



March 12, 2018

Martin Suuberg, Commissioner
Massachusetts Department of Environmental Protection
One Winter Street
Boston, Massachusetts 02108

RE: NGVAmerica Comments on the Volkswagen Diesel Emissions Settlement and the Environmental Mitigation Trust Implementation

Dear Commissioner Suuberg:

Natural Gas Vehicles for America (NGVAmerica), the national trade association for the natural gas vehicle industry, respectfully submits the following comments in addition to our April 7, 2017 comments (attached) to the Massachusetts Department of Environmental Protection (MassDEP) to be considered when developing the Massachusetts (MA) Volkswagen (VW) Beneficiary Mitigation Plan.

The VW Environmental Mitigation Trust (EMT or Trust) funds (\$75 million for MA) provide an extraordinary opportunity for Massachusetts to accelerate its efforts to reduce nitrogen oxide (NOx) emissions today. As stated on the website, "MassDEP is broadly interested in using VW Environmental Mitigation Trust funds to:

- Reduce nitrogen oxide (NOx) and/or greenhouse gas (GHG) emissions,
- Promote the electrification of our transportation system, and
- Improve the health of Environmental Justice areas."

NGVAmerica encourages Massachusetts to take decisive action now to accelerate its achievement of clean air for its people by using technologies that are currently available and that will reduce the most NOx for the funds spent (see attached NGVA VW Flyer for fuel NOx reduction for cost comparisons).

It is encouraging that many heavy-duty truck transit bus fleets recognize the air quality, economic and independence from foreign oil benefits of natural gas vehicles, including many operating in Massachusetts. These fleets include national trucking and refuse fleets (FedEx, Frito-Lay, Penske, Ryder, Schneider, UPS, Waste Management and many others), and many transit bus fleets in cities across America.

The VW EMT funds provide an extraordinary opportunity for Massachusetts to cost-effectively accelerate the transition to cleaner vehicles and lower emissions. Commercially available natural gas vehicles offer the best solutions today for addressing the goals of the EMT, delivering the most nitrogen oxide emission reductions for the least cost.

Additionally, if renewable natural gas (RNG) is used, life cycle greenhouse gas emissions from NGVs are reduced further. Using RNG also creates a market for energy created from waste water treatment, landfills, animal waste and other methane sources and significantly increases air quality by reducing the amount of methane released.

Using low NOx NGVs today allows Massachusetts to accelerate achievement of clean air for its people now, create new sources of energy through the development of RNG facilities, all while complementing its transition to zero emissions applications that will likely be available in the future.

Current State Beneficiary Mitigation Plans

Nineteen states have released draft VW Mitigation Plans and NGVAmerica has reviewed these plans and offered comments to the states. NGVAmerica believes the Colorado Plan provides an excellent model for other states that wish to segment their funding, maximize the use of alternative fuels, and provide parity among alternative fuels (https://www.colorado.gov/pacific/sites/default/files/AP_VW_Beneficiary_Mitigation_Plan.pdf).

In allocating its funds, Colorado did not pick a preferred alternative fuel (diesel is excluded except for fleets of 9 or less trucks) and kept the categories simple and broad. The \$18M set aside by Colorado for Alt Fuel Trucks/School and Shuttle Buses funds all alternative fuels at 40% of the vehicle cost for government and public entities, while private vehicles are funded at 25% of the vehicle cost (not the 75% allowed for EVs because that would result in fewer vehicles and less NOx reductions, and there are other sources for EV funding). NGVAmerica strongly recommends that Massachusetts consider adopting a similar “parity” approach to alternative fuel vehicles, instead of following the percentages suggested in the Trust.

Colorado has other funding they can apply to Transit applications, so it created a structure that augments the Trust funding to be used for transit applications with additional state monies. Colorado also set aside \$12.2M in Flex Funds to support projects in the segments that turn out to be successful and oversubscribed. For the DERA option, Colorado plans to consider funding projects involving liquefied natural gas (LNG) for non-road engines, mining trucks and locomotives.

Additional Options for Vehicle Scrappage

NGVAmerica also recommends that MASSDEP consider the following vehicle scrappage options in the Plan:

- Increase the options for scrappage beyond a strict replacement of a current fleet vehicle (e.g., allow a fleet to acquire an older vehicle from another fleet or allow a fleet to exchange one of its newer vehicles for another fleets older vehicle that is then scrapped)
- Since the Trust does not specify the fuel of the scrappage vehicle, allow natural gas vehicles that meet the year criteria to be scrapped and replaced with new NGVs

Use the Most Current Emissions and Cost Benefit Calculation Tools

The Argonne National Laboratory’s AFLEET tool should be used to calculate vehicle / fuel type emissions since this tool has recently been updated to include current data on all vehicles and fuels including in-use emissions data. The AFLEET Tool 2017 updates include:

- Added low-NOx engine option for CNG and LNG heavy-duty vehicles
- Added diesel in-use emissions multiplier sensitivity case
- Added Idle Reduction Calculator to estimate the idling petroleum use, emissions, and costs for light-duty and heavy-duty vehicles
- Added well-to-pump air pollutants and vehicle cycle petroleum use, GHGs, and air pollutants
- Added more renewable fuel options
- AFLEET Tool spreadsheet and user manual at: http://greet.es.anl.gov/afleet_tool and tool link is: <http://www.afdc.energy.gov/tools>

ANL has also just released a new vehicle emissions calculator (HDVEC) to provide state officials and fleet managers with an accurate tool to gauge emissions reductions across various medium- and heavy-duty vehicle project options affiliated with the Volkswagen Environmental Mitigation Trust Settlement. The HDVEC tool is available at: <http://afleet-web.es.anl.gov/hdv-emissions-calculator/>.

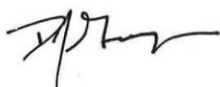
Summary of NGVAmerica's Recommendations for EMT Funding

- ✓ Given that the EMT was created because of NOx pollution associated with non-compliant diesel vehicles, we believe that the funding should be set aside for clean, **alternative fuel vehicle projects that focus on maximizing NOx reduction for the funds spent**
- ✓ Provide a larger incentive and greater overall funding for medium- and heavy-duty engines that deliver **greater NOx reductions than currently required** for new vehicles and engines
- ✓ Target funding for technologies that have demonstrated the ability to deliver actual **lower in-use emissions** when operated in real-world conditions
- ✓ Provide the **highest level of funding to applications that produce the largest share of NOx emissions** (in most regions this means prioritizing for short-haul, regional-haul and refuse trucks)
- ✓ Prioritize funding for **commercially available products that are ready for use**
- ✓ Prioritize funding for **clean vehicles rather than fueling infrastructure**
- ✓ **Scale funding to incentivize the cleanest engines available** – at a minimum, provide parity among alternative fuels by following a version of the Colorado VW Plan that funds non-diesel alternative vehicles in the private sector at 25% of the cost of the vehicle and public sector vehicles at 40%
- ✓ Ensure that funding incentivizes adoption by **both public and private fleets**
- ✓ Prioritize projects that include **partnerships that provide a match** such as a CNG or LNG station being built in locations that will receive the VW funding
- ✓ **Accelerate the funding** in the early years to maximize the NOx reduction benefits
- ✓ Use vehicles emissions measurement tools that reflect current technologies and performance under real world operation duty cycles – **Argonne National Laboratory's AFLEET tool and HDVEC tools** are the most current tools available

Compared to other alternative fuels and to diesel vehicles, natural gas vehicles that are commercially available today, offer the best solution for addressing the goals of the EMT and delivering the most nitrogen oxide (NOx) emission reductions for the lowest cost.

NGVAmerica and its members are eager to serve as a resource to assist the State of Massachusetts in its evaluation and development of the state's VW Beneficiary Mitigation Plan. We strongly encourage the state to recognize the unmatched role that natural gas vehicles play in delivering NOx emissions reductions required by the Trust. Please contact Jeff Clarke, NGVAmerica General Counsel & Regulatory Affairs Director at 202.824.7364 (jclarke@NGVAmerica.org), or Sherrie Merrow, NGVAmerica State Government Advocacy Director at 303.883.5121 (smerrow@NGVAmerica.org) to set up a meeting and for additional information.

Sincerely,



Daniel J. Gage
President