Volkswagen Diesel Settlement Funding Opportunity

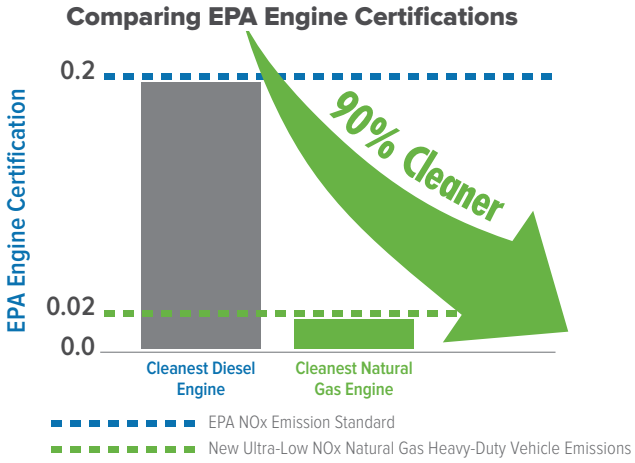
Make a Bold Impact on Air Quality Today

Allocating funds to deploy low-NOx natural gas vehicles provides the best way to deliver immediate and cost-effective NOx reductions and air quality benefit. Nearly 40% of Americans are exposed to unhealthful levels of ozone and particulate pollution. Volkswagen's $2.9 billion Environmental Mitigation Trust fund provides each state an incredible opportunity to make an immediate and tangible impact on air quality by targeting medium- and heavy-duty vehicles, the leading source of these toxic air contaminants in almost every metropolitan area.

Natural gas vehicles (NGVs) are transforming the medium- and heavy-duty transportation sector.

Sustainable:

NGVs Offer the Cleanest Heavy-Duty Truck Engines in the World



Natural gas medium- and heavy-duty engines provide unmatched reductions of smog-forming emissions of nitrogen oxides (NOx). In 2015, a revolutionary natural gas engine was certified by the U.S. Environmental Protection Agency and California Air Resources Board to a level 90% below the EPA's current exhaust standard and 90% below the cleanest diesel engine. A truck with this engine has an emission profile equivalent to that of a heavy-duty battery electric truck.

Available:

NGVs are Commercially Available Today Across All Applications Qualified for Funding

NGVs are commercially available from traditional truck and bus OEMs with established sales and service networks. Retrofit and repower options are also available from a variety of manufacturers.

Applications Include:

- Cement Mixer
- City Delivery Truck
- Conventional Van
- Dump Truck
- Fuel Truck
- Heavy Semi Tractor
- Large Walk In Van
- Motor Coach
- Rack Truck
- Refrigerated Van
- Refuse Truck
- Single Axle Van
- School Bus
- Shuttle Bus
- Transit Bus
- Tow Truck
- Utility Truck

Responsible:

Dollar-for-Dollar, NGVs Deliver the Most Cost-Effective NOx Emissions Reductions

The calculations shown below assume the deployment of the cleanest commercially available model for each application. Funding natural gas vehicles will lead to the largest total reduction in NOx emissions.

Short/Regional Haul Trucks

Natural Gas	Diesel	Electric
$39 per lb of NOx	$54 per lb of NOx	$85 per lb of NOx
Technology Cost $150,000	Technology Cost $100,000	Technology Cost $324,000
NOx Reduced 3,810 lbs	NOx Reduced 1,858 lbs	NOx Reduced 3,810 lbs

Refuse Trucks

Natural Gas	Diesel	Electric
$140 per lb of NOx	$190 per lb of NOx	$313 per lb of NOx
Technology Cost $300,000	Technology Cost $270,000	Technology Cost $670,000
NOx Reduced 2,141 lbs	NOx Reduced 1,417 lbs	NOx Reduced 2,141 lbs

School Buses

Natural Gas	Diesel	Electric
$220 per lb of NOx	$291 per lb of NOx	Not Commercially Available
Technology Cost $148,000	Technology Cost $115,000	
NOx Reduced 671 lbs	NOx Reduced 396 lbs	

Transit Buses

Natural Gas	Diesel	Electric
$273 per lb of NOx	$540 per lb of NOx	$569 per lb of NOx
Technology Cost $360,000	Technology Cost $300,000	Technology Cost $750,000
NOx Reduced 1,318 lbs	NOx Reduced 555 lbs	NOx Reduced 1,318 lbs

NGVAMERICA
Natural Gas Vehicles for America

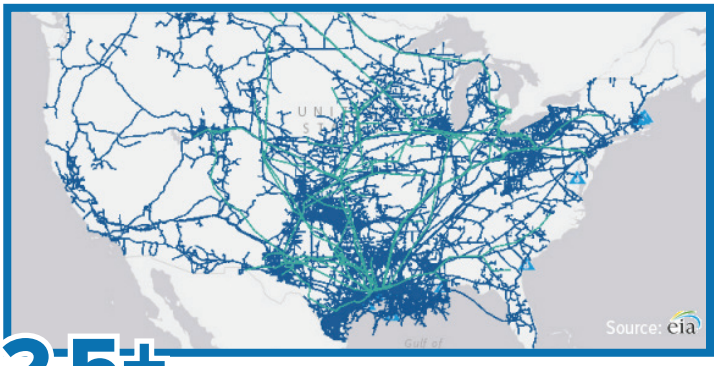
For more information visit: **www.ngvamerica.org/vwsettlement**

#1 Natural Gas Producer in the World

90+ years supply of recoverable natural gas

Continual supply by harnessing **renewable sources**

Source: U.S. Energy Information Administration



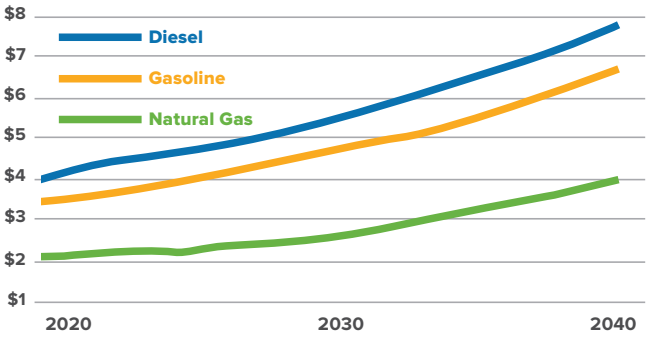
2.5+ million miles of U.S. pipeline infrastructure

The U.S.' expansive natural gas pipeline system is well poised to support a national network of natural gas fueling stations. Nearly 2,000 CNG and LNG fueling stations are operating today, with continual expansion underway.

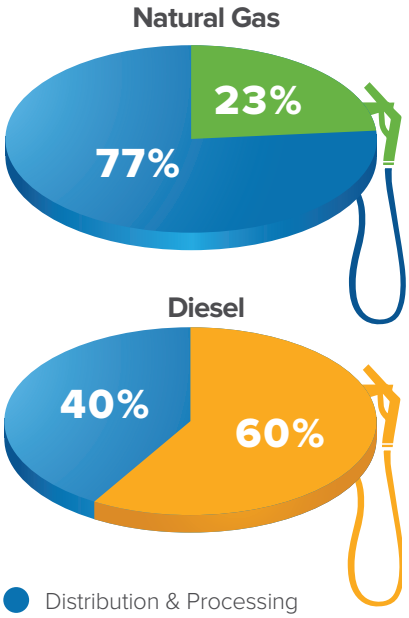
Natural gas is a clean, low-cost, and domestically abundant transportation fuel.

Natural Gas Provides Long-Term Fuel Price Stability and Cost Savings

Projected Fuel-Price Differentials
(prices per $DGE)



Source: U.S. Energy Information Administration



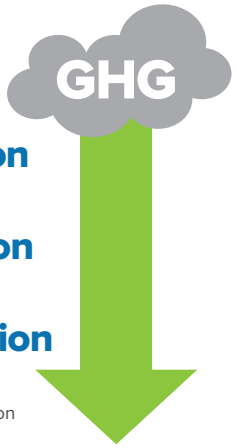
Currently, natural gas prices can be $0.75 to $1 or more lower than diesel at the pump, with a firm price advantage expected to remain for decades as shown in the chart above.

Beyond the fuel-price differential, the pump price of natural gas remains relatively stable for two reasons. First, it is domestically sourced. Second, the commodity cost of natural gas only makes up 23% of the pump price so price fluctuations have minimal impact.

In contrast, approximately 60% of the price of diesel fuel is impacted by the market cost of crude oil, which is largely sourced from politically unstable, high-conflict regions. When crude oil prices increase, diesel prices follow suit which can lead to significant swings in a fleet's fuel costs.

Natural Gas Reduces WTW Greenhouse Gas Emissions

Compared to Diesel:



- LNG — **11% reduction**
- CNG — **17% reduction**
- RNG — **115% reduction**

Source: NGVAmerica Fleets Run Cleaner on Natural Gas White Paper 2016

Volkswagen EMT Funding Recommendations

- ☑ Fund alternative fuel vehicle projects that cost effectively maximize NOx reductions for both public and private fleets
- ☑ Provide higher funding levels for medium- and heavy-duty engines that deliver NOx reductions greater than current EPA standards
- ☑ Target funding for technologies that have demonstrated lower in-use emissions
- ☑ Prioritize funding for commercially available products and projects that are ready to begin
- ☑ Stay flexible in plans and leverage private investment to stretch dollars and get more alternative vehicles on the road

Natural gas vehicles can fulfill all of these recommendations today!

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Natural Gas Vehicles for America

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