Volkswagen Environmental Mitigation Trust

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

State of Alaska Project 008 – Alaska Clean Diesel Project FFY21 & 22

AMENDMENT (2/2025)

Prepared by

ALASKA ENERGY AUTHORITY

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary **Alaska**

Lead Agency Authorized to Act on Behalf of the Beneficiary **Alaska Energy Authority**

(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:	**Alaska Clean Diesel Project FFY21 & 22 Amendment**
Beneficiary's Project ID:	**34037**
Funding Request No:	**008**
Request Type: (select one or more)	☐ Reimbursement ☒ Advance ☐ Other (specify):
Payment to be made to: (select one or more)	☒ Beneficiary ☐ Other (specify):
Funding Request & Direction (Attachment A)	☒ Attached to this Certification ☐ To be Provided Separately

SUMMARY

Eligible Mitigation Action ☐ Appendix D-2 item (specify): _____
Action Type ☒ Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): Non-road Engine for Power Production

Explanation of how funding request fits into Beneficiaries Mitigation Plan (5.2.1):

As described in the Alaska Beneficiary Mitigation Plan, Alaska intends to allocate State Trust funds for the replacement of diesel generators used for prime power, to be distributed over a period of five federal fiscal years' worth of EPA State DERA funding. Project 008 represents the fourth federal fiscal year (FY21). This Project 008 Amendment uses Trust fund interest earnings to add and support DERA FY22 projects.

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

AEA will use DERA funds to complete up to ten (10) diesel engine repower and/or replacements. The repowers/replacements will replace antiquated mechanically governed and lower tier prime power diesel generator engines with newer, more fuel-efficient Tier 2 and Tier 3 marine and low PM emitting non-road engines. These new engines are equipped with electronically controlled governors, which improves performance and reduces emissions. A complete, detailed work plan is attached.

Estimate of Anticipated NOx Reductions (5.2.3):

The estimated reduction in NOx emissions is 5.5 tons annually for the estimated 10 year life of the engines. Once the replacement engines are chosen, the anticipated reduction in NOx will be calculated again and provided in the semi-annual report.

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):

Alaska Energy Authority

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

AEA will follow the guidance set forth in Appendix D-3. AEA will make records related to the VW Trust publicly available on AEA's website (http://www.akenergyauthority.org/programs/vwsettlement). Any VW Trust records not posted on AEA's website will be made available to the public under the Alaska Public Records Act (AS 40.25) and the Act's implementing regulations (2 AAC 96), unless one of the following applies: (1) the records are not "public records," as defined in AS 40.25.220(3); (2) the records are protected under state or federal law or otherwise exempt from disclosure under AS 40.25.120(a); (3) the records are excluded from the

Act under another state statute; or (4) the records are readily available for public inspection—e.g., available on the Internet or "during state business hours in an agency's office or in a public library," 2 AAC 96.100(b). (The Alaska Public Records Act does not require AEA "to compile or summarize" records or "to manipulate its data to create new records." 2 AAC 96.210.)

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

As shown below, each engine replacement will be funded by a portion of EPA State DERA (50%), State of Alaska Capital Funds (17%), and Volkswagen Trust Funds (33%). A detailed budget is included in attached DERA workplans for FY21 and FY22.

2021 Itemized Project Budget

Budget Category	EPA Allocation	VW Mitigation Trust Funds	Mandatory Match (RPSU)	TOTAL
1. Personnel	$ 49,033.50	$ 32,689.00	$ 16,344.50	**$ 98,067.00**
2. Fringe Benefits	$ -	$ -	$ -	**$ -**
3. Travel	$ 12,250.00	$ 8,166.67	$ 4,083.33	**$ 24,500.00**
4. Equipment	$ -	$ -	$ -	**$ -**
5. Supplies	$ -	$ -	$ -	**$ -**
6. Contractual	$ -	$ -	$ -	**$ -**
7. Other: Subaward Grants	$ 429,267.50	$ 296,930.33	$ 148,465.17	**$ 874,663.00**
8. Total Direct Charges	**$ 490,551.00**	**$ 337,786.00**	**$ 168,893.00**	**$ 997,230.00**
9. Indirect Charges	$ 16,128.00	$ -	$ -	**$ 16,128.00**
10. TOTAL (Indirect + Direct Charges)	**$ 506,679.00**	**$ 337,786.00**	**$ 168,893.00**	**$ 1,013,358.00**
11. Program Income	$ -	$ -	$ -	**$ -**
12. Other Leveraged Funds**	$ -	$ -	$ -	**$ -**

2022 Itemized Project Budget

Budget Category	EPA Allocation	VW Mitigation Trust Funds	Mandatory Match (RPSU)	TOTAL
1. Personnel	$ 33,856.00	$ 22,570.66	$ 11,285.34	**$ 67,712.00**
2. Fringe Benefits	$ 20,012.50	$ 13,341.67	$ 6,670.83	**$ 40,025.00**
3. Travel	$ 10,600.00	$ 7,066.67	$ 3,533.33	**$ 21,200.00**
4. Equipment	$ -	$ -	$ -	**$ -**
5. Supplies	$ -	$ -	$ -	**$ -**
6. Contractual	$ -	$ -	$ -	**$ -**

7. Other: Subaward Grants	$ 444,403.50	$ 296,269.00	$ 148,134.50	**$ 888,807.00**
8. Total Direct Charges	**$ 508,872.00**	**$ 339,248.00**	**$ 169,624.00**	**$ 1,017,744.00**
9. Indirect Charges	$ 10,197.00	$ 6,798.00	$ 3,399.00	**$ 20,394.00**
10. TOTAL (Indirect + Direct Charges)	**$ 519,069.00**	**$ 346,046.00**	**$ 173,023.00**	**$ 1,038,138.00**
11. Program Income	$ -	$ -	$ -	**$ -**
12. Other Leveraged Funds**	$ -	$ -	$ -	**$ -**

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

Pursuant to subparagraph 4.2.8, within 30 days of the filed Notice of Beneficiary Designation listing Alaska as a Beneficiary of the State Trust, the Alaska Energy Authority provided a copy of the State Trust agreement to all federal agencies that have custody, control, or management of land within or adjacent to Alaska (National Park Service, US Forest Service, US Fish and Wildlife Service, Bureau of Land Management) via certified mail**.**

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).

In rural Alaska, communities are not connected to an electric grid and must generate power in their local community. Small diesel power plants are used across the state for this purpose. These plants have at least one diesel engine running continuously. The engines and generators must be reliable to provide consistent power to the residents to ensure health and welfare. Although the air quality in rural Alaska is typically quite good, power plants are often located in the center of these communities, exposing residents to pollution from them. This grant will assist AEA in taking action to meet the goal of reducing exposure to criteria pollutants and hazardous air pollutants and reducing greenhouse gas emissions while maintaining the economic vitality of the state.

ATTACHMENTS
(CHECK BOX IF ATTACHED)

X	**Attachment A**	Funding Request and Direction
X	**Attachment B**	Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4).
X	**Attachment C**	Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11).
X	**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.]
X	**Attachment E**	DERA Option (5.2.12). [Attach only if using DERA option.]
N/A	**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 **Alaska**, 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: 3/4/2025 | 9:42:32 AM AKST

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Audrey Alstrom
REEE Program Director

Alaska Energy Authority
[LEAD AGENCY]

for

Alaska
[BENEFICIARY]

10. TOTAL (Indirect + Direct Charges)	**$ 506,679**	**$ 337,786**	**$ 168,893**	**$ 1,013,358**
11. Program Income	$ -	$ -	$ -	**$ -**
12. Other Leveraged Funds**	$ -	$ -	$ -	**$ -**

2022 Itemized Project Budget

Budget Category	EPA Allocation	VW Mitigation Trust Funds	Mandatory Match (RPSU)	TOTAL
1. Personnel	$ 33,856.00	$ 22,570.66	$ 11,285.34	**$ 67,712.00**
2. Fringe Benefits	$ 20,012.50	$ 13,341.67	$ 6,670.83	**$ 40,025.00**
3. Travel	$ 10,600.00	$ 7,066.67	$ 3,533.33	**$ 21,200.00**
4. Equipment	$ -	$ -	$ -	**$ -**
5. Supplies	$ -	$ -	$ -	**$ -**
6. Contractual	$ -	$ -	$ -	**$ -**
7. Other: Subaward Grants	$ 444,403.50	$ 296,269.00	$ 148,134.50	**$ 888,807.00**
8. Total Direct Charges	**$ 508,872.00**	**$ 339,248.00**	**$ 169,624.00**	**$ 1,017,744.00**
9. Indirect Charges	$ 10,197.00	$ 6,798.00	$ 3,399.00	**$ 20,394.00**
10. TOTAL (Indirect + Direct Charges)	**$ 519,069.00**	**$ 346,046.00**	**$ 173,023.00**	**$ 1,038,138.00**
11. Program Income	$ -	$ -	$ -	**$ -**
12. Other Leveraged Funds**	$ -	$ -	$ -	**$ -**

Projected Trust Allocations

Projected VW Trust Balance (as of February 2025)

	VW Trust Funds
1. Initial Allocation	$8,125,000.00
2. Attachment A Disbursements (prior)	$8,022,255.45
3. Approved Budget Amount	$8,022,255.45
4. Remaining Allocation (prior)	$102,744.55
5. Interest Earnings from VW (1/31/25)	$421,266.47
6. Balance Prior (Line 4 + Line 5)	**$524,011.02**
7. Project 008 Amendment Advance	$346,046.00
8. Projected Net Trust Funds Remaining (Line 6 – Line 7)	**$177,965.02**

Initial

ATTACHMENT C
Detailed Plan for Reporting on EMA Implementation

The Alaska Energy Authority (AEA) will provide detailed reporting on the Alaska Clean Diesel Project FY21 & 22 (Project 008) on its public VW website and will fulfill its reporting obligations to Wilmington Trust.

AEA's VW website (http://www.akenergyauthority.org/What-We-Do/Grants-Loans/Volkswagen-Diesel-Settlement-Grants) was created specifically to provide information related to the Trust, settlement documents, and Alaska's plans for disbursement, funding opportunities and implementation information. In order to provide transparency and accountability, AEA will post timely updates on information, including but not limited to:

- General information on the Partial Consent Decrees and State Trust Agreement
- Alaska Beneficiary Mitigation Plan
- Request for Applications (RFAs) as funding opportunities arise
- All public records supporting funding requests AEA submits to the Trustee and all public records supporting all expenditures of the Trust fund, subject to confidentiality laws and until the Termination Dates of the State Environmental Mitigation Trust Agreement.
- Contact information

AEA will periodically evaluate the implementation of the Beneficiary Mitigation Plan and EMAs to determine if revisions to the plan are necessary to achieve the goals outlined in the plan. Any changes to the plan will be posted on AEA's VW website for at least 30 days prior to implementation.

In addition, the State will also comply with the reporting requirements listed in the Environmental Mitigation Trust Agreement for State Beneficiaries in subparagraph 5.3:

> *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 implementing each Eligible Mitigation Action during the six-month period leading up to 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. … 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 Trust's public-facing website upon receipt.*

ATTACHMENT D

Detailed cost estimate

Personnel:

Federal Fiscal Year 2021 Personnel				
		Voluntary Cost Share		
Category	EPA	VW Settlement	Mandatory Cost Share (RPSU)	**Total**
Rural Program Manager 200 hrs, $98.91 /hr wage FTE: 10%	$ 9,891.00	$ 6,594.00	$ 3,297.00	**$ 19,782.00**
Project Manager 500 hrs, $75.15/hr wage, FTE: 25%	$ 18,787.50	$ 12,525.00	$ 6,262.50	**$ 37,575.00**
Rural Assistance Manager 100 hrs, $83.10 /hr wage FTE: 10%	$ 4,155.00	$ 2,770.00	$ 1,385.00	**$ 8,310.00**
Rural Electric Utility Worker 250hrs, $74.20 hr wage FTE: 13%	$ 9,275.00	$ 6,183.33	$ 3,091.67	**$ 18,550.00**
Circuit Rider @ 200 hrs, $69.25 hr wage FTE: 10%	$ 6,925.00	$ 4,616.67	$ 2,308.33	**$ 13,850.00**
Total	**$ 49,033.50**	**$ 32,689.00**	**$ 16,344.50**	**$ 98,067.00**

Federal Fiscal Year 2022 Personnel				
		Voluntary Cost Share		
Category	EPA	VW Settlement	Mandatory Cost Share (RPSU)	**Total**
Rural Program Manager 200 hrs, $68.79 /hr wage FTE: 10%	$ 6,879.00	$ 4,540.00	$ 2,339.00	**$ 13,758.00**
Project Manager 500 hrs, $51.51/hr wage, FTE: 25%	$ 12,877.00	$ 8,499.00	$ 4,378.00	**$ 25,755.00**
Rural Assistance Manager 100 hrs, $62.29 /hr wage FTE: 10%	$ 3,115.00	$ 2,056.00	$ 1,059.00	**$ 6,229.00**
Rural Electric Utility Worker 200 hrs, $47.61 hr wage FTE: 13%	$ 4,761.00	$ 3,142.00	$ 1,619.00	**$ 9,522.00**
Circuit Rider @ 250 hrs, $49.79 hr wage FTE: 10%	$ 6,224.00	$ 4,108.00	$ 2,116.00	**$ 12,448.00**
Total	**$ 33,856.00**	**$ 22,345.00**	**$ 11,511.00**	**$ 67,712.00**

Travel:

Federal Fiscal Year 2021 Travel				
Category	EPA	VW Settlement (Voluntary Cost Share)	Mandatory Cost Share	**Total**
Airfare for 2 persons, 2 trips per village, 4 villages from Anchorage, 16 roundtrip tickets	$ 8,000.00	$ 5,333.33	$ 2,666.67	**$ 16,000.00**

ATTACHMENT B

Project Management Plan

Alaska Energy Authority (AEA) will issue up to five sub-award grants to replace up to ten prime-power diesel engines in rural Alaska communities. Rural communities in Alaska are not connected to the electrical grid and must generate their own electricity. Small diesel power plants are used for this purpose. These plants have at least one diesel engine running continuously. Rural Alaska communities rely on these engines for their prime power; however, many of these power plants use older technology, higher emissions, etc. This grant will partially fund the replacement of up to ten non-certified and lower-tier diesel engines with Tier 2 and 3 marine engines, and low PM emitting non-road engines. These engines will be installed because of their proven reliability, and fuel economy and they are as clean as or cleaner than non-road Tier 3 engines.

Schedule and Milestones

FY 21 Milestone	Date
AEA directs funding	October 2021
Project sponsor enters into contracts, purchase orders, etc. START	October 2021
Project sponsor enters into contracts, purchase orders, etc. COMPLETE	July 2022
Project installations START	July 2022
Project installations COMPLETE	October 2023
AEA reports project completion	December 2023

FY 22 Milestone	Date
AEA directs funding	December 2022
Project sponsor enters into contracts, purchase orders, etc. START	April 2023
Project sponsor enters into contracts, purchase orders, etc. COMPLETE	September 2024
Project installations START	October 2024
Project installations COMPLETE	December 2025
AEA reports project completion	December 2025

Please see the attached FY21 & FY22 DERA work plan (Attachment E) for detailed project information.

Budget

2021 Itemized Project Budget

Budget Category	EPA Allocation	VW Mitigation Trust Funds	Mandatory Match (RPSU)	TOTAL
1. Personnel	$ 49,033.50	$ 32,689	$ 16,344.50	**$ 98,067**
2. Fringe Benefits	$ -	$ -	$ -	**$ -**
3. Travel	$ 12,250	$ 8,166.67	$ 4,083.33	**$ 24,500**
4. Equipment	$ -	$ -	$ -	**$ -**
5. Supplies	$ -	$ -	$ -	**$ -**
6. Contractual	$ -	$ -	$ -	**$ -**
7. Other: Subaward Grants	$ 429,267.50	$ 296,930.33	$ 148,465.17	**$ 874,663**
8. Total Direct Charges	**$ 490,551**	**$ 337,786**	**$ 168,893**	**$ 997,230**
9. Indirect Charges	$ 16,128	$ -	$ -	**$ 16,128**

i. decline to sign a document from within your signing session, and on the subsequent page, select the check-box indicating you wish to withdraw your consent, or you may;

ii. send us an email to helpdesk@aidea.org and in the body of such request you must state your email, full name, mailing address, and telephone number. We do not need any other information from you to withdraw consent.. The consequences of your withdrawing consent for online documents will be that transactions may take a longer time to process..

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The minimum system requirements for using the DocuSign system may change over time. The current system requirements are found here: https://support.docusign.com/guides/signer-guide-signing-system-requirements.

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To confirm to us that you can access this information electronically, which will be similar to other electronic notices and disclosures that we will provide to you, please confirm that you have read this ERSD, and (i) that you are able to print on paper or electronically save this ERSD for your future reference and access; or (ii) that you are able to email this ERSD to an email address where you will be able to print on paper or save it for your future reference and access. Further, if you consent to receiving notices and disclosures exclusively in electronic format as described herein, then select the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

By selecting the check-box next to 'I agree to use electronic records and signatures', you confirm that:

- You can access and read this Electronic Record and Signature Disclosure; and
- You can print on paper this Electronic Record and Signature Disclosure, or save or send this Electronic Record and Disclosure to a location where you can print it, for future reference and access; and
- Until or unless you notify Alaska Industrial Development & Export Authority as described above, you consent to receive exclusively through electronic means all notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you by Alaska Industrial Development & Export Authority during the course of your relationship with Alaska Industrial Development & Export Authority.

Unless you tell us otherwise in accordance with the procedures described herein, we will provide electronically to you through the DocuSign system all required notices, disclosures, authorizations, acknowledgements, and other documents that are required to be provided or made available to you during the course of our relationship with you. To reduce the chance of you inadvertently not receiving any notice or disclosure, we prefer to provide all of the required notices and disclosures to you by the same method and to the same address that you have given us. Thus, you can receive all the disclosures and notices electronically or in paper format through the paper mail delivery system. If you do not agree with this process, please let us know as described below. Please also see the paragraph immediately above that describes the consequences of your electing not to receive delivery of the notices and disclosures electronically from us.

How to contact Alaska Industrial Development & Export Authority:

You may contact us to let us know of your changes as to how we may contact you electronically, to request paper copies of certain information from us, and to withdraw your prior consent to receive notices and disclosures electronically as follows:
To contact us by email send messages to: helpdesk@aidea.org

To advise Alaska Industrial Development & Export Authority of your new email address

To let us know of a change in your email address where we should send notices and disclosures electronically to you, you must send an email message to us at helpdesk@aidea.org and in the body of such request you must state: your previous email address, your new email address. We do not require any other information from you to change your email address.

If you created a DocuSign account, you may update it with your new email address through your account preferences.

To request paper copies from Alaska Industrial Development & Export Authority

To request delivery from us of paper copies of the notices and disclosures previously provided by us to you electronically, you must send us an email to helpdesk@aidea.org and in the body of such request you must state your email address, full name, mailing address, and telephone number. We will bill you for any fees at that time, if any.

To withdraw your consent with Alaska Industrial Development & Export Authority

To inform us that you no longer wish to receive future notices and disclosures in electronic format you may:

ELECTRONIC RECORD AND SIGNATURE DISCLOSURE

From time to time, Alaska Industrial Development & Export Authority (we, us or Company) may be required by law to provide to you certain written notices or disclosures. Described below are the terms and conditions for providing to you such notices and disclosures electronically through the DocuSign system. Please read the information below carefully and thoroughly, and if you can access this information electronically to your satisfaction and agree to this Electronic Record and Signature Disclosure (ERSD), please confirm your agreement by selecting the check-box next to 'I agree to use electronic records and signatures' before clicking 'CONTINUE' within the DocuSign system.

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At any time, you may request from us a paper copy of any record provided or made available electronically to you by us. You will have the ability to download and print documents we send to you through the DocuSign system during and immediately after the signing session and, if you elect to create a DocuSign account, you may access the documents for a limited period of time (usually 30 days) after such documents are first sent to you. After such time, if you wish for us to send you paper copies of any such documents from our office to you, you will be charged a $0.00 per-page fee. You may request delivery of such paper copies from us by following the procedure described below.

Withdrawing your consent

If you decide to receive notices and disclosures from us electronically, you may at any time change your mind and tell us that thereafter you want to receive required notices and disclosures only in paper format. How you must inform us of your decision to receive future notices and disclosure in paper format and withdraw your consent to receive notices and disclosures electronically is described below.

Consequences of changing your mind

If you elect to receive required notices and disclosures only in paper format, it will slow the speed at which we can complete certain steps in transactions with you and delivering services to you because we will need first to send the required notices or disclosures to you in paper format, and then wait until we receive back from you your acknowledgment of your receipt of such paper notices or disclosures. Further, you will no longer be able to use the DocuSign system to receive required notices and consents electronically from us or to sign electronically documents from us.

All notices and disclosures will be sent to you electronically

Agent Delivery Events	Status	Timestamp
Intermediary Delivery Events	**Status**	**Timestamp**
Certified Delivery Events	**Status**	**Timestamp**
Carbon Copy Events	**Status**	**Timestamp**
Witness Events	**Signature**	**Timestamp**
Notary Events	**Signature**	**Timestamp**
Envelope Summary Events	**Status**	**Timestamps**
Envelope Sent	Hashed/Encrypted	3/3/2025 1:19:39 PM
Certified Delivered	Security Checked	3/4/2025 10:02:49 AM
Signing Complete	Security Checked	3/4/2025 10:03:19 AM
Completed	Security Checked	3/4/2025 10:03:19 AM
Payment Events	**Status**	**Timestamps**
Electronic Record and Signature Disclosure		

Certificate Of Completion

Envelope Id: 7EEFE7FD-320A-461A-A7EF-AB0DA1EB687C
Status: Completed
Subject: Complete with Docusign: AK_VW_D-4_Project008_DERAFFY21_22 Amendment.pdf
Source Envelope:
Document Pages: 50
Signatures: 2
Certificate Pages: 5
Initials: 4
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813 W Northern Lights Blvd
Anchorage, AK 99503-2407
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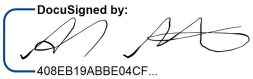
Audrey Alstrom aalstrom@akenergyauthority.org Director of AEEE Program AEA Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign	**Completed** Using IP Address: 206.174.41.28	Sent: 3/3/2025 1:19:39 PM Viewed: 3/3/2025 1:20:10 PM Signed: 3/3/2025 1:21:01 PM
Chris McConnell CMcConnell@akenergyauthority.org Rural Programs Manager Aidea Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign	 Signature Adoption: Pre-selected Style Using IP Address: 206.174.41.28	Sent: 3/3/2025 1:21:03 PM Resent: 3/4/2025 9:39:35 AM Resent: 3/4/2025 9:39:54 AM Viewed: 3/4/2025 9:40:20 AM Signed: 3/4/2025 9:40:36 AM
Audrey Alstrom aalstrom@akenergyauthority.org Director of AEEE Program AEA Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Not Offered via Docusign	 Signature Adoption: Drawn on Device Using IP Address: 206.174.41.28	Sent: 3/4/2025 9:40:37 AM Viewed: 3/4/2025 9:41:29 AM Signed: 3/4/2025 9:42:32 AM
Pamela Ellis PEllis@akenergyauthority.org Controller Security Level: Email, Account Authentication (None) **Electronic Record and Signature Disclosure:** Accepted: 3/4/2025 10:02:49 AM ID: 34c74fa1-2164-4fe6-a0af-b057a90af7f0	 Signature Adoption: Pre-selected Style Using IP Address: 206.174.41.28	Sent: 3/4/2025 9:42:33 AM Viewed: 3/4/2025 10:02:49 AM Signed: 3/4/2025 10:03:19 AM

In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

will come from RPSU, and/or local community match. The RPSU funds are State monies allocated by the state legislature. The matching funds will be available during the state fiscal years 2023, 2024, and 2025. At least 80% of EPA funds and State Match will go towards the repower and replacement equipment, which includes engineering, labor, material, engines, and freight.

11. **Program Income**
    The project being conducted under this grant will not generate income.

Administrative Costs Expense Cap

AEA's current DERA workplan includes the 2021 – 2022 waiver request that was approved by the EPA on May 3, 2021. This request included exceeding the 15% administrative cost cap.

Matching Funds and Cost-Share Funds

The State of Alaska agrees to make the full voluntary match to the Federal FY 2022 Clean Diesel grant, totaling $346,046. The matching funds will be used towards eligible Clean Diesel project costs. In addition, the state is providing $173,023 of Mandatory Cost Share. AEA plans to use funds from the VW Settlement Trust for the voluntary match ($346,046). The Mandatory Cost Share ($173,023) will come from RPSU, and/or local community match. The RPSU funds are State monies allocated by the state legislature. The match funds will be available during the state fiscal years 2023, 2024, and 2025. At least 80% of EPA funds and State Match will go towards the repower and replacement equipment, which includes engineering, labor, material, engines, and freight.

Federal Fiscal Year 2022 Bettles				
Category	EPA	Voluntary Cost Share (RPSU)	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 9,210.00	$ 6,078.60	$ 3,131.40	**$ 18,420**
Contractual	$ 61,400.00	$ 40,524.00	$ 20,876.00	**$ 122,800**
Material and Engines	$ 82,890.00	$ 54,707.40	$ 28,182.60	**$ 165,780**
Combined Totals	**$ 153,500**	**$ 101,310**	**$ 52,190**	**$ 307,000**

Federal Fiscal Year 2022 Tenakee Springs				
Category	EPA	Voluntary Cost Share (RPSU)	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 17,454	$ 11,520	$ 5,934	**$ 34,908**
Contractual	$ 116,361	$ 76,799	$ 39,563	**$ 232,723**
Material and Engines	$ 157,088	$ 103,678	$ 53,410	**$ 314,176**
Combined Totals	**$ 290,904**	**$ 191,996**	**$ 98,907**	**$ 581,807**

8. Direct Charges

Total direct charges for the project come to $1,017,744. This includes funds from EPA DERA, voluntary match (VW settlement funds for FY21 and FY22) and Mandatory Cost Share (state capital funds). An estimated $888,807 will be in sub-award grants to rural Alaskan communities. $128,937 will be spent on AEA staff project management, technical assistance, and travel costs.

9. Indirect Charges

AEA currently utilizes the 10% de Minimis rate afforded to us under 2CFR 200.414(f) and is further detailed in Appendix VII for indirect costs. AEA met internally, with the Denali Commission, our cognizant agency, and determined this method best fits AEA's needs instead of developing and proposing a federally negotiated indirect cost rate. AEA's indirect charge is estimated at $20,394 for this award – the calculation is as follows: 10% federal staff and travel ($12,894). Assume two grants under one contract greater than $25,000/each = $7,500. $20,394 estimated total.

10. Total Program Funds

The State of Alaska has chosen to make the full voluntary match to the Federal FY 2022 Clean Diesel grant, totaling $346,046 from the VW Settlement Trust. The matching funds will be used towards eligible Clean Diesel project costs. The state is providing $173,023 of Mandatory Cost Share. The Mandatory Cost Share ($173,023)

therefore reported to EPA through the "Other" line. Please see line 7. "Other" section below for further breakout.

7. Other (Sub-award)

AEA will issue sub-award grant agreements to up to five rural communities to cover the cost of labor, freight, contractual, material, engineering, and installation as part of the equipment costs associated with this grant[3]. These expenses will be reported to EPA through the "Other" line. Below is a breakout of the budget for these funds

AEA will sub-award grant funds to each eligible rural community per the priority list of potential sites. Cost efficiencies occur when multiple engines are purchased for one community or one utility.

The Mandatory Cost Share funds will be in the form of cash (State capital) contributions.

Up to 80% of EPA grant funds and voluntary State matches will go towards the engineering, freight, design modifications, purchase, and installation of DERA qualified equipment.

Federal Fiscal Year [redacted] 2022 Subaward				
Category	EPA	Voluntary Cost Share (RPSU)	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 26,052	$ 18,210	$ 9,066	**$ 53,328**
Contractual	$ 173,683	$ 121,399	$ 60,442	**$ 355,523**
Material and Engines	$ 234,471	$ 163,888	$ 81,596	**$ 479,956**
Combined Totals	**$ 434,206**	**$ 303,497**	**$ 151,104**	**$ 888,807**

[3] The budget estimates are based on number of engines to be repower/replaced, the location of the community and what is known about the power system prior to design.

Federal Fiscal Year [redacted] 2022 Travel				
Category	EPA	Voluntary Cost Share (RPSU)	Mandatory Cost Share	**Total**
Airfare for 1 person, 2 trips per village, 5 villages from Anchorage, 10 roundtrip tickets	6,000.00	3,960.00	2,040.00	**12,000.00**
Lodging for 1 person, 2 trips per village, 5 villages, 2 nights per trip, $150 per night, 20 nights	1,500.00	990.00	510.00	**3,000.00**
Per diem for 1 person, 2 trips per village, 5 villages, 2 days per trip, $60 day, 20 days	600.00	396.00	204.00	**1,200.00**
Surface transportation, 2 trips per village, 5 villages, 10 rentals includes car/four wheeler, gas, parking, etc $500 per rental	2,500.00	1,650.00	850.00	**5,000.00**
Total	**10,600.00**	**6,996.00**	**3,604.00**	**21,200.00**

4. **Equipment**
   There are no Equipment costs associated directly with AEA with this project. DERA funding will be provided to the sub-award grantees via a grant agreement and therefore reported to EPA through the "Other" line. Please see line 8. "Other" section below for further breakout.

5. **Supplies**
   There are no Supply costs associated directly with AEA with this project. DERA funding will be provided to the sub-award grantees via a grant agreement and therefore reported to EPA through the "Other" line. Please see line 8. "Other" section below for further breakout.

6. **Contractual**
   There are no Contractual costs associated directly with AEA with this project. DERA funding will be provided to the sub-award grantees via a grant agreement and

Federal Fiscal Year [redacted] 2022 Fringe Benefits				
Category	EPA	Voluntary Cost Share (RPSU)	Mandatory Cost Share (RPSU)	**Total**
Rural Program Manager 200 hrs, $38.17 /hr Fringe:	$ 3,817	$ 2,519	$ 1,298	**$ 7,634**
Project Manager 500 hrs, $30.90 / hr. Fringe:	$ 7,725	$ 5,099	$ 2,627	**$ 15,450**
Rural Assistance Manager 100 hrs, $29.35 /hr Fringe:	$ 1,768	$ 1,167	$ 601	**$ 3,535**
Circuit Rider 250hrs, $30.23 hr Fringe:	$ 3,779	$ 2,494	$ 1,285	**$ 7,558**
Rural Electric Utility Worker @ 200 hrs, $29.24 hr Fringe:	$ 2,924	$ 1,930	$ 994	**$ 5,848**
Total	**$ 20,012**	**$ 13,208**	**$ 6,804**	**$ 40,025**
Total hours = **68% FTE.** 1250 total hours, 1950 hours/year				

3. Travel

This budget includes two trips for one person to each of the up to five communities[2] to perform site visits and help the sub-award grantees and their contractor with any technical assistance needed. Travel is budgeted based on experience within the region. With these presumptions, costs are broken down as follows. Round trip airfare $1200, ground transportation per visit $500, per diem $60/day, lodging $150/night. Presumed each trip is for two days with an overnight stay (two days of per diem) a total of ten trips by AEA staff to the communities will be needed. The AEA staff that will travel to the sites include the technical Rural Electric Utility Worker (REUW) and Circuit Rider who may assist in commissioning the projects, the AEA Program Manager who may troubleshoot installation issues that could arise, and the AEA Project Manager for a final inspection to ensure all the requirements of the funding have been met. The REUW or Program Manager would also have the expertise to perform a final inspection.

[2] This is budgeted with flexibility depending on sub awardees and allowing for a federal site monitor.

Federal Fiscal Year 2022 Personnel Wages w/o Benefits				
Category	EPA	Voluntary Cost Share (RPSU)	Mandatory Cost Share (RPSU)	**Total**
Rural Program Manager 200 hrs, $68.79 /hr wage FTE: 10%	$ 6,879	$ 4,540	$ 2,339	**$ 13,758**
Project Manager 500 hrs, $51.51/hr wage, FTE: 25%	$ 12,877	$ 8,499	$ 4,378	**$ 25,755**
Rural Assistance Manager 100 hrs, $62.29 /hr wage FTE: 10%	$ 3,115	$ 2,056	$ 1,059	**$ 6,229**
Circuit Rider 250hrs, $49.79 hr wage FTE: 13%	$ 6,224	$ 4,108	$ 2,116	**$ 12,448**
Rural Electric Utility Worker @ 200 hrs, $47.61 hr wage FTE: 10%	$ 4,761	$ 3,142	$ 1,619	**$ 9,522**
Total	**$ 33,856**	**$ 22,345**	**$ 11,511**	**$ 67,712**
Total hours = **68% FTE**. 1250 total hours, 1950 hours/year				

2. **Fringe Benefits**
   Benefits include Health Insurance (10%), Public Employees Retirement System (22%), Supplemental Benefits System (6.13%), Medicare (1.45%), Workers Compensation (1.01%), and Unemployment (0.40%). The benefits vary by position type and tier under which the staff person was hired.

- **Program Manager:**
  Monitors the AEA project staff and project to ensure all regulations and requirements are being followed at the state and federal level. Provides high level direction and guidance to the Project Manger as needed. May travel to the sites for inspections and provide technical assistance when needed.
- **Project Manager:**
  Will prepare an amendment to the DERA workplan, the project management plan, provide project oversight, review and accept plans, procedures, deliverables and reports. The Project Manager (PM) will be responsible for project communication between sub grantees, consultants, and the AEA team. The PM will track specific contractual deliverables against the schedule to ensure contactors are on track to meet critical milestones. The PM will be the primary point of contact for the DERA award.
- **Rural Assistance Program Manager, Circuit Rider, and the Rural Electric Utility Worker:**
  Will offer quality assurance and quality control during each phase of construction, in partnership with the consulting engineers. Periodic onsite inspections will be performed and the Rural Utility Worker staff will be on site for substantial completion and final testing and inspection.

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BUDGET NARRATIVE

Project Budget

AEA's current DERA workplan includes the 2021-2022 waiver approved by the EPA on May 3, 2021. AEA appreciates that EPA understands the uniqueness of diesel-generated prime power in remote areas of Alaska and has approved the use of certified marine Tier 2 and Tier 3 and low PM emitting nonroad engines for replacement of non-certified and lower-tier engines, reduced mandatory cost-share requirements for projects benefiting rural Alaska Tribal people, and increased administrative cost cap due to AEAs greater level of technical support. AEA is using the state DERA and other available funds to assist with engine repowers and Genset replacements in rural communities in Alaska that are mostly tribal.

Following is the proposed project budget:

2022 Itemized Project Budget				
Budget Catagory	EPA Allocation	Voluntary Cost Share (RPSU)	Mandatory Match (RPSU)	TOTAL
1. Personnel	$ 33,856	$ 22,345	$ 11,511	$ 67,712
2. Fringe Benefits	$ 20,013	$ 13,208	$ 6,804	$ 40,025
3. Travel	$ 10,600	$ 6,996	$ 3,604	$ 21,200
4. Equipment				$ -
5. Supplies				$ -
6. Contractual				$ -
7. Other: Subaward Grants	$ 434,206	$ 303,497	$ 151,104	$ 888,807
8. Total Direct Charges	**$ 498,675**	**$ 346,046**	**$ 173,023**	$ 1,017,744
9. Indirect Charges	$ 20,394			$ 20,394
10. TOTAL (Indirect + Direct Charges	**$ 519,069**	**$ 346,046**	**$ 173,023**	**$ 1,038,138**
11. Program Income				
12. Other Leveraged Funds**				

Explanation of Budget Framework

1. **Personnel**
   AEA personnel costs cover the staff time needed to manage the grant, including technical assistance, preparing and submitting regular reports to EPA, preparing and submitting a final report to the EPA after the project, providing project and grant oversight, and completing site visits to document project completion. Included are the AEA Manager of Rural Energy Programs, project manager, rural electric utility worker, and circuit rider staff time to help the sub-award grantees, if requested, with start-up, commissioning and connection of the engines/generators. The hourly billable wage totals for each staff position are shown in this table.

new DERA funding within 60 days of the receipt of the grant. The posting will include the amount of the grant and a description of the technology being funded.

3. **Outcomes**

Expected outcomes will be submitted to the EPA project officer once sites have been confirmed and replacement engines selected. This will include emission calculations using the EPA web-based DEQ tool and include estimated lifetime total project cost and cost-effectiveness. The installation of lower-emission gensets will benefit the selected communities by improving health and the environment. Fewer pollutants in the air lower the health risk for the community members.

- **Short-term outcomes** – Up to ten existing prime power, non-certified, and lower-tier diesel engines will be taken out of service and replaced with cleaner, more fuel-efficient certified marine Tier 2 and Tier 3, and low PM emitting nonroad engines. Engine replacements will lead to an immediate reduction in emissions.

- **Medium-term outcomes** – The new electronically controlled certified marine engines and low PM emitting non-road engines will provide a reduction in exhaust emissions.

- **Long-term outcomes** – AEA anticipates that diesel engines will continue to be used for many years, in rural Alaska, for prime power generation. The estimated useful life of a DERA engine in a prime power application is 60,000-hours, over 10 years. Replacing older technology engines with newer, and cleaner engines will provide emission reductions, and health benefits for many years.

4. **Performance Measures**

AEA is in the unique position of administering the Power Cost Equalization (PCE) program. 193 rural Alaskan communities participate in the program providing monthly reporting of production and financial statistics. This allows AEA to monitor the performance and efficiency of engines replaced under the DERA program.

Project Partners

AEA will continue to consult with the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality to ensure compliance with all applicable emissions regulations. AEA will continue to partner with the Denali Commission to support and expand the reach of the DERA program statewide.

Sustainability of State Program

In Alaska, the cost of fuel and energy is the highest in the nation. Through ongoing programs, AEA works with rural communities to assist them in maintaining reliable power supplies while reducing costs. AEA maintains updates on the DERA program on our website at http://www.akenergyauthority.org/What-We-Do/Rural-Energy-Assistance/Diesel-Emission-Reduction-Act-Program AEA will keep this website updated with details on this

over a 10-year lifespan would provide the following reductions.

Lifetime Results (short tons)	NOx	PM2.5	HC	CO	CO2	Fuel
Baseline Engines	66.97	3.81	5.55	24.93	4475	397,810
Amount Reduced	44.70	2.72	3.88	17.73	-120	-10,700
Percent Reduced	67%	71%	70%	71%	-3%	-3%

Note: The DERA Replacement engine is estimated to run 94% of the year and produce 462,000 kWh annually.

In Tenakee Springs, the State DERA program will replace one Nonroad Uncontrolled engine and one Nonroad Tier 2 engine with Marine Tier 3 engines. Tenakee Springs uses approximately 34,000 gallons of diesel fuel to generate about 407,000 kWh annually. Estimated emissions reductions for Tenakee Springs are shown in the tables below.

TENAKEE SPRINGS

Annual Results (short tons)	NOx	PM2.5	HC	CO	CO2	Fuel
Baseline Engines	4.25	0.23	0.36	1.40	378	33,604
Replacement Engines	2.08	0.18	0.27	0.91	-19	-1,704
Percent Reduced	49%	77%	75%	65%	-5%	-5%

over a 10-year lifespan would provide the following reductions.

Lifetime Results (short tons)	NOx	PM2.5	HC	CO	CO2	Fuel
Baseline Engines	42.54	2.34	3.55	14.03	3780	336,040
Amount Reduced	20.83	1.79	2.67	9.15	-192	-17,040
Percent Reduced	49%	77%	75%	65%	-5%	-5%

Note: The DERA Replacement engines are estimated to run 94% of the year and produce 384,000 kWh annually.

2. Outputs

The expected outputs from this project include:

1. Decommission up to ten non-certified and lower-tier engines and replace them with certified marine Tier 2 and Tier 3, and low PM emitting nonroad engines,
2. Reduce air pollutants, and
3. Improve fuel efficiency.

The following table shows the proposed replacement engines for each community.

Community	Existing Engine	Replacement Engine
Bettles	Cummins LTA 10 Nonroad Uncontrolled 390 HP	John Deere 2 4045HF285 Nonroad Tier 3 150 HP
Bettles	Caterpillar 3406 Nonroad Uncontrolled 460 HP	John Deere 2 4045HF285 Nonroad Tier 3 150 HP
Tenakee Springs	John Deere 6068TF150 Nonroad Uncontrolled 150 HP	John Deere 6068AFM85 Marine Tier 3 245 HP
Tenakee Springs	John Deere 6068TF150 Nonroad Tier 2 150 HP	John Deere 6068AFM85 Marine Tier 3 245 HP

In Bettles, the State DERA program will replace two mechanically governed, uncontrolled Nonroad engines with Nonroad Tier 3 engines. Bettles uses approximately 40,000 gallons of diesel fuel to generate about 490,000 kWh annually. Estimated emissions reductions for Bettles are shown in the tables below.

BETTLES

Annual Results (short tons)	NOx	PM2.5	HC	CO	CO2	Fuel
Baseline Engines	6.70	0.38	0.56	2.49	448	39,781
Amount Reduced	4.47	0.27	0.39	1.77	-12	-1,070
Percent Reduced	67%	71%	70%	71%	-3%	-3%

The AEA program targets communities with engines that fit within the DERA criteria and where they fall on the project ranking list. In addition to replacing equipment, upgrading the systems provides emission improvements.

4. **Disproportionate quantity of air pollution from diesel**
   Alaska is unique in its diesel use. Power in rural villages is typically generated from diesel in small systems, thus using a disproportionally large quantity of diesel.

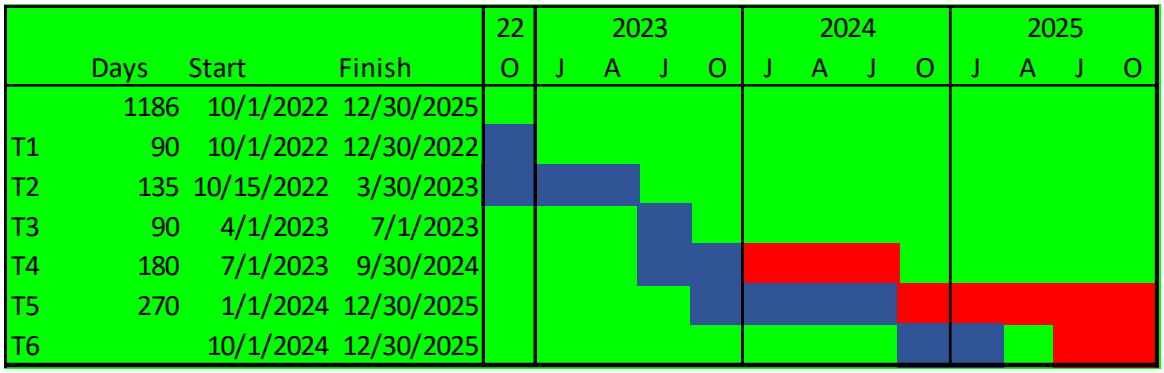
5. **Include certified engine configuration or verified technology that has a long-expected useful life**
   Power generation in rural communities is expensive compared to more urban areas. To help contain costs, engines in power plants must use technology that will last. All engines used under the DERA grant use configurations that have been proven to be reliable and long-lived.

6. **Maximize the useful life of any certified engine configuration or verified technology used or funded by the eligible entity**
   Record drawings will be prepared for each grantee documenting the completed work. Operations and Maintenance (O&M) manuals will be updated and incorporate the manufacturer's recommended maintenance and service intervals for all generation equipment. AEA will continue to provide technical support (as requested) through its Circuit Rider Maintenance program to assist communities in maximizing the useful life of the installed generation equipment.

7. **Conserve diesel fuel**
   Installing new certified more efficient engines will reduce the emissions per quantity of fuel combusted, and produce electricity more efficiently. In most rural communities, diesel costs anywhere from six to twelve dollars a gallon. In some rural communities, the cost of diesel is significantly higher. Occasionally, a community may experience a fuel shortage if fuel transport is delayed. Again, increased fuel efficiency can make existing stored supplies last longer, reducing the chances of shortages.

EPA's Strategic Plan Linkage and Anticipated Outcomes/Outputs & Performance Measures

1. **Linkage to the EPA 2022 - 2026 Strategic Plan:**
   The fuel efficiency and reduction of emissions (greenhouse gases), which cause climate change, resulting from this project support the EPA's primary objective of improving air quality and ensuring areas meet high air quality standards. The Alaska Native Villages to receive the DERA funds are underserved and overburdened communities. The efficiency of the new engines will result in less diesel fuel being purchased, therefore more funding can be used for drinking water and sewer upgrades in the communities. AEA has considered all the goals of the strategic plan which can be found at https://www.epa.gov/planandbudget/strategicplan .



EPA DERA Programmatic Priorities

All of the projects proposed in this workplan will take place in rural Alaska Native communities. The reason for this selection is outlined below using previous DERA program priorities:

1. **Maximize public health benefits**
   Power generation in rural Alaska depends on diesel engines, often operating in the center of a village, close to homes, workplaces, and schools. The proximity of power plants to these buildings may pose an increased health risk. Replacing older engines in these facilities with new engines that meet more stringent emission requirements, will reduce emissions production, resulting in achieving the EPA goal of a "Cleaner Healthier Environment"

2. **Most Cost-Effective**
   It is in the best interest of Alaska to support projects that are cost-effective and meet the most urgent need. The engines selected for replacement are non-certified, mechanically governed, and lower-tier diesel engines that are dirty and inefficient compared to the newer DERA replacement engines.

3. **Population density**
   Setting priorities based on the overall population in Alaska is difficult. Seventy percent of the population lives in larger populated areas facing air quality challenges similar to other areas in the country. The other thirty percent of the Alaska population lives in small remote communities, and rural villages, with some having serious air quality problems. These smaller areas are often at a disadvantage due to technological and funding shortfalls, despite having air quality concerns.

   As mentioned above, although the communities benefiting from this grant are not densely populated areas by typical urban standards, the proximity of the diesel power plant to residences, schools, and other community buildings means that residents may be more exposed to exhaust from the power plant than they would be in an urban city.

workplan is based on the waiver request accepted by the EPA that includes the use of 100% of EPA funds, as allowed for in the Tribal Clean Diesel program. However, AEA does intend to match this project with state funds as described in the budget below.

AEA will issue sub-award grants using a combination of funding from DERA, State funds, and other contributions. Using these grant funds, AEA on behalf of the community, or the community, will hire an engineering firm with expertise in remote Alaska power generation and experience with DERA programmatic requirements to prepare specifications, assist with materials and engine/generator procurement, and integrate the electronically controlled engines into the existing power plant switchgear. Rebecca Garrett, AEA Manager of Rural Energy Programs, and Dan Johnston, AEA Project Manager will oversee the grant to ensure the communities comply with all Clean Diesel Program requirements.

Throughout the project, AEA will provide administrative project management and in the case of a managed sub-award grant, AEA procurement staff will prepare the request for proposals or invitation to bid. AEA will also manage the EPA Clean Diesel grant to ensure all grant requirements are met.

TIMELINE AND MILESTONES:
This project will take place in six steps:

- Task 1: Confirm each rural community has a DERA-eligible engine and submit emission tables and updated budget to the Project Officer.
- Task 2: Design and identify specifications – Procure contractual assistance for the design of the engine/generator installations and development of specifications specific to each installation.
- Task 3: Contract procurement – Issue Invitation to Bid (ITB) to select a contractor that will provide engines, generators, and associated equipment, including any required assembly and testing, and installation.
- Task 4: Submittals – Contractor delivers submittals for AEA review and approval.
- Task 5: Installation and commissioning – Install generator repowers/replacements, and obtain assistance to integrate the electronically controlled engines with the existing switchgear, fuel, exhaust, and cooling systems. If requested, AEA staff will offer technical assistance during the startup and commissioning of the engines.
- Task 6: Final closeout of the award with EPA.

The project timeline shown below is based on an EPA Clean Diesel grant execution date of October 1, 2021, to December 31, 2025. FFY 21 and 22 projects overlap, with the timeline for FFY 22 shown in red.

to providethe optimum reliability for the available engine horsepower.

AEA has developed a community priority list of potentially eligible engines for DERA replacement. Should a selected community drop out, an engine not meet DERA requirements, or an appropriate replacement engine cannot be procured, AEA will select another community from the priority list. When a new community is identified, a community-specific emission table and budget will be submitted to the EPA Project Officer for approval. AEA is matching the 2022 EPA grant with state, local, and other funding as available.[1]

For engines temporarily out of service, the utility's intent to return the engine to service will be documented, in addition to the FFY22 eligibility requirements. The replaced engine blocks will be rendered permanently disabled and disposed of in the local landfill.

In rural Alaska, communities are not connected to an electric grid and must generate power locally. Small diesel power plants are used across the state for this purpose. These plants have at least one diesel engine running continuously. The engines and generators must be absolutely reliable to provide consistent power to the residents to ensure health and welfare.

Although the air quality in rural Alaska is typically quite good, power plants are often located in the center of these communities, exposing residents to pollution from them. This grant will assist AEA in taking action to meet the goal of reducing exposure to criteria pollutants, hazardous air pollutants, and reducing greenhouse gas emissions while maintaining the economic vitality of the state.

AEA will consult with the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality to ensure compliance with applicable emissions regulations. ADEC requested AEA take over as the lead granting authority to administer Alaska's State Clean Diesel Program per the letter from State Commissioner Larry Hartig to Gina McCarthy dated April 15, 2016. EPA approved this request by letter dated May 11, 2016.

AEA's Circuit Rider/Technical Assistance group works with local organizations that operate their own electric utilities. These organizations are very small, often serving as few as one hundred customers, sometimes fewer. Being so small, the organizations often experience technical and administrative challenges due to the lack of economies of scale or specialized skills.

AEA maintains a database of the electric utilities it supports through its Rural Power System Upgrade (RPSU) program. The database was created in 2001 and updated in 2012. In 2020 AEA embarked on an updated assessment that was completed on December 30, 2021. The updated data provides enough information to select sites for the DERA projects.

Most rural communities in Alaska are federally recognized, Alaskan Native Tribes. This

[1] Other contributions may come from the Denali Commission and local utilities.

diesel engine running continuously. Rural Alaska communities rely on these engines for their prime power; however, many of these power plants use older technology, high emitting engines.

This grant will partially fund the replacement of up to ten non-certified and lower-tier diesel engines with Tier 2 and 3 marine engines, and low PM emitting nonroad engines. These engines will be installed because of their proven reliability and they are as clean as or cleaner than nonroad Tier 3 engines.

Past DERA State Clean Diesel Program projects can be found at: http://www.akenergyauthority.org/What-We-Do/Rural-Energy-Assistance/Diesel-Emission-Reduction-Act-DERA-Program

This workplan includes EPA's concurrence with AEA's State of Alaska DERA Implementation Plan, a Waiver Request submitted via email on April 13, 2021, and supported by the EPA in a letter dated May 5, 2021. This waiver request is summarized below:

1. Reduced mandatory cost-share using 2022 Tribal DERA cost-share requirements for projects benefiting rural Alaska Tribes
2. Replace stationary prime power Nonroad Engines and Equipment with certified Tier 2 &Tier 3 marine engines
3. Replace larger stationary prime power Nonroad Engines and Equipment (generally 550 hp and larger) with Tier 0, Tier 1, and Tier 2 low PM emitting engines
4. Exceed administrative cost cap due to Alaska's unique logistic and technical support requirements

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SCOPE OF WORK

The Alaska Energy Authority (AEA) will use DERA funds to complete up to ten diesel engine repower and/or replacements. The repowers/replacements will replace antiquated mechanically governed and lower-tier prime power diesel Genset engines with newer Tier 2 and Tier 3 marine and low PM emitting nonroad engines. These engines are equipped with electronically controlled governors, which improves performance and reduces emissions.

With the acceptance of AEA's waiver request, DERA funds will be used to purchase engines/generators and associated equipment. Equipment includes freight, labor, engineering, and materials needed to install the cleaner engines, and implement required upgrades to interface the engines with the existing power plant cooling, fuel, switchgear, and exhaust systems. Where remanufactured or rebuilt engines are used they will be "certified Tier compliant" by conformance with 40 CFR 1068.120 as explained in the EPA-420-F-12-052 documents.

The repowered and replacement gensets will continue to perform the same function as the existing non-certified engine. Engines for generator repower and replacement will be selected

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SUMMARY PAGE

Project Title: Alaska Clean Diesel Project FFY 22

Project Manager and Contact Information

Organization Name: Alaska Energy Authority

Project Manager: Ashley Streveler

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WORK PLAN UPDATED Feburary 2025

Project Budget Overview:

	2021*	2022
EPA Base Allocation	$337,786	$346,046
EPA Match Bonus (if applicable)	$168,893	$173,023
Voluntary Matching Funds	$337,786	$346,046
Mandatory Cost-Share	$168,893	$173,023
TOTAL Project Cost	**$1,013,358**	**$1,038,138**

*If state participated in 2021

Project Period for 2021-2022 DERA State Grants

October 1, 2021 – December 31, 2025

Summary Statement

Alaska Energy Authority (AEA) will issue up to five sub-award grants to replace up to ten prime-power diesel engines in rural Alaska communities. A prioritized list of potential communities is attached to the work plan.

AEA will consult with the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality and will comply with all applicable emissions regulations.

Rural communities in Alaska are not connected to the electrical grid and must generate their electricity. Small diesel power plants are used for this purpose. These plants have at least one

United States Environmental Protection Agency

Office of Transportation and Air Quality
April 2022

2022 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template

INSTRUCTIONS: States and territories applying for 2022 DERA State Grant funds should use this template to prepare their Workplan and Budget Narrative.

Please refer to the 2021-2022 DERA State Grants Program Guide for full program details, eligibility criteria and funding restrictions, and application instructions.

Administrative Costs Expense Cap

AEA's current DERA work plan includes the 2021 waiver request that was approved by the EPA on May 3, 2021. This request included exceeding the 15% administrative cost cap.

Matching Funds and Cost-Share Funds

The State of Alaska agrees to make the full voluntary match to the Federal FY 2021 Clean Diesel grant, totaling $337,786. The matching funds will be used towards eligible Clean Diesel project costs. In addition, the state is providing $168,893 of Mandatory Cost Share. AEA plans to use the Volkswagen settlement funds for the voluntary match ($337,786). The Mandatory Cost Share ($168,893) will also come from RPSU, and/or local community match. The RPSU funds are State monies allocated by the state legislature. The match funds will be available during the state fiscal years 2022 and 2023. At least 80% of EPA funds and State Match will go towards the repower and replacement equipment, which includes engineering, labor, material, engines and freight.

Federal Fiscal Year 2021 Subaward Akiachak				
Voluntary Match				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 18,394.34	$ 12,723.62	$ 6,361.81	**$ 37,479.78**
Contractual	$ 122,628.96	$ 84,824.16	$ 42,412.08	**$ 249,865.20**
Material and Engines	$ 165,549.09	$ 114,512.62	$ 57,256.31	**$ 337,318.02**
Combined Totals	**$ 306,572.39**	**$ 212,060.41**	**$ 106,030.21**	**$ 624,633.00**

8. Direct Charges

Total direct charges for the project come to $997,230. This includes funds from EPA DERA, Volkswagen Settlement funds, and Mandatory Cost Share (State capital funds). An estimated $874,663 will be in sub-award grants to rural Alaskan communities. $122,567 will be spent on AEA staff project management, technical assistance, and travel costs.

9. Indirect Charges

AEA currently utilizes the 10% de Minimis rate afforded to us under 2CFR 200.414(f) and is further detailed in Appendix VII for indirect costs. AEA met internally, with the Denali Commission, our cognizant agency, and determined this method best fits AEA's needs instead of developing and proposing a federally negotiated indirect cost rate. AEA's indirect charge is estimated at $16,128 for this award – the calculation is as follows: 10% federal staff and travel ($6,128). Assume four grants/contracts greater than $25,000/each = $10,000. $16,128 estimated total.

10. Total Program Funds

The State of Alaska has chosen to make the full voluntary match to the Federal FY 2021 Clean Diesel grant, totaling $337,786. The matching funds will be used towards eligible Clean Diesel project costs. In addition, the state is providing $168,893 of Mandatory Cost Share. AEA plans to use the Volkswagen settlement funds for the voluntary match ($337,786). The Mandatory Cost Share ($168,893) will also come from the Rural Power Systems Upgrade (RPSU) funds, and/or local community match. The RPSU funds are State monies allocated by the state legislature. The matching funds will be available during the state fiscal years 2022 and 2023. At least 80% of EPA funds and State Match will go towards the repower and replacement equipment, which includes engineering, labor, material, engines and freight.

11. Program Income

The project being conducted under this grant will not generate income.

6. Contractual

There are no Contractual costs associated directly with AEA for this project. DERA funding will be provided to the sub-award grantees via a grant agreement and therefore reported to EPA through the "Other" line. Please see line 7. "Other" section below for further breakout.

7. Other (Sub-award)

AEA will issue sub-award grant agreements to up to five rural communities to cover the cost of labor, freight, contractual, material, engineering, and installation as part of the equipment costs associated with this grant . These expenses will be reported to EPA through the "Other" line. Below is a breakout of the budget for these funds AEA will subaward grant funds to each eligible rural community per the priority list of potential sites. Cost efficiencies occur when multiple engines are purchased for one community or one utility.

The Mandatory Cost Share funds will be in the form of cash (State capital) contributions.

Up to 86% of EPA grant funds and voluntary State match will go towards the engineering, freight, design modifications, purchase, and installation of DERA-qualified equipment.

Federal Fiscal Year 2021 Subaward				
Voluntary Match				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 25,756.05	$ 17,815.82	$ 8,907.91	**$ 52,479.78**
Contractual	$ 171,707.00	$ 118,772.13	$ 59,386.07	**$ 349,865.20**
Material and Engines	$ 231,804.45	$ 160,342.38	$ 80,171.19	**$ 472,318.02**
Combined Totals	**$ 429,267.50**	**$ 296,930.33**	**$ 148,465.17**	**$ 874,663.00**

Federal Fiscal Year 2021 Subaward Grayling				
Voluntary Match				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 7,361.71	$ 5,092.20	$ 2,546.10	**$ 15,000.00**
Contractual	$ 49,078.04	$ 33,947.97	$ 16,973.99	**$ 100,000.00**
Material and Engines	$ 66,255.36	$ 45,829.76	$ 22,914.88	**$ 135,000.00**
Combined Totals	**$ 122,695.11**	**$ 84,869.92**	**$ 42,434.96**	**$ 250,000.00**

travel to the sites include the technical Rural Electric Utility Worker (REUW) and Circuit Rider, who may assist in commissioning the projects; the AEA Program Manager, who may troubleshoot installation issues that could arise; and the AEA Project Manager for a final inspection to ensure all the requirements of the funding have been met. The REUW or Program Manager would also have the expertise to perform a final inspection.

Federal Fiscal Year 2021 Travel				
Category	EPA	VW Settlement (Voluntary Cost Share)	Mandatory Cost Share	**Total**
Airfare for 2 persons, 2 trips per village, 4 villages from Anchorage, 16 roundtrip tickets	$ 8,000.00	$ 5,333.33	$ 2,666.67	**$ 16,000.00**
Lodging for 2 persons, 2 trips per village, 4 villages, 2 nights per trip, $90 per night, 16 nights	$ 1,350.00	$ 900.00	$ 450.00	**$ 2,700.00**
Per diem for 2 persons, 2 trips per village, 4 villages, 2 days per trip, $60 day, 30 days	$ 900.00	$ 600.00	$ 300.00	**$ 1,800.00**
Surface transportation, 2 trips per village, 4 villages, 8 rentals includes car/four wheeler, gas, parking, etc $500 per rental	$ 2,000.00	$ 1,333.33	$ 666.67	**$ 4,000.00**
Total	**$ 12,250.00**	**$ 8,166.67**	**$ 4,083.33**	**$ 24,500.00**

4. Equipment

There are no Equipment costs associated directly to AEA for this project. DERA funding will be provided to the sub-award grantees via a grant agreement and therefore reported to EPA through the "Other" line. Please see line 8. "Other" section below for further breakout.

5. Supplies

There are no Supply costs associated directly with AEA for this project. DERA funding will be provided to the sub-award grantees via a grant agreement and therefore reported to EPA through the "Other" line. Please see line 8. "Other" section below for further breakout.

and circuit rider staff time to help the sub-award grantees, if requested, with start-up and commissioning and connection of the engines/generators. The hourly billable wage totals for each staff position are shown in this table. Fringe benefits are included**.**

Federal Fiscal Year 2021 Personnel				
		Voluntary Cost Share		
Category	EPA	VW Settlement	Mandatory Cost Share (RPSU)	**Total**
Rural Program Manager 200 hrs, $98.91 /hr wage FTE: 10%	$ 9,891.00	$ 6,594.00	$ 3,297.00	**$ 19,782.00**
Project Manager 500 hrs, $75.15/hr wage, FTE: 25%	$ 18,787.50	$ 12,525.00	$ 6,262.50	**$ 37,575.00**
Rural Assistance Manager 100 hrs, $83.10 /hr wage FTE: 10%	$ 4,155.00	$ 2,770.00	$ 1,385.00	**$ 8,310.00**
Rural Electric Utility Worker 250hrs, $74.20 hr wage FTE: 13%	$ 9,275.00	$ 6,183.33	$ 3,091.67	**$ 18,550.00**
Circuit Rider @ 200 hrs, $69.25 hr wage FTE: 10%	$ 6,925.00	$ 4,616.67	$ 2,308.33	**$ 13,850.00**
Total	**$ 49,033.50**	**$ 32,689.00**	**$ 16,344.50**	**$ 98,067.00**

Total hours = **64% FTE**. 1,250 total hours, 1,950 hours/year

2. Fringe Benefits

Benefits include Health Insurance (10%), Public Employees Retirement System (22%), Supplemental Benefits System (6.13%), Medicare (1.45%), Workers' Compensation (1.01%), and Unemployment (0.40%). The benefits vary by position type and tier under which the staff person was hired. Fringe benefits are included in the stacked hourly wage included in the "Personnel" table above.

3. Travel

This budget includes two trips for one person to each of the up to eight communities to perform site visits and help the sub-award grantees and their contractors with any technical assistance needed. Travel is budgeted based on experience within the region. With these presumptions, costs are broken down as follows: Round trip airfare is $1000: ground transportation per visit is $500: per diem is $60/day: and lodging is $90/night. Presumed each trip is for two days with an overnight stay (two days per diem) a total of sixteen trips by AEA staff to the communities will be needed. The AEA staff that will

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BUDGET NARRATIVE

Project Budget

AEA's current DERA work plan includes the 2021 waiver approved by the EPA on May 3, 2021. AEA appreciates that EPA understands the uniqueness of diesel-generated prime power in remote areas of Alaska, and has approved the use of certified marine Tier 2 and Tier 3 and low PM emitting non-road engines for replacement of non-certified and lower tier engines, reduced mandatory cost-share requirement for projects benefiting rural Alaska Tribal people, and increased administrative cost cap due to AEA's greater level of technical support. AEA is using the state DERA and other available funds to assist with engine repowers and genset replacements in rural communities in Alaska that are mostly tribal. Following is the proposed project budget:

2021 Itemized Project Budget

Budget Catagory	EPA Allocation	VW Mitigation Trust Funds	Mandatory Match (RPSU)	TOTAL
1. Personnel	$ 49,033.50	$ 32,689.00	$ 16,344.50	**$ 98,067.00**
2. Fringe Benefits	$ -	$ -	$ -	**$ -**
3. Travel	$ 12,250.00	$ 8,166.67	$ 4,083.33	**$ 24,500.00**
4. Equipment	$ -	$ -	$ -	**$ -**
5. Supplies	$ -	$ -	$ -	**$ -**
6. Contractual	$ -	$ -	$ -	**$ -**
7. Other: Subaward Grants	$ 429,267.50	$ 296,930.33	$ 148,465.17	**$ 874,663.00**
8. Total Direct Charges	**$ 490,551.00**	**$ 337,786.00**	**$ 168,893.00**	**$ 997,230.00**
9. Indirect Charges	$ 16,128.00	$ -	$ -	**$ 16,128.00**
10. TOTAL (Indirect + Direct Charges)	**$ 506,679.00**	**$ 337,786.00**	**$ 168,893.00**	**$ 1,013,358.00**
11. Program Income	$ -	$ -	$ -	**$ -**
12. Other Leveraged Funds**	$ -	$ -	$ -	**$ -**

Explanation of Budget Framework

1. **Personnel**

   AEA personnel costs cover the staff time needed to manage the grant, including technical assistance, preparing and submitting regular reports to the EPA, preparing and submitting a final report to the EPA at the conclusion of the project, providing project and grant oversight, and completing site visits to document project completion. Included are an AEA program manager, project manager, rural electric utility worker,

engines. Engine replacements will lead to an immediate reduction in diesel fuel use and lower emissions.

b. **Medium-term outcomes** - The new electronically controlled certified marine engines and low PM emitting nonroad engines will save diesel fuel along with associated reductions in exhaust emissions.

c. **Long-term outcomes** - AEA anticipates that diesel engines will continue to be used for many years, in rural Alaska, for prime power generation. The estimated useful life of a DERA engine in a prime power application is 60,000-hours, over a 10-year period. Replacing older technology engines with newer, cleaner, and more efficient engines will provide fuel savings, emission reductions, and health benefits for many years.

4. **Performance Measures**

AEA is in the unique position of administering the Power Cost Equalization (PCE) program. 194 rural Alaskan utilities participate in the program providing monthly reporting of production and financial statistics. This allows AEA to monitor the performance and efficiency of engines replaced under the DERA program.

Project Partners

AEA will continue to consult with the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality to ensure compliance with all applicable emissions regulations. AEA will continue to partner with the Denali Commission to support and expand the reach of the DERA program statewide.

Sustainability of State Program

In Alaska, the cost of fuel and energy is the highest in the nation. Through ongoing programs, AEA works with rural communities to assist them in maintaining reliable power supplies while reducing costs. AEA maintains updates on the DERA program on our website at https://www.akenergyauthority.org/What-We-Do/Rural-Energy/Diesel-Emission-Reduction-Act-Program. AEA will keep this website updated with details on this new DERA funding within 60 days of the receipt of the grant. The posting will include the amount of the grant and a description of the technology being funded.

Note: The DEQ Emissions Quantifier does not calculate the Replacement Engine Emissions correctly due to changes in engine run times as a result of engine replacement – refer to the attached email correspondence with the DEQ helpline.

In Akiachak, the 2021 DERA State Clean Diesel Program will replace two uncontrolled engines (Gen 1 & 2) and AEA will replace the two uncontrolled engines (Gen 3 & 4) with Low PM emitting engines. Two gensets will periodically run in parallel to meet Akiachak's peak electric loads. Akiachak uses approximately 138,000 gallons of diesel fuel to generate about 1,931,000 kWH annually. The resulting emission reductions are shown in the tables below.

Akiachak

Annual Results (short Tons)	**NOx**	**PM2.5**	**HC**	**CO**	**CO2**
Baseline Engines	23.62	1.25	1.83	8.20	1554
Replacement Engines	18.08	0.09	.046	4.42	1448
Percent Reduced	23%	93%	75%	46%	7%

Over a 10-year lifespan would have the following savings:

Annual Results (short Tons)	**NOx**	**PM2.5**	**HC**	**CO**	**CO2**
Baseline Engines	236.16	12.55	18.28	82.02	15539
Replacement Engines	180.82	0.87	4.63	44.24	14482
Percent Reduced	23%	93%	75%	46%	7%

Note: The DEQ Emissions Quantifier does not calculate the Replacement Engine Emissions correctly due to changes in engine run times as a result of engine replacement – refer to the attached email correspondence with the DEQ helpline.

3. **<u>Outcomes</u>**
   Expected outcomes will be submitted to the EPA project officer once sites have been confirmed and replacement engines selected. This will include emission calculations using the EPA web-based DEQ tool and include estimated lifetime total project cost and cost-effectiveness. The installation of more efficient and lower-emission gensets will benefit the selected communities by improving health and the environment. More efficient equipment results in lower fuel costs for the residents of the community, resulting in boosting the local economy. Fewer pollutants in the air lower health risk for community members.
   a. **Short-term outcomes -** Up to ten existing prime power, non-certified, and lower tier diesel engines will be taken out of service, and replaced with cleaner, more fuel-efficient certified marine Tier 2 and Tier 3, and low PM emitting nonroad

2. **Outputs**
    a. The expected outputs from this project include:
        i. Decommission up to ten non-certified and lower tier engines and replace them with certified marine Tier 2 and Tier 3, and low PM emitting nonroad engines,
        ii. Reduce air pollutants, and
        iii. Improve fuel efficiency.

The following table shows the proposed replacement engines for each community:

Community	**Existing Engine**	**Replacement Engine**
Grayling	Cummins LTA 10	Detroit Diesel S60
	(Uncontrolled)	(Nonroad Tier 1)
	168 kw Prime	200 kw Prime
Akiachak	Cat 3456	Detroit Diesel S60
	(Uncontrolled)	(Nonroad Tier 1 Low PM)
Akiachak	Cat 3456	Detroit Diesel S60
	(Uncontrolled)	(Nonroad Tier 1 Low PM)

In Grayling, the State DERA program will replace on mechanically governed, uncontrolled engine with a Detroit Diesel Series 60 Nonroad Tier 1 engine/ Grayling uses approximately 50,000 gallons of diesel fuel to generate about 664,000 kWH annually. Estimated emissions reductions in Grayling are shown in the tables below.

Grayling

Annual Results (short Tons)	**NOx**	**PM2.5**	**HC**	**CO**	**CO2**
Baseline Engines	8.44	1.54	0.61	2.97	561
Replacement Engines	N/A	N/A	N/A	N/A	N/A
Percent Reduced	N/A	N/A	N/A	N/A	N/A

Over a 10-year lifespan would have the following savings:

Annual Results (short Tons)	**NOx**	**PM2.5**	**HC**	**CO**	**CO2**
Baseline Engines	84.4	15.4	6.1	29.7	5612
Replacement Engines	N/A	N/A	N/A	N/A	N/A
Percent Reduced	N/A	N/A	N/A	N/A	N/A

c. The AEA program targets communities with engines that fit within the DERA criteria and where they fall on the project ranking list. In addition to replacing equipment, upgrading the systems provides emission improvements.

4. **Disproportionate quantity of air pollution from diesel**
    a. Alaska is unique in its diesel use. Power in rural villages is typically generated from diesel in small systems, thus using a disproportionally large quantity of diesel.

5. **Include certified engine configuration or verified technology that has a long expected useful life**
    a. Power generation in rural communities is expensive compared to more urban areas. To help contain costs, engines in power plants must use technology that will last. All engines used under the DERA grant use configurations that have been proven to be reliable and long-lived.

6. **Maximize the useful life of any certified engine configuration or verified technology used or funded by the eligible entity**
    a. Record drawings will be prepared for each grantee documenting the completed work. Operations and Maintenance (O&M) manuals will be updated and incorporate the manufacturer's recommended maintenance and service intervals for all generation equipment. AEA will continue to provide technical support (as requested) through its Circuit Rider Maintenance program to assist communities in maximizing the useful life of the installed generation equipment.

7. **Conserve diesel fuel**
    a. Installing new certified more efficient engines will reduce the emissions per quantity of fuel combusted, and produce electricity more efficiently, reducing emissions, and saving money. In most rural communities, diesel costs anywhere from four to ten dollars a gallon. In some rural communities, the cost of diesel is significantly higher. Occasionally, a community may experience a fuel shortage if fuel transport is delayed. Again, increased fuel efficiency can make existing stored supplies last longer, reducing the chances of shortages.

EPA's Strategic Plan Linkage and Anticipated Outcomes/Outputs & Performance Measures

1. **Linkage to EPA Strategic Plan**
    a. The fuel efficiency and emission reduction resulting from this project support the EPA's primary objective of improving air quality and ensuring areas meet high air quality standards. The project will improve tribal air quality by replacing engines in native Alaska villages. Greenhouse gas emission reductions will result from the improved fuel efficiency of the engines.

- Task 5: Installation and commissioning – Install generator repowers/replacements, and obtain assistance to integrate the electronically controlled engines with the existing switchgear, fuel, exhaust, and cooling systems. If requested, AEA staff will offer technical assistance during the startup and commissioning of the engines.
- Task 6: Final close out of award with EPA.

EPA DERA Programmatic Priorities

All of the projects proposed in this work plan will take place in rural Alaska native communities. The reason for this selection is outlined below using previous DERA program priorities:

1. **Maximize public health benefits**
    a. Power generation in rural Alaska depends on diesel engines, often operating in the center of a village, close to homes, workplaces, and school. The proximity of power plants to these buildings may pose an increased health risk. Replacing older engines in these facilities with new engines that meet more stringent emission requirements, will reduce emissions production, resulting in achieving the EPA goal of a "Cleaner Healthier Environment" In addition, improved efficiency will require less fuel, resulting in reduced emissions and lower cost. In rural communities, diesel fuel can cost up to $10 a gallon. Any savings on fuel is a significant cost saving.

2. **Most Cost Effective**
    a. It is in the best interest for Alaska to support projects that are cost effective and meet the most urgent need. The engines selected for replacement are non-certified, mechanically governed and lower tier diesel engines that are dirty and inefficient compared to the newer DERA replacement engines.

3. **Population Density**
    a. Setting priorities based on the overall population in Alaska is difficult. Seventy percent of the population lives in larger populated areas facing air quality challenges similar to other areas in the country. The other thirty percent of the Alaska population lives in small remote communities, and rural villages, with some having serious air quality problems. These smaller areas are often at a disadvantage due to technological and funding shortfalls, despite having air quality concerns.
    b. As mentioned above, although the communities benefiting from this grant are not densely populated areas by typical urban standards, the proximity of the diesel power plant to residences, schools, and other community buildings means that residents may be more exposed to exhaust from the power plant than they would be in an urban city.

as allowed for in the Tribal Clean Diesel program. However, AEA does intend to match this project with state funds as described in the budget below.

AEA will issue sub-award grants using a combination of funding from DERA, voluntary match (VW), State funds, and other contributions. Using these grant funds, AEA on behalf of the community, or the community, will hire an engineering firm with expertise in remote Alaska power generation and experience with DERA programmatic requirements to prepare specifications, assist with materials and engine/generator procurement, and integrate the electronically controlled engines into the existing power plant switchgear. Rebecca Garrett, AEA Program Manager, and Dan Johnston, AEA Project Manager will oversee the grant to ensure the communities comply with all Clean Diesel Program requirements.

Throughout the project, AEA will provide administrative project management and in the case of a managed sub-award grant, AEA procurement staff will prepare the request for proposals or invitation to bid. AEA will also manage the EPA Clean Diesel grant to ensure all grant requirements are met.

TIMELINE AND MILESTONES:

				21	2022				2023				24
	Days	Start	Finish	O	J	A	J	O	J	A	J	O	J
	730	10/1/2021	9/30/2023										
T1	90	10/1/2021	12/30/2021										
T2	135	10/15/2021	3/30/2022										
T3	90	4/1/2022	7/1/2022										
T4	180	7/1/2022	12/30/2022										
T5	270	1/1/2023	9/30/2023										
T6		10/1/2023	12/30/2023										

This project will take place in six steps:

- Task 1: Confirm each rural community has a DERA - eligible engine and submit emission tables and updated budget to Project Officer.
- Task 2: Design and identify specifications – Procure contractual assistance for the design of the engine/generator installations and development of specifications specific to each installation.
- Task 3: Construction procurement – Issue Invitation to Bid (ITB) to select a contractor that will provide engines, generators, and associated equipment, including any required assembly and testing, and installation.
- Task 4: Submittals – Contractor delivers submittals for AEA review and approval.

meet DERA requirements, or an appropriate replacement engine cannot be procured, AEA will select another community from the priority list. When a new community is identified, a community-specific emission table and budget will be submitted to the EPA Project Officer for approval. AEA is matching the 2021 EPA grant with Volkswagen, state, local, and other funding as available.

For engines temporarily out of service, the utility's intent to return the engine to service will be documented, in addition to the FFY21 eligibility requirements. The replaced engine blocks will be rendered permanently disabled and disposed of in the local landfill.

In rural Alaska, communities are not connected to an electric grid and must generate power in their local community. Small diesel power plants are used across the state for this purpose. These plants have at least one diesel engine running continuously. The engines and generators must be absolutely reliable to provide consistent power to the residents to ensure health and welfare.

Although the air quality in rural Alaska is typically quite good, power plants are often located in the center of these communities, exposing residents to pollution from them. This grant will assist AEA in taking action to meet the goal of reducing exposure to criteria pollutants and hazardous air pollutants, and reducing greenhouse gas emissions while maintaining the economic vitality of the state.

AEA will consult with the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality to ensure compliance with applicable emissions regulations. ADEC requested AEA take over as the lead granting authority to administer Alaska's State Clean Diesel Program per the letter from State Commissioner Larry Hartig to Gina McCarthy dated April 15, 2016. EPA approved this request by letter dated May 11, 2016.

AEA's Circuit Rider/Technical Assistance group works with local organizations that operate their own electric utilities. These organizations are very small, often serving as few as one hundred customers, sometimes fewer. Being so small, organizations often experience technical and administrative challenges due to the lack of economies of scale or specialized skills.

AEA maintains a database of the electric utilities it supports through its Rural Power System Upgrade (RPSU) program. The database was created in 2001, updated in 2012, and in 2020 AEA embarked on an updated assessment that was completed on 6/30/21. The updated data provides enough information to select sites for the DERA projects.

Most rural communities in Alaska are federally recognized Alaskan Native Tribes. This work plan is based on the waiver request accepted by the EPA that includes the use of 100% of EPA funds,

This grant will partially fund the replacement of up to ten non-certified and lower-tier diesel engines with Tier 2 and 3 marine engines, and low PM emitting nonroad engines. These engines will be installed because of their proven reliability, and fuel economy and they are as clean as or cleaner than non-road Tier 3 engines.

Past DERA State Clean Diesel Program projects can be found at: https://www.akenergyauthority.org/What-We-Do/Rural-Energy/Diesel-Emission-Reduction-Act-Program.

This work plan includes the EPA's concurrence with AEA's State of Alaska DERA Implementation Plan, and Waiver Request submitted via email on April 13, 2021, and supported by the EPA in a letter dated May 5, 2021. This waiver request is summarized below:

1. Reduced mandatory cost-share using 2020 Tribal DERA cost-share requirements for projects benefiting rural Alaska Tribes
2. Replace stationary prime power Nonroad Engines and Equipment with certified Tier 2 & Tier 3 marine engines
3. Replace larger stationary prime power Nonroad Engines and Equipment (generally larger than 550 HP) with Tier 0, Tier 1 and Tier 2 low PM emitting engines
4. Exceed administrative cost cap due to Alaska's unique logistic and technical support requirements

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SCOPE OF WORK

AEA will use DERA funds to complete up to ten diesel engine repower and/or replacements. The repowers/replacements will replace antiquated mechanically governed and lower tier prime power diesel genset engines with newer, more fuel-efficient Tier 2 and Tier 3 marine and low PM emitting nonroad engines. These engines are equipped with electronically controlled governors, which improves performance and reduces emissions. With the acceptance of AEA's waiver request, DERA funds will be used to purchase engine/generators and associated equipment. Equipment includes freight, labor engineering, and materials needed to install the cleaner engines and implement required upgrades to interface the engines with the existing power plant cooling, fuel, switchgear, and exhaust systems. Where remanufactured or rebuilt engines are used they will be "certified Tier compliant" by conformance with 40 CFR 1068.120 as explained in the EPA-420-F-12-052 document.

The repowered and replacement gensets will continue to perform the same function as the existing non-certified engine. Engines for generator repower and replacement will be selected to provide the optimum reliability and fuel economy for the available engine horsepower. The Alaska Energy Authority (AEA) has developed a community priority list of potentially eligible engines for DERA replacement. Should a selected community drop out, an engine not

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SUMMARY PAGE

Project Title: Alaska Clean Diesel Project FFY21

Project Manager and Contact Information
Organization Name: Alaska Energy Authority Project Manager: Khae Pasao
Mailing Address: 813 W. Northern Lights Blvd, Anchorage, AK 99503
Phone: 907-771-3069
Fax: 907-771-3044
Email: kpasao@akenergyauthority.org

Project Budget Overview:

	2021
EPA Base Allocation	$337,786
EPA Match Bonus (if applicable)	$168,893
Voluntary Matching Funds (VW Settlement)	$337,786
Mandatory Cost-Share	$168,893
TOTAL Project Cost	**$1,013,358**

Project Period
October 1, 2021 – September 30, 2023

Summary Statement
Alaska Energy Authority (AEA) will issue up to five sub-award grants to replace up to ten prime-power diesel engines in rural Alaska communities. A prioritized list of potential communities is attached to this work plan.

AEA will consult with the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality and will comply with all applicable emissions regulations. Rural communities in Alaska are not connected to the electrical grid and must generate their own electricity. Small diesel power plants are used for this purpose. These plants have at least one diesel engine running continuously. Rural Alaska communities rely on these engines for their prime power; however, many of these power plants use older technology, high emitting engines.

Attachment E

2021 Diesel Emissions Reduction Act (DERA) State Grants
Work Plan and Budget Narrative Template

INSTRUCTIONS: States and territories applying for 2021 DERA State Grants should use this template to prepare their Work Plan and Budget Narrative.

Please refer to the 2021 DERA State Grants Program Guide for full program details, eligibility criteria, and funding restrictions, and application instructions.

Federal Fiscal Year 2022 Subaward Bettles				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 9,210.00	$ 6,140.00	$ 3,070.00	**$ 18,420.00**
Contractual	$ 61,400.00	$ 40,933.33	$ 20,266.67	**$ 122,800.00**
Material and Engines	$ 82,890.00	$ 55,260.00	$ 27,630.00	**$ 165,780.00**
Combined Totals	**$ 153,500.00**	**$ 102,333.33**	**$ 51,166.67**	**$ 307,000.00**

Federal Fiscal Year 2022 Tenakee Springs				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 17,454.00	$ 11,636.00	$ 5,818.00	**$ 34,908.00**
Contractual	$ 116,361.00	$ 77,574.33	$ 38,787.17	**$ 232,723.00**
Material and Engines	$ 157,088.00	$ 104,725.33	$ 52,362.67	**$ 314,176.00**
Combined Totals	**$ 290,903.50**	**$ 193,935.67**	**$ 96,967.83**	**$ 581,807.00**

Subaward Grant Summary

Federal Fiscal Year 2021 Subaward Summary				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 25,756.05	$ 17,815.82	$ 8,907.91	**$ 52,479.78**
Contractual	$ 171,707.00	$ 118,772.13	$ 59,386.07	**$ 349,865.20**
Material and Engines	$ 231,804.45	$ 160,342.38	$ 80,171.19	**$ 472,318.02**
Combined Totals	**$ 429,267.50**	**$ 296,930.33**	**$ 148,465.17**	**$ 874,663.00**

Federal Fiscal Year 2021 Subaward Grayling				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 7,361.71	$ 5,092.20	$ 2,546.10	**$ 15,000.00**
Contractual	$ 49,078.04	$ 33,947.97	$ 16,973.99	**$ 100,000.00**
Material and Engines	$ 66,255.36	$ 45,829.76	$ 22,914.88	**$ 135,000.00**
Combined Totals	**$ 122,695.11**	**$ 84,869.92**	**$ 42,434.96**	**$ 250,000.00**

Federal Fiscal Year 2021 Subaward Akiachak				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 18,394.34	$ 12,723.62	$ 6,361.81	**$ 37,479.78**
Contractual	$ 122,628.96	$ 84,824.16	$ 42,412.08	**$ 249,865.20**
Material and Engines	$ 165,549.09	$ 114,512.62	$ 57,256.31	**$ 337,318.02**
Combined Totals	**$ 306,572.39**	**$ 212,060.41**	**$ 106,030.21**	**$ 624,633.00**

Federal Fiscal Year 2022 Subaward Summary				
Category	EPA	VW Settlement	Mandatory Match (RPSU)	**Total**
Labor	$ -	$ -	$ -	**$ -**
Freight	$ 26,664.00	$ 17,776.00	$ 8,888.00	**$ 53,328.00**
Contractual	$ 177,761.50	$ 118,507.76	$ 59,253.83	**$ 355,523.00**
Material and Engines	$ 239,978.00	$ 159,985.33	$ 79,992.67	**$ 479,956.00**
Combined Totals	**$ 444,403.50**	**$ 296,269.00**	**$ 148,134.50**	**$ 888,807.00**

Lodging for 2 persons, 2 trips per village, 4 villages, 2 nights per trip, $90 per night, 16 nights	$ 1,350.00	$ 900.00	$ 450.00	**$ 2,700.00**
Per diem for 2 persons, 2 trips per village, 4 villages, 2 days per trip, $60 day, 30 days	$ 900.00	$ 600.00	$ 300.00	**$ 1,800.00**
Surface transportation, 2 trips per village, 4 villages, 8 rentals includes car/four wheeler, gas, parking, etc $500 per rental	$ 2,000.00	$ 1,333.33	$ 666.67	**$ 4,000.00**
Total	**$ 12,250.00**	**$ 8,166.67**	**$ 4,083.33**	**$ 24,500.00**

Federal Fiscal Year 2022 Travel				
Category	EPA	VW Settlement (Voluntary Cost Share)	Mandatory Cost Share	**Total**
Airfare for 1 person, 2 trips per village, 5 villages from Anchorage, 10 roundtrip tickets	$ 6,000.00	$ 3,960.00	$ 2,040.00	**$ 12,000.00**
Lodging for 1 persons, 2 trips per village, 5 villages, 2 nights per trip, $150 per night, 20 nights	$ 1,500.00	$ 990.00	$ 510.00	**$ 3,000.00**
Per diem for 1 persons, 2 trips per village, 5 villages, 2 days per trip, $60 day, 20 days	$ 600.00	$ 396.00	$ 204.00	**$ 1,200.00**
Surface transportation, 2 trips per village, 4 villages, 8 rentals includes car/four wheeler, gas, parking, etc $500 per rental	$ 2,500.00	$ 1,650.00	$ 850.00	**$ 5,000.00**
Total	**$ 10,600.00**	**$ 6,996.00**	**$ 3,604.00**	**$ 21,200.00**