

**APPENDIX D-4**  
**Beneficiary Eligible Mitigation Action Certification**  
**State of Hawaii**

**BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION**

Beneficiary State of Hawaii

Hawaii Department of Business, Economic Development, and Tourism

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)*

<b>Action Title:</b>	Action 10 DERA Project 2 - Vehicle Assistance Program
<b>Beneficiary's Project ID:</b>	VW - 0010 - 0002
<b>Funding Request No.</b>	<i>(sequential)</i> 2
<b>Request Type:</b> (select one or more)	<input type="checkbox"/> Reimbursement <input checked="" type="checkbox"/> Advance <input type="checkbox"/> Other (specify): _____
<b>Payment to be made to:</b> (select one or more)	<input checked="" type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
<b>Funding Request &amp; Direction (Attachment A)</b>	<input checked="" type="checkbox"/> Attached to this Certification <input type="checkbox"/> To be Provided Separately

**SUMMARY**

<b>Eligible Mitigation Action</b>	<input type="checkbox"/> Appendix D-2 item (specify): _____
<b>Action Type</b>	<input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): FY 19
<b>Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):</b>	
<p>Per Hawaii's Beneficiary Mitigation Plan (BMP) Section 6.3.3, this funding request is submitted for Eligible Mitigation Action #10 - DERA Option and seeks to leverage Environmental Mitigation Trust Funds as the non-federal voluntary match for DERA FY 2019. This request will support the replacement of diesel buses with battery electric buses through a statewide Vehicle Assistance Program.</p>	
<b>Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):</b>	
<p>In partnership with the Department of Business, Economic Development, and Tourism State Energy Office (DBEDT-HSEO), Hawaii Department of Health submitted the DERA FY19 workplan to the US Environmental Protection Agency (EPA) to replace diesel buses with battery electric buses through a vehicle assistance program, utilizing \$316,494 of Trust Funds. DBEDT-HSEO will use Trust Funds and EPA DERA funds to offer financial assistance to private and/or public fleet owners looking to replace older, diesel buses with battery electric buses. The Vehicle Assistance Program will provide incentives up to 40 percent of bus costs and awarded fleet owners will provide the remaining cost-match of each battery electric bus purchases. The program may be a competitive process taking into consideration criteria such as vehicle engine model eligibility, NOx reductions, diesel vehicle replacement, project/fleet sustainability, community benefits, and areas of service. The program will open in Quarter 2 of FY20 and end Quarter 2 of FY21.</p> <p>The DERA FY19 Vehicle Assistance Program is part of a larger statewide battery electric bus replacement program. Hawaii intends to leverage the state's annual DERA allocation by using Trust Funds as non-federal voluntary match to receive the EPA bonus match incentive. Hawaii has allocated funds to provide the incremental cost for roughly 16 eligible buses. By taking advantage of the EPA bonus match incentive, Hawaii could increase overall EPA funds coming to the state by roughly 17 percent or \$1.375 million. Adding the DERA EPA bonus match incentive to the state's DERA program budget of \$2.75 million results in an incremental contribution to the procurement of battery electric buses in Hawaii of roughly \$4.125 million.</p> <p>The overall project will reduce emissions, improve air quality, and protect public health in targeted residential, rural, and school zones in Hawaii that are more susceptible to criteria air pollutants. Diesel bus replacements would reduce diesel particulate matter and greenhouse gas emissions benefiting susceptible communities and improving Hawaii's air quality. The resulting emissions benefits from the EPA bonus match incentive resulting from the utilization of Hawaii's BMP DERA program could effectively increase the state DERA program's emissions benefits by 50 percent.</p>	

**Estimate of Anticipated NOx Reductions (5.2.3):**

Utilizing the EPA's Diesel Emissions Quantifier, the estimated NOx reductions is 1.445 tons over the lifetime of each bus replaced and an estimated reduction of 2.89 tons for the entire project.

**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):**

State of Hawaii Department of Business, Economic Development, and Tourism's Hawaii State Energy Office

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

DBEDT-HSEO created a public website, <http://energy.hawaii.gov/vw-settlement/vw> for information relating to the Trust, the VW Partial Consent Trust Decrees, Hawaii's BMP, and implementation information. To provide transparency and accountability, DBEDT-HSEO will post information on its VW website.

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

Hawaii's requested \$316,494 of Trust Funds for the Vehicle Assistance Program will provide incentives for up to 40 percent of bus costs and fleet owners will provide the remaining cost-match of each battery electric bus purchased. The program's cost share requirement was developed to fulfill the DERA FY19 program guidelines.

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

On February 23, 2018, in accordance with Paragraph 4.2.8 of the Trust Agreement, DBEDT provided a copy of the Trust Agreement with Attachments to the appropriate federal agencies; notified those agencies that DBEDT may request Trust funds for use on lands within federal custody, control, or management (including, but not limited to, Clean Air Act Class I and II areas); and, set forth the procedures by which DBEDT will review, consider, and make a written determination upon requests to use federal lands for Trust-funded projects.

**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).**

Exposure to diesel exhaust can lead to serious health conditions such as asthma and respiratory illnesses and can worsen existing heart and lung diseases, especially in children and the elderly. According to the Hawaii Health Survey, the prevalence of asthma in those 65 years and older has steadily increased since 1998. Replacing heavy-duty diesel vehicles such as school buses, shuttle buses, and transit buses will reduce diesel particulate matter and greenhouse gas emissions, improve air quality, and protect public health in residential, rural, and school zones in Hawaii that are more susceptible to criteria air pollutants. While deployment location will ultimately determine how the pursued Eligible Mitigation Actions impact air quality in those locations, HSEO estimates to expend nearly 70 percent of its Trust allocation on Eligible Mitigation Actions supporting the electrification of buses that may be utilized by historically disadvantaged communities, environmental justice communities of concern, and densely populated regions, regardless of deployment location. For resources and links refer to section 6.3.3.2 in Hawaii's BMP.

**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 State of Hawaii, 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: July 3, 2019

Carilyn O. Shon  
Energy Program Administrator, Hawaii State Energy Office

\_\_\_\_\_  
[NAME]

[TITLE]

Hawaii Department of Business, Economic Development, and Tourism  
- State Energy Office

\_\_\_\_\_  
[LEAD AGENCY]

for

State of Hawaii

\_\_\_\_\_  
[BENEFICIARY]



\_\_\_\_\_  
[SIGNATURE]

## Attachment B

### Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4)

Hawaii Funding Request #1: Action 10 DERA Project 2 – Vehicle Assistance Program

Beneficiary's Project ID: VW – 0010 - 0002

#### PROJECT MANAGEMENT PLAN

Hawaii's Beneficiary Mitigation Plan (Section 6.3.3) allocates approximately \$2.75 million or 34 percent of Trust Funds to projects that contribute to Environmental Mitigation Action #10 Diesel Emission Reduction Act (DERA) Option. The Hawaii Department of Business Economic Development and Tourism Hawaii State Energy Office (DBEDT-HSEO) is submitting its second D-4 funding request to the Trustee for \$316,494. The two D-4 funding requests submitted to-date will utilize approximately 12% of the \$2.75 million of Trust Funds allocated to Environmental Mitigation Action #10 DERA Option.

In FY20 – FY21, DBEDT-HSEO will develop and administer a statewide Vehicle Assistance Program to offer financial assistance to private and/or public fleet owners looking to replace older, diesel buses with battery electric buses (Eligible Class 4-8 School Bus, Shuttle Bus, or Transit Bus). The program will be developed to fulfill the goals and requirements of the Trust and the DERA FY19 program. The program may be a competitive process taking into consideration criteria such as vehicle engine model eligibility, NOx reductions, diesel vehicle replacement, project/fleet sustainability, community benefits, and areas of service. The program will open in Quarter 2 of FY20 and end Quarter 2 of FY21.

The Vehicle Assistance Program will utilize \$316,494 of Trust Funds and \$158,247 of DERA FY19 matching incentive funds from Department of Health, Clean Air Branch (DOH-CAB) to provide incentives up to 40% of bus costs to awarded fleet owners. Fleet owners would be required to cover the remaining cost-match of each battery electric bus purchased. The program will replace at least two (2) diesel buses in its first year with an anticipated NOx emission reduction of 2.89 tons.

Project schedule and milestones, budget, and trust allocations included below.

PROJECT SCHEDULE AND MILESTONES

Milestone	Estimated Date Quarters based on FY 2020 starting July 1,2019
Hawaii State DERA FY19 workplan approved by EPA	June 2019
HSEO develops statewide Vehicle Assistance Program	FY 2020 – Quarter 1
Vehicle Assistance Program public notice and open application	FY20 – Q2
Receipt and review of program applications	FY20 – Q2
Contract negotiation and execution with awardees	FY20 – Q3
Program awardee(s) announced	FY20 – Q3
HSEO submits Progress Report #1 to VW Trustee DERA FY19 Quarterly Report #1 Due to EPA	FY20 – Q3
DERA FY19 Quarterly Report #2 Due to EPA	FY20 – Q4
HSEO submits Progress Report #2 to VW Trustee DERA FY19 Quarterly Report #3 Due to EPA	FY 2021 – Quarter 1
Battery electric buses delivered and in operation	No later than FY21 – Q1
Awardee(s) submits detailed documentation of bus scrapping, emissions reduction estimates, invoices for claimed project costs, and other supporting documents required for reimbursement	No later than FY21 – Q1
Project period for DERA FY19 award ends	FY21 – Q1
DERA FY19 Final Report Due to EPA	FY21 – Q2
HSEO reports to VW Trustee on status of any expenditures with Mitigation Actions completed and underway	FY21 – Q2

PROJECT BUDGET

<b>Period of Performance: October 2019 – September 2020</b>				
<b>Budget Category</b>	<b>Total Approved Budget</b>	<b>Share of Total Budget to be Funded by the Trust</b>	<b>Cost-Share, DERA FY19 EPA Allocation</b>	<b>Cost-Share, Grantees</b>
Equipment Expenditure	\$ 1,050,000	\$ 269,020	\$ 158,247	\$ 622,733
Administrative @ 15%	\$ 47,474	\$ 47,474	\$ -	
<b>Project Totals</b>	<b>\$ 1,097,474</b>			
Percentage	100%	29%	14%	57%

<b>DERA FY19 Project Statewide Vehicle Assistance Program for Battery Electric Buses</b>	
<b>Description</b>	<b>Total cost</b>
<b>Vehicle Assistance Program (Federal/State Funds @ 40%)</b>	<b>\$ 474,741</b>
EPA DERA FY 19 - bonus incentive	\$ 158,247
VW funds - voluntary match	\$ 316,494
<b>Program Awardees (Mandatory Cost-Share @ 60%)</b>	<b>\$ 622,733</b>
<b>Total Project Cost</b>	<b>\$ 1,097,474</b>

PROJECTED TRUST ALLOCATIONS

	<b>2019</b>	
	<b>Project 1</b>	<b>Project 2</b>
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$ 230,087	\$ 316,494
2. Anticipated Annual Cost Share	\$ 1,297,825	\$ 780,980
3. Anticipated Total Project Funding by Year	\$ 1,527,912	\$ 1,097,474
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	\$ -	\$ 230,087 <b>(pending Trustee approval)</b>
5. Current Beneficiary Project Funding to be paid through the Trust	\$ 230,087	\$ 316,494
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year	\$ 230,087	\$ 546,581
7. Beneficiary Share of estimated Funds Remaining in Trust	\$ 8,125,000	\$ 7,894,913
8. Net Beneficiary Funds Remaining in trust, net cumulative Beneficiary Funding Actions	\$ 7,894,913	\$ 7,578,419



## Attachment C

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

Consistent with 5.2.11 of the Environmental Mitigation Trust Agreement for State Beneficiaries (Trust), Beneficiaries must submit with their Appendix D-4 request for Eligible Mitigation Action funding a detailed plan for reporting on Eligible Mitigation Action implementation. The Hawaii Department of Business, Economic Development, and Tourism Hawaii State Energy Office (DBEDT-HSEO) intends to achieve the Beneficiary Reporting Obligations as outlined with 5.3 of the Trust.

DBEDT-HSEO is devoted to carrying out the reporting requirements of the Trust, according to 5.3, Beneficiary Reporting Obligations, as described below:

For each Eligible Mitigation Action, no later than six months after receiving its first disbursement of Trust Assets, and thereafter no later than January 30 (for the preceding six-month period of July 1 to December 31) and July 30 (for the preceding six-month period of January 1 to June 30) of each year, each Beneficiary shall submit to the Trustee a semiannual report describing the progress of implementing each Eligible Mitigation Action during the six-month period leading up the reporting date (including a summary of all costs expended on the Eligible Mitigation Action through the reporting date). Such reports shall include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. Beneficiaries may group multiple Eligible Mitigation Actions and multiple sub-beneficiaries into a single report. These reports shall be signed by an official with the authority to submit the report for the Beneficiary and must contain an attestation that the information is true and correct and that the submission is made under penalty of perjury. To the extent a Beneficiary avails itself of the DERA Option described in Appendix D-2, that Beneficiary may submit its DERA Quarterly Programmatic reports in satisfaction of its obligations under this Paragraph as to those Eligible Mitigation actions funded through the DERA Option. The Trustee shall post each semiannual report on the State Trusts public-facing website upon receipt.

Furthermore, in addition to the semiannual reporting to the Trustee, DBEDT-HSEO in partnership with the Department of Health, Clean Air Branch (DOH-CAB) will submit quarterly and final reports to the EPA during the project period as required by the DERA FY 17/18 State Clean Diesel Grant Program Guide described below:

- I. **Reporting Requirements:** Quarterly programmatic progress reports and a detailed final programmatic report will be required. Additional administrative and financial reporting may be required per the terms and conditions of the award.

1. **Quarterly Reports:** Quarterly report summarizing technical progress, planned activities for the next quarter and a summary of expenditures are required. The schedule for submission of quarterly reports will be established by EPA, after the grants are awarded. A template for the quarterly report will be available at [www.epa.gov/cleandiesel/clean-diesel-state-allocations](http://www.epa.gov/cleandiesel/clean-diesel-state-allocations).
  
2. **Final Reports:** The final report must include: summary of the project or activity, emissions benefits and other outputs and outcomes achieved, and costs of the project or activity addition, the final report shall discuss the problems, successes, and lessons learned from the project or activity that could help overcome structural, organizational or technical obstacles to implementing a similar project elsewhere. Award recipients may be provided with additional information and guidance on reporting performance measures and project progress after award. A template for the final reports is available at [www.epa.gov/cleandiesel/ckean-diesel-state-allocations](http://www.epa.gov/cleandiesel/ckean-diesel-state-allocations). The final report shall be submitted to EPA within 90 calendar days of the completion of the period of performance (no later than June 30, 2020).

## Attachment D

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

The Vehicle Assistance Program will provide incentives to private and public fleet owners for the replacement of diesel buses with battery electric buses. The Vehicle Assistance Program will fund awards for up to 40% of bus costs and fleet owners will provide the remaining cost-match of each battery electric bus purchased.

<u>Bus Style</u>	<u>Bus Cost</u>	<u>Estimated Grant Award</u>
Battery Electric – School Bus	\$ 250,000	\$ 100,000
Battery Electric – Shuttle Bus	\$ 580,000	\$ 232,000
Battery Electric – Transit Bus	\$ 740,000	\$ 296,000

Estimated costs reflect informal quotes collected during research and discussions with battery electric bus vendors. Contact details are withheld to conform with Hawaii State and County procurement laws. Estimated costs do not include shipping expenses and may vary based upon vehicle capacity.

**FISCAL YEAR 2019**

**STATE CLEAN DIESEL GRANT PROGRAM**

**WORK PLAN AND BUDGET NARRATIVE TEMPLATE**

---

\*\*\*\*

## SUMMARY PAGE

**Project Title: Hawaii Vehicle Replacement 2019**

### Project Manager and Contact Information

**Organization Name: Clean Air Branch, Hawaii Department of Health (DOH)**

**Project Manager: Barry Ching**

**Mailing Address: 2827 Waimano Home Road, Room 130. Pearl City, Hawaii 96782**

**Phone: 808 586-4200**

**Fax: 808 586-4359**

**Email: [barry.ching@doh.hawaii.gov](mailto:barry.ching@doh.hawaii.gov)**

### Project Budget Overview:

	<b>FY 2019</b>
EPA Base Allocation	\$316,494
State or Territory Voluntary Matching Funds (if applicable)	\$316,494
EPA Match Incentive (Bonus) (if applicable)	\$158,247
Mandatory Cost-Share	\$2,511,239
<b>TOTAL Project Cost</b>	<b>\$3,302,474</b>
Other Leveraged Funds	\$

<b>Sub-grantee</b>	<b>~ Total Cost</b>	<b>Federal + State funds</b>	<b>Mandatory Cost-Share</b>
BWS	205,000	35,000	170,000
HDOT	2,000,000	281,494	1,718,506
HSEO	1,097,474	474,741	622,733
<b>TOTAL</b>	<b>3,302,474</b>	<b>791,235</b>	<b>2,511,239</b>

\*Hawaii Department of Business, Economic Development and Tourism, State Energy Office (DBEDT-HSEO) is providing matching funds of \$316,494 from the Volkswagen Settlement Trust Fund to receive the EPA Match Incentive of \$158,247.

## **Project Period**

October 1, 2019 – September 30, 2021

## **Summary Statement**

The DOH will partner with three government agencies on separate diesel vehicle replacement projects:

- Board of Water Supply, City & County of Honolulu (BWS) to replace one truck; and
- Highways Division, Hawaii Department of Transportation (HDOT) to replace a Zip Mobile / Road Zipper.
- DBEDT-HSEO clean vehicle assistance program to replace two (2) diesel buses with two (2) battery-electric buses.

\*\*\*\*

## **SCOPE OF WORK**

Diesel vehicle replacement projects with three agencies will be funded by this grant.

The BWS project is for the early replacement of one Model Year 2001, combination dump truck with a crane. The vehicle has one engine; the crane is powered by a hydraulic pump via a power take-off connected to the truck engine. It is used to transport materials to the top of water tank reservoirs, and to transport water meters and meter boxes. The replacement will use an estimated \$35,000 in FY2019 DERA State funding assistance. The BWS will provide approximately \$170,000, an 83% cost-share, of the projected \$205,000 total cost.

The HDOT project is for the early replacement of a non-road diesel vehicle, known as the “Zip Mobile.” The vehicle is used twice daily on weekdays to open and close carpool lanes during the morning rush hour commute along the major transit corridor between downtown Honolulu and rural areas west and north of the city (i.e., Interstate H-1). The replacement is estimated to use \$281,494 in DERA State funding assistance. The HDOT, will provide an 86% cost-share, or \$1,718,505 to cover the projected total cost of \$2,000,000.

The DBEDT-HSEO project is for the development and administration of a vehicle assistance program to offer financial assistance to private and/or public fleet owners looking to replace older, diesel buses with battery electric buses. The program is estimated to use \$158,247 of DERA EPA match incentive funds and \$316,494 of VW Trust Funds to replace two (2) diesel buses with two (2) battery electric buses. The vehicle assistance program looks to support roughly 40% of unit costs for battery electric buses estimated at \$525,000 each. Fleet owners will provide a mandatory cost-share and the program will provide the remaining cost-match of each eligible battery electric bus purchased.

The projects will comply with all rules and guidelines of the FY2019 state DERA program and for purchasing of the City & County of Honolulu and State of Hawaii, as appropriate.

The replacement vehicles shall meet the following requirements before being contracted:

1. Products must meet the FY2019 state DERA program guide requirements and the state and federal safety requirements of Model Year 2015 or later.
2. All deliveries, warranty claims, repairs, and services must be provided on the island of Oahu.

#	Class	GVWR	Engine Serial #	YEAR	Make	Horsepower	Model	Annual Usage (hours/year)	Annual Diesel Fuel Usage
1	7	TBD	1GDM7H1C71J504038	2001	Caterpillar		3126		303
1	NA	Not available	RG6081A046949	1998	Lindsay	300	Road Zipper	1852	8,300

**Table 1.2: DBEDT-HSEO Vehicle Assistance Program for Buses (Illustrative)**

Equip ID	Model year	Mfr ID	Model ID	Eligible Equipment Description	Replacement Equipment Description
BUS032	2002	OPUS	LFB29	Battery Electric Bus	Battery Electric Bus
BUS036	2002	OPUS	LFB29	Battery Electric Bus	Battery Electric Bus

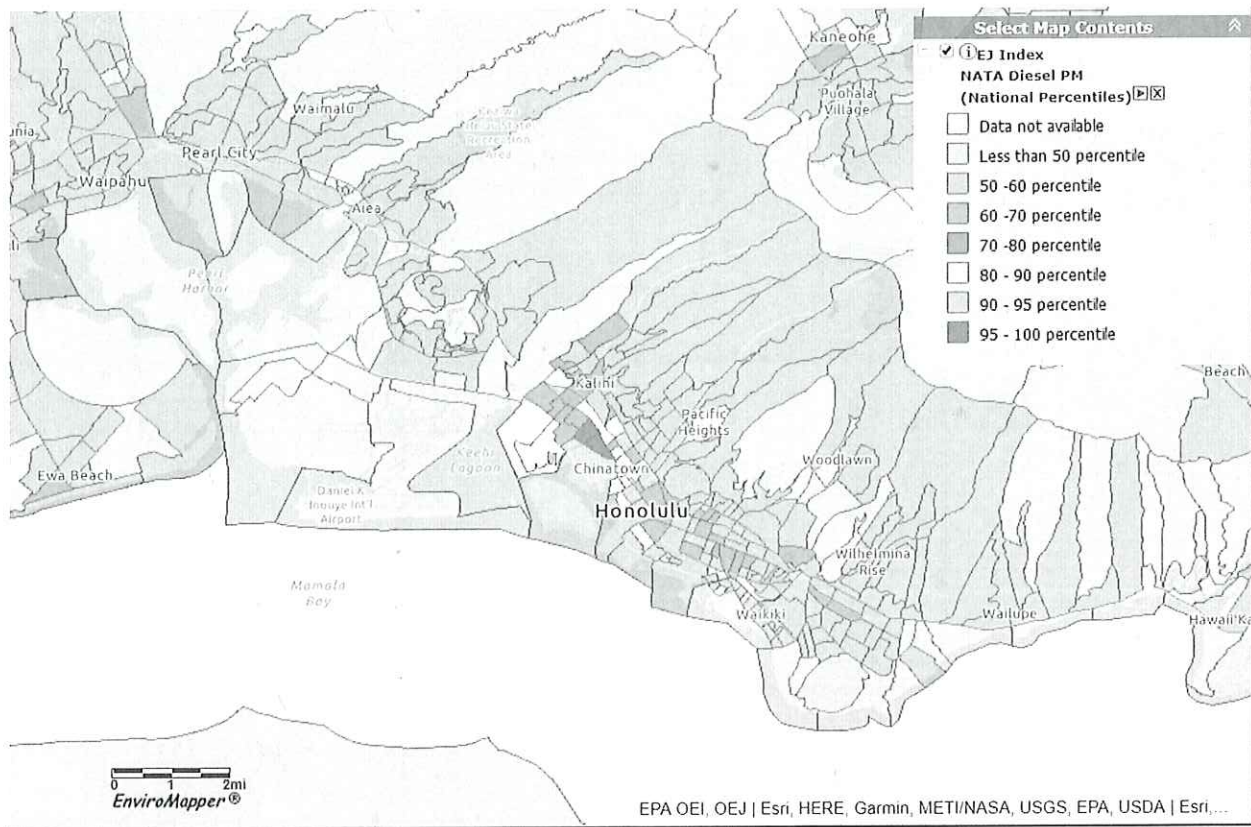
*\*Table 1.2 is illustrative of the type of vehicle that will be replaced with the vehicle assistance program. Vehicle replacement specifications will be updated once eligible fleet owners have been awarded.*



The Diesel Emission Quantifier (DEQ) was used to quantify all initial annual and lifetime particulate matter (PM), nitrous oxides (NO<sub>x</sub>), hydrocarbons (HC), carbon monoxide (CO), and carbon dioxide (CO<sub>2</sub>) emission reductions. The initial results and summary from the DEQ are shown in Table 3 of the Outcomes section.

Hawaii is a state with attainment status and the air quality is generally good. However, due to the presence of volcanic emissions from the Kilauea eruption on the Big Island, multiple exceedances of the National Air Quality Standards for sulfur dioxide are recorded annually at the Kilauea summit on the Big Island of Hawaii.

NATA Diesel PM EJ Index (74<sup>th</sup> percentile in U.S.) mapped on Oahu - U.S. EPA’s Environmental Justice Screening and Mapping Tool (Version 2018) - <https://www.epa.gov/ejscreen>



**STATE/TERRITORY GOALS AND PRIORITIES:**

**1. Public health benefits**

Asthma prevalence has climbed steadily since 1980 and is now the most common chronic childhood disease in the United States and Hawaii. According to 2016 Behavioral Risk Factor Surveillance System data, the lifetime and current asthma prevalence for adults and children in Hawaii is higher than the national average. It is expected that reductions

in diesel particulate matter associated with the proposed projects will contribute to improvements.

**2. Cost-effectiveness.**

The emission reductions associated with each type of diesel emission reduction technology are presented in Table 3 but are gross estimates only based on fleet averages. The actual emissions benefit summary output from the DEQ will be calculated using the data from the actual vehicles replaced. The overall emission reductions and cost effectiveness will be calculated as well.

**3. Affected Areas**

Both proposed projects take place on the island of Oahu. The City and County of Honolulu, which comprises the entire island of Oahu, is Hawaii's largest metropolitan area, with an estimated population of 980,080.

Unique in the 50 states, vog (volcanic smog) emitted from the active Kilauea volcano, also impacts air quality throughout Hawaii. This mixture of sulfur dioxide and aerosols, formed when volcanic gas reacts with moisture and oxygen, is readily retained by the lungs and is potentially more harmful than either gases or particles alone.

On certain days when the typical trade winds do not blow, vog may migrate north from Kilauea and cause a significant impact on air quality in Honolulu County.

**4. Air pollution from diesel fleets.**

The target fleet is heavy duty vehicles owned by a local government agency which are operated in and around residential areas. They may idle in order to perform their function, examples would be repair vehicles for water supply or sewers as well as refuse vehicles. This exposes residents, neighborhood school age children walking to school on a collection day or both groups driving past such collections. The bus is used to shuttle passengers short distances on a frequent schedule.

**VEHICLES AND TECHNOLOGIES:**

Technology is vehicle replacements. The vehicles in Table 1.1 will be diesel replacements while those in Table 1.2 will be zero-emissions/electric replacements. Only EPA/CARB certified engines may be used.

**ROLES AND RESPONSIBILITIES:**

The Project Team that will be administering and reporting all DERA activities includes both the DOH and the Project Team member/subgrantee as described below.

The DOH will retain all reporting responsibilities required by the original grant and EPA. DOH will also provide assistance and guidance as needed to the other Project Team members so they may accomplish their tasks in a timely manner.

The Project Team member/subgrantee will be responsible for procuring the replacements for their own vehicles and shall seek bids for one or more vendors as appropriate for the following tasks:

1. Prior to commencement of the project, submit a projected work plan and timeline listing all and any activities in chronological order to be undertaken for the purpose of procuring and replacing older (model years 1995-2006 and model years 1996+ for zero emission replacements) diesel-fueled vehicles operated by the subgrantee. The replacement of vehicles must be done with newer, cleaner diesel, electric, hybrid or alternative fuel EPA certified or CARB-certified diesel engines.
2. The DOH will fund at least 75% of the cost of a replacement vehicle powered by a 2017 model year or newer engine certified to EPA emission standards. The DOH will fund at least 55% of the cost of a battery-electric replacement vehicle. The subgrantees, BWS and HDOT, will execute the 1<sup>st</sup> option and the subgrantee DBEDT-HSEO vehicle assistance program will select eligible fleet owners for battery electric bus replacements.

The subgrantees will also designate one point of contact with knowledge of the DERA-related activities as they associate to project. The point of contact will respond to queries and provide non-sensitive information to other organizations undertaking diesel retrofit and vehicle replacement projects from the beginning of the project and one year after its conclusion. The point of contact will present information to interested groups and the media on the retrofit and replacement projects during the same period. Upon delivery and acceptance of the replacement vehicles, subgrantee(s) shall maintain records for a minimum of 3 years, for each vehicle the vehicles miles travelled monthly, fuel consumption, and any other records agreed upon by the department relating to air emissions or required by EPA for the DERA grant. These records will be summarized and submitted annually to the DOH.

**TIMELINE AND MILESTONES:**

<b>Table 2: Project Timeline and Milestones</b>		
<b>Date</b>	<b>Milestone Description</b>	<b>Quarter(s)/ Due Date for Quarterly Report</b>
October 1, 2019	<i>Phase I: Candidate Vehicles reviewed and approved by EPA. Subgrant agreements routed and signed by subgrantees with DOH.</i>	1st Quarter/ January 31, 2020
April 1, 2020	<i>Phase II: Procurement process begins Submit quarterly report to EPA</i>	2nd Quarter/ April 30,2020
July 1, 2020	<i>Submit quarterly report to EPA</i>	3rd Quarter, July 31,2020

October 1, 2020	<i>Submit quarterly report to EPA</i>	4th Quarter; October 31, 2020
January 1, 2021	<i>Submit quarterly report to EPA</i>	1st Quarter, January 31, 2021
April 1, 2021	<i>Submit quarterly report to EPA</i>	2th Quarter; April 30, 2021
July 1, 2021	<i>Submit quarterly report to EPA. Complete procurement and scrappage requirements.</i>	3rd Quarter; July 31, 2021
October 1, 2021	<i>Drawdown request submitted. Drawdown completed. Final report submitted.</i>	Final Report, October 31, 2021

**DERA PROGRAMMATIC PRIORITIES:**

**EPA’S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:**

This project supports Goal 1, Objective 1.1, ‘Improve Air Quality,’ of the EPA’s 2018 – 2022 Strategic Plan because it is attempting to reduce emissions for diesel fleets operating on the most populous island in the state of Hawaii, Oahu. Specifically, it is targeting trucks and buses operating in and around residential, rural and smaller areas. Specifically, these fleets idle near and around homes and schools as they do their daily tasks. For this fleet, The Hawaii Replacement 2019 project will improve air quality and protect public health in Hawaii by reducing emissions from existing diesel vehicles which do not have Model Year 2007 controls.

The expected outputs of the program have been quantified by the expected number of retrofits and estimated emissions reductions. The targeted number of vehicles that could be replaced is one (1) diesel truck, one (1) non-road diesel vehicle, and two (2) buses.

The second quantifiable output is the estimated emissions reductions due to exhaust retrofits. The EPA Diesel Emissions Quantifier (DEQ) was used to estimate the reduction of criteria pollutants. In order to use the DEQ, assumptions had to be made about the number of vehicles replaced, the average model year, the average vehicle miles traveled (VMT), the average idle time and average annual diesel gallons consumed. The outputs are summarized in table 3. Once the replacements are completed, the actual VMT will be inputted into the DEQ to estimate pollutant reductions and other related estimates.

**Table 3- Outcomes**

<b>Activities</b>	<b>Inputs</b>	<b>Outputs</b>	<b>Outcomes</b>
Replace one truck (BWS)	EPA funds = \$35,000. Sub-grantee Cost Share = \$170,000.	1 MY2001 Class 7 Truck replaced w/ MY2019 Truck.	Annual NOx reduction = 0.009 tons. Lifetime = 0.064 tons Annual PM 2.5 emission reduction = 0.000 tons. Lifetime = 0.000 tons Annual HC emission reduction = 0.001 tons. Lifetime = 0.014 tons Annual CO emission reduction = 0.002 tons. Lifetime = 0.014 tons Annual CO2 emission reductions = 3.4 tons. Lifetime = 23.9 tons
Replace one zipmobile / road zipper (HDOT)	EPA funds = \$281,494 Sub-grantee Cost Share = \$1,718,506	1 MY1998, Tier 1 Road Zipper replaced w/ MY2019, Tier 4	Annual NOx emission reduction = 2.653. Lifetime = 2.653 Annual PM2.5 emission reduction = 0.333. Lifetime = 0.333 Annual HC emission reduction = 0.105. Lifetime = 0.105 Annual CO emission reduction = 1.279. Lifetime = 1.279 Annual CO2 emission reduction = 93.4. Lifetime = 93.4
Replace two diesel buses * (DBEDT-HSEO vehicle assistance program awardees)	EPA match incentive funds = \$158,247 State Voluntary Matching Funds = \$316,494 Mandatory Cost-Share = \$575,259	Two (2) diesel bus replacements with two (2) zero emission battery electric buses	Annual NOx reductions = 1.445 tons Lifetime = 2.89 tons Annual PM2.5 reduction = 0.051. Lifetime = 0.308 Annual HC emission reduction = 0.132. Lifetime = 0.794 Annual CO emission reduction = 0.514. Lifetime = 3.087 Annual CO2 emission reduction = 206.9. Lifetime = 1,241.5
Share & distribute project information via outreach, websites, and publications. Overall project management.	No funds allocated	Information posted on 2 websites	Increased public awareness of the project and results. Possible adoption of diesel emission reduction technologies by public/private diesel fleets in Hawaii.

\* DEQ estimates are illustrative in nature as program awardees have not been selected at this time.

**SUSTAINABILITY OF THE PROGRAM:**

Hawaii has no mandated vehicle retrofitting or any pending legislation for other diesel reduction technology for the target fleet. Therefore, the replacements would not have occurred during the project period had DERA involvement not been provided. Sustainability of the program will depend on acquiring additional funding, examining and then expanding the interest in the community and finding project partners

\*\*\*\*

**BUDGET NARRATIVE**

**Itemized Project Budget**

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	EPA Match Incentive Funds	
1. Personnel			\$29,656		\$29,656
2. Fringe Benefits			\$17,818		\$17,818
3. Travel					
4. Equipment					
5. Supplies					
6. Contractual					
7. Other	\$316,494	\$2,511,239	\$269,020	\$158,247	\$3,255,000
<b>8. Total Direct Charges (sum 1-7)</b>					
9. Indirect Charges					
<b>10. Total (Indirect + Direct)</b>	\$316,494	\$2,511,239	\$316,494	\$158,247	\$3,302,474
11. Program Income					
12. Other Leveraged Funds*					

\*Do not include Other Leveraged Funds on SF-424 or SF-424A

**Explanation of Budget Framework**

- **Personnel** - Personnel costs include one DBEDT-HSEO Energy Analyst at a salary equivalent to SR-22 (annual salary range as of July 1, 2017: \$51,792 to \$76,692) with 50% of their time assigned to the project. This position is funded from a portion of the State Voluntary Match, as shown in the Itemized Project Budget table, and not from federal funds.

- **Fringe Benefits** - The Hawaii Department of Budget and Finance Memo 187-124 (October 4, 2017 July 19, 2018) set the FY18 FY19 Revised Interim Fringe Benefit rate at 60.08%. The interim rate is based on the FY18 composite fringe benefit rate that is approved by the U.S. Department of Health and Human Services.
- **Travel - Specify the mileage, per diem, estimated number of trips in-State and out-of-State, number of travelers, and other costs for each type of travel.** Travel may be integral to the purpose of the proposed project (e.g. inspections) or related to proposed project activities (e.g. attendance at meetings). Travel costs do not include: (1) costs for travel of consultants, contractors, consortia members, or other partner organizations, which are included in the “Contractual” category; (2) travel costs for employees of subrecipients under subawards, which are included in the “Other” category.
- **Supplies - “Supplies” means all tangible personal property other than “equipment”.** The budget detail should identify categories of supplies to be procured (e.g., laboratory supplies or office supplies). Non-tangible goods and services associated with supplies, such as printing service, photocopy services, and rental costs should be included in the “Other” category.
- **Equipment - Identify each item to be purchased which has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year.** Equipment also includes accessories necessary to make the equipment operational. Equipment does not include: (1) equipment planned to be leased/rented, including lease/purchase agreement; or (2) equipment service or maintenance contracts. These types of proposed costs should be included in the “Other” category. Items with a unit cost of less than \$5,000 should be categorized as supplies, pursuant to 2 CFR Part 200. The budget detail must include an itemized listing of all equipment proposed under the project.
- **Contractual - Identify each proposed contract and specify its purpose and estimated cost.** Contractual/consultant services are those services to be carried out by an individual or organization, other than the applicant, in the form of a procurement relationship. Leased or rented goods (equipment or supplies) should be included in the “Other” category. The applicant should list the proposed contract activities along with a brief description of the scope of work or services to be provided, proposed duration, and proposed procurement method (competitive or non-competitive), if known.
- **Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost.** *This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance, rental/lease of equipment or supplies, equipment service or maintenance contracts, printing or photocopying, rebates, and subaward costs. Subawards (e.g., subgrants) are a distinct type of cost under this category. The term “subaward” means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible subrecipient. This term does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct*

*appropriations. Subcontracts are not subawards and belong in the contractual category. Applicants must provide the aggregate amount they propose to issue as subaward work and a description of the types of activities to be supported.*

- **Mandatory Cost-Share for vehicle equipment costs:**
  - HSEO vehicle assistance program looks to support roughly 40% of unit costs for two (2) battery electric buses estimated at \$525,000 each. Fleet owners will provide a mandatory cost-share and the program will provide the remaining cost-match of each eligible battery electric bus purchased.
  
- **Indirect Charges - If indirect charges are budgeted, indicate the approved rate and base.** Indirect costs are those incurred by the grantee for a common or joint purpose that benefit more than one cost objective or project, and are not readily assignable to specific cost objectives or projects as a direct cost. In order for indirect costs to be allowable, the applicant must have a federal or state negotiated indirect cost rate (e.g., fixed, predetermined, final or provisional), or must have submitted a proposal to the cognizant Federal or State agency. Examples of Indirect Cost Rate calculations are shown below:
  - Personnel (Indirect Rate x Personnel = Indirect Costs)
  - Personnel and Fringe (Indirect Rate x Personnel & Fringe = Indirect Costs)
  - Total Direct Costs (Indirect Rate x Total direct costs = Indirect Costs)
  - Direct Costs minus distorting or other factors such as contracts and equipment (Indirect Rate x (total direct cost – distorting factors) = Indirect Costs)

### **Administrative Costs Expense Cap**

Administrative costs are capped at 15% of the DBEDT-HSEO vehicle assistance program project, utilizing \$47,474 of voluntary matching funds from the state's VW Trust Funds.

### **Matching Funds and Cost-Share Funds**

States and territories must provide a detailed description of the source of funding for any voluntary match or mandatory cost-share funds included in the project budget, if applicable. Include details on when the match will be available for use. If applicable, include letters of financial support, which specifically indicate how supporting organizations will assist in the project.

See Sections V.D and X of the Program Guide for more information on the voluntary matching incentive and mandatory cost-share funds.

### **Funding Partnerships**

If a DERA grant recipient intends to fund target fleets that they do not own and operate, they have the option to (1) make a **subaward** or (2) provide **participant support costs** to a project partner. Both options can fund a project partner's equipment and installation costs, but only subawards can fund a project partner's direct and indirect costs such as personnel and travel. If the DERA grant recipient is only funding a project partner's equipment and installation costs,



they may instead choose to provide participant support costs rather than a subaward to avoid the extensive subaward monitoring and management requirements.

For more information on categorizing costs for funding partnerships, please refer to Section XIII of the Program Guide.

### **Other Leveraged Funds**

Other leveraged funds are resources contributed to the project that are not identified as a mandatory or voluntary cost share and are not part of the total project cost under the grant award. This form of leveraging may include funding from another federal grant (if authorized), from an applicant's own resources, or resources from other third-party sources, and do not need to be eligible and allowable project costs under the EPA assistance agreement.

It is appropriate to include other leveraged funds in the budget if the applicant is proposing to implement a rebate program for equipment and vehicle purchases. EPA funds may be used to issue a rebate up to the mandatory cost-share funding limitations listed in Section X of the Program Guide. In the budget, the EPA funds for the rebate are appropriately listed under the Other budget category as "Participant Support Costs." However, the program participant's share of the vehicle that is not covered by the rebate is not considered a mandatory nor voluntary cost share; the program participant's share of the vehicle that is not covered by the rebate is considered other leveraged funds.

For example, EPA will fund up to 25% of the cost of an eligible vehicle powered by an engine certified to EPA emission standards. If a truck owner purchased a new truck for \$100,000 they could receive a rebate for \$25,000. In the budget, the rebate (e.g. \$25,000) is appropriately listed under the Other budget category as "Participant Support Costs." The program participant's share of the vehicle (e.g. \$75,000) is considered other leveraged funds.

Other leveraged funds should NOT be included in the official grant project budget (i.e. the SF424 and SF424A), however the Budget Detail section of the Project Narrative should account for other leveraged funds where Participant Support Costs are included in the budget. Please see Appendix B for a sample Budget Detail, and Appendix E for more information on Participant Support Costs.

If applicants propose to provide other leveraged funds, EPA expects them to make the effort to secure the leveraged resources described in their applications. If the proposed leveraging does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 2 CFR Part 200, as applicable. Applications will not be evaluated based on the inclusion of Other Leveraged Funds under this RFA.