

Zero-Emission Freight and Marine Projects

Summary of Appendix D-4 Funding Requests

The California Air Resources Board (CARB) is submitting the attached four funding requests (D-4s) covering all potential Eligible Mitigation Actions (EMAs) under California's Zero-Emission Freight and Marine Projects, a funding category specifically identified in the State's Beneficiary Mitigation Plan (Plan). Each D-4 represents one of the following EMAs:

	Estimated Equipment Amount from Trust	Estimated Admin Amount from Trust	Estimated Total Amount from Trust
EMA 4: Ferries/Tugs	\$2,500,000	\$288,734	\$2,788,734
EMA 5: Ocean Going Vessels Shorepower	\$13,535,000	\$1,828,641	\$15,363,641
EMA 7: Airport Ground Support Equipment	\$9,600,000	\$1,347,422	\$10,947,422
EMA 8: Forklifts and Port Cargo Handling Equipment	\$44,365,000	\$6,159,636	\$50,524,636

California's Plan allocates \$70 million in vehicle and equipment funding for Zero-Emission Freight and Marine Projects, with up to an additional 15 percent allocation for a reserve that includes administrative costs. In total, the attached D-4s budget \$70 million for vehicle and equipment funding and \$9,624,433 for administrative costs, for an overall project funding category total of \$79,624,433.

Each D-4 is a stand-alone funding request, as required by the Trustee. As stated in CARB's Plan, two competitive solicitations, each containing all 4 EMAs, will be released two years apart in order to select the most cost-effective projects statewide. Therefore, CARB developed a funding scenario that takes into account the zero-emission technology readiness for these heavy-duty applications; their current market demand; the cost-effectiveness of each of the four EMAs; the regulatory requirements already in place for each; and funding available through other CARB-implemented programs. The individual D-4s represent the estimates based on that funding scenario.

Developing the Zero-Emission Freight and Marine Projects program is a labor-intensive process, which includes, but is not limited to, conducting a public process, meetings, and outreach; developing solicitation materials; and scoring applications. This results in administrative costs for every potential EMA, regardless of whether or not the EMA is ultimately funded. However, once projects are selected following the solicitations, CARB will amend the D-4s as necessary. For any EMAs that are not selected, CARB will ensure that any unspent administrative costs previously disbursed from the Trust will be returned, and new funding requests for the appropriate EMAs will be submitted.

CARB requests that all four of the attached D-4s be processed simultaneously if possible. This will help us and the third-party administrator in tracking the pending requests and keeping the D-4s for this multiple-EMA project funding category together.

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary _____

Lead Agency Authorized to Act on Behalf of the Beneficiary _____
(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	
Beneficiary's Project ID:	
Funding Request No.	<i>(sequential)</i>
Request Type: (select one or more)	<input type="checkbox"/> Reimbursement <input type="checkbox"/> Advance <input type="checkbox"/> Other (specify): _____
Payment to be made to: (select one or more)	<input type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
Funding Request & Direction (Attachment A)	<input type="checkbox"/> Attached to this Certification <input type="checkbox"/> To be Provided Separately

SUMMARY

Eligible Mitigation Action	<input type="checkbox"/> Appendix D-2 item (specify): _____
Action Type	<input type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): _____
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):	
Estimate of Anticipated NOx Reductions (5.2.3):	
Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2).	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).	

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).

ATTACHMENTS
(CHECK BOX IF ATTACHED)

- Attachment A** **Funding Request and Direction.**
- Attachment B** **Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).**
- Attachment C** **Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).**
- Attachment D** **Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding \$25,000.]**
- Attachment E** **DERA Option (5.2.12). [Attach only if using DERA option.]**
- Attachment F** **Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.]**

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

- 1. This application is submitted on behalf of Beneficiary _____, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.**
- 2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.**
- 3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.**
- 4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)**
- 5. Beneficiary will maintain and make publicly available all documentation submitted in**

support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: _____

[NAME]

[TITLE]

[LEAD AGENCY]

for

[BENEFICIARY]

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary: State of California
Lead Agency: California Air Resources Board

Action Title:	ZE Freight/Marine – Forklifts/CHE
Beneficiary’s Project ID:	BAAQMD – ZE Freight/Marine – Forklifts/CHE
Funding Request No.	(<i>sequential</i>) 2

SUMMARY

Explanation of how funding request fits into Beneficiary’s Mitigation Plan (5.2.1):

California developed a Beneficiary Mitigation Plan (Plan) with valuable public input with a priority to fully mitigate the excess NOx caused by Volkswagen’s illegal actions while furthering the State’s progress toward its zero-emission vehicle and climate protection goals. The Plan specifically identifies zero-emission freight and marine projects as a project funding category for the State’s Environmental Mitigation Trust allocation. Within that project funding category, the Plan specifically identifies heavy-lift forklifts and port cargo handling equipment (CHE) as an eligible project type. Note that the Plan’s funding category also includes other zero-emission freight Eligible Mitigation Actions (EMAs), which will be competitively solicited together with this EMA, but for which separate D-4s will be submitted. This funding request for forklifts and port CHE is part of the overall program to invest in zero-emission freight and marine projects. These actions will support early adoption of zero-emission and zero-emission enabling technologies while reducing community health impacts from large freight facilities. The Plan allocates \$70 million in vehicle and equipment funding for the project funding category with up to an additional 15 percent allocation for a reserve that includes administrative costs.

Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):

Forklift and port CHE owners will be offered competitive funding opportunities to scrap and replace older internal combustion vehicles with zero-emission technologies. These potential projects will compete against other zero-emission freight and marine projects (including airport ground support equipment; oceangoing vessel shore power; and ferry, tugboat, and towboat repowers). California will provide funding opportunities via competitive solicitations to owners in two allocations of \$35 million each, two years apart. The most cost-effective, eligible projects across all of the above equipment types will be funded. The Bay Area Air Quality Management District (BAAQMD) will administer the funding statewide with CARB providing program and fiscal oversight. As stated above, administrative costs will be additional and will not exceed 15 percent.

Only forklifts and port CHE vehicles that are compliant with current regulations are eligible for funding. The vehicle replacements funded in this category will reduce NOx emissions, diesel particulate matter, greenhouse gases, and other harmful pollutants. Funding in this category is expected to help drive wide-scale adoption of zero-emission technologies in a sector that has typically relied on conventional diesel technologies. These deployments will help to act as models for other freight applications to encourage zero-emission transformation. The competitive solicitations for this project will include criteria that ensures that at least 75 percent of the overall equipment funds in this project funding category will go to projects that benefit disadvantaged or low-income communities.

Estimate of Anticipated NOx Reductions (5.2.3):

The funding for these vehicles will result in an estimated 39 tons of NOx emission reductions for about 254 heavy-lift forklifts and port CHE over a 10-year period. Because this funding will be competitively solicited in two separate installments, and there are potentially three other eligible mitigation actions (EMAs) that could also be funded within the funding category identified in California's Beneficiary Mitigation Plan, this estimation is the result of a funding scenario CARB developed for this Appendix D-4. The scenario takes into account the zero-emission technology readiness for heavy-duty applications; their current market demand; the cost-effectiveness of each of the four EMAs; the regulatory requirements already in place for each; and funding available through other CARB-implemented programs. The reductions resulting from this funding for forklifts and port CHE will be direct and surplus to regulatory requirements.

Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure compliance with Applicable Law (5.2.7.1):

California Air Resources Board

Describe how the Beneficiary will make documentation publicly available (5.2.7.2):

As the lead agency acting on the Beneficiary's (California's) behalf, CARB has established a website for the State's implementation of its Trust allocation: <https://ww2.arb.ca.gov/our-work/programs/volkswagen-environmental-mitigation-trust-california>. The website includes the Beneficiary Mitigation Plan, an opportunity for the public to subscribe to an email list for announcements regarding Plan implementation, meeting schedules and materials, and information to assist funding applicants. CARB will additionally post to the website all approved funding requests, semi-annual reports to the Trustee, and annual reports to the State Legislature. CARB will provide access to all public records upon request unless the law provides an exemption from disclosure.

Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8):

Trust funds will provide up to \$175,000 for a heavy-lift forklift or port CHE vehicle. Actual equipment costs are significantly higher than will be provided by the Trust, resulting in a significant per-vehicle cost share. As required by the Consent Decree, total Trust funding per vehicle must not exceed 75 percent for non-government owned units and 100 percent for government owned units.

Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9):

On February 16, 2018, CARB emailed and mailed notification letters to the government agency contacts listed in subparagraph 4.2.8. Each notification letter included information on fund availability, a description of the administration process, and instructions on accessing more information via CARB's website and subscribing to CARB's email list to remain informed.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).

Replacing older, high-emitting heavy-lift forklifts and port CHE with zero-emission technologies will result in improved ambient air quality and human health in communities located in nonattainment areas, in areas with historical air quality issues, and in disadvantaged or low-income areas that bear a disproportionate share of the air pollution burden. At the same time, this funding will provide benefits to the local economy and the welfare of residents in those communities. California Senate Bill 92 (Committee on Budgets and Fiscal Review, Chapter 26, Statutes of 2017) requires CARB to ensure that 35 percent of the State's Trust allocation benefit disadvantaged or low-income communities. As stated above, at least 75 percent of the overall equipment funds in this project funding category is expected to benefit disadvantaged or low-income communities.

This page is intentionally blank.

Attachment B

Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline

Project Management Plan

Project Schedule and Milestones

Task	Start Date	Completion Date
Project Planning and Development	October 2017	June 2020
Solicit for Applications (includes outreach to potential applicants)	Fall 2019	June 2022
	Fall 2022	July 2024
Application Selection for Projects to be Funded	December 2019	June 2022
	December 2022	June 2023
Quarterly and Semi-Annual Reports	Every 3-6 months or when requesting additional funds, whichever is sooner, through completion of the project	
Generate Contracts for Selected Applicant(s)	December 2019	June 2022
	December 2022	June 2023
Repeat Solicitation and contracts with selected applicant(s) as needed if unspent direct project funds remain	N/A	N/A
Project monitoring, inspections, oversight	December 2019	December 2027
Final Report		May 2028

Project Budget

Period of Performance: Oct 2017 - May 2028			
Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Cost Share (if applicable)
Equipment	\$44,365,000	\$44,482,000	
BAAQMD Administrative Costs Program development, outreach, administration	\$4,480,000	\$4,480,000	
CARB Administrative Costs Program planning, development, oversight	\$1,679,636	\$1,679,636	
Total	\$50,524,636	\$50,524,636	

CARB estimates that about 254 heavy-lift forklifts and/or port CHE will be funded. The budgeted equipment funds above will provide up to \$175,000 for each vehicle. Remaining equipment costs come from the vehicle owner. As required by the Consent Decree, total Trust funding per vehicle will not exceed 75 percent for non-government owned units and 100 percent for government owned units. California's Beneficiary Mitigation Plan specifies this overall project funding category will be competitively solicited in two installments. The first drawdown of funds for 2019 includes administrative costs for program planning, development, outreach, solicitations, and application scoring for the first installment. Equipment costs and additional administrative costs will be requested in subsequent drawdowns.

Budget Attachment

Zero-Emission Freight & Marine Projects: Estimated Admin Budget by EMA 8 (for D-4)

EMA 8 - Forklifts and Port Cargo Handling Equipment	Est. Number of Units	Equipment Funds from Trust	Estimated Cost Share	Est. Total Equipment Cost
	254	\$ 44,365,000	\$ 60,840,000	\$ 105,205,000

BAAQMD Actual and Estimated Administrative Costs	2018-2021	2022	2023	2024	2025	2026	2027	2028	Total
Actual and Estimated costs (including indirect costs for admin, supplies, facilities, etc.)	\$ 423,951	\$ 585,000	\$ 585,000	\$ 585,000	\$ 585,000	\$ 585,000	\$ 585,000	\$ 546,049	\$ 4,480,000
Total BAAQMD Actual and Estimated Admin	\$ 423,951	\$ 585,000	\$ 585,000	\$ 585,000	\$ 585,000	\$ 585,000	\$ 585,000	\$ 546,049	\$ 4,480,000

CARB Actual and Estimated Administrative Costs	2017-2021	2022	2023	2024	2025	2026	2027	2028	Total
Actual and Estimated Staffing Costs (including indirect costs for admin, supplies, facilities, travel, etc.)	\$ 368,723	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 170,913	\$ 1,679,636
Total CARB Actual and Estimated Admin	\$ 368,723	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 170,913	\$ 1,679,636
Total Combined Actual and Estimated Admin	\$ 792,674	\$ 775,000	\$ 775,000	\$ 775,000	\$ 775,000	\$ 775,000	\$ 775,000	\$ 716,962	\$ 6,159,636
Total Actual and Estimated Trust Funds (Equip + Admin)									\$ 50,524,636

Attachment C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11)

As the Lead Agency acting on California's behalf, CARB will provide reporting on eligible mitigation action implementation in three ways: 1) semi-annual reports to the Trustee as required by subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries; 2) annual reports to the State Legislature as required by California Senate Bill 92 (Committee on Budgets and Fiscal Review, Chapter 26, Statutes of 2017); and 3) timely updates to CARB's Mitigation Trust implementation website at <https://ww2.arb.ca.gov/our-work/programs/volkswagen-environmental-mitigation-trust-california>.

Attachment D

Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6)

Equipment Category	Estimated Cost
Battery-Electric Top Handler	\$1,300,000 - \$1,800,000
Battery-Electric Yard Truck	\$328,000 - \$450,000
Battery-Electric Heavy-Lift Forklift	\$340,000 - \$420,000

Cost estimates are per unit and were provided by technology providers and from information received for other CARB-implemented funding programs and regulations.