



Natural Gas Vehicles for America

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March 8, 2018

Commissioner Rob Klee  
Connecticut Department of Energy and Environmental Protection  
79 Elm Street  
Hartford, CT 06106-5127

**RE: NGVAmerica Comments on the Connecticut Mitigation Plan for Using the Funding from the Volkswagen Environmental Mitigation Trust**

Dear Commissioner Klee:

Natural Gas Vehicles for America (NGVAmerica), the national trade association for the natural gas vehicle industry, respectfully submits the following comments on how the Connecticut (CT) Department of Energy and Environmental Protection (DEEP) can best use the Environmental Mitigation Trust (EMT or Trust) funds (\$55.7 million) that the state will receive as part of the Volkswagen (VW) diesel emission settlement.

As stated in our VW Comment Letter submitted on February 27, 2017 (attached), NGVAmerica believes that natural gas vehicles (both LNG and CNG) offer the best solutions for the projects that will address the goals of the EMT, to reduce the most nitrogen oxide (NOx) for the least cost. Please see the diesel, electric vehicle and natural gas vehicle comparisons on the attached NGVA VW Flyer for heavy duty trucks, transit buses, refuse trucks and school buses.

The CT DEEP states that its CT VW Mitigation Plan (Plan) has as its primary goal to “improve and protect ambient air quality by reviewing, analyzing and implementing eligible mitigation projects that will:

- Improve air quality by achieving significant and sustained cost effective reductions in NOx emissions,
- Expedite deployment and widespread adoption of zero emission and near-zero emission vehicles and engines, and
- Support statewide energy, environmental and economic development goals while also taking into account environmental justice considerations associated with each proposed eligible mitigation project.”

The CT Plan effectively follows the overall goals of the Volkswagen Diesel Emissions Settlement, especially in the Trust’s first stated consideration for Eligible Mitigation Actions: “The selection of eligible Mitigation Actions that will on whole strive to maximize the use of Environmental Mitigation Trust funds in reducing NOx emissions.” Natural gas engines provide the lowest NOx reductions for the cost, especially if the near zero engines are deployed.

The VW EMT funds provide an extraordinary opportunity for Connecticut to cost-effectively accelerate the transition to cleaner vehicles and lower emissions. Commercially available natural gas vehicles (NGV) offer the best solutions today for addressing the goals of the EMT, delivering the most nitrogen oxide emission reductions for the least cost. If renewable natural gas (RNG) is used, life cycle greenhouse gas emissions from NGVs are reduced further. Using low NOx NGVs today allows Connecticut to accelerate achievement of clean air for its people now, while complementing its transition to zero emissions applications 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

Advocating the increasing use of NGVs where they benefit most.  
For the economy. For the environment. For health. For security. **For America.**

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](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 provides a relative parity for funding for the various fuels through its choice of percentage funding by fuel type. 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).

The CT Plan does provide parity in its funding percentages for government vehicles, but unlike Colorado it provides diesel an unfair advantage by including diesel vehicles for this funding. Parity is not achieved for non-government owned vehicles by giving electric vehicles “up to 60%” funding while other alternatives are limited to the Trust percentage of “up to 25%” (40% for repowers) and diesel is also included in this category. NGVAmerica strongly recommends that Connecticut consider adopting a similar “parity” approach to non-government alternative fuel vehicles, excluding diesel vehicles.

### **Additional Options for Vehicle Scrappage**

NGVAmerica also recommends that DEEP 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 fleet's 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 – HDVEC created for VW Projects**

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](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/>.

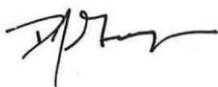
### Summary of NGVAmerica's Recommendations for EMT Funding

- ✓ 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. The DEEP recognizes the value of cost effective NOx reductions that NGVs provide, and that these emission reductions can be realized today while Connecticut prepares for a zero emission vehicle future.

NGVAmerica welcomes the opportunity to provide further information and analysis on the economic and environmental benefits of natural gas vehicles in Connecticut. Please contact Jeff Clarke, NGVAmerica General Counsel & Regulatory Affairs Director at 202.824.7364 ([jclarke@NGVAmerica.org](mailto:jclarke@NGVAmerica.org)), or Sherrie Mellow, NGVAmerica State Government Advocacy Director at 303.883.5121 ([smellow@NGVAmerica.org](mailto:smellow@NGVAmerica.org)) to set up a meeting and for additional information.

Sincerely,



Daniel J. Gage  
President