Environmental Groups & Associations Related Comments

December 30, 2017

Via E-mail and U.S. Mail

Mike Abraczinskas
Director
NC Division of Air Quality
Department of Environmental Quality
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RE: Response to NC VW RFI

Dear Mr. Abraczinskas,

The North Carolina Conservation Network, the Southern Environmental Law Center, Clean Air Carolina, WakeUp Wake County and Sustain Charlotte jointly submit the following comments in response to the Department of Environmental Quality's request for information concerning ideas for environmental Mitigation Trust projects using funds from the Volkswagen consent decree.

The North Carolina Conservation Network is a statewide network of nearly 100 environmental, community and environmental justice organizations focused on protecting North Carolina's environment and public health. NCCN supports, trains, and coordinates diverse groups throughout the state and directly advocates to achieve equitable and sustainable solutions for the environment.

The Southern Environmental Law Center is a non-profit environmental organization dedicated to the protection of natural resources, communities, and special places in a six-state region of the Southeast. SELC works in all three branches of government to help create, implement, and enforce the laws and policies that govern how our environment is protected. SELC advocates for clean air and clean transportation solutions including electric vehicles, and monitors and participates in transportation planning at the federal, state, and local levels. SELC has two offices in North Carolina, located in Chapel Hill and Asheville.

Clean Air Carolina is a statewide nonprofit advocacy group based in Charlotte, NC with a satellite office in the Triangle. CAC's mission is to ensure cleaner air quality for all North Carolinians through education and advocacy and by working with partners to reduce sources of pollution. Major initiatives include AirKeepers Citizen Science Program, Medical Advocates for Healthy Air, and Clear the Air for Kids.

Sustain Charlotte is a nonprofit organization helping to advance a region-wide sustainability movement by serving as a catalyst for change. Sustain Charlotte's mission is to inspire choices that lead to healthier and more vibrant communities across the Charlotte metro region for generations to come.

WakeUP Wake County is a non-profit, non-partisan advocacy organization, focusing on the challenges and opportunities created by our tremendous growth. WakeUP leads public engagement on issues that impact our quality of life—including transportation, land use, drinking water, and public schools—through educating citizens and policy-makers about how the Wake County region should plan for growth. Wake Up's goal is to ensure sustainable, healthy communities for a better tomorrow.

We greatly appreciate the opportunity to submit these comments. The Volkswagen Mitigation Trust fund offers an exciting opportunity for North Carolina to make meaningful advances toward the electrification of its transportation system. Electrification is essential to both improve local air quality and make necessary reductions in greenhouse gases, consistent with North Carolina's commitment to combatting climate change. As outlined in more detail below, we recommend that North Carolina spend the maximum allowable percentage of its Mitigation Trust Fund allotment on electric charging stations, and then spend the remainder of the funding on electric transit and school buses. In addition, we encourage North Carolina to consider whether a small segment of funding should be set aside for electrification of airport ground support vehicles which can provide a very high return on investment in terms of environmental benefit.

Introduction

In considering how to spend its allocated amount from the Mitigation Trust Fund, North Carolina should prioritize programs that will directly mitigate the harm caused by Volkswagen's emissions-cheating scheme. The excessive and unlawful diesel emissions that resulted from Volkswagen's actions served to worsen air quality and heighten health risks in North Carolina's cities. VW's deception also increased North Carolina's greenhouse gas emissions that contribute to climate change.

Diesel exhaust presents a serious health risk. Long-term inhalation can cause cancer and other lung damage, and even short-term exposure can cause irritation and inflammation, exacerbating allergies and respiratory illnesses such as asthma.[1] Diesel exhaust includes particulate matter, which can cause premature death in people with heart or lung disease;

[1] U.S. ENVT'L PROTECTION AGENCY, HEALTH ASSESSMENT DOCUMENT FOR DIESEL ENGINE EXHAUST, EPA/600/8-90/057F ii (2002), *available at* https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060.

nonfatal heart attacks; irregular heartbeat; aggravated asthma; decreased lung function; and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.[2] Diesel also includes nitrogen oxides (NOx).[3] Like particulate matter, NOx causes and aggravates a range of respiratory diseases.[4] When exposed to sunlight in the atmosphere, NOx emissions go through chemical reactions to produce ozone (O_3) at ground level. While ozone is a normal part of the upper atmosphere, at ground level it is associated with a variety of detrimental human health and ecological effects.[5] Ozone is more commonly known as "smog."

Unfortunately, the number of people with asthma and other respiratory illnesses continues to climb, particularly in North Carolina. Children are particularly susceptible. One in ten children in North Carolina now suffer from asthma, as do eight per cent of adults.[6] These rates are only slightly below the national average, while the rate of death from asthma attacks in our state is above the national average,[7] indeed, ninety-four people died from asthma attacks in North Carolina in 2016.[8] On average, minorities and low-income communities suffer greater exposure to poor air quality than the general population.[9]

The VW settlement funds can also play a key role in helping North Carolina do its part to address climate change. The year 2017 brought with it a steady stream of reminders of how climate change will continue to impact our state through increasing temperatures, rising seas, and more frequent catastrophic storms. In the U.S., the transportation sector has now surpassed the power sector as the largest source of greenhouse gas emissions.[10] In turn, the transportation sector represents one of the areas where the U.S., and North Carolina in particular, stand to make the greatest strides in reducing greenhouse gas emissions.

Now that the Trump Administration has withdrawn the U.S. from the Paris Climate Accord, it is up to states like North Carolina to lead the charge to show that reducing greenhouse gas emissions is not only viable, but beneficial to our state's economy and our citizens' health. Governor Cooper recognized this imperative to reduce greenhouse gas emissions when he took the laudable step of committing North Carolina to reduce its share of greenhouse gas emissions

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[2] *Health and Environmental Effects of Particulate Matter (PM)*, U.S. ENVT'L PROTECTION AGENCY, https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm (last visited Dec. 22, 2017).
[3] U.S. ENVT'L PROTECTION AGENCY, HEALTH ASSESSMENT DOCUMENT FOR DIESEL ENGINE EXHAUST, EPA/600/8-90/057F ii (2002), *available at* https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060.
[4] *Effects of NO2*, U.S. ENVIRONMENTAL PROTECTION AGENCY, https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects (last visited Dec. 22, 2017).
[5] *Ozone Pollution*, EPA, https://www.epa.gov/ozone-pollution (last updated Dec. 7, 2017
[6] *About Asthma*, N.C. DIVISION OF PUBLIC HEALTH, http://www.asthma.ncdhhs.gov/aboutAsthma.htm (last visited Dec. 22, 2017).
[7] *Asthma in North Carolina*, CTRS. FOR DISEASE CONTROL & PREVENTION, https://www.cdc.gov/asthma/stateprofiles/asthma_in_nc.pdf.
[8] *Detailed Mortality Statistics Report, 2016 North Carolina Resident Deaths 129*, N.C. STATE CENTER FOR HEALTH STATISTICS, http://www.schs.state.nc.us/data/vital/dms/2016/northcarolina.pdf.
[9] *Disparities in the Impact of Air Pollution*, AM. LUNG ASSOC., http://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/disparities.html (last visited Dec. 22, 2017).
[10] Tom Randall, BLOOMBERG NEWS, *America Crowns a New Pollution King*, Dec. 4, 2017, https://www.bloomberg.com/news/articles/2017-12-04/america-crowns-a-new-pollution-king

in line with our state's share of emissions according to the Paris Accord's targets[11]—and the Mitigation Trust Funds can help set a course towards achieving that goal.

North Carolina is growing rapidly. The state is now the ninth most populous in the nation and grew by approximately 117,000 residents between 2016 and 2017.[12] Much of this growth has been concentrated in our urban areas, such as Charlotte, Wilmington, the Triangle and Triad.[13] While this growth is exciting, it comes with the risk that air quality in our urban areas will worsen, and greenhouse gas emissions will rise. It is essential that we act now to take steps to mitigate these risks. Our cities are already leading the way on these issues – public transit is rapidly expanding in North Carolina and both Charlotte and the Triangle now have ambitious transit plans in place.[14] The Mitigation Trust Fund provides an important opportunity to build on these efforts and ensure that as our metro regions continue to expand they do so in the cleanest way possible, protecting our most vulnerable populations and reinvigorating North Carolina's role as a leader in environmental protection.

Dedicate the Maximum of 15 Percent of Settlement Funds for EV Charging Stations

First, we strongly urge North Carolina to allocate the maximum allowable percentage of its Mitigation Trust funds to Electric Vehicle ("EV") charging stations. By seizing on this chance to increase the EV charging infrastructure, North Carolina can hasten its march toward electrification of transportation system and a cleaner, more efficient future.

EVs provide two important environmental benefits. First, EVs produce fewer greenhouse gas emissions than their gasoline and diesel counterparts on a mile-by-mile basis, reducing greenhouse gas emissions, even when they are charged by the dirtiest of grids.[15] [16] When the life-cycle emissions of a vehicle are factored in — including the emissions associated with

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[11] Abbie Bennet, RALEIGH NEWS & OBSERVER, *Trump Pulled Out of Climate Agreement, but NC's Cooper Says 'We Remain Committed'*, Sept. 20, 2017, http://www.newsobserver.com/news/politics-government/state-politics/article174372096.html

[12] *Census: Carolinas Among States Seeing Most Population Growth*, U.S. NEWS & WORLD REPORT, Dec. 25, 2017, https://www.usnews.com/news/best-states/south-carolina/articles/2017-12-25/census-carolinas-among-states-seeing-most-population-growth.

[13] Jessica Stanford, *NC in Focus: Revising the 2016 Population Estimates*, CAROLINA DEMOGRAPHY (Dec. 12, 2017), http://demography.cpc.unc.edu/2017/12/12/nc-in-focus-revisiting-the-2016-population-estimates/.

[14] *See, e.g.*, WAKE TRANSIT, www.waketransit.com (last visited Dec. 29, 2017); OUR TRANSIT FUTURE, ourtransitfuture.com (last visited Dec. 29, 2017); *Easy to Miss*, CHARLOTTENC.GOV, (last visited Dec. 29, 2017), http://charlottenc.gov/cats/transit-planning/2030-plan/Pages/easy-to-miss.aspx

[15] *See* David Reichmuth, *New Numbers Are In and EVs Are Cleaner Than Ever*, UNION OF CONCERNED SCIENTISTS (May 31, 2017), http://blog.ucsusa.org/dave-reichmuth/new-numbers-are-in-and-evs-are-cleaner-than-ever; *see also* Fred Lambert, *Even electric cars powered by the dirtiest electricity emit fewer emissions than diesel cars, says new study*, ELECTREK (Nov. 1, 2017), https://electrek.co/2017/11/01/electric-cars-dirty-electricicty-coal-emission-cleaner-study/; ELECTRIC POWER RESEARCH INST. AND NATURAL RES. DEF. COUNCIL, ELECTRIFYING TRANSPORTATION REDUCES GREENHOUSE GASES AND IMPROVES AIR QUALITY: EXECUTIVE SUMMARY (2015), *available at* http://www.ourenergypolicy.org/wp-content/uploads/2015/09/000000003002006881.pdf.

[16] *See* David Reichmuth, *New Numbers Are In and EVs Are Cleaner Than Ever*, UNION OF CONCERNED SCIENTISTS (May 31, 2017), http://blog.ucsusa.org/dave-reichmuth/new-numbers-are-in-and-evs-are-cleaner-than-ever; *see also* Fred Lambert, *Even electric cars powered by the dirtiest electricity emit fewer emissions than diesel cars, says new study*, ELECTREK (Nov. 1, 2017), https://electrek.co/2017/11/01/electric-cars-dirty-electricicty-coal-emission-cleaner-study/.

production and manufacture of vehicle parts for needed maintenance—EVs far outpace their traditional counterparts, resulting in as much as *50 percent fewer* greenhouse gas emissions.[17]

EVs also provide opportunities to increase the electric grid's stability and efficiency and make it easier to integrate renewable energy – so called "grid integration". For example, EV charging can be encouraged to occur during off-peak times and EVs can potentially serve as electric storage.[18] Not only do such steps further reduce emissions of traditional pollutants and greenhouse gases from power plants, but there is potential for programs wherein owners of EVs could receive compensation for grid services.[19] As North Carolina continues its progress towards a grid with a greater share of renewables, EVs will play a crucial role in moving the state away from its reliance on climate-polluting fossil fuels.

In addition to their benefits to climate change mitigation, EVs also have the advantage of producing no localized air pollution such as the particulate matter, NOx and ozone discussed above. As such, EVs can help to significantly improve air quality in urban areas and around sensitive populations where vehicular emissions would otherwise be high and concentrated.

Globally, EVs are on the rise. As battery technology has advanced, the price of batteries needed to power EVs has decreased dramatically and energy density has increased almost as rapidly.[20] The global EV stock is now well past one million.[21] And we are seeing this growth in North Carolina. In fact, according to Advanced Energy as of August 2017, there were 7,416 EVs registered in our State.[22]

Unfortunately, while the growth in EVs continues in North Carolina at a rate of 50 percent per year, the growth rate of charging stations has only been 30 percent per year.[23] The Electric Power Research Institute recommends one charging station for every four EVs, but North Carolina currently has less than one charging station for every fifteen vehicles. There are

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[17] Rachael Nealer, David Reichmuth, Don Anair, UNION OF CONCERNED SCIENTISTS, *Cleaner Cars from Cradle to Grave: How Electric Cars Beat Gasoline Cars on Lifetime Global Warming Emissions* at 1 (Nov. 2015), *available at* https://www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions#.WkPKh1WnGM8.

[18] *Electric Vehicle Grid Integration*, NAT'L RENEWABLE ENERGY LAB., https://www.nrel.gov/transportation/project-ev-grid-integration.html (last visited Dec. 22, 2017); REGULATORY ASSISTANCE PROJECT, ELECTRIC VEHICLE GRID INTEGRATION IN THE U.S., EUROPE, AND CHINA (2013), *available at* http://www.raponline.org/wp-content/uploads/2016/05/rap-icct-evpolicies-2013-jul.pdf.

[19] *See* Adele Peters, *This New Charging System Lets Electric Cars Pay For Themselves By Selling Energy Back To The Grid*, FAST COMPANY (Oct. 9, 2017), https://www.fastcompany.com/40476527/these-new-electric-cars-will-pay-for-their-charging-by-selling-energy-back-to-the-grid; *DOD Electric Vehicles Will Supply Power to Local Grids*, U.S. DEPT. OF DEFENSE (Jan. 10, 2013), http://archive.defense.gov/News/NewsArticle.aspx?ID=118971.

[20] INTERNATIONAL ENERGY AGENCY, GLOBAL EV OUTLOOK 2016 at 5, https://www.iea.org/publications/freepublications/publication/Global_EV_Outlook_2016.pdf.

[21] *Id.*

[22] Poger, Lisa. "Electric Transportation in North Carolina." August 2017. https://www.ncga.state.nc.us/documentsites/committees/BCCI-6576/2017-2018/Nov%208%202017/Advanced%20Energy%20Presentation.pdf

[23] Schatz, David. "Electric Vehicle Charging Stations: Advancing Smart Transportation." November 2017. https://www.ncga.state.nc.us/documentsites/committees/BCCI-6576/2017-2018/Nov%208%202017/ChargePoint%20Presentation.pdf

currently only 476 EV charging stations in North Carolina.[24] In order for North Carolina to continue its march towards greater electrification of its transportation system it is imperative that the state invest in additional charging stations. The Mitigation Trust Fund can kick-start this initiative.

To ensure the most effective use of the Mitigation Trust Funds, we first suggest that North Carolina invest in an analysis of where charging stations will be most beneficial. Such a study should include research into where EVs are most heavily used today and as well as the greatest barriers to widespread adoption and usage. The state should consider placing fast charging stations along major highways such as I-95, I-40 and I-85 as well as close to urban centers and multi-unit dwellings and workplaces. In addition, consistent with DEQ's longstanding environmental equity policy,[25] we recommend that environmental justice and equity be guiding principles in determining where to locate charging stations. The Department should consider both how the State can use the installation of charging stations to protect vulnerable populations from pollution, and how such stations can be installed to allow lower income communities to adopt and benefit from EVs as their price continues to fall.

Whatever North Carolina determines is the most effective placement of EV charging stations, we do suggest that the Mitigation Trust Funds be used on one coordinated major project rather than spread piecemeal throughout the State. One ambitious program —for example the creation of an EV corridor along I-95—could be well publicized and help raise the profile of EVs in North Carolina, demonstrating the State's commitment to the electrification of our transportation system.

Invest in Electrification of Transit and School Buses

After investing the maximum 15% of its Mitigation Trust allocation towards EV charging infrastructure, we suggest North Carolina should invest the remaining funds in the electrification of diesel transit buses and school buses.

As described above, electrification of vehicles is important both for reducing climate-changing greenhouse gas emissions, as well as improving local air quality. Electrification is the best way to move North Carolina into a clean, climate friendly, energy independent future. As such, we urge the State to spend all of the remaining Mitigation Trust funds on either new or replacement electric buses and not on alternate-fueled engines such as new diesel and compressed natural gas. Electrification of vehicle fleets is a good investment for North Carolina. While upfront costs may initially be higher than alternate-fuel vehicles, the lifetime costs, including fuel and maintenance, are significantly lower.[26]

We recommend that replacement or new electric bus purchases be focused in the urban areas most affected by the VW emissions cheating-scheme. Additional study and modeling

[24] *Electric Vehicle Charging Station Locations*, U.S. Dept. of Energy, Alternative Fuels Data Center, https://www.afdc.energy.gov/fuels/electricity_locations.html (last visited Dec. 22, 2017) (search "North Carolina").
[25] NC DENR Environmental Equity Initiative (October 19, 2000).
[26] *See, e.g., The Business Case For the Proterra Electric Bus*, Aug. 3, 2015, *available at* http://ecomento.com/2015/08/03/business-case-proterra-electric-bus/.

should be performed to see where fleet turnover could have the greatest impact on both greenhouse gas emission reductions and improvements to local air quality. With exciting new transit plans currently undergoing implementation and roll out, Charlotte and Wake County both provide exciting opportunities for partnerships between the state and local transit agencies to move forward with addition public transit infrastructure that is clean and forward-thinking. Careful thought should be given to investment in transit buses that serve environmental justice communities affected by poor air quality.

The Mitigation Trust funds also provide an incredible opportunity to reduce pollution around our most vulnerable population — children — through investment in electric school buses. Children are disproportionally affected by air pollution due to their higher minute ventilation and the fact that their lungs have not yet fully developed. [27] [28] There are almost 800,000 students in North Carolina who ride the bus to and from school every day. [29] These students often congregate after school in lines waiting for their bus to arrive. While buses are idling during loading and unloading, children are breathing in harmful pollutants into their developing lungs. Students in our urban areas are particularly affected because they are already often exposed to impaired air quality due to the concentration of emissions sources.[30] By investing in electric school buses, North Carolina can not only improve the air our children breathe, but can also reduce the cumulative effects of air pollutants that contribute to climate change.

With electric buses we also have a great opportunity to invest in North Carolina's own businesses. Thomas Built Buses, a major American school bus manufacturer based out of North Carolina, unveiled an electric school bus with a 100-mile range and vehicle-to-grid technology in November 2017, with production expected to begin in early 2019.[31] The company recently completed a $12 million expansion at its High Point facility to increase its production capacity for the Saf-T-Liner C2, bringing approximately 150 jobs.[32]

Similar to our recommendation above with regard to EV charging stations, we suggest that in pursuing transit and school bus replacements, North Carolina focus its resources on one or two large programs that will have a big, noticeable impact and help raise the profile of electrification and North Carolina's commitment to a clean energy future. Directing funds to significant fleet replacements, rather than spreading the funds around in a less impactful way,

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[27] J. Dixon, *Kids need clean air: air pollution and children's health*, Fam. Community Health (4):9-26 (Jan. 2002) *available at* https://www.ncbi.nlm.nih.gov/pubmed/11772346

[28] *Clean School Bus*, U.S. ENVT'L PROTECTION AGENCY, https://www.epa.gov/cleandiesel/clean-school-bus (last visited Dec. 22, 2017).

[29] Love the Bus: Quick Facts, American School Bus Council, *available at* http://www.ncbussafety.org/LoveTheBusNC/documents/LovetheBusFacts_ae.pdf

[30] *See About Urban Air Toxics*, U.S. ENVT'L PROTECTION AGENCY, https://www.epa.gov/urban-air-toxics/about-urban-air-toxics (last visited Dec. 22, 2017).

[31] Press Release, Tomas Built Buses, Thomas Built Buses Debuts New Saf-T-Liner® C2 All Electric School Bus (Nov. 4, 2017), https://thomasbuiltbuses.com/bus-news-and-events/news/thomas-built-buses-debuts-new-saf-t-liner-2017-11-04/; *see also*
Saf-T-Liner® C2 Jouley School Bus, THOMAS BUILT BUSES, https://thomasbuiltbuses.com/school-buses/saf-t-liner-c2-jouley/ (last visited Dec. 22, 2017).

[32] Nicole Schlosser, *Thomas Built completes $12M plant expansion*, SCHOOLBUSFLEET.COM (July 18, 2015), http://www.schoolbusfleet.com/news/685962/thomas-built-completes-12m-plant-expansion.

will also ensure maximization of the investment through economies of scale, reductions in administrative costs, and shared utilization of associated infrastructure such as charging stations.

Consider Investment in Electrification of Airport Ground Support

While we suggest that most, if not all, the Mitigation Trust Funds be spent on EV charging stations and electric bus purchases and replacements, we do also want to note that there may be some benefit to directing a small portion of the Mitigation Trust Funds toward the electrification of airport ground support equipment.

As noted above, NOx emissions directly impact the formation of regional ozone. Reducing the most polluting vehicles, during the most reactive times of the day, has proven crucial to reducing the formation of overall ozone in our urban areas. A recent program in Charlotte, home to the State's largest passenger airport, demonstrated the value in investing in the elimination of mobile source pollution from ground support equipment mobile source pollution at the airport.

In Charlotte, $800,000 was invested to replace 66 pieces of airport ground support equipment with electric equipment. This initiative yielded an annual reduction of over 52 tons of NOx over the course of a lifetime.[33] The project is expected to achieve over 550 tons of NOx by eliminating the lowest tiered equipment. The program has had a significant impact on reducing regional ozone formation and led to a designation of attainment for ozone in the Charlotte region this year.

We suggest North Carolina study whether it would be advantageous to use a segment of the Mitigation Trust Funds to fund similar programs at any of the State's other ten passenger service airports – with a focus on areas most affected by continuous use diesel engine emissions. Such areas are often home to environmental justice considerations. Funding electric conversion of tier 0-2 diesel powered ground support equipment could provide the largest NOx reductions for the dollar spent, and reduce operating and maintenance costs much more than diesel or gas replacements would do.[34]

Maximize DERA Funding

The Diesel Emissions Reduction Act ("DERA") Clean Diesel Funding Assistance Program provides funding to eligible parties[35] for projects that reduce emissions from existing diesel engines.[36] We urge North Carolina to use the DERA program to help maximize the

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[33] *Grants to Replace Aging Diesel Engines, Project Summary*, Mecklenburg County Air Quality (Apr. 1 2014) *available at* http://charmeck.org/mecklenburg/county/LUESA/AirQuality/Documents/Project%20Summary%20.pdf

[34] *Volkswagen Settlement, Applicability of Funds to Airports and Airlines*, Federal Aviation Administration, https://www.faa.gov/airports/environmental/vw_settlement/media/vw_settlement_presentation.pdf (last visited Dec. 29, 2017)

[35] *See Eligible Applicants*, U.S. ENVT'L PROTECTION AGENCY, https://www.epa.gov/cleandiesel/clean-diesel-national-grants#applicants (last visited Dec. 22, 2017).

[36] *Diesel Emission Reduction Act (DERA)*, U.S. ENVT'L PROTECTION AGENCY, https://www.epa.gov/cleandiesel/learn-about-clean-diesel#dera (last visited Dec. 22, 2017); *see also Eligible Uses of*

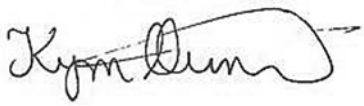
Mitigation Trust funds. Specifically, we encourage North Carolina to apply for program funding through DERA from the EPA, and then use Mitigation Trust funds to participate in the DERA voluntary match program.

Because the goal of the DERA program is to reduce NOx emissions, many of the eligible programs are comparable to those outlined in the VW Settlement. For example, funds could be used to assist low-income school districts to purchase electric buses when they are in need of additional buses (School districts are responsible for purchasing first-additional school buses as necessary, whereas the State Board of Education purchases replacements according to a schedule[37]). Similarly, DERA funds could be used to assist local authorities in replacing diesel buses with electric ones. Applying for DERA funds is an easy way to extend the impact of North Carolina's share of the Mitigation Trust.

To conclude, we believe the VW Mitigation Trust provides an important opportunity for North Carolina to do something big and raise the profile of electrification in the State. We hope that you will maximize the use of the funds to the greatest extent possible. Most importantly, we hope that you see the use of these funds as just the beginning, and the not the end, of investment in electrification in our state and our path to a cleaner, more climate friendly, and less fossil fuel dependent future.

Thank you for the opportunity to submit these comments. We would be happy to discuss these ideas with you in more detail at your convenience.

Brian Buzby
NC Conservation Network



Kym Hunter
Southern Environmental Law Center

Funding, U.S. ENVT'L PROTECTION AGENCY, https://www.epa.gov/cleandiesel/clean-diesel-national-grants#funding-costshare (last visited Dec. 22, 2017).

[37] N.C. Gen. Stat. § 115C-249; NC BUS FLEET: NORTH CAROLINA SCHOOL TRANSPORTATION FLEET MANUAL, NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION SCHOOL SUPPORT DIVISION, TRANSPORTATION SERVICES , NORTH CAROLINA STATE BOARD OF EDUCATION POLICY TRAN-005 (2017), *available at* http://www.ncbussafety.org/documents/Buses/NCBusFleetManual.pdf.

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Karen Rindge
Wake Up Wake County

American Heart Association | American Stroke Association

life is why™

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December 13, 2017

The American Heart Association/American Stroke Association (AHA/ASA) appreciates the opportunity to provide input for North Carolina's (NC) plans for Volkswagen (VW) environmental mitigation trust funds. As the nation's oldest and largest voluntary organization dedicated to fighting heart disease and stroke, we are committed to building healthier lives and protecting the health of our communities. The air we breathe shouldn't pose a serious threat to our health, but unfortunately the polluted air in the U.S. is doing just that. Cardiovascular disease is the number one killer of Americans, accounting for one in every three deaths, and sadly the state of our air is directly contributing to the problem.[i]

The VW settlement is required to be used to positively impact air quality. These funds could be used uniquely to improve air quality and increase daily physical activity, both of which would help impact overall health. Local communities in NC are trying to provide residents with more access to public transit, bicycle pathways, sidewalks, and greenways. The AHA/ASA urges the DEQ to consider establishing a transportation trust fund that local communities could access to help them invest in bike and pedestrian pathways and public transit infrastructure. A portion could be dedicated to Safe Routes to School which would improve safety for students walking or biking to school. This will help community leaders prioritize reducing traffic congestion while improving health and the environment.

The AHA/ASA further encourages DEQ to require communities be engaged in providing input into proposed plans, especially residents in low and moderate-income neighborhoods. This focus will help ensure greater health equity and safe access to public transit and economic centers. Community planning and health behavior research demonstrate that built environments influence people's decision to use public transport, drive, walk, or cycle to get to their destination. Local economies are improved when people can walk, bike and shop with ease in a community.[ii]

The AHA/ASA thanks DEQ for this opportunity to provide input. We look forward to working with NC in its efforts to determine the best use of the VW settlement funds. Let's maximize this opportunity so that we realize economic, environmental and health wins. Together we can build a healthier North Carolina.

Sincerely,

Betsy Vetter

Betsy Vetter
Regional Vice President of Government Relations

[i] Brook R.D., et al. Particulate matter air pollution and cardiovascular disease: An update to the scientific statement from the American Heart Association. Circulation. 2010;121:2331-2378.

[ii] Handy SL, et al. Is support for traditionally designed communities growing? Evidence from two national surveys. 2008. Journal of the American Planning Association; 74(2): 209-221.

Ceres
Sustainability is the bottom line.

BICEP Network Members:

Adobe Systems, Inc.
Annie's Inc.
Aspen Skiing Company
Autodesk, Inc.
Aveda
Ben & Jerry's
Burton Snowboards
CA Technologies
Clif Bar & Company
Dignity Health
eBay Inc.
Eileen Fisher
Etsy, Inc.
Fetzer Vineyards
Gap Inc.
General Mills, Inc.
IKEA USA
JLL
KB Home
The Kellogg Company
Levi Strauss & Co.
LBrands
L'Oreal USA
Mars Incorporated
Nature's Path Organics
Nestlé
New Belgium Brewing
Nike
The North Face
Outdoor Industry Association
Owens Corning
Patagonia
Portland Trail Blazers
Seventh Generation
Sierra Nevada Brewing Co.
Squaw Valley
Starbucks
Stonyfield Farm
Symantec Corporation
Timberland
Unilever
Vail Resorts
VF Corporation
Vulcan, Inc.
Worthen Industries

Companies listed in bold have significant operations in North Carolina

December 22, 2017

Michael Abraczinskas, Director
Division of Air Quality
N.C. Department of Environmental Quality
217 West Jones Street
1641 Mail Service Center
Raleigh, NC 27699

RE: Response to NC Volkswagen Settlement RFI

Dear Director Abraczinskas:

As a network of 45 major companies—many of whom have operations in North Carolina—the Business for Innovative Climate and Energy Policy (BICEP) Network applauds the state of North Carolina for designating an agency to develop a state mitigation plan for use of the state's anticipated $92 million in Volkswagen settlement funds. These funds present an opportunity to have a measurable impact on North Carolina's air quality, carbon emissions, and economy by catalyzing the transition to cleaner vehicles, vessels and public transit system. The BICEP Network encourages the Department of Environmental Quality (DEQ) to propose a mitigation plan that unlocks the investment potential for clean transportation.

BICEP Network members are working to reduce emissions in their own business operations, and they support policies that help to accelerate the transition to a clean, low-carbon economy. Accordingly, the Environmental Mitigation Trust (EMT) funds should be used to support a fundamental market transformation that will set North Carolina on a pathway toward significant long-term emissions reductions in the transportation sector through the deployment of zero and near-zero emission vehicles.

The Ceres BICEP Network respectfully offers the following recommendations:

1. We encourage the state of North Carolina to allocate the maximum amount (15 percent) of EMT funds on charging infrastructure for electric vehicles (EVs). In order to create a market in which EVs can thrive, it is essential to create a network of EV charging infrastructure that is easily accessible for all. This fall, your neighboring state of Virginia announced plans to designate the full 15 percent of its EMT funding to establish an interconnected and statewide public EV charging network. This decision will drive EV adoption, encourage innovation in EV technology, facilitate public-private partnerships, and improve public health by reducing oxides of nitrogen and carbon dioxide emissions.

Ceres
Sustainability is the bottom line.

A recent report by Ceres and M.J. Bradley & Associates found that the benefits of increased investment in EV charging infrastructure outweigh the costs by more than 3 to 1. North Carolina can tap into these benefits by simultaneously adopting complementary policies beyond the maximum 15 percent EV infrastructure allotment under EMT funds—for instance, encouraging new construction to take EV infrastructure readiness into account, encouraging utility investment in EV infrastructure, and incentivizing businesses to make more EV purchases.

2. We recommend that all-electric or hydrogen fuel cell electric vehicles (FCEVs) be prioritized across all transportation classes, where feasible. If practicable, full reimbursement should be reserved for all-electric or hydrogen fuel cell electric vessels/vehicles, rather than new diesel or other alternative fuel vehicles, vessels or engines.

3. We strongly support prioritizing investment of the funds in communities disproportionately affected by higher levels of pollution, non-attainment or maintenance areas, or designated Federal Class 1 areas.

We hope that North Carolina elects to maximize spending from the EMT funds for zero emission and near zero emission vehicles. A swift transition to a cleaner transportation system would be beneficial to North Carolina's economy by reducing spending on petroleum-based fuels and fostering innovation, while simultaneously enhancing public health through the reduction of air pollution.

On behalf of the Ceres BICEP Network, I appreciate your time and consideration.

Sincerely,

Anne Kelly
Senior Director, Policy and BICEP Network (Business for Innovative Climate and Energy Policy)
Ceres
On behalf of the Ceres BICEP Network

The Ceres BICEP Network comprises influential companies advocating for stronger climate and clean energy policies at the state and federal level in the U.S. As powerful champions of the accelerated transition to a low-carbon economy, Ceres BICEP Network members have weighed in when it has mattered most. For more information on the Ceres BICEP Network, visit www.ceres.org/BICEP.

CC:
Governor Roy Cooper

NC VW Settlement RFI
Via email: daq.NC_VWGrants@ncdenr.gov

The Environmental Defense Fund (EDF) is pleased to provide comments to the Division of Air Quality regarding the North Carolina's Beneficiary Mitigation Plan under the Volkswagen (VW) settlement.

We would first like to echo the North Carolina Electric Vehicle Working Group's (NCEVWG) recent recommendations to Governor Cooper "that North Carolina allocate the maximum allowable amount (15%) of settlement funds for electric vehicle charging infrastructure and installations" and "prioritize EVs for medium, heavy duty and buses for replacement with the other 85% of the settlement funds because doing so will maximize both the local economic impact and the reduction of NOx."

However, we would like to expand upon those recommendations by requesting that there be careful consideration and stakeholder engagement in the process of selecting where the electric charging infrastructure investments are made throughout the state. Given that the City of Raleigh was selected by Electrify America as one of 16 focus markets we would like to see a priority put on distribution of the resources to include rural parts of the state and not an over investment in the urban cores. It is imperative that the investment and resulting benefits be available to as many of North Carolina's residents as possible, including those who reside in the rural communities many of which are served by the state's many electric co-ops.

The opportunities the VW Mitigation Trust funding affords are vast with emissions reductions, economic development, and job grow just scratching the surface. Already a leader in solar development, North Carolina has an opportunity to set itself apart in the evolution of vehicle electrification also, through the development of a strong Beneficiary Mitigation Plan.

To close I would like to offer EDF as a resource throughout the development of the Beneficiary Mitigation Plan. We look forward to working with you.

Respectfully,
Dionne Delli-Gatti
Director Southest Clean Energy
Environmental Defense Fund
Ddelli@edf.org

SIERRA CLUB

December 20, 2017

Michael Abraczinskas, Director
Division of Air Quality – Mobile Sources
NC VW Settlement RFI
217 West Jones Street
1641 Mail Service Center, Raleigh, NC 27699-1641
Submitted by email to: daq.NC_VWGrants@ncdenr.gov

Re: Guiding Principles - North Carolina's Volkswagen Settlement Environmental Mitigation Plan

Dear Mr. Abraczinskas:

We are pleased to see that North Carolina applied for beneficiary status to receive the $92 million in funds to be invested in state mitigation plans for reducing the harmful pollution emitted from Volkswagen's cheating emissions models. The Sierra Club urges DEQ to use this environmental tragedy as an opportunity to advance clean, zero-emission vehicles (ZEVs) and ZEV infrastructure.

Transportation electrification is vital to increase energy security, improve public health, and achieve state air quality and carbon emissions reduction goals. We are writing with the following recommendations to ensure that investments made with the settlement's Appendix D funds are forward-thinking, equitable, and will result in meaningful, nationwide emissions reductions from the transportation sector.

NOx emissions—which come in significant part from burning fossil fuels in vehicles--is one of the core ingredients of ozone, also known as smog. Indeed, the VW scandal is such a significant public health issue precisely because of the high levels of smog forming NOx emissions that VW's vehicles unlawfully emit. And that is why reducing NOx emissions is at the heart of the VW settlement agreement and the Environmental Mitigation Trust (EMT). Sierra Club urges DEQ to consider the following principles when drafting the state mitigation plan:

1. Investments should be prioritized in areas with high levels of air pollution and in communities disproportionately impacted by air pollution. We believe DEQ should prioritize investments in areas that suffer from higher levels of air pollution and in disadvantaged communities, including those with low-income residents and people of color who are often disproportionately exposed to air pollution. For the allotment of

funds assigned to electric vehicle (EV) infrastructure programs, we believe there should be a minimum investment commitment in disadvantaged communities. As noted in a 2011 report by The Greenlining Institute, such communities are more heavily impacted by air pollution and are more concerned by it[1]. Moreover, as section 5.2.10 of the Settlement Agreement provides, in approving plans states must provide:

> A description of how the Eligible Mitigation Action mitigates the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions.

2. North Carolina should invest the maximum 15% of funds in EV infrastructure and supply equipment (EVSE). Section X of the settlement provides that states can use up to 15% of their total allotted EMT funds to build out charging infrastructure for light duty electric vehicles--provided that the chargers be installed in workplaces, multi-unit dwellings or on highways. North Carolina should take advantage of the funding opportunity to expand access to chargers in these locations, as they are the places where parked vehicles have long "dwell" times—i.e., they are parked for long periods of time. They also increase public awareness of electric vehicles.

3. North Carolina should invest EMT funds to electrify our transportation sector and not to double down on more diesel and natural gas. It is in our state's best interest to use funds from the EMT to advance the electrification of the transportation sector. The electrification of the transportation sector can: a) keep our money in-state and save all of us--our residents, schools, governments and businesses--money on transportation fuel; b) save all of us money through lower electricity rates; c) create in-state jobs; d) drastically reduce NOx, smog, and greenhouse gas levels to protect our health and our environmental justice communities; and e) drastically reduce CO2 emissions[2].

As the International Energy Agency has explained: "[e]lectric-drive vehicles are unlikely to succeed in the next five to ten years without strong policy support, especially in two areas: making vehicles cost competitive with today's internal combustion engine (ICE) vehicles, and ensuring adequate recharging infrastructure is in place.[3]" EMT funds can and should be used to lower the upfront costs of purchasing electric vehicles such as transit and school buses and trucks, and to build out the charging infrastructure for electric vehicles. While the EMT funds do allow investments in diesel and natural gas projects, neither of these provide nearly the same

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[1] C.C. Song, Electric Vehicles; Who's Left Stranded?, The Greenlining Institute at 4 (August, 2011).
[2] Natural Resources Defense Council; "Supplying Ingenuity Clean Vehicle Technologies Report", May 2017, available at:
https://www.nrdc.org/sites/default/files/supplying-ingenuity-clean-vehicle-technologies-report.pdf
[3] International Energy Agency, "Technology Roadmap: Electric and Plug-in Hybrid Electric Vehicles," June 2011, available at:
http://www.iea.org/publications/freepublications/publication/EV_PHEV_Roadmap.pdf

benefits to our state that electrification will, and both will prolong our dangerous dependence on fossil fuels, including foreign oil.

4. North Carolina should invest EMT funds in electric transportation to place downward pressure on electricity rates. Not only can electrification of the transportation sector save our residents and businesses money on transportation fuel costs, it can also place downward pressure on electricity rates for all utility customers, whether or not they own electric vehicles. Electric vehicle charging will increase electricity sales, which if well integrated into the electric power system can dilute the fixed costs of electricity transmission and distribution and lower electricity rates for all utility customers.[4]

5. The process should be transparent. We encourage DEQ to be transparent in its decision-making process and allow for meaningful public input as the state's mitigation plan begins to be formulated.

Thank you for your attention to these important matters.

Sincerely,

Molly Diggins

Molly Diggins, State Director
NC Sierra Club

[4] See, e.g., Rocky Mountain Institute, Electric Vehicles as Distributed Energy Resources at 19 (2016); Natural Resources Defense Council, Driving Out Pollution: How Utilities can Accelerate the Market for Electric Vehicles at 10 (2016); Regulatory Assistance Project, In the Drivers Seat: How Utilities and Consumers Can Benefit From the Shift to Electric Vehicles at 5, 13 (April 2015); CAISO, California Vehicle-Grid Integration (VGI) Roadmap: Enabling Vehicle-Based Grid Services at 5; ICF International and Energy+Environmental Economics, California Transportation Electrification Assessment, Phase I at 38 (2014); ICF International and Energy+Environmental Economics, California Transportation Electrification Assessment, Phase II at 55-70 (2014).

NORTH CAROLINA ALLIANCE FOR HEALTH

North Carolina Department of Environmental Quality
NC VW Settlement RFI
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December 29, 2017

The North Carolina Alliance for Health (NCAH) appreciates the opportunity to provide input for North Carolina's plans for Volkswagen (VW) environmental mitigation trust funds. With a mission of promoting wellness we advance equitable health policies to help all North Carolina residents live healthier lives. The air we breathe shouldn't pose a serious threat to our health, but unfortunately our air is doing just that.

The VW settlement is required to be used to positively impact air quality. If there is a public-private partnership, these funds could be used increase daily physical activity while improving air quality, both of which would have a positive impact on overall health. Many North Carolina communities are trying to provide residents with more access to public transit, bicycle pathways, sidewalks, and greenways. NCAH urges DEQ to consider establishing a public-private transportation trust fund that local communities could access to help them invest in bike and pedestrian pathways and public transit infrastructure.

NCAH further encourages DEQ to require that community members, especially residents in low- and moderate-income neighborhoods, be engaged in providing input into proposed plans. This focus will help promote greater health equity, ensuring healthier lives for all citizens.

NCAH thanks DEQ for the opportunity to provide input and we look forward to working with NC in its efforts to determine the best use of the VW settlement funds.

Please contact me at morgan@ncallianceforhealth.org or 919.308.8800 with any questions or concerns.

Sincerely,

Morgan Wittman Gramann

Morgan Wittman Gramann
Executive Director

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FOR YOUTH DEVELOPMENT™
FOR HEALTHY LIVING
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December 20, 2017

The North Carolina Alliance of YMCAs appreciates the opportunity to provide input for North Carolina's (NC) plans for Volkswagen (VW) environmental mitigation trust funds. As the nation's foremost nonprofit dedicated to strengthening community through youth development, healthy living, and social responsibility, we are committed to building healthier lives and protecting the health of our communities. The air we breathe should support the health of all people so that they can thrive. Unfortunately, our air quality is in jeopardy, thereby contributing to multiple negative health effects, including asthma and heart attacks.

The VW settlement is required to be used to positively impact air quality. These funds could be used uniquely to improve air quality and increase daily physical activity, both of which would help improve the health of our state's residents. Many of our NC municipalities and counties are implementing plans to make communities more walkable and bike-able through public transit, bicycle pathways, sidewalks, and greenways. We therefore urge the DEQ to consider establishing a transportation trust fund that local communities could access to help them invest in bike and pedestrian pathways and public transit infrastructure. A portion could be dedicated to Safe Routes to School, which would improve safety for students walking or biking to school. This could offer significant support to the aforementioned efforts intended to reduce traffic congestion while improving health and the environment.

We also encourage DEQ to gather input from communities into the development of proposed plans, especially residents in low and moderate-income neighborhoods. This focus will help ensure greater health equity and improved access to public transit and economic centers. Community planning and health behavior research demonstrate that built environments influence people's decision to use public transport, drive, walk, or cycle to get to their destination. Local economies are improved when people can walk, bike and shop with ease in a community.[i]

The YMCAs of NC thank DEQ for this opportunity to provide input. We look forward to working with NC in its efforts to determine the best use of the VW settlement funds. Let's maximize this opportunity so that we realize economic, environmental and health wins. Together we can build a healthier North Carolina.

Sincerely,

Sherée Thaxton Vodicka

Sherée Thaxton Vodicka, Executive Director
NC Alliance of YMCAs
And Member
Justus Warren Heart Disease and Stroke Prevention Task Force

[i] Handy SL, et al. Is support for traditionally designed communities growing? Evidence from two national surveys. 2008. Journal of the American Planning Association; 74(2): 209-221.