North Carolina DERA Program

DERA Program Application

This is a representation of the application information submitted by the applicant in the DAQ Grants Management System. Required application attachments and the original application are available to view in the DAQ Grants Management System.

Applicant Contact Information

Project Title	**Application ID**
CNG Vehicle Deployment Project	

Organization Name	**Organization Tax Identification Number (TIN)**
ABC Waste Industries, Inc.	
Organization Mailing Address	
City, State Zip	
Authorized Representative Name	
Authorized Representative E-mail Address	**Authorized Representative Phone Number**
Project Manager Name (primary contact)	
Project Manager E-mail Address	**Project Manager Phone Number**
Financial Contact Name	
Financial Contact E-mail Address	**Financial Contact Phone Number**

Project Details

Program Type	**Eligible Applicant Type**
DERA Program	Non-Government
Vehicle/Equipment Type	**Project Type**
DERA Type projects (EMA-10)	Engine Replacement - Low NOx

Project Location (where equipment will be installed and/or used)

Street Address		
50673 N ABC Ave.		
City	**County**	**Zip**
Raleigh	Wake	27616

Project Details (Questions 1-5 are required.)

1. Please provide a detailed description of the proposed project.

ABC Waste Industries, Inc. (ABCW) requests grant support from the North Carolina Department of Environmental Quality (NC DEQ) in the amount of $160,000 to purchase and deploy four (4) heavy-duty near-zero emission compressed natural gas (CNG) vehicles in Raleigh, North Carolina. These advanced natural gas engines have certified NOx levels that are 90% below the current diesel standard, and they provide an opportunity for extremely cost-effective NOx reductions through NC DEQ's Diesel Emissions Reduction Grant (DERG) Program. The vehicles will be deployed and operated in local refuse collection and recycling routes at ABCW's facility in Raleigh.

ABCW is a leading waste manaement services company in North America. Founded in 1970, ABCW made the decision that it would pursue a low-emission natural gas program to improve the environment and pursue the economic benefits that natural gas can provide. The CNG trucks requested will include a mix of configurations and body types. ABCW is requesting funding for two (2) commercial front end loader (SFEL) units and two (2) automated side loader (ASL) units, for a total of four (4) units. On average, each CNG truck will operate 25,000 miles and utilize approximately 8,500 diesel gallon equivalent (DGE) of CNG on an annual basis.

This project will allow ABCW to grow its natural gas fleet in Forsyth County, and it will bring direct emission benefits to these communities as waste hauling vehicles operate near homes, schools, hospitals, and other areas of concern. The NOx reductions will provide near-term relief directly to the sensitive populations in the immediate area. The deployment of additional CNG vehicles at ABCW's Raleigh site will directly meet the goals of the DERG Program by:

- *Reducing ozone forming NOx by 4.605 tons at an impressive average cost of $34,748 per ton;*
- *Targeting emission and co-benefits in Forsyth County, a maintenance county for ozone and carbon monoxide;*
- *Advancing the deployment of commercially available and technically viable near-zero emission engines that are 90% cleaner than EPA's standard;*
- *Resulting in the retirement of four of ABCW's pre-2011 diesel vehicles with low-emission natural gas vehicles;*
- *Contributing more than an 88% funding match for the trucks being purchased; and*
- *Providing for the displacement of more than 211,000 gallons of diesel with 100% domestically produced low-carbon natural gas.*

The ABC Waste Industries, Inc. CNG Vehicle Deployment Project will serve as an important model for additional heavy-duty trucking companies that large, experienced natural gas vehicle (NGV) fleets continue to be strongly committed to CNG. It is a critical step for ABCW to provide alternative fuel waste collection services to its local customer base and provides a clear market signal that natural gas vehicles remain an economically viable clean alternative. ABCW is extremely confident in its ability to execute the proposed project based on its experience in implementing past CNG projects. New CNG equipment financed at this site through DERG will be placed into service well ahead of the September 2023 deadline, and ABCW is fully prepared to move forward with the project and vehicle orders upon receiving authorization from the NC DEQ.

2. Explain how this request will benefit North Carolina‘s goal of reducing diesel emissions in areas of poor air quality or areas that are currently in maintenance for either the ozone or PM2.5 national ambient air quality standards. Priority will be given to projects that are located at or service goods movement facilities (e.g. ports, airports, rail yards, terminals, or distribution centers) please provide how the project addresses these types of areas.

   ABCW’s project will provide maximize air quality benefits in $/ton NOx for an ozone maintenance area in North Carolina. The project will reduce NOx emissions by 4.605 tons in Wake County, and based on a request of $160,000 in grant funds, the cost effectiveness of the project is an impressive $34,748/ton NOx.
   Minority and low-income populations are disproportionately affected by air quality and health challenges related to diesel emissions and other air pollutants.
   Further, the project site is near several facilities identified by the DAQ as sites of interest due to their levels of diesel pollution.

3. What is the likelihood that the project will incentivize future indirect NOx and other emission reductions? That is, will this be the beginning or continuation of a transition of the fleet to an alternative fuel or electricity? If so, please provide details.

   ABCW runs one of the largest fleet of natural gas refuse trucks in North America, supported by more than 150 natural gas fueling stations across 26 states. ABCW began using natural gas refuse haulers in 1995, and today operates nearly 12,000 alternatively fueled vehicles, including the largest fleet of natural gas solid waste collection trucks in North America. ABCW’s long-term vision is to use natural gas across all its operations, and preferably renewable natural gas from its own landfills. This project is ABCW’s latest effort in North Carolina to transition its fleet from diesel to CNG.
   ABCW embraces clean fuel technologies as part of its commitment to achieving a zero-emission future. Nationwide, 80% of ABCW’s new trucks are fueled with CNG, and ABCW looks forward to partnering with the NC DEQ to expand this national success locally through the proposed North Carolina CNG Deployment Project, which will sustain the company’s momentum in the fleet’s transition to CNG. The efficient and cost-effective performance of the project in this round of funding will be the foundation for future projects to expedite the integration of natural gas vehicles. ABCW’s four CNG vehicle purchase is a component of the company’s plan to gradually transition its entire fleet to natural gas, locally and nationwide, and it will serve as an excellent example of successful CNG vehicle deployment for fleets throughout the state of North Carolina.

4. Are there any societal co-benefits of the project? Are there any “sensitive” populations including, but not limited to asthmatics, children, or the elderly that are likely to be directly benefited by the project?

   Waste collection operations occur throughout the entire Raleigh area. ABCW s facility is located in a region with a large portion of the population living below the poverty line. Poverty and increased health risks from pollution are closely linked, as this sensitive population has increased exposure risk due to poor housing insulation and work-related exposures. The increased exposure is further exacerbated by decreased access to health care professionals.

5. Project Feasibility: Provide a description of how you as the applicant have the necessary technical, managerial, procurement, and financial capability and experience to execute on your proposed project.

   ABCW has the technical, managerial, procurement, and financial capability to execute the proposed project. Personnel involved in the project include Jane Doe and Jack Smith. Jack is the Director of Operations for the South Atlantic Area and has over 15 years of experience. Jane is the Construction and Project Manager for the South Atlantic Area and has over 12 years of experience. ABCW is prepared to provide $1,176,271 from Corporate capital to cover the remaining cost of the grant-funded equipment and to initiate the project following authorization from the NC DEQ. If granted in January 2023, ABCW would place orders within two months (by approximately March 2023) and take delivery of the new units before the grant deadline.

6. Use this space for any additional information that you believe will be helpful in evaluating the project. (Optional)

   ABCW's project will:

   - *Increase demand for AFVs: The project will not only evaluate cost-effective and clean-burning NGVs in ABCW's fleet, but also serve as an example for how to successfully implement AFVs programs in large commercial and residential waste collection programs.*
   - *Expand the use of domestic energy sources: Natural gas allows the operational requirements and high-fuel demands of ABCW's fleet to be met using a plentiful, domestically sourced, low-carbon fuel that also provides long-term cost savings.*
   - *Promote fleet sustainability: ABCW will provide the data to the extent requested. NC DEQ can leverage ABCW's ability to implement these kinds of CNG transportation projects to create a case study by which sustainable alternative fuel programs can be demonstrated to others.*

Certification

The undersigned is an official authorized to represent the applicant. The person that submitted this document in the DAQ Grants Management System has the authority to legally bind the applicant or be the designated fiscal agent. The application was electronically signed in the DAQ Grants Management System when submitted by the applicant.

I certify that all proposed activities will be carried out; that all money received will be utilized solely for the purposes for which it is intended; that records documenting the planning process and implementation will be maintained and submitted when requested, and DEQ is hereby granted access to inspect project sites and/or records. It is understood that if this project is selected a contract with DEQ will be executed. I further attest that at least 70% of the equipment's operation will occur in North Carolina for the next 5 years.

Print Name of Authorized Representative	**Title**
Date	

Required and Optional Attachments

Required application attachments and the original application are available to view in the DAQ Grants Management System.

1. A completed the DAQ application vehicle worksheet.
2. Photos of the original vehicle
3. An itemized budget for the project.
4. Any optional attachments such as any supporting documentation or letters of support, etc.