Volkswagen Diesel Settlement Funding Opportunity

NATURAL GAS SHORT-HAUL TRUCKS

Heavy-duty truck fleets across the country are transitioning to natural gas to reduce fuel costs and emissions. These natural gas trucks provide the power, performance and range required for reliable goods movement.

Most Cost Effective NOx Emission Reductions

When comparing the cost of NOx reduction, natural gas short-haul trucks are:

28% more cost effective than diesel

54% more cost effective than electric

$39 per lb of NOx

Natural Gas

Technology Cost $150,000

NOx Reduced 3,810 lbs

$54 per lb of NOx

Diesel

Technology Cost $100,000

NOx Reduced 1,858 lbs

$85 per lb of NOx

Electric

Technology Cost $324,000

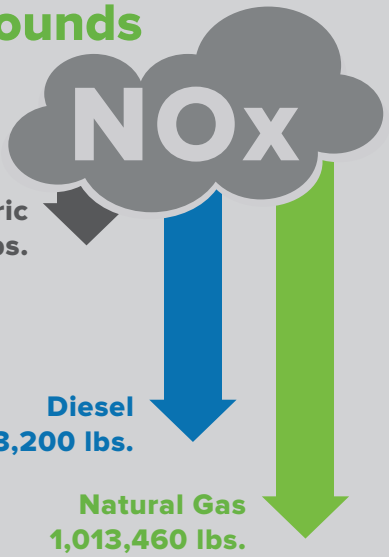
NOx Reduced 3,810 lbs

In 2015, a revolutionary natural gas engine was certified by the U.S. EPA and CARB to a level 90% below the EPA's current exhaust standard. These calculations assume the full cost to acquire the cleanest commercially available trucks for each fuel type.

What would $10 million in VW Settlement Funds buy?

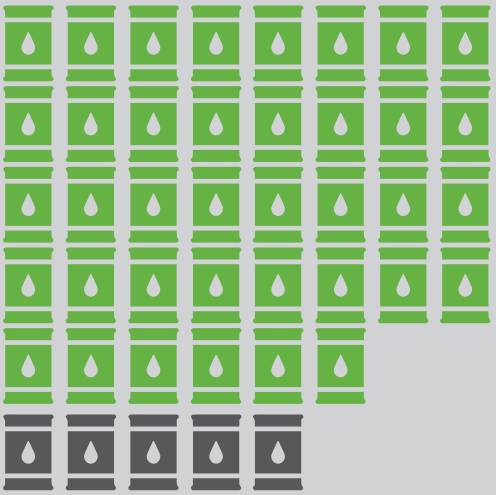
The VW Settlement's Environmental Mitigation Trust (EMT) Fund provides millions in funding for states to replace older diesel vehicles with new cleaner trucks and buses. Funds may be used to offset 25% of the each new natural gas ($37,500) and diesel ($25,000) truck and 75% of the cost of a new electric ($243,000) truck. NGVAmerica urges states to prioritize funding for the purchase of natural gas trucks because they deliver the greatest amount of emission reductions and air quality benefit for each dollar spent. Figures below represent benefit of using $10 million to purchase new cleaner trucks and include emission reductions associated with replacing older diesel trucks and comparing lifetime emissions of new cleaner trucks.

Lifetime Pounds of NOx Reduced



Total Gallons of Diesel Displaced

Natural Gas
>38 Million Gallons



Electric
>5 Million Gallons

NGVAMERICA
Natural Gas Vehicles for America

For more information visit: **www.ngvamerica.org/vwsettlement**

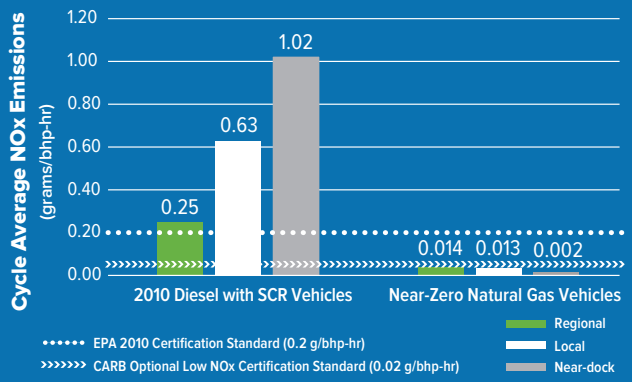
Natural Gas Trucks are
Proven to have Lower In-Use Emissions

Natural gas engines offer the cleanest, commercially available option for heavy-duty trucks. And with thousands of natural gas trucks operating on U.S. roadways for more than a decade, fleets benefit from proven technology available from OEMs with established sales and service networks, including:

- Freightliner
- Kenworth
- Mack
- Peterbilt
- Volvo

A report released by the University of California Riverside's College of Engineering-Center for Environmental Research and Technology (CE-CERT), found that:

Comparing NOx Emissions in Port Truck Operations



» **Natural gas vehicles emitted lower NOx:** The ISL G natural gas engine emitted lower NOx emissions than its EPA certification standard. Emissions decreased as the duty cycles decreased (i.e., slower speeds, idling, stop-and-go traffic).

» **Diesel vehicles emit up to 5x higher NOx:** 2010 diesel engines with SCR emitted up to 5 times higher NOx emissions than its EPA certification standard. Emissions increased as the duty cycles decreased.

(The data has been pulled from UCR CE-CERT test results of the Cummins Westport ISL G near-zero natural gas engine and 2010 diesel engines with selective catalytic reduction (SCR) emission control systems.)

Fast Return-on-Investment Due to Low Fuel and Maintenance Costs

$144,000
fuel savings per truck

Even with today's oil prices, natural gas prices can be $0.75 to $1 or more lower than diesel at the pump. The price differential quickly translates into substantial fuel savings.

Natural gas trucks/buses are easier to maintain than diesel trucks/buses. Advantages include:

- No diesel particulate filter regeneration or waste
- No selective catalytic reduction
- No diesel emission fluid

Natural Gas Truck Fleet Success Stories:

DILLON TRANSPORT

Over 250 of Dillon Transport's fleet run on clean burning natural gas. Specializing in the transportation of liquid and dry bulk cargoes (often 80,000+GVW loads), Dillon Transport started its move to natural gas-fueled trucks in 2011. In 2013, Dillon was one of the first fleets to take delivery of tractors with the Cummins Westport ISX12-G engine. Dillon Transport is proud to be a leader in the use of natural gas as a cleaner and domestically abundant transportation fuel.

ANHEUSER-BUSCH

Anheuser-Busch is committed to sustainable technologies and has proven as much by converting its truck fleets in St. Louis, Missouri, and Houston, Texas, from diesel to cleaner and domestically produced compressed natural gas. These conversions have replaced approximately 30% of Anheuser-Busch's total U.S. heavy-duty fleet. The St. Louis fleet alone covers 11 million miles per year in the Midwest.

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