

#### D-4 Summary Attachment

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

The North Carolina Department of Environmental Quality (NC DEQ) requests \$926,326.00 in funds to increase funding for North Carolina's Diesel Emission Reduction Act (DERA) Program by using Environmental Mitigation Trust funds as voluntary match per Section V Table 2 of North Carolina's Phase 2 Beneficiary Mitigation Plan for diesel vehicles replacements and repowers. Projects funded under this request will help achieve significant NOx emission reductions. (Page 9, State of North Carolina Volkswagen Mitigation Plan)

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

Projects are selected through the State's DERA program are based on the calculated potential air quality benefits. The projects chosen for the 2023 DERA Option are early replacements of commercial short haul trucks, forklifts, and an excavator which yield emission reductions from the improved engine technology.

North Carolina's work plan and budget for the FY2023 State DERA grant is attached. Under the FY2023 State DERA program, North Carolina expects to replace 10 heavy-duty diesel vehicles (4 onroad and 4 offroad), 4 forklifts, and 4 airport support equipment vehicles for a total of 18 vehicles with the DERA Option.

NC DEQ estimates the following emissions reductions because of this DERA vehicle replacement project:

Awardee	Vehicle Type	Number of Vehicles	Pollutant (lifetime tons reduced)		
			NOx	PM2.5	GHG
City of Statesville	Refuse Hauler	2	3.08	0.109	0.00
	Rubber Tire Dozer/Loader	1	2.61	0.234	0.00
Delta Airlines, Inc.	Airport Support Equipment	4	1.22	0.194	497.8
Harris Teeter LLC	Terminal Tractor	1	10.2	1.03	450.0
Ingles Market Incorporated	Terminal Tractor	2	15.6	1.57	1,197.4
Premier Warehousing Services	Terminal Tractor	2	5.30	0.831	472.5
Southeast Crescent Shipping Company	Forklift	4	5.33	0.871	426.5
Waste Management Carolinas	Refuse Hauler	2	0.486	0.003	0.00
Total		18	43.8	4.84	3,044.2

The City of Statesville project will replace one 1990 model year rubber tire dozer/loader with a 2024 model year rubber tire dozer/loader and two 1986 model year diesel refuse haulers with two 2024 diesel refuse haulers.

The Delta Airlines project will replace 1997, 1998, 1999, and 2000 model year diesel airport support equipment with four all-electric 2024 model year airport support equipment.

The Harris Teeter project will replace a 2009 model year diesel terminal tractor with an all-electric 2024 model year terminal tractor.

The Ingles Market Incorporated project will replace two 2006 model year diesel terminal tractors with two all-electric 2024 model year terminal tractors.

The Premier Warehousing Services project will replace 2010 and 2012 model year diesel terminal tractors with two all-electric 2024 model year terminal tractors.

The Southeast Crescent Shipping Company project four 2004 model year diesel forklifts with four new 2024 model year diesel forklifts.

The Waste Management project will replace a 2008 and a 2009 model year diesel refuse hauler with two 2024 model year compressed natural gas refuse haulers.

North Carolina's work plan and budget for the FY2023 State DERA grant is attached.

**Estimate of Anticipated NO<sub>x</sub> Reductions (5.2.3):**

The estimated emissions were calculated using the EPA's Diesel Emission Quantifier (DEQ). The anticipated annual NO<sub>x</sub> emissions reduction from the DERA Option projects is 43.8 lifetime tons of NO<sub>x</sub>.

**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):**

NC Department of Environmental Quality, Division of Air Quality

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

The NC DEQ, as lead agency for the state of North Carolina implementing the Environmental Mitigation Plan, has established a web page on the VW Trust and mitigation actions where documents will be made publicly available, [deq.nc.gov/VWsettlement](https://deq.nc.gov/VWsettlement).

**Describe any cost share requirement to be placed on each NO<sub>x</sub> source proposed to be mitigated (5.2.8):**

Maximum funding percentages for selected projects depend on the DERA Eligible Project type, however, maximum funding for any project proposal application is not guaranteed. NC DEQ may partially fund a proposal application by funding a portion of a proposed project. Applicants receiving funding will be notified of the actual amount awarded for their project. Applicants awarded funding have the option to accept or decline the award.

**Table 1: DERA Funding Cost Share Amounts**

<b>DERA Eligible Projects</b>	<b>DERA Funding Limits (DERA Funds + Voluntary Match)</b>	<b>Minimum Mandatory Cost-Share (Fleet Owner Contribution)</b>
Exhaust Control Retrofit	100%	0%
Engine Upgrade / Remanufacture	40%	60%
Highway Idle Reduction Bundled with Exhaust Control Retrofit	100%	0%
Stand-alone Highway Idle Reduction	25%	75%
Locomotive Idle Reduction	40%	60%
Marine Shore Power	25%	75%
Electrified Parking Space	30%	70%
Engine Replacement – Diesel or Alternative Fuel	40%	60%
Engine Replacement – Low NOx	50%	50%
Engine Replacement – Zero Emission	60%	40%
Vehicle/Equipment Replacement – Diesel or Alternative Fuel	25%	75%
Vehicle/Equipment Replacement – Low NOx	35%	65%
Vehicle/Equipment Replacement – Zero Emission	45%	55%
Vehicle Replacement – Drayage	50%	50%
Clean Alternative Fuel Conversion	40%	60%

Payments will be made on a reimbursement basis for eligible expenses incurred and paid by the grant recipient. A cost may not be considered incurred until the grant funded goods and services have been received and accepted by the grant recipient. Grant recipients will be required to provide documentation to show that equipment or services have been received and the expenses have been incurred and paid by the grant recipient before reimbursement is provided by the NC DEQ.

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

On February 27, 2018, the NC DEQ sent e-mail notices of the availability of funds to representatives of the U.S. Department of Interior and the U.S. Department of Agriculture listed in subparagraph 4.2.8 of the Trust Agreement.

**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):**

Projects will be evaluated for potential benefits to under-served communities during the evaluation process. In order to ensure more communities are able to apply for funding, NCDEQ is developing an outreach program to help counties that historically do not have the resources to effectively identify eligible vehicles for grant programs and submit quality applications. Applications from these counties may also receive scoring bonuses.

Historically Under-Resourced Counties are those identified as *economically distressed* with the highest percentages of *underserved populations*.

*Underserved populations* are those that meet certain racial and poverty criteria, as determined by the NCDEQ Environmental Justice Program. Using economic criteria, a county's *economic distress* is defined and ranked by the NC Department of Commerce (commonly referred to as "County Tiers").

Combining these two data sets, 37 Historically Under-Resourced Counties were selected as follows:

- List all counties with an underserved population greater than 15%.
- Remove from the list, any Tier 2 or Tier 3 counties (next and least distressed counties).

Applications received from counties will receive additional bonus points in the scoring criteria. Counties eligible for program are listed in Table 2. The final list of counties was updated using new data from the 2020 Census.

**Table 2: Eligible Historically Under-Resourced Counties**

County Name				
Alexander		Lenoir		Wilson
Anson		Martin		
Bertie		Nash		
Bladen		Northampton		
Burke		Pasquotank		
Caldwell		Randolph		
Caswell		Richmond		
Cleveland		Robeson		
Columbus		Rockingham		
Cumberland		Rowan		
Duplin		Rutherford		
Edgecombe		Sampson		
Graham		Scotland		
Greene		Tyrrell		
Halifax		Vance		
Hertford		Warren		
Hoke		Washington		
Hyde		Wayne		

#### **EPA 2023-2024 State Grants Priority Area List for North Carolina**

County	1997 PM 2.5	2006 PM 2.5	2012 PM 2.5	2008 8-Hour Ozone	2015 8-Hour Ozone	2019 Air Toxic Screening Assessment
Buncombe						X
Cabarrus				X		
Catawba	X					
Davidson	X					
Gaston				X		
Guilford	X					
Iredell				X		
Lincoln				X		
Mecklenburg				X		X
Rowan				X		X
Union				X		

## Attachment B

### Project Budget

Period of Performance: FY 2024 - FY2026				
Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Share of Total Budget paid by Federal DERA program	Cost-Share paid by fleet owners
1. Equipment Expenditure	\$9,263,264.00	\$926,326.00	\$1,389,490.00	\$6,947,448.00
2. Contractor Support <i>(provide list of Approved Contractors as Attachment with approved funding ceilings)</i>	\$0	\$0	\$0	\$0
3. Subrecipient Support <i>(Provide List of Approved Subrecipients or Grant Awardees as Attachment with approved funding ceilings)</i>	\$0	\$0	\$0	\$0
4. Administrative <sup>1</sup>	\$0	\$0	\$0	\$0
<b>Project Totals</b>	<b>\$ 9,263,264.00</b>	<b>\$926,326.00</b>	<b>\$1,389,490.00</b>	<b>\$6,947,448.00</b>
<b>Percentage</b>	<b>100%</b>	<b>10%</b>	<b>15%</b>	<b>75%</b>

<sup>1</sup> Subject to Appendix D-2 15% administrative cap.

### TIMELINE AND MILESTONES:

Task FY2023	Date Completed
State Clean Diesel Award received	October 1, 2023
Call for Request for Proposals	November 2023 – February 2024
Request for Proposals closed	February 2, 2024
VW D-4 submittal to VW Trustee	May 22, 2024
Trustee acknowledges receipt of funding request	Receipt from Trustee
Trustee acknowledges receipt of project certification and funding direction	Transfer Date
Application review and selection	February 2024 – March 2024
Formal contract agreement preparation and processing	March 2024 – April 2024
Subgrantees begin project work	March 2024 – April 2024
DAQ submits quarterly reports to EPA	January 30, April 30, July 30, October 31 until final report
NCDEQ submits reports to the Trustee on the status of and expenditures with Mitigation Actions completed and	July 30 and January 30 thereafter
Subgrantee submits final reports to DAQ	September 30, 2026
Monitoring and oversight of project implementation	March 2024 to October 2026
DAQ submits final report to EPA	No later than 90 days after September 30, 2026

<b>Task FY2024</b>	<b>Date Completed</b>
State Clean Diesel Award received	October 1, 2024
VW Attachment A submittal to VW Trustee	February 1, 2025
Trustee acknowledges receipt of funding request	Receipt from Trustee
Trustee acknowledges receipt of project certification and funding direction	Transfer Date
Call for Request for Proposals	November 2024 – January 2025
Request for Proposals closed	January 2025
Application review and selection	January 2025 – February 2025
Formal contract agreement preparation and processing	February 2025 – March 2025
Subgrantees begin project work	March 2025 – April 2025
DAQ submits quarterly reports to EPA	January 30, April 30, July 30, October 31 until final report
NCDEQ submits reports to the Trustee on the status of and expenditures with Mitigation Actions completed and	July 30 and January 30 thereafter
Monitoring and oversight of project implementation	March 2025 to October 2026
Subgrantee submits final reports to DAQ	September 30, 2026
DAQ submits final report to EPA	No later than 90 days after September 30, 2026

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

The NC Department of Environmental Quality (NC DEQ) will provide detailed reporting on this funding request in two ways:

1. Timely updates to the NC DEQ's Mobile Source Emission Reduction Grants website,
2. Quarterly Reports submitted to the Environmental Protection Agency on the FY 2023-FY2024 Clean Diesel State Grant, and
3. Semi-annual reporting to the Trustee as required by subparagraph 5.3 of the Environmental Mitigation Trust for State Beneficiaries.

**NC DEQ Website**

NC DEQ maintains a website describing the NC DEQ's activities associated with the Volkswagen Diesel Emissions Environmental Mitigation Trust for State Beneficiaries. The website may be found here: [deq.nc.gov/VWsettlement](http://deq.nc.gov/VWsettlement). Information associated with NC DEQ's VW programs, applications, and application guides, as well as a description of the VW Beneficiary Mitigation Plan, community outreach activities and copies of award decisions will be posted here. This website will also be used to track the status, progress, and results for projects under this funding category.

NCDEQ also maintains a website describing the NC DEQ's activities associated with the Mobile Source Emissions Reduction Grants using EPA Diesel Emission Reduction Act (DERA) grant funding. The website maybe found here: <https://deq.nc.gov/about/divisions/air-quality/motor-vehicles-air-quality/mobile-source-emissions-reduction-grants>. Information associated with NC DEQ's Mobile Source Emissions Reduction Grants, applications, and application guides, and copies of award decisions will be posted here. This website will also be used to track the status, progress, and results for projects under this funding category.

All application materials, reimbursement requests and other required documentation submitted by applicants will be available to the public through the NC DEQ Volkswagen webpage or upon request. Funding recipients' executed contracts for the NC DEQ's Diesel Emission Reduction Act Program are archived in the NC DEQ Grant Management System.

**DERA Quarterly Reports**

DEQ has and will continue to submit quarterly report to the EPA on the progress of projects under the 2023 and 2024 Clean Diesel State Grants. These reports include technical details of the individual diesel emission reduction projects (vehicles and equipment being replaced as well as the replacement vehicles and equipment), estimates of emissions reductions, project progress and timelines, and financial reporting.

**Semi-Annual Reports to the Trustee**

As required by subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries, DEQ will submit a report to the Trustee within 6 months of the first disbursement and thereafter no later than January 30 and July 30 for the preceding 6-month periods. These reports will describe the progress implementing this and any other Eligible Mitigation Action

ongoing during the reporting period. These reports will include a summary of all costs expended and a complete description of the status (including the actual or projected termination date), development, implementation, and any modification of the Eligible Mitigation Action. Reports covering the DERA program actions described in this funding request will include the quarterly reports to EPA described above. These semi-annual reports to the Trustee will be posted on the DEQ website for public access.

Attachment D State of North Carolina VW Settlement Phase 1 Awards DERA Option - Vehicle List									
Awardee	Vehicle Replacement Type	Number of Vehicles Awarded	Fuel Type	NOx Emission Reductions (lifetime tons)	Replacement Cost per Vehicle	NCDEQ Awarded Amount	Share Total Budget Funded by DERA	Share Total Budget Funded by the Trust	Cost-Share Amount
City of Statesville	Rubber Tire Dozer/Loader	1	Diesel	2.61	\$207,184.67	\$51,796.00	\$30,500.00	\$21,296.00	\$155,388.67
	Refuse Hauler	1	Diesel	2.04	\$122,075.30	\$30,518.00	\$18,000.00	\$12,518.00	\$91,557.30
Delta Airlines, Inc	Refuse Hauler	1	Diesel	1.04	\$109,589.10	\$27,397.00	\$16,000.00	\$11,397.00	\$82,192.10
	Airport Support Equipment	1	All-Electric	0.36	\$73,567.00	\$33,105.00	\$19,500.00	\$13,605.00	\$40,462.00
	Airport Support Equipment	1	All-Electric	0.34	\$73,567.00	\$33,105.00	\$19,500.00	\$13,605.00	\$40,462.00
	Airport Support Equipment	1	All-Electric	0.26	\$73,567.00	\$33,105.00	\$19,500.00	\$13,605.00	\$40,462.00
Harris Teeter LLC	Airport Support Equipment	1	All-Electric	0.25	\$73,567.00	\$33,105.00	\$19,500.00	\$13,605.00	\$40,462.00
	Terminal Tractor	1	All-Electric	10.2	\$396,199.86	\$138,480.00	\$93,000.00	\$65,480.00	\$237,719.86
Ingles Market Incorporated	Terminal Tractor	1	All-Electric	8.20	\$348,000.00	\$142,700.00	\$84,000.00	\$58,700.00	\$205,300.00
	Terminal Tractor	1	All-Electric	7.41	\$348,000.00	\$142,700.00	\$84,000.00	\$58,700.00	\$205,300.00
Premier Warehousing Services	Terminal Tractor	1	All-Electric	2.97	\$325,775.00	\$145,000.00	\$85,000.00	\$60,000.00	\$180,775.00
	Terminal Tractor	1	All-Electric	2.33	\$325,775.00	\$145,000.00	\$85,000.00	\$60,000.00	\$180,775.00
Southeast Crescent Shipping Company	Forklift	1	Diesel	1.71	\$70,027.54	\$17,506.00	\$10,300.00	\$7,206.00	\$52,521.54
	Forklift	1	Diesel	1.29	\$107,239.42	\$26,809.00	\$16,000.00	\$10,809.00	\$80,430.42
	Forklift	1	Diesel	1.16	\$107,239.42	\$26,809.00	\$16,000.00	\$10,809.00	\$80,430.42
Waste Management Carolinas	Refuse Hauler	1	CNG	0.27	\$432,718.00	\$20,000.00	\$12,000.00	\$8,000.00	\$412,718.00
	Refuse Hauler	1	CNG	0.22	\$432,718.00	\$20,000.00	\$12,000.00	\$8,000.00	\$412,718.00
<b>Total</b>		<b>18</b>		<b>43.8</b>	<b>\$3,734,048.73</b>	<b>\$1,113,944.00</b>	<b>\$655,800.00</b>	<b>\$458,144.00</b>	<b>\$2,620,104.73</b>



**ATTACHMENT E**  
**DERA Option (5.2.12)**



## **2023-2024 Diesel Emissions Reduction Act (DERA) State Program**

### **Work Plan and Budget Narrative Template**

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INSTRUCTIONS: States and territories applying for 2023-2024 DERA State Program funds should use this template to prepare their Work Plan and Budget Narrative.

Please refer to the 2023-2024 DERA State Program Guide full program details, eligibility criteria and funding restrictions, and application instructions.

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## SUMMARY PAGE

**Project Title:** 2023 North Carolina Diesel Emissions Reduction Grant

### Project Manager and Contact Information

**Organization Name:** NC Department of Environmental Quality – Division of Air Quality

**Project Manager:** Sheila Blanchard

**Mailing Address:** 1641 Mail Service Center, Raleigh NC 27699-1641

**Phone:** 919-707-8423

**Fax:** 919-715-0718

**Email:** sheila.blanchard@deq.nc.gov

### Project Budget Overview:

	2023	2024	Total
EPA Base Allocation	\$463,163	\$463,163	\$926,326
Total State Contribution (Cost share)	\$463,163	\$463,163	\$926,326
EPA Match Bonus (If applicable)	\$231,582	\$231,582	\$463,164
Total EPA Allocation (base plus match bonus if applicable)	\$694,745	\$694,745	\$1,389,490
<b>TOTAL Project Cost</b> (EPA Allocation plus State contribution)	<b>\$1,157,908</b>	<b>\$1,157,908</b>	<b>\$2,315,816</b>

Note: \*If state participated in 2022

### 3 Year Project Period for 2023-2024 State DERA Grants<sup>1</sup>

FY2023 First Phase: October 1, 2023 – September 30, 2024

FY2024 Incremental Amendments: October 1, 2024 – September 30, 2025

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<sup>1</sup> FY2024 funds will be dispersed as an incremental amendment to existing 2023 DERA State Grants or, if a state does not have a 2023 grant, a new award.

2023-2024 Project Period Close Out: September 30, 2026

### **Summary Statement**

Funds granted through the 2023 DERA State Grant Program will be used for diesel emissions reduction projects throughout the state through our State Diesel Emissions Reduction Grant Program. Projects will be selected based on cost effectiveness, project type and location. A portion of the 2023 DERA State Grant allocation will be used to fund 0.35 FTE (personnel, fringe benefits and indirect costs) to manage the State Diesel Emissions Reduction Grant Program. Past State Diesel Emissions Reduction Grant Program recipients may be found at: <http://deq.nc.gov/about/divisions/air-quality/motor-vehicles-air-quality/mobile-source-emissions-reduction-grants>.

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### **SCOPE OF WORK**

The North Carolina Division of Air Quality (DAQ) intends to use the 2023 DERA State Grant Program money to supplement the existing State Diesel Emissions Reduction Grant Program.

The North Carolina Division of Air Quality plans to use the money to fund projects that will include diesel emission reduction solutions for locomotives, marine engines and non-road engines, equipment or vehicles used in construction, cargo handling, agriculture, mining or energy production (including stationary generators and pumps) and idle reduction technologies.

### **STATE/TERRITORY GOALS AND PRIORITIES:**

North Carolina is a very diverse State with varied sources contributing to air pollution. Specifically, for mobile source diesel emissions, the main sources are locomotives, commercial marine vessels, diesel non-road equipment and on-road diesel heavy-duty vehicles. Below is a table summarizing the statewide nitrogen oxides (NO<sub>x</sub>) and fine particulate matter (PM<sub>2.5</sub>) for these categories. The emissions were obtained from the latest emissions data available, the 2020 National Emissions Inventory (NEI).

	<b>NO<sub>x</sub> (tons/year)</b>	<b>PM<sub>2.5</sub> (tons/year)</b>
Locomotives	4,561	115
Commercial Marine Vessels	2,233	54
Diesel Non-road Equipment	14,205	941
On-Road Diesel Heavy Duty Vehicles	29,328	917

For the purposes of this Program, DAQ is focusing on reducing NO<sub>x</sub> and PM<sub>2.5</sub> because the State is currently in maintenance for ozone and particulate matter. Focusing on further reducing NO<sub>x</sub> and PM<sub>2.5</sub> will help DAQ achieve their goals of continuously improving air quality, specifically in the areas that are in maintenance for ozone (NO<sub>x</sub> is a precursor for ozone) and particulate matter.

### **VEHICLES AND TECHNOLOGIES:**

The NC Diesel Emissions Reduction Grant (DERG) Program will fund emissions reduction projects for marine engines and non-road engines, equipment and vehicles, and locomotives. Based on the types of eligible projects for funding under the 2023 Diesel Emissions Reduction Grant Program, the following technologies will be considered:

**Marine Engines**

- Marine shore power connection systems
- Certified diesel engine replacement
- Engine upgrades and remanufacture systems
- Verified exhaust controls
- Verified retrofit technologies
- Clean alternative fuel conversions

**On-road Engines**

- Engine upgrades and remanufacture systems
- Verified exhaust controls
- Certified diesel engine replacement
- Vehicle and equipment replacement
- Verified retrofit technologies
- Clean alternative fuel conversions

**Nonroad Engines**

- Engine upgrades and remanufacture systems
- Verified exhaust controls
- Certified diesel engine replacement
- Vehicle and equipment replacement
- Verified retrofit technologies
- Clean alternative fuel conversions

**Idle Reduction Technologies**

- Auxiliary power units (APUs)
- Battery air conditioning systems
- Thermal storage systems
- Electrified parking spaces (truck stop electrification)
- Fuel operated heaters

**Locomotives:**

- Verified idle reduction technologies
- Certified diesel engine replacement
- Newer/cleaner equipment replacement
- Engine upgrades and remanufacture systems
- Verified exhaust controls

**ROLES AND RESPONSIBILITIES:**

**FY23-24 NC DERA State Workplan**

There are several personnel throughout the Department of Environmental Quality (DEQ) and the Division of Air Quality responsible for overseeing various aspects of the grant process. They are briefly outlined below.

**Grant Administrator (Environmental Program Consultant):**

- Responds to inquiries regarding grant process and procedures
- Calculates the emissions reductions
- Generates the grant award letters
- Coordinates with the chosen grant awardees the required documentation for the grant contractual agreement as well as uploading the documentation into the State Contracts and Processing System
- Submits quarterly reports to EPA Region 4
- Oversees the subgrantee expenditures
- Reviews, for accuracy, and submits subgrantee invoices to the Budget Office for payment
- Maintains the DAQ DERG website, including subgrantee updates and news releases
- Coordinates with the subgrantees throughout the grant process to receive quarterly updates

**Environmental Specialist II (Contract Temporary Employee):**

- Quality assures the Grant Administrator reports, emissions reductions calculations and invoice submittals
- Coordinates subgrantee site visits

**Mobile Sources Compliance Branch Supervisor (Environmental Program Supervisor):**

- Reviews selected grant applications
- Quality assures contract paperwork, quarterly reports and subgrantee invoices for Grant Administrator
- Provides guidance and feedback, as needed

**DAQ Budget Officer:**

- Reviews and approves for payment all subgrantee invoices
- Prepares all required financial forms and assists with the State procurement process
- Provides monthly financial reports to Grant Administrator for the quarterly reports

**NC DEQ Contracts and Purchasing:**

- Generates all of the grant contracts for the subgrantees and all contract amendments
- Provides payments to the subgrantees, once payment is approved by the DAQ Budget Officer

**NC DEQ Secretary:**

- Reviews and approves all grant awards for the State, all grant award letters are signed by the DEQ Secretary.

**TIMELINE AND MILESTONES:**

<b>Task FY2023</b>	<b>Date Completed</b>
State Clean Diesel Award received	October 1, 2023
Call for Request for Proposals	November 2023 – January 2024
Request for Proposals closed	January 2024
Application review and selection	January 2024 – February 2024
Formal contract agreement preparation and processing	February 2024 – March 2024
Subgrantees begin project work	March 2024 – April 2024
DAQ submits quarterly reports to EPA	January 30, April 30, July 30, October 31 until final report
Subgrantee submits final reports to DAQ	September 30, 2026
DAQ submits final report to EPA	No later than 90 days after September 30, 2026

<b>Task FY2024</b>	<b>Date Completed</b>
State Clean Diesel Award received	October 1, 2024
Call for Request for Proposals	November 2024 – January 2025
Request for Proposals closed	January 2025
Application review and selection	January 2025 – February 2025
Formal contract agreement preparation and processing	February 2025 – March 2025
Subgrantees begin project work	March 2025 – April 2025
DAQ submits quarterly reports to EPA	January 30, April 30, July 30, October 31 until final report
Subgrantee submits final reports to DAQ	September 30, 2026
DAQ submits final report to EPA	No later than 90 days after September 30, 2026

## **DERA PROGRAMMATIC PRIORITIES:**

According to 2022 EPA guidance the following counties have been designated as priority counties in North Carolina:

Buncombe*	Cabarrus	Catawba	Davidson
Gaston	Guilford	Iredell	Lincoln
Mecklenburg*	Rowan*	Union	

\*Identified in 2019 Air Toxics Screening Assessment

During evaluation of applications that are received through the RFP process, projects in these counties will be given priority as appropriate. Emission reductions from diesel engines in these counties will help to ensure continued maintenance of both the ozone and particulate matter standards in North Carolina.

In addition, priority will be given to projects that are located at, or service goods movement facilities such as ports, airports, rail yards, terminals, and distribution centers within North Carolina.

## **ENVIRONMENTAL JUSTICE AND DISADVANTAGED COMMUNITIES:**

Projects will be evaluated for potential benefits to under-served communities during the evaluation process. In order to ensure more communities are able to apply for funding, NCDEQ is developing an outreach program to help counties that historically do not have the resources to effectively identify eligible vehicles for grant programs and submit quality applications. Applications from these counties will receive scoring bonuses.

After being awarded the EPA grant, the North Carolina Department of Air Quality (NCDAQ) will proceed with the next step of the Diesel Emission Reduction Act (DERA) 2023 program by issuing a public Request for Proposals (RFP). This RFP aims to invite applications for projects that fall within the scope of the DERA 2023 program. All applications will be assessed based on their cost-effectiveness for achieving emissions reductions. In addition, bonus points will be awarded to projects that align with the DERA programmatic priorities, which include the following criteria:

1. Projects that are based or located at goods movement facilities, encompassing ports, airports, rail yards, terminals, and distribution centers.
2. Projects situated in counties identified by the department as historically underserved counties.
3. Projects situated in maintenance areas or areas of air toxics concern.

Following the release of the RFP, NCDAQ will actively engage potential participants in the program through various channels, including email lists and social media platforms. In an effort to promote understanding and provide guidance on the application process, NCDAQ will conduct at least one instructive webinar for stakeholders. The emphasis during this webinar will be on offering support to all entities, with particular attention to ensuring extra time is allotted

for applicants from historically under-resourced communities. For the convenience of interested parties, the webinar will be recorded and subsequently posted on our website as a reference.

NCDAQ remains committed to maintaining transparency, fostering inclusivity, and ensuring equitable access to the DERA 2023 program. By facilitating meaningful engagement and providing clear instructions through the instructive webinar, we aim to encourage a diverse range of impactful projects that will significantly contribute to emissions reductions and align with the DERA programmatic priorities. We eagerly anticipate receiving innovative and sustainable project proposals that will lead to positive environmental outcomes in North Carolina.

### **PROJECT SUSTAINABILITY:**

North Carolina has a robust and well-documented track record of actively promoting sustainability and spearheading efforts to reduce diesel emissions. Our state's commitment to environmental initiatives is evident through our past engagement in various programs, such as the Diesel Emission Reduction Act (DERA), Congestion Mitigation and Air Quality Improvement Program (CMAQ), and Volkswagen (VW) mitigation programs. Additionally, we have taken significant strides in response to Executive Orders 80 and 246, wherein comprehensive plans were developed to address statewide needs, including the NC Clean Energy Plan, NC Clean Transportation, NC ZEV Plan, NC Motor Fleet ZEV Plan, Clean Energy and Clean Transportation Workforce Assessment, and the NC Climate Risk Assessment and Resiliency Plan.

Furthermore, North Carolina has demonstrated its dedication to collaborative efforts on a regional level by being a signatory state for the Multi-state MHD ZEV Action Plan, which was jointly developed by the states and NESCAUM. Our commitment extends beyond mere participation, as evidenced by our active involvement with the State Energy Office to develop our Primary Action Plan as part of our ongoing initiatives. The NC Air Awareness program, partially funded by CMAQ, is another noteworthy effort that continually emphasizes the importance of reducing emissions from on-road diesel vehicles.

Regarding air quality data, the 2020 National Emissions Inventory (NEI) data for all categories can be accessed through the EPA's Online 2020 NEI Data Retrieval Tool. Additionally, point source emissions from DAQ permitted facilities are available as a Power BI report and annual emissions spreadsheets through CY2021 on DAQ's website. It is worth noting that North Carolina is currently attaining the National Ambient Air Quality Standards (NAAQS) for all six pollutants, including PM<sub>2.5</sub>, ozone, NO<sub>2</sub>, CO, SO<sub>2</sub>, and lead. The state was designated unclassifiable/attainment for the 2012 PM<sub>2.5</sub> NAAQS on December 18, 2014, and recent emission reductions are not required to maintain these standards. However, depending on the final promulgated standard values and nonattainment designations, emission reductions may be necessary in the future.

To engage communities and gather input on operations and projects impacting air quality, NC DEQ has implemented various measures. These include an Environmental Justice (EJ) mapping

system, a dedicated EJ team, and a public participation plan. Additionally, the department has a website that facilitates community engagement and information dissemination. The ongoing work, such as the clean transportation plan, medium heavy-duty ZEVs, and participation in the Climate Pollution Reduction Grants program, will also contribute to reducing PM2.5 and NOx emissions from diesel sources.

#### **PROJECT RESILIENCE TO CLIMATE IMPACTS:**

North Carolina, in collaboration with our partners, including the NC Clean Energy Technology Center and the NC Clean Cities Coalition, takes pride in our commitment to climate resilience, exemplified through the NC Climate Risk Assessment and Resilience Plan. As we undertake DERA projects, particularly those involving electric infrastructure, we prioritize offering comprehensive guidance for applicants to engage local climate experts and relevant stakeholders. By fostering such collaborations, we gain valuable insights into region-specific climate risks and best practices for effective adaptation strategies.

Additionally, we actively encourage capacity-building programs for project managers, engineers, and other stakeholders involved in DERA projects. These programs empower participants with a better understanding of climate-related risks, enabling them to identify and implement appropriate adaptation measures. Emphasizing capacity-building ensures that our project teams are well-prepared to address climate challenges, enhancing the overall success and long-term sustainability of our initiatives.

#### **WORKFORCE DEVELOPMENT:**

Awarded projects will demonstrate the availability of resources to prepare the workforce for the project, such as conducting robust workforce planning to ensure current drivers, mechanics, electricians, and other essential personnel receive training to safely operate and maintain the new equipment, vehicles and infrastructure, as well as clarifying protections to ensure existing workers are not replaced or displaced because of new technologies.

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

The activities to be funded under this work plan support EPA's FY 2022-2026 Strategic Plan. The award made under this work plan will support Goal 1, "Tackle the Climate Crisis," Objective 1.1, "Reduce Emissions that Cause Climate Change." Under this objective, EPA will "cut pollution that causes climate change and increase adaptive capacity of Tribes, states, territories, and communities" by aggressively reducing "the emissions of greenhouse gases from all sectors while increasing energy and resource efficiency and the use of renewable energy."

The current air quality in North Carolina is attainment/maintenance throughout the state and the implementation of these projects will continue to allow for North Carolinians to experience good air quality while at the same time, reducing greenhouse gases.

It is anticipated that the following outcomes will occur during the FY2023-2024 DERA award cycle:

### Short-term Outcomes

Outcome	Tracking Mechanism
Increase knowledge of diesel emission reduction strategies by subgrant applicants.	Keep interested parties abreast of new diesel emissions technologies through updates to NC DAQ website on success of projects implemented.
Increase knowledge of diesel emission reduction strategies by the NC DAQ grant staff.	NC DAQ staff's participation in workshops, conferences, site visits, and other interactions.

### Medium-term Outcomes

The projects funded by this program will assist subgrantees by providing equipment, vehicles or technology that will be more competitive in the future and by saving diesel fuel and reducing maintenance costs. These metrics will be tracked through subgrantee's quarterly and final reports.

### Long-term Outcomes

Reducing diesel and greenhouse gas emissions from the legacy fleets will aid North Carolina in its goal of improving the ambient air quality across the State. The cleaner diesel vehicles and equipment results in workers operating in a healthier environment. While this is not easy to track, studies have repeatedly shown the increased health risks for operators from working near diesel engines. Prior results from subgrantees' final reports show improved health of those working with the cleaner diesel vehicles and equipment. With current ozone standards, the state will need to look at all avenues to maintain reductions in NOx emissions. The State Diesel Emissions Reduction Grant Program is advancing DAQ's effort to maintain and improve upon the air quality across the State.

Based on the types of projects that we have funded through the request for proposal process, NCDAQ has developed fleet descriptions for the FY2023-FY2024 cycle. Using that fleet, NCDAQ used the EPA's Diesel Emissions Quantifier to estimate the emissions benefits for the FY2023-FY2024 cycle.

NCDAQ anticipates the FY2023-FY2024 cycle may fund the replacement of four refuse trucks, four various types on non-road equipment, four terminal tractors, three short-haul trucks, and two marine engines. NCDAQ recognizes that at this point, significant emissions reductions from EV refuse projects are not cost-effective, however in awarding these kinds of projects, NCDAQ hopes to stimulate interest in these projects to support NC's transition to clean zero emission heavy-duty equipment. Additionally, following executive orders from the NC Governor, NCDAQ prioritized projects to meet statewide goals in heavy-duty vehicle electrification. In the funded fleet, we have funded the replacement of four electric terminal tractors, one electric refuse hauler, and one electric excavator.

The table below shows the emissions reductions associated with the purchase of the new equipment.

### 2023 Projected Annual Emissions Reductions from Diesel Replacements

Project Description	NOx (tons/year)	PM2.5 (tons/year)	CO (tons/year)	CO2 (tons/year)	HC (tons/year)	Dollar per ton of NOx Emissions Reduced (\$/ton)/year
EV Refuse + Infrastructure	0.04	0.00	0.03	40.94	0.01	\$7,114,832
CNG Refuse (3)	0.99	0.10	0.19	0.00	0.10	\$283,435
Non-road Various (4)	1.91	0.18	1.08	191.69	0.16	\$1,816,037
Terminal Tractors (4)	1.45	0.10	0.35	229.29	0.10	\$2,215,640
Short Haul (3)	0.78	0.06	0.20	12.23	0.07	\$421,566
Marine Engine (2)	7.98	0.16	-0.04	91.97	0.13	\$23,268

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## BUDGET NARRATIVE

### 2023 Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel	\$22,453				\$22,453
2. Fringe Benefits	\$8,405				\$8,405
3. Travel	\$2000				\$2000
4. Equipment	0				0
5. Supplies	\$500				\$500
6. Contractual	\$3,137				\$3,137
7. Other	\$ 655,803	TBD	\$463,163	TBD	\$1,118,966
<b>8. Total Direct Charges (sum 1-7)</b>	<b>\$ 692,298</b>		<b>\$463,163</b>		<b>\$1,155,461</b>
9. Indirect Charges	\$2,447				\$2,447
<b>10. Total (Indirect + Direct)</b>	<b>\$694,745</b>		<b>\$463,163</b>		<b>\$1,157,908</b>
11. Program Income	0				0

### 2024 Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel	\$23,294				\$23,294
2. Fringe Benefits	\$8,720				\$8,720
3. Travel	\$2000				\$2000
4. Equipment	0				0
5. Supplies	\$500				\$500
6. Contractual	\$3,255				\$3,255
7. Other	\$654,437	TBD	\$463,163	TBD	\$1,117,600
<b>8. Total Direct Charges (sum 1-7)</b>	<b>\$692,206</b>		<b>\$463,163</b>		<b>\$1,155,369</b>
9. Indirect Charges	\$2,539				\$2,539
<b>10. Total (Indirect + Direct)</b>	<b>\$694,745</b>		<b>\$463,163</b>		<b>\$1,157,908</b>
11. Program Income	0				0

### **[Explanation of Budget Framework]**

- ***Personnel - List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period.***

Environmental Program Consultant, Sheila Blanchard (annual salary FY23 \$64,150; FY24 \$66,555) will spend 35% of her time on this grant. The total for FY23 will be \$22,452, and for FY 24 will be \$23,294. Please see the SF 424A form and Budget Justification Worksheet for additional details.

- ***Fringe Benefits - Identify the percentage used, the basis for its computation, and the types of benefits included.***

For fringe benefits, medical reflects 25% of the annual cost of medical benefits which is FY23 \$1,186; FY24 \$1,231. Retirement is 24.5% of each staff member's salary added together (FY23 \$5,501; FY24 \$5,707), and Social Security is 7.65% of each salary added together (FY23 \$1,718; FY24 \$1,782). The total for all fringe benefits is FY23 \$8,405; FY24 \$8,720.

- ***Travel - Specify the mileage, per diem, estimated number of trips in-State and out-of-State, number of travelers, and other costs for each type of travel.***

Travel is estimated at the cost of the Environmental Program Consultant, Environmental Specialist II and/or Environmental Program Supervisor to attend the annual STRIDE conferences. The location and length of the conference is still undetermined and will impact the cost. Based on previous years, an estimate of total travel costs of \$2,000 for each year is reasonable.

- ***Supplies - "Supplies" means all tangible personal property other than "equipment."***

Supplies are used for color printer cartridges for printing promotional photos and posters, art paper and general office supplies, \$500 for each year.

- ***Equipment - Identify each item to be purchased which has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year.***

No equipment purchases are anticipated for this grant.

- ***Contractual - Identify each proposed contract and specify its purpose and estimated cost.***

Matthew Hoskins, Environmental Specialist II (annual costs FY23 \$62,748; FY 24 \$65,101 spends about 5% of his time on this grant. The total is FY23 \$3,137; FY24 \$3,255.

- ***Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost.***

All subgrants and rebates in this work plan will be under the "Other" category. Funding for NC Diesel Emissions Reductions Grant – used to fund subgrantees' projects, FY23 \$1,119,036; FY24 \$1,117,672) (including the state match from VW Mitigation funds).

- ***Indirect Charges - If indirect charges are budgeted, indicate the approved rate and base.***

Indirect charges: Personnel (Indirect Rate x Personnel = Indirect Costs)

(Indirect Rate (FY23 10.9%; FY24 10.9%))

Indirect Charges FY23:  $0.109 \times \$22,452 = \$2,447$

Indirect Charges FY24:  $0.109 \times \$23,294 = \$2,539$

Total indirect for FY23-24: \$4,986

### **Administrative Costs Expense Cap**

Administrative costs for North Carolina are less than 4% of the total program costs (total administrative costs FY23 \$39,346; FY24 \$40,728)

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

NCDAQ will be matching EPA funding with VW Mitigation funds under the DERA Option and therefore will be receiving bonus funding from EPA. A D-4 will be submitted to the Trustee once the subgrantees have been identified through the RFP process. The Trustee is allowed up to 60 days to review and approve the D-4 request. Once the request has been approved the contracting process through the NCDAQ Grant Management System will take place.

Subgrantees will be required to provide a mandatory cost share based on the type of project that is awarded and the DERA funding limits outlined in the 2023-2024 DERA State Grants Program Guide.

### **Funding Partnerships**

No funding partnerships are anticipated at this time.