

## **Utility Related Comments**



December 20, 2017

NC VW Settlement RFI  
Division of Air Quality – Mobile Sources  
217 West Jones Street  
1641 Mail Service Center  
Raleigh, NC 27699-1641  
Delivered electronically to: [daq.NC\\_VWGrants@ncdenr.gov](mailto:daq.NC_VWGrants@ncdenr.gov)

**Subject: Response to NC VW RFI**

Dear Commissioner/Director:

Thank you for the opportunity to provide input through the Request for Information released on November 21, 2017. As the RFI states, North Carolina has an opportunity to utilize the funds from the Volkswagen Mitigation Trust to reduce air pollution in the state.

With the Mitigation Trust funds, the state has the opportunity to reduce pollution by replacing eligible engines and vehicles with newer model diesel engines that make full use of ultra-low sulfur diesel. When ULSD was introduced, tests completed by EPA, the California Air Resources Board, engine manufacturers and others showed that using the advanced emissions control devices enabled by the use of ULSD fuel would reduce emissions of hydrocarbons and oxides of nitrogen (precursors of ozone), as well as particulate matter to near-zero levels. As an additional environmental benefit, ULSD fuel enabled diesel-powered passenger cars and light trucks to meet the same stringent emissions standards as gasoline vehicles and diesel-powered vehicles tend to be more fuel efficient than gasoline-powered vehicles.

When the EPA developed rules to reduce the sulfur in diesel fuel to 15 ppm, it predicted that when the current heavy-duty vehicle fleet was completely replaced in 2030, the use of ULSD would provide annual emission reductions equivalent to removing the pollution from more than 90 percent of the MY2006 trucks and buses. The Mitigation Trust affords the state the opportunity to meet these goals in advance of 2030 by replacing those vehicles with newer diesel engines.

ULSD was introduced in 2006, and by December 2010, it was required in all highway uses. It was required in all non-road, locomotive and marine uses by December 2014. ULSD fuel enables the use of cleaner technology diesel engines and vehicles with advanced emissions control devices, resulting in significantly improved air quality. The newest diesel engines might even take advantage of the benefits provided by the new API FA-4 diesel engine oil. FA-4 oils are blended to a different high-temperature high-shear (HTHS) viscosity range to assist in reducing greenhouse gas emissions. In addition to the



environmental benefits identified above, it remains a high energy density fuel with a robust installed supply infrastructure that is familiar to both users and mechanics. The Mitigation Trust has created an

opportunity for your state to reduce emissions and improve the environment and we encourage you to consider repowering your existing vehicles with newer clean diesel engines.<sup>1</sup>

If North Carolina believes it is necessary to utilize an “alternative fuel,” natural gas is a good choice. The U.S. is now the world’s largest producer of petroleum and natural gas, so natural gas vehicles help to achieve the public policy goal of maintaining energy and national security. Natural gas is also a clean burning fuel that can have environmental benefits at the local level reducing ground-level localized pollution. Natural gas primarily consists of methane (around 90 percent), with small amounts of ethane, propane, and other gases. Methane is lighter than air and burns almost completely, creating carbon dioxide and water as byproducts.

As you develop your application to the Mitigation Trust, we encourage you to consider the benefits of repowering your existing fleet with newer efficient diesel engines. If you have any questions, please don’t hesitate to contact me at [McGowanD@api.org](mailto:McGowanD@api.org) or at 919-256-3646.

Sincerely,

(Electronically signed)

David McGowan, III  
Executive Director, North Carolina Petroleum Council

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<sup>1</sup> U.S. EPA, “Detailed Comparison of VW Eligible Mitigation Action 1-9 and Eligible Mitigation Action #10 (DERA Option) <https://www.epa.gov/sites/production/files/2017-01/documents/vw-dera-option-elgble-mitig-compar-2017-01.pdf>



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**Subject: Response to NC VW RFI**

On behalf of Waste Management, thank you for this opportunity to submit comments on North Carolina's Mitigation Plan to reduce NOx emissions using funds provided for this purpose by the VW Environmental Mitigation Trust. The VW funds offer an extraordinary opportunity for the State to cost-effectively transition to cleaner vehicle fuels, lowering vehicle emissions in the state. We believe natural gas vehicles (NGVs) should play a key role in this transition, given their low emissions and wide availability in all the eligible classes, and their efficiency in achieving NOx reductions – the core purpose of the funds. Along with other private sector stakeholders, we share a desire to see the State develop an effective and equitable spending plan for the funds received under the Volkswagen Settlement Fund.

Natural gas engines are the cleanest commercial available heavy-duty truck engines in the world, offering the ability to reduce emissions by 90% below even the most stringent EPA standards. Compared to new diesel trucks, natural gas engines today meet a low NOx standard that is ten times cleaner than the standard required for new diesel engines. And Cummins' new "Near-Zero" engine has tailpipe emissions comparable to or lower than the NOx emitted to produce electricity used to charge a comparable heavy-duty All-Electric Truck. Since the funds must be used to address excess NOx emissions through vehicle purchases or repowers, the State of North Carolina has a significant opportunity to make a real impact in reducing NOx as well as the associated greenhouse gas (GHG) emission reductions in the State.

We are also asking the State to earmark funds in the mitigation plan for private industry vehicles from the VW Settlement Fund. Private sector funding will leverage 3 times more investment and NOx reduction than government funded vehicles in this program. A truck purchased by the private sector requires 75% private sector funding; however, government fleets can receive up to 100% of the cost of trucks.

Waste Management's following response to the State's Request for Information addresses those areas that we have relevant interests in the State. We thank you for the opportunity to comment on this important emissions reduction opportunity in North Carolina. Should you have any questions, I can be reached at 919-405-1485.

Sincerely,

A handwritten signature in black ink that reads "Randall L. Essick".

Randall L. Essick  
Director, Waste Management

**Waste Management  
Response to NC VW RFI  
December 21, 2017**

**Section I. Project Applicant Information**

<b>Company:</b>	Waste Management
<b>Contact:</b>	Randall Essick
<b>Government/Non-Government:</b>	Non-Government
<b>Mailing Address:</b>	10411 Globe Road, Morrisville NC 27560
<b>Phone Number:</b>	919-405-1485
<b>Email Address:</b>	REssick@wm.com

**Section 2 – VW Programs and Solicitation Design Questions**

**Respondents should consider providing information in response to the following questions:**

**1. How should DEQ prioritize projects?**

DEQ should prioritize projects to ensure that the funds make the largest environmental impact for the lowest cost possible, which also considering that an equitable distribution of funding is reasonable. There are two elements to this:

- **Using the Funds for Heavy-Duty Fleets.** Under the terms of the settlement there are eleven categories eligible for funding. Four of these represent medium and heavy-duty on-road vehicles which are also the greatest contributors to the overall NOx emissions inventory for the categories listed. Focusing the settlement funds on the heavy-duty applications will provide the greatest NOx reducing benefits to the State.

DEQ should consider the role of natural gas fleets in NOx reduction, as well as the specific activities of the trucks on the road that could be funded. Heavy duty refuse and recycling trucks are on the road in communities across the state for over eight hours per day, five and six days a week, fifty-two weeks per year. They offer the greatest environmental bang for the buck opportunity in North Carolina, associated with the VW Settlement Funds.

- **DEQ should dedicate funds equally between the public and private sectors.** WM recognizes that North Carolina serves to benefit from cleaner mass transit and school buses and cleaner refuse, regional and short-haul trucking. This type of structured investment not only allows the state to show it takes air pollution seriously by improving the emissions of government owned vehicles but also injects a substantial amount of funding into the private sector to assist businesses who are leading the way to a cleaner transportation future.

At the same time, the investment in privately owned heavy-duty trucks is the greatest environmental bang for the buck in the State. For example, WM has 213 diesel trucks in North Carolina. If these trucks were replaced through the VW Funds, WM would contribute 75% of the cost of each new \$300,000 truck allowing the state's funds to go 3 times farther through private investments than through public

fleet funding that would require 100% of the funds. The benefit associated with transitioning these trucks to the latest Cummins-Westport Near-Zero engine that reduces NOx by 90% compared to the newest diesel engine options.

Each existing privately owned diesel truck that is replaced with a Cummins-Westport Near-Zero engine, through VW funding, will remove over 1 ton of NOx from local communities in the state at 25% of the cost to the Fund of public fleets. For Waste Management's trucks alone, that translates to over 213 tons of NOx eliminated in communities across the State.

This is the greatest opportunity available in the state, given current technology, to reduce NOx emissions.

**2. What is the anticipated demand for each eligible project type?**

WM alone has 213 diesel trucks that should be eligible for funding according to the VW Settlement funds. There are hundreds of other trucks owned by private refuse/recycling operators in the state that would likely apply for this funding.

**3. The percentage of trust funds, if any, that DEQ should devote to Light Duty Zero Emission Vehicle Supply Equipment?**

The funding should be proportional to the NOx reduction opportunity.

**4. What is the anticipated demand for specific types of diesel emission reduction projects not eligible under the VW settlement but otherwise eligible under DERA or other state programs?**

Our vehicles are eligible for the VW Settlement and DERA Funding programs.

**5. Should a certain percentage of available VW funds be allocated to each eligible project type and if so how should the percentage be determined?**

The funding should be proportional to the NOx reduction opportunity.

**6. Should a certain percentage of available Mitigation Trust funds be reserved for government projects?**

Yes, however, recognizing that the funding will go farther with private fleets, government projects should be required to provide 50% of the funding in a matching program requirement.

**7. Should funds be geographically distributed, and if so how?**

Funds should be distributed in the priority geographic areas highlighted in the Settlement Fund Agreement.

**8. Should governmental entities be required to provide matching funds and if so, how much?**

One hundred percent funding level for government vehicles provides a great opportunity for public fleets to reduce their emissions. However, the allure of “free” vehicles for the government should not be permitted to dissipate the greater potential deployment of cleaner vehicles. The full funding of government vehicles results in fewer vehicles being deployed per dollar and therefore a reasonable cap must be put in place. A proper balance can be achieved by requiring matching funds in the amount of 50 percent of the vehicle cost which will not only ensure a greater deployment of vehicles but also encourage choices in vehicles which will be financially sustainable over the long-term rather than a one-time proposition.

**9. Should DEQ establish a minimum project size and if so, what size?**

Yes. Project sizes starting at \$500,000 allow more administration of the state’s funds, ensuring that maximum funds are allocated to NOx reducing projects.

**10. In addition to evaluating a proposed project’s total cost effectiveness (\$/ton), what other key factors should DEQ consider when evaluating projects?**

Priority should be given to those applications which:

- Result in the greatest NOx reduction per dollar spent
- Result in the use of new alternative fueled vehicles, engines, and parts that are manufactured or assembled in this State
- Will encourage job growth in the state

**11. What other feedback do you have on project evaluation and/or scoring criteria?**

NA

**12. What publicly available tool(s) should be used to quantify anticipated emission reductions/offsets for eligible mitigation projects? What, if any, additional resources should be provided and made available?**

Argonne AFLEET tool was originally commissioned by DOE Clean Cities program to develop a USEPA co-sponsored tool to assist metro areas and Clean Cities coalitions in estimating criteria air pollutant reductions achieved by alt fuel vehicles (this model became known as AirCRED). The calculator measures petroleum displacement and GHG emissions of medium- and heavy-duty alternative fuel vehicles. Argonne then developed a combined, simplified calculator using both of the predecessor models to measure both the environmental and economic costs and benefits of alt fuel vehicles and advanced technology vehicle – AFLEET model. The latest version of AFLEET added low-NOx engine option for CNG and LNG heavy-duty vehicles and added diesel in-use emissions multiplier sensitivity case

**13. What methods could DEQ employ to reduce barriers and increase participation in future solicitations for projects?**

NA

**14. What information/resources would be most valuable for stakeholders interested in submitting projects and what is the best way to communicate those?**

NA

**Section 3 – Submitting Your Project Information**

Identify Applicable Eligible Mitigation Project Category:

**1. Class 8 Local Freight Trucks and Port Drayage Trucks with 1992-2009 model year engines and a Gross Vehicle Weight Rating (GVWR) greater than 33,000 pounds (lbs.)**

WM operates 213 Class 8 Diesel Trucks that would be eligible for funding according to the VW Settlement Funds. If all of these trucks were replaced with natural gas vehicles using the new Cummins-Westport ISL Near Zero engine, WM would provide \$66 M in funding and the VW Settlement Funds would contribute less than \$15 M. In turn, the state would realize a reduction of 213 million tons of NOx.

**2. Class 4-8 School, Shuttle, or Transit Buses with model year 2009 or older engines and a GVWR greater than 14,001 lbs. and used for transporting people.**

NA

**3. Class 4-7 Local Freight Trucks with 1992-2009 model year engines and a GVWR between 14,001 and 33,000 lbs.**

NA

**4. Freight Switchers with pre-tier 4 engines and operating more than 1,000 hours per year.**

NA

**5. Ferries/Tugs with unregulated Tier 1 - Tier 2 marine engines.**

NA

**6. Ocean-Going Vessels Shorepower.**

NA

**7. Airport Ground-Support Equipment with Tier 0 - Tier 2 diesel engines, and uncertified or certified to 3 grams per brake horsepower-hour spark ignition engines.**

NA

**8. Forklifts with greater than 8,000 lbs. lift capacity and/or Port Cargo Handling Equipment.**

NA

**9. Light Duty (LD) zero emission vehicle (ZEV) Supply Equipment (Level 1, Level 2, or fast charging equipment) and hydrogen fuel dispensing equipment.**

NA

## **Project Summary**

Natural gas trucks are a proven technology with quantifiable environmental benefits. WM has the nation's largest industrial fleet of natural gas trucks – many of these trucks are the result of state grants and incentives.

We have a significant opportunity in North Carolina to make a real impact in reducing NOx, as well as the associated “free” GHG emissions reductions, in the state. We have focused much of investment in areas with incentives, which means we have a long way to go in North Carolina. The State has a unique opportunity to use the VW Settlement funds to replace existing refuse and recycling trucks with low NOx CNG that also provide significant GHG emission benefits, as well:

- CNG vehicles are 26% more cost effective on a \$/ton of NOx reduced basis than a new diesel trucks
- A new, near-zero NOx CNG truck will emit about 0.04 tons of NOx over its lifetime versus an existing diesel, which emits 1.11 tons of NOx
- New diesel trucks emit 0.4 tons of NOx over their lifetime – 10 times that of a new CNG truck
- WM has 74 NGV's in North Carolina – but we have 213 diesel trucks that still to be replaced. The diesel trucks are an older fleet (and thus higher emissions) because we are investing in natural gas trucks in areas with incentives. This means that there is a significant opportunity for reduced emissions in North Carolina.
- Replacing WM's 213 diesel trucks with NGVs would eliminate the use of 25.56 million gallons of diesel fuel over a 15-year period.

**Using VW Settlement Funds in North Carolina to grow the fleet of NGVs in the state also moves the state closer to a Zero Emissions Fleet (ZEV) with the growth of Renewable Natural Gas (RNG) in refuse trucks.**

Once trucks with natural gas engines are in place, the use of Renewable Natural Gas (RNG) becomes possible. RNG is growing as a renewable fuel in the refuse industry. With three facilities producing RNG, and a new one scheduled to come on line in 2017, we are fueling 40% of our fleet nationwide with RNG – a renewable gas with 80% fewer GHG emissions than diesel fuel. Using RNG combined with near-zero CNG trucks, we are well on our way to a zero emissions fleet in some states.

## **Comparison to other fleets**

According to the Natural Gas Vehicle Association of America (NGVA), NGVs deliver the most cost effective NOx emissions reductions, dollar for dollar, of all vehicles eligible for VW Settlement Funds:

While many trucks are, and should be transitioning to natural gas engines for many reasons, including refuse trucks in the mix of trucks eligible for VW Settlement funds is prudent in North Carolina to encourage additional investment in the state in NGVs with the greatest opportunity to reduce NOx, on a dollars-per-ton basis.

The VW Environmental Settlement Fund is specifically designed to mitigate the impacts of NOx emissions associated with their vehicles. Funding natural gas vehicles will lead to the largest dollar-for-dollar total reduction in NOx emissions associated with this funding.



## OUR SUSTAINABLE FLEET STORY

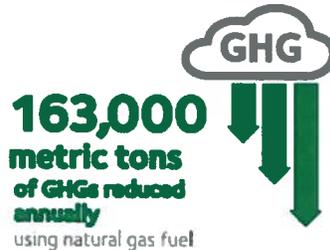
# Waste Management is committed to reducing our fleet's CO<sub>2</sub>, NO<sub>x</sub> and GHG emissions.

WM is the largest private vocational heavy-duty fleet user of natural gas in North America. The company has been a pioneer in natural gas since the early 1990s and has invested more than \$1 billion in transportation innovation. Here's a snapshot of our accomplishments:



**>45 million gallons** of natural gas total are supplied at our 95 natural gas stations each year

**>16 million gallons** of renewable natural gas are produced by harnessing the methane in our landfills



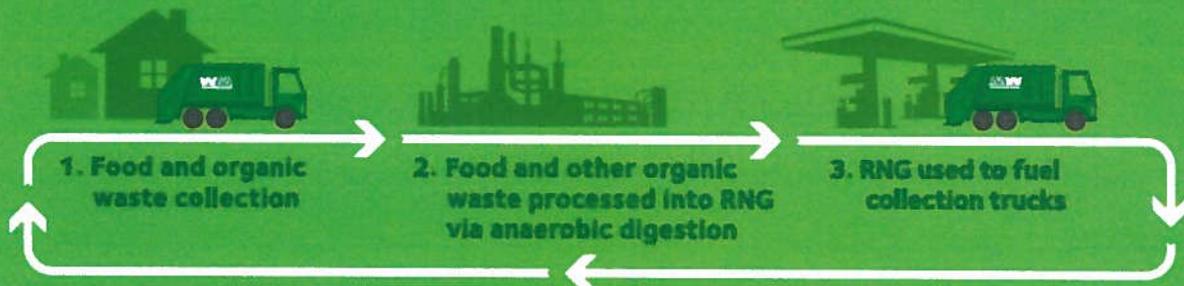
**95 WM natural gas stations:**

- 25 public stations
- 70 private stations



## Innovation That Closes the Loop

The refuse industry, and Waste Management in particular, has the unique systems in place to produce renewable natural gas (RNG) fuel from organic waste (e.g., landfills, wastewater treatment facilities, and food waste). WM uses this RNG to fuel its collection fleet, lowering fuel costs and reducing GHG emissions more than 80% compared to those powered by diesel.



**BUILDING ON OUR SUCCESS**

**Maximize the VW Environmental Mitigation Trust's benefits by funding natural gas collection trucks.**

**\$140** per lb of NOx



**Natural Gas**

Technology Cost \$300,000  
**NOx Reduced 2,141 lbs**

**\$190** per lb of NOx



**Diesel**

Technology Cost \$270,000  
 NOx Reduced 1,417 lbs

**\$313** per lb of NOx



**Electric**

Technology Cost \$670,000  
 NOx Reduced 2,141 lbs

When comparing the cost per ton of NOx reduction, natural gas collection trucks are

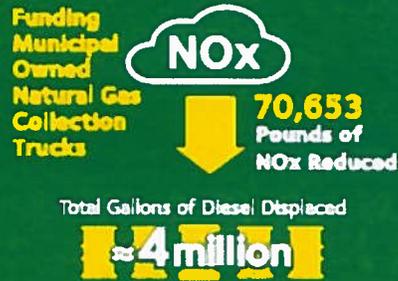
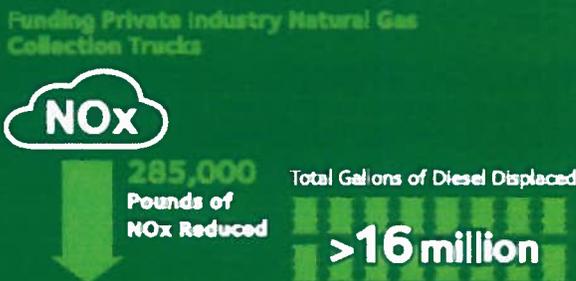
**26% more**  
 cost effective than diesel

**65% more**  
 cost effective than electric

**Funding Private Sector vs. Municipal Collection Trucks**

**What Would \$10 Million Fund?**

The VW program settlement funds enables states to fund 25% of the new vehicle cost for private sector business and 100% for municipalities. If a state has \$10 million dollars in funding and the average cost of a collection truck is \$300,000, states could fund 33 municipal collection trucks or 133 private sector collection trucks. WM urges the state to prioritize private industry investments in order to achieve the greatest air quality benefits for communities, and provide fleet operators the ability to significantly reduce fuel costs.



November 30, 2017

North Carolina Department of Environmental Quality  
217 West Jones Street  
Raleigh, NC 27603

**RE: Development of North Carolina's Volkswagen Settlement Spending Plan**

Dear Director Abraczinskas,

We, the undersigned, are a group of public and private sector stakeholders united by a common desire to see North Carolina develop the most environmentally effective and equitable spending that achieves the greatest NOx emissions reduction per dollar for the funds spent pursuant to the Volkswagen Settlement (settlement). Under the eligible designations, natural gas vehicles (NGVs) should play a key role in the enacted plan given their ability to achieve a significant reduction in NOx emissions, which is evidenced by their eligibility demonstrated in each vehicle class. Also, an appropriate consideration when deciding how to invest settlement funds is that \$2 billion has been designated separately for the purposes of Zero Emission Vehicles.

**Recommendations**

- Aim for the Greatest Environmental Impact for Public Health by Separating the Funds – Private & Public Sectors Respectively, 70-30
- Allow All Low NOx, Near-Zero and Zero Emission Vehicles to be Eligible for Grants in the Amount of 25 Percent of the Total Vehicle Cost
- Public Sector Vehicle Grants Should Require a 50 Percent Match
- Grant Prioritization

**Aim for the Greatest Environmental Impact for Public Health by Separating the Funds – Public & Private Sectors Respectively**

Under the terms of the settlement, there are eleven categories eligible for funding. Four of these represent medium and heavy-duty on-road vehicles, which are also the greatest contributors of NOx emissions of the categories listed. Focusing the settlement funds on these applications will target the greatest emitters, and therefore provide the greatest environmental benefit through their reduced emissions.

Furthermore, on-road vehicles travel in all North Carolina communities, thereby insuring the air quality benefits are shared by all citizens, especially those in urban areas where heavy truck traffic yields health risks for our most vulnerable populations. Conversely, other funding categories, such as those for rail and marine applications, are location specific and proportionally higher cost investments, compared with trucks or buses.

By sharing the funds between the public and private sectors, North Carolina serves to benefit from cleaner mass transit, school buses, refuse, regional and short-haul trucking. A structured plan should account for the greater miles travelled by private fleets and allow the state to show it takes air pollution seriously, by targeting investment where NOx emissions are greatest – while also improving the emissions of government owned vehicles.

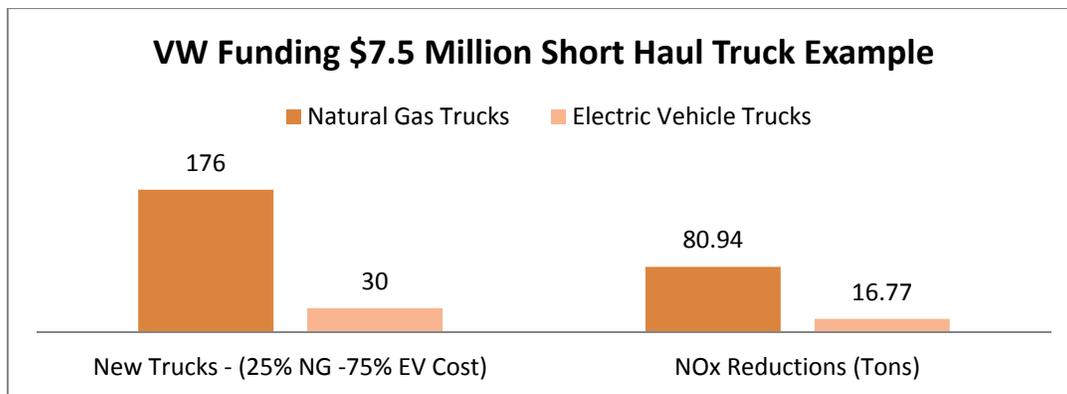
We propose a 70-30 split, whereby proportionally, industry is incentivized to upgrade fleets and achieve the highest emissions reduction possible.

### **Allow All Low NOx, Near-Zero and Zero Emission Vehicles to be Eligible for Grants in the Amount of 25 Percent of the Total Vehicle Cost**

Advancements in alternative fuel vehicle technology have made drastic reductions in emissions possible. In North Carolina, Cummins-Westport has begun production of near-zero natural gas engines that produce 90 percent fewer NOx emissions than a new diesel engine. A California Energy Commission<sup>1</sup> report indicates that the near-zero natural gas engine can reduce the life-cycle emissions of medium and heavy duty vehicles to levels near or equal to those of zero emission electric vehicles. The South Coast Air Quality Management District of California views the near-zero NOx standard to be zero emission equivalent<sup>2</sup> based on the district's mix of electric generation supplying their grid. Moreover, their electric generation mix is one of the cleanest in the country, and therefore North Carolina would experience a greater benefit.

While comparable with regard to NOx emissions, natural gas and electric vehicles (EVs) are miles apart on cost. An all-electric medium or heavy duty vehicle can cost twice the amount or more of a similar vehicle powered by a near-zero natural gas engine. Yet, under the terms of the settlement, EVs may receive a grant up to 75 percent of the total vehicle cost, while NGVs and all other alternative fueled vehicles may only receive a grant for up to 25 percent of the total vehicle cost. Therefore, funding the more expensive EV, and at a greater percentage, will result in fewer vehicles being deployed and fewer reductions in NOx emissions. Our recommendation establishes a rational and equitable arrangement, as EVs under this approach will receive close to twice as much funding per vehicle as an NGV

Below is a chart illustrating these points by showing the benefits of a \$7.5 million investment in NGVs versus that same investment in EVs.



Source: NGVAmerica compiled from Gladstien, Neandross and Associates Game Changer Report Data

Due to the NOx emissions reductions NGV's provide a benefit to the environment, especially in urban and industrialized area. The use of natural gas as a transportation fuel is a proven

<sup>1</sup> "2017-2018 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program" California Energy Commission, page 4, [www.energy.ca.gov/2016publications/CEC-600-2016-007/CEC-600-2016-007-SD.pdf](http://www.energy.ca.gov/2016publications/CEC-600-2016-007/CEC-600-2016-007-SD.pdf), October 2016

<sup>2</sup> "Comments and Responses to Comments on the Revised Draft AQMP Plan", Southern California Air Quality Management District, page 692: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/response-to-comments/2016-aqmp-rtc-4-of-4.pdf?sfvrsn=4>, November 2016

technology that enables companies and organizations to reduce emissions, provide a sustainability message, and lower operating costs.

### **Public Sector Vehicle Grants Should Require a 50 Percent Match**

The Settlement allows for a 100 percent funding level for government vehicles, which provides a great opportunity for public fleets to reduce their emissions. However, the allure of “free vehicles for the government” should not be permitted to dissipate the otherwise greater potential for a more positive environmental impact, through grants to industry too in the deployment of cleaner vehicles.

The full funding of government vehicles results in fewer vehicles being deployed per dollar, and therefore a reasonable cap must be put in place. A proper balance can be achieved by requiring matching funds in the amount of 50 percent of the vehicle cost, which will not only ensure a larger deployment of vehicles but also encourage judicious decision making regarding new vehicles. This approach sets a financially sustainable trajectory over the long-term, rather than a one-time proposition that does not account for future replacement costs.

### **Grant Prioritization**

These grants should be used to leverage as many benefits for the Tar Heel state as possible. Therefore, priority should be given to those applications which:

- (a) Result in the use of alternative fueled vehicles, engines, and parts that are manufactured or assembled in this State;
- (b) Will attract new employers to the State or will encourage job growth;
- (c) Benefits small businesses

### **Conclusion**

North Carolina has a great opportunity to improve air quality and public health, while further transforming the transportation fleets that have a tremendous impact.

Thank you for considering our recommendations, and we look forward to working with you as this plan continues to be developed and finalized.

Representing nearly 4,000 North Carolina vehicles,

Susan Alt  
Senior Vice President, Public Affairs  
Volvo Group North America

Brett Barry  
Senior Policy Advisor  
Clean Energy

Anne W. Butler  
Director of Sales  
U.S Gain, a Division of U.S Venture, Inc.

Crystal Collins  
President  
North Carolina Trucking Association

Randall Essick  
Director, Business Development & Gov't Affairs  
Waste Management, Inc.

Chip Gifford  
Manager of CNG Business Development  
Piedmont Natural Gas

Joseph L. Gordon  
President  
e-Energy Alternatives, LLC

Drew Isenhour  
Area President  
Republic Services Mid-Atlantic Area

Ian MacDonald  
Director of North American Sales  
Agility Fuel Sales

Bill McAulay  
VP, Economic Development & Government Affairs  
PSNC Energy

Sherrie Merrow  
Chair, State Government Advocacy Committee  
NGV America

Frank Morris  
Vice President/UPS Corporate Public Affairs  
UPS

Ven Poole  
Chairman/CEO  
Waste Industries

F. Durward Tyson, Jr.  
Gas Systems Engineer  
Greenville Utilities



December 1, 2017

Mr. Michael Abraczinskas, Director  
North Carolina Department of Environmental Quality  
217 West Jones Street  
Raleigh, NC 27603

Subject: North Carolina's Beneficiary Mitigation Plan  
Volkswagen Diesel Emissions Settlement Plan

Dear Mr. Abraczinskas,

With the proceeds from the VW Settlement, North Carolina has a great opportunity to improve air quality and public health, while transforming the transportation fleets that have the greatest impact.

Greenville Utilities Commission has a long history of environmental stewardship and a strong desire to see North Carolina develop the most environmentally effective and equitable spending Beneficiary Mitigation Plan (BMP) that achieves the greatest nitrogen oxide (NOx) emissions reduction per dollar for the funds spent. Under the eligible designations, natural gas vehicles (NGVs) can play a key role given their ability to achieve a significant reduction in NOx emissions.

Therefore, we respectfully provide the following recommendations:

- The BMP should aim for the greatest environmental impact for public health by providing funds for both private and public sectors.
- Allow all Low NOx, Near-Zero and Zero Emission Vehicles to be eligible for grants (capped at 25% of the total vehicle cost).
- To stretch the settlement dollars, all grants should require at least a 50% match.
- The grants should give priority to applications which:
  - Result in the use of alternative fueled vehicles, engines and parts that are manufactured or assembled in North Carolina.
  - Will attract new employers to the State or will encourage job growth.
  - Benefit small businesses.

Thank you for considering our recommendations.

With best regards,

A handwritten signature in blue ink, appearing to read "F. Durward Tyson, Jr.", written over a light blue background.

F. Durward Tyson, Jr., P.E.  
Gas Systems Engineer

PO Box 1847  
Greenville, NC 27835  
www.guc.com

Your Local  
Advantage

Cc: Mr. Anthony C. Cannon, CEO/General Manager  
Mr. Anthony L. Miller, Director of Gas System