicitation.

11. Question: Will work performed prior to the grant agreement execution be reimbursed?

Response: No, work that is performed prior to the notice of award letter and grant execution is not reimbursable. However, work that is done by the grantee for administrative purposes before grant execution can count towards match (e.g., California Environmental Quality Act (CEQA) approvals, work to get the sub-agreements

in place, and work to prepare for grant agreement execution).

12. Question: What funding consequences are there if the project fails to demonstrate for any reason? Is this explained somewhere?

Response: If the grantee fails to perform in accordance with the solicitation, CARB, at its discretion, may pursue remedies for non-performance as explained on page 40 of the Grant Solicitation. Examples of non-performance include, but are not limited to, failure to comply with program guidelines or requirements and inability to meet performance requirements or schedule milestones. As stated in the solicitation, at CARB's discretion, remedies may include:

- CARB may seek to resolve the dispute directly with the grantee, or involve a third-party mediator;
- CARB may issue a stop work order;
- CARB may terminate the agreement at its sole discretion;
- CARB may recover grant funds, spent and unspent, to the degree they have been spent or are being spent inappropriately;
- CARB may withhold funds from payment; and/or
- CARB may take civil actions.

In addition, a grantee's performance in implementing a CARB-funded grant may be considered if that grantee applies for future funding opportunities.

13. Question: Would multiple projects be funded if they all fit within the \$10 million grant budget?

Response: No, only one project will be funded under this solicitation.

14. Question: How soon can CARB's funding/reimbursement be disbursed?

Response: Once a disbursement request is approved by CARB, it typically takes up to 45 days for a payment to be made by the State Controller's Office.

### **C. Timelines**

15. Question: What is the project timeline?

Response: The project timeline includes execution of the grant agreement with the highest scoring applicant by February 1, 2021, with completion of the project by January 1, 2025.

16. Question: Will the applicant submittal deadline be extended?

17. Response: No, the applicant submittal deadline will not be extended. CARB is constrained by funding liquidation deadlines established by the funding source that cannot be changed and are subsequently driving the deadlines in the solicitation.

18. Question: When are applications due?

Response: Applications are due on November 6, 2020 by 5:00 pm Pacific Standard Time.

19. Question: Will the demonstration project be only to control emissions from ships at berth, or is it possible to demonstrate emissions control technologies for ships at anchor as well.

Response: This grant funding is only intended for capture and control systems for ocean going tanker vessels at berth, not at anchor. This is because the project is intended to support the development of CARB Approved Emission Control Strategies (CAECS) for CARB's Proposed Control Measure for Ocean-Going Vessels At Berth, which was approved by the Board on August 27, 2020, and only includes CAECS requirements for ships at berth.

20. Question: A Memorandum of Understanding (MOU) with tanker vessel operators was mentioned in the solicitation as a responsibility of the grantee. What is the timeline to have that in place?

Response: This question refers to the requirement on page 11 in the Grant Solicitation. The MOU is intended to ensure the funded equipment achieves the demonstration hours needed to ultimately become a CAECS. There is no deadline to have the MOU in place and the MOU does not have to be in place prior to application submittal. However, if the MOU is in place prior to the application submittal and included in the submission, the project could score higher. The MOU is the responsibility of the grantee, and there needs to be a MOU milestone included in the application even if the MOU is not yet in place. Appendix A – Application, Attachment 7, page 12 requests the inclusion of any MOU or agreements between the tanker vessel owner/operator and the grantee that commits to utilizing the capture and control system.

21. Question: What is the end date by which the project funds must be spent and the project completed?

Response: The grantee must spend funds by the project completion date, which is

January 1, 2025.

#### **D. Eligibility**

22. Question: Are both commercially available capture and control technologies currently used by container vessels, and new innovative technologies to control vessel emissions at berth eligible for funding?

Response: Yes, both commercially available and new innovative technologies are eligible for funding under the solicitation.

23. Question: Are there application requirements listed in the Grant Solicitation or Application that if not met or included in the application submission would automatically disqualify the application regardless of scoring from other included requirements?

Response: CARB does not provide a definitive list of identified items that automatically lead to disqualification. However, the following are a non-exhaustive list of examples of circumstances that could lead to disqualification or being prohibited from participating in the solicitation:

- The applicant provides misleading calculations;
- There is a potential or apparent conflict of interest in evaluating, considering, or scoring the application that is not disclosed at the time of application submission;
- Non-compliance with project requirements or other CARB regulations;
- Applicant does not meet funding match requirement;
- Application submitted by a non-eligible entity;
- Project does not benefit a Disadvantaged Community;
- Applicant fails to submit required CEQA-related documentation by the applicable deadline;
- Project is not designed to control emissions of vessels at berth; and/or
- Project does not include vessels that are oil tankers or other liquid bulk transport vessels.

24. Question: If the applicant is engaged in any litigation does that preclude them from applying?

Response: No, however, the applicant must still be able to meet the required milestones and deadlines and complete the project by the January 1, 2025 deadline. The application must also provide assurance that the applicant can utilize the

appropriate technology to meet the goal of the project. The applicant must fully describe, in the Project Narrative, any litigation that it or the project partners are engaged with that could affect the proposed project, or that involves any public agencies.

#### **E. Data Collection/Field Demonstration**

25. Question: Is the project required to meet the minimum 200-hour project demonstration and data collection requirement over the three-year period?

Response: Staff understands that the “three-year period” refers to page 17 of the Grant Solicitation, which states that “Applications that have elements of their proposals for the adaptation of capture and control system technology to tankers that show a strong ability to be deployed widely into the marketplace within three years of the conclusion of the project must provide enough relevant data items to determine their economic viability for their continued use as identified in Appendix F - Data Collection Framework. Demonstrations of equipment operation must consist of a minimum of 200 hours for the emissions control unit funded by this Solicitation. Projects with longer demonstration durations will score higher than those that only meet the minimum deployment timeline.”

The demonstration of the capture and control system must consist of a minimum of 200 hours in order to become a CAECS. There is no specific requirement for when the demonstration period must occur, however the construction of the system would need to be completed before January 1, 2025 to receive funding, and CARB strongly encourages that the 200 demonstration be completed within the grant period to the maximum extent that is feasible. Note that the system must be certified as a CAECS in order to be used for compliance with the At Berth Regulation.

26. Question: For hydrogen refueling, can fueling cube swaps be used instead of direct refueling?

Response: There is no restriction on how the project would use hydrogen fuel as long as other project requirements are met. The fuel cells must support the capture and control system and cannot be used as a strategy to reduce emissions in lieu of the capture and control system. Specifically, this project does not allow fuel cells to supply shore power to the vessel as an alternative to the capture and control system.