

10/25/2016

Dear State Association Executive:

Last year, the news broke that German automaker Volkswagen had programmed certain vehicles to deliberately cheat laboratory emissions testing. This intentional manipulation caused approximately 500,000 cars in the United States from 2009 to 2015 to emit NO<sub>x</sub> up to 40 times greater than the U.S. standards allow. As part of the settlement for this scandal, Volkswagen has agreed to set up a \$2.7 billion environmental mitigation trust fund to offset the excess emissions from the affected Volkswagen vehicles.

This letter is meant to make you aware of the current situation, discuss propane's role in mitigation action plans, and encourage you to begin the dialogue with your State Officials about how they will implement the mitigation plan. This will be an ongoing process over the next year, so please use NPGA as a resource when working with your State Officials on this plan. We will discuss this opportunity in greater detail at the Leadership Summit on November 16. Attached is a FAQ sheet developed by the Environmental Protection Agency (EPA) that provides a good description of the Mitigation Trust Agreement. Also attached is a table summarizing the share of the trust that each state is eligible to receive.

#### **Availability of Funds**

EPA estimates that funds will not be available until spring 2017 as there are several steps that need to happen before funds are disbursed. First, the Court must approve the settlement, which should happen sometime later this fall. Second, a trustee must be appointed; and third, the trust agreement must be finalized. Thereafter, potential beneficiaries – all 50 states, Washington, DC, Puerto Rico, and federally recognized tribes – must file a certification form within 60 days of the Trust Effective Date. The beneficiaries will then create mitigation action plans that detail how the funds will be used.

#### **An Opportunity for Propane**

Because Volkswagen specifically violated emissions regulations due to excess NO<sub>x</sub> in its turbocharged direct injection diesel engines, propane's emissions profile puts our industry in an advantageous position to help states offset these violations. According to PERC, propane autogas reduces NO<sub>x</sub> emissions from diesel by as much as 68 percent. Currently, engine manufacturers are developing technologies with emissions certifications 75 percent below the current EPA standard.

The Consent Decree lists several eligible mitigation action items.<sup>1</sup> Applications that utilize propane in the following areas may be eligible for funding:

- Class 8 local freight trucks
- Class 4-8 school buses, shuttle busses, or transit buses
- Class 4-7 local freight trucks
- Railroad freight switchers

---

<sup>1</sup> Appendix D-2 of the proposed Consent Decree lays out the specific eligibility criteria <https://www.epa.gov/sites/production/files/2016-06/documents/vwpartialsettlement-cd.pdf>

- Ferry boats/tug boats

The percentage of the costs to repower an existing vehicle or replace it entirely with a propane autogas engine depends on different factors described in the Consent Decree. For instance, for a non-government owned bus, beneficiaries may use the mitigation funds for 40 percent of the cost to repower or 25 percent of the cost to replace it with a new alternative fuel vehicle. However, for government owned buses, beneficiaries may use the funds for 100 percent of the cost of repowering or replacing with an alternative fueled engine. This would include privately owned school buses under contract with a public school district.

This Volkswagen settlement presents a great opportunity to promote propane as a part of the solution to the emissions scandal. If you have not already done so, please reach out to your state government officials to include propane vehicles in their mitigation action plans. PERC has a variety of materials designed to assist you in conversations with state officials on these issues, including: brochures, case studies, and one-pagers that can be found at [www.propane.com/on-road-fleets](http://www.propane.com/on-road-fleets). Enclosed are a few examples for your reference. NPGA is happy to assist with additional talking points, data, or other requests as needed.

If you have further questions, please contact me at (202)466-7200 or [mbisenius@npga.org](mailto:mbisenius@npga.org).

Thanks,



Matt Bisenius  
Director, Legislative Affairs

Enclosures



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

OFFICE OF  
ENFORCEMENT AND  
COMPLIANCE ASSURANCE

**Frequently Asked Questions (FAQ)  
For Beneficiaries to the Volkswagen Mitigation Trust Agreement**

Air Enforcement Division  
First Edition, July 2016

The June 2016 partial Volkswagen settlement requires the defendant, Volkswagen, to establish and fund a \$2.7 billion environmental mitigation trust. The trust will be administered by an independent trustee. The [partial settlement](#) and the provisions about the mitigation trust are largely found in paragraphs 14–19 of the Consent Decree and Appendix D to the Consent Decree. The purpose of the mitigation trust is to fund eligible mitigation actions that replace diesel emission sources with cleaner technology to reduce excess emissions of oxides of nitrogen (NO<sub>x</sub>) caused by the violating 2.0 liter cars. See EPA, [Securing Mitigation as Injunctive Relief in Certain Civil Enforcement Cases \(2012\)](#). This mitigation work is in addition to the emission reductions achieved by requiring Volkswagen to buy back or modify the violating 2.0 liter cars.

The partial settlement is structured to provide the impacted states, territories, and Indian tribes with the ability to select and implement appropriate mitigation actions funded by Volkswagen. Appendix D-1 to the Consent Decree provides an initial allocation of the funds, under which no state receives less than \$7.5 million. Appendix D-2 provides a broad array of mitigation actions that beneficiaries can implement. Beneficiaries must elect to become beneficiaries within 60 days of when the final trust agreement is filed with the Court (Trust Effective Date). Beneficiaries have 10 years from the Trust Effective Date to request their allocation and implement mitigation actions.

This document is a series of frequently asked questions for beneficiaries to the mitigation trust. The EPA will update this document as necessary.

## 1. FAQs: Timing

### FAQ 1.1: When is the trust likely to become effective?

A: The trust will likely become effective sometime during the first half of 2017. Several steps must occur before the trust becomes effective. First, the Court must approve the settlement, which may happen sometime in the fall of 2016. Second, a trustee must be appointed by the Court, which could happen within 60–90 days after the Court approves the settlement. Third, the trust agreement must be finalized, in a form substantially similar to the one included in the settlement, executed by Volkswagen and the trustee, and filed with the Court.

### FAQ 1.2: Who can qualify as a beneficiary?

A: Potential beneficiaries are all 50 states, the District of Columbia, Puerto Rico, and federally recognized tribes.

### FAQ 1.3: How do potential beneficiaries become beneficiaries?

A: To become a beneficiary, each potential beneficiary must file a certification form (Appendix D-3) with the Court within 60 days of the Trust Effective Date. The certification form includes, among other things, a waiver of certain claims that may require deliberation and approval by various offices within each potential beneficiary's government. Because the Trust Effective Date will not occur until several months after the settlement is approved, potential beneficiaries will have significantly longer than 60 days to execute their certification forms if they begin the process now. Potential beneficiaries should monitor the case docket as the Trust Effective Date is the date the final trust agreement is filed with the Court.

### FAQ 1.4: What is the first step for beneficiaries in deciding which eligible mitigation actions to take?

A: All beneficiaries (except for tribes) must create a mitigation plan that summarizes how the beneficiary intends to use its allotted funds. The plan must address a number of factors, including for example, the expected emission benefits, and how the beneficiary will seek and consider public comment.

### FAQ 1.5: What are the documentation requirements for funding specific projects and why are they necessary?

A: Each funding request must have sufficient detail to enable the trustee to determine whether the funds will be spent on eligible mitigation actions, to ensure the money is spent transparently, and that the projected costs are eligible.

FAQ 1.6: What if a project changes such that it costs less, or more, than the beneficiary asks for and receives from the trust?

A: Beneficiaries may adjust their goals and specific spending plans at their discretion and, if they do so, will need to provide the trustee with updates to their Beneficiary Mitigation Plan.

FAQ 1.7: When can beneficiaries actually expect to have access to funds for eligible mitigation actions?

A: The trustee has 120 days from the Trust Effective Date (which, as described above, we anticipate to be sometime in 2017) to file a list of designated beneficiaries. Once designated, each beneficiary may submit funding requests to the trustee for eligible mitigation actions, subject to certain limits during the first three years until the trust is fully funded. The trustee must act upon such funding requests within 60 days of receipt, either by approval, disapproval, requesting changes, or requesting further information. Therefore, beneficiaries should expect to have access to trust funds beginning approximately six months following the Trust Effective Date.

FAQ 1.8: Is there guidance on what information a state must submit about its projects?

A: The elements of Beneficiary Mitigation Plan are listed in paragraph 4.1 and the elements of the required funding requests are listed in paragraph 5.2 of Appendix D. The Mitigation Trust Agreement is designed to be straightforward, with a list of projects that focus on vehicle or vessel equipment or engine replacements that are relatively uncomplicated to implement. A beneficiary may also choose the DERA option, under which it may receive limited and appropriate guidance from an EPA Regional office typical of what is routinely provided to DERA grantees. Consultant fees would also be an eligible administrative cost under the DERA option.

FAQ 1.9: What is the process if a beneficiary disagrees with the trustee's decision?

A: Within 60 days after receiving a beneficiary's funding request, the trustee will be required to transmit to the requesting beneficiary and post on the trust's public website a written determination either approving the request, denying the request, requesting modifications to the request, or requesting further information. Each written determination approving or denying an Eligible Mitigation Action funding request will include an explanation of the reasons underlying the determination, including whether the proposed Eligible Mitigation Action meets the requirements of the Mitigation Trust Agreement. In the unlikely event that a beneficiary ultimately disagrees with the trustee's decision on its request, it may petition the Court to review the decision.

FAQ 1.10: To what extent must a beneficiary take public comment on its mitigation plan?

A: Beneficiaries have discretion in how they seek and consider public input on their Beneficiary Mitigation Plans; however the plans must explain the process for public input.

FAQ 1.11: How long do beneficiaries have to access and spend allocated trust funds?

A: Beneficiaries have 10 years to spend allocated trust funds. After that, unused trust funds will be redistributed as supplemental funding among beneficiaries that have used at least 80% of their allocated trust funds. Such beneficiaries will be given five additional years to use the supplemental funding.

## **2. FAQs: Eligible Mitigation Actions (General Issues)**

FAQ 2.1: What is the range of eligible mitigation actions?

A: Eligible mitigation actions are focused on large mobile sources of NO<sub>x</sub> pollution across the country. These eligible mitigation actions have a proven track record of being cost-effective and straightforward in reducing NO<sub>x</sub> from older, dirtier diesel engines, vehicles, equipment, and vessels. Appendix D-2 to the Consent Decree details the 10 eligible mitigation actions and eligible expenditures. Actions eligible under the Diesel Emission Reduction Act (DERA) option (eligible mitigation action #10) include truck stop electrification (electrified parking spaces to eliminate long duration idling), fuel efficiency and idle reduction equipment (single-wide tires, fuel-operated heaters, auxiliary power units, etc.), and other types of cleaner cargo handling equipment (rubber-tired gantry cranes, yard hostlers, etc., at ports), construction equipment, smaller marine vessels, and diesel generators.

FAQ 2.2: Why is the eligible mitigation actions list so specific on eligible model years for vehicles that can be taken out of service or replaced?

A: Eligible mitigation actions involving highway vehicles are restricted to model years that predate the EPA's current, more stringent emissions standards. It is important to focus on replacing the older, dirtier vehicles and engines—which might otherwise remain in service for many more years—to ensure substantial air quality gains will be achieved expeditiously in places where people live and work.

FAQ 2.3: What are the ways in which a beneficiary can use its allocated trust funds to replace dirty heavy-duty diesel vehicles with electric vehicles?

A: There are many opportunities for beneficiaries to use trust funds to purchase new all-electric vehicles listed in Appendix D-2 to the Consent Decree. For example, a beneficiary could receive 100% of the cost of a new electric, government-owned school, transit, or shuttle bus to replace an existing diesel, government-owned school, transit, or shuttle bus. In addition, Attachment 2 allows a beneficiary to use trust funds to pay for up to 75% of the cost of a new all-electric replacement vehicle for nongovernment-owned fleets, and 100% of the cost of new all-electric school bus replacements in private fleets contracted with public school districts. The charging infrastructure associated with these electric vehicles can also be purchased with trust funds.

FAQ 2.4: Why is scrappage required?

A. The partial settlement funds the replacement of older, high-polluting heavy-duty vehicles, engines, and/or equipment. To ensure that such replacements achieve the intended emission reductions, the replaced equipment must be scrapped. Beneficiaries are encouraged to recycle scrapped vehicles, engines, and equipment to reduce unnecessary waste.

**3. FAQs: Eligible Mitigation Actions: DERA option**

FAQ 3.1: How will eligible mitigation action #10 (the DERA option) work for eligible beneficiaries?

A: The DERA program is a Congressionally-authorized program that enables the EPA to offer funding assistance for actions reducing diesel emissions. Thirty percent of annual DERA funds are allocated to the DERA Clean Diesel State Grant Program. Under the DERA Clean Diesel State Grant Program, each state and territory is offered a base amount of EPA DERA funding. States and territories that match the base amount dollar for dollar receive an additional amount of EPA DERA funding to add to the grant (50% of the base amount). This non-federal match can be state or territorial funds, private funds, or funds from the beneficiary's allocation under the mitigation trust. Under the DERA option, beneficiaries may draw funds from the trust for their non-federal match on a 1:1 basis or greater than 1:1 basis as an "overmatch." There is no limit on the amount of money beneficiaries can contribute to an "overmatch." Below are two examples. In both examples, the entire amount (\$500,000 and \$1.3 million) is now included in the EPA DERA grant and subject to the EPA and federal grant rules and practices.

Example A: If a state's DERA allocation in FY2017 is \$200,000 under the DERA Clean Diesel State Grant Program, the state may use \$200,000 in trust funds as the 1:1 match. Then, the state will receive its bonus DERA funds equal to 50% of the base amount (\$100,000), making \$500,000 the total amount the state receives—\$300,000 from DERA and \$200,000 from the trust.

Example B: If a state's DERA allocation in FY2017 is \$200,000 under the DERA Clean Diesel State Grant Program, the state may use a larger amount—\$1 million in this example—in trust funds to overmatch the 1:1 ratio. The state receives its bonus DERA amount of \$100,000 and thus the total amount for the DERA Clean Diesel State Grant Program for FY2017 would be \$1.3 million—\$300,000 from DERA and \$1 million from the trust.

FAQ 3.2: How will eligible mitigation action #10 (the DERA option) work for tribal beneficiaries?

A: Tribal trust beneficiaries may utilize trust funds for the DERA Clean Diesel Tribal Grant Program. Because DERA enables the EPA to offer separate funding assistance to tribes to reduce diesel emissions, this option will enable tribes to utilize trust funds to implement clean diesel actions eligible under DERA, such as repowering fishing vessels, repowering or replacing

generators, and electrifying parking spaces, in addition to those from the eligible mitigation actions list (Appendix D-2). Under the DERA Clean Diesel Tribal Grant Program, tribes submit applications for DERA grant funding in response to an annual Request for Proposals. Tribes will be able to request trust funds annually to use as a voluntary match or overmatch for DERA tribal grants in the same manner as described in FAQ 4.1 above.

FAQ 3.3: Are a beneficiary's administrative expenses covered under eligible mitigation action #10 (the DERA Option) or under the "eligible mitigation action expenditures" listed in Appendix D-2?

A: A beneficiary that chooses any of the actions from 1 through 9 can spend up to 10% of its total mitigation plan budget on administrative expenses as set for in Appendix D-2. As described in current DERA program guidance, DERA Clean Diesel State Administrative expenses can account for up to 15% of the total amount of funding (DERA funds plus matching funds, such as trust funds) for DERA Clean Diesel State Grants.

FAQ 3.4: What are the options for beneficiaries that might want to conduct an eligible mitigation action that does not exactly fit the required criteria for the action?

A: Beneficiaries may use option #10, the DERA option. The DERA program has a process for handling waivers of existing guidelines. Examples of waivers that the EPA has approved with reasonable justification include the following: waivers of model year restrictions, useful life restrictions, and cost-share restrictions.

FAQ 3.5: What if Congress does not fund DERA in the future?

A: Beneficiaries may use trust funds for their non-federal match or overmatch pursuant to DERA. If DERA funding becomes unavailable, then there is nothing to match, and trust funds would not be available for projects under the DERA option in Appendix D-2 of the Consent Decree.

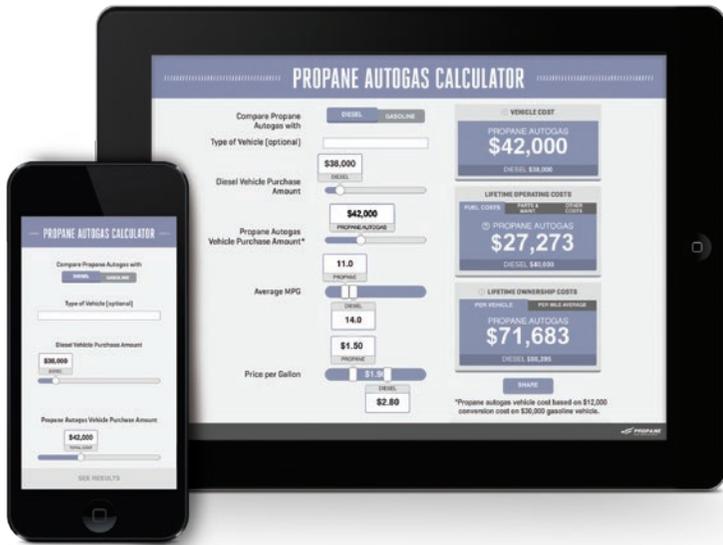
#### **4. FAQs: Miscellaneous**

FAQ 4.1: What is the connection between beneficiary status and state motor vehicle registration of the 2.0 liter vehicles at issue in the case?

A: Beneficiaries must file a certification form with the Court that includes certain agreements regarding vehicle registration. The relevant certification form language is at Certification #9 of Appendix D-3.

## APPENDIX D-1 - INITIAL ALLOCATION

INITIAL SUBACCOUNTS	INITIAL ALLOCATIONS (\$)	INITIAL ALLOCATIONS (%)
Puerto Rico	\$ 7,500,000.00	0.28%
North Dakota	\$ 7,500,000.00	0.28%
Hawaii	\$ 7,500,000.00	0.28%
South Dakota	\$ 7,500,000.00	0.28%
Alaska	\$ 7,500,000.00	0.28%
Wyoming	\$ 7,500,000.00	0.28%
District of Columbia	\$ 7,500,000.00	0.28%
Delaware	\$ 9,051,682.97	0.34%
Mississippi	\$ 9,249,413.91	0.34%
West Virginia	\$ 11,506,842.13	0.43%
Nebraska	\$ 11,528,812.23	0.43%
Montana	\$ 11,600,215.07	0.43%
Rhose Island	\$ 13,495,136.57	0.50%
Arkansas	\$ 13,951,016.23	0.52%
Kansas	\$ 14,791,372.72	0.55%
Idaho	\$ 16,246,892.13	0.60%
New Mexico	\$ 16,900,502.73	0.63%
Vermont	\$ 17,801,277.01	0.66%
Louisiana	\$ 18,009,993.00	0.67%
Kentucky	\$ 19,048,080.43	0.71%
Okiahoma	\$ 19,086,528.11	0.71%
Iowa	\$ 20,179,540.80	0.75%
Maine	\$ 20,256,436.17	0.75%
Nevada	\$ 22,255,715.66	0.82%
Alabama	\$ 24,084,726.84	0.89%
New Hampshire	\$ 29,544,297.76	1.09%
South Carolina	\$ 31,636,950.19	1.17%
Utah	\$ 32,356,471.11	1.20%
Indiana	\$ 38,920,039.77	1.44%
Missouri	\$ 39,084,815.55	1.45%
Tennessee	\$ 42,407,793.83	1.57%
Minnesota	\$ 43,638,119.67	1.62%
Connecticut	\$ 51,635,237.63	1.91%
Arizona	\$ 53,013,861.68	1.96%
Georgia	\$ 58,105,433.35	2.15%
Michigan	\$ 60,329,906.41	2.23%
Colorado	\$ 61,307,576.05	2.27%
Wisconsin	\$ 63,554,019.22	2.35%
New Jersey	\$ 65,328,105.14	2.42%
Oregon	\$ 68,239,143.96	2.53%
Massachusetts	\$ 69,074,007.92	2.56%
Maryland	\$ 71,045,824.78	2.63%
Ohio	\$ 71,419,316.56	2.65%
North Carolina	\$ 87,177,373.87	3.23%
Virginia	\$ 87,589,313.32	3.24%
Illinois	\$ 97,701,053.83	3.62%
Washington	\$ 103,957,041.03	3.85%
Pennsylvania	\$ 110,740,310.73	4.10%
New York	\$ 117,402,744.86	4.35%
Florida	\$ 152,379,150.91	5.64%
Texas	\$ 191,941,816.23	7.11%
California	\$ 381,280,175.09	14.12%
Tribal Allocation Subaccount	\$ 49,652,857.71	1.84%
Trust Administration Cost Subaccount	\$ 27,000,000.00	1.00%
Tribal Administration Cost Subaccount	\$ 993,057.15	0.04%
	\$ 2,700,000,000.00	100.00%



## THE PROPANE AUTOGAS CALCULATOR

See how much your fleet could save by switching to propane autogas with this tool. Download the free app for Apple® and Android™ devices today.

To learn more about why propane autogas is the right fuel for your fleet, visit [propane.com/on-road-fleets](http://propane.com/on-road-fleets).



1140 Connecticut Ave. NW, Suite 1075 / Washington, DC 20036  
P 202-452-8975 / F 202-452-9054 / [propanecouncil.org](http://propanecouncil.org)

© 2015 Printed on recycled paper

# PROPANE AUTOGAS VS. DIESEL

## CHOOSE LOWER COST-OF-OWNERSHIP



 PROPANE EDUCATION & RESEARCH COUNCIL

 PROPANE  
**AUTOGAS**  
CLEAN AMERICAN ENERGY™

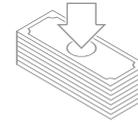


# PROPANE AUTOGAS PAYS OFF

If you have a diesel-fueled fleet, you know all the additional costly expenses that come with today's diesel technology. Propane autogas will empower you to save more over time by offering a lower total cost-of-ownership.

## THE PROPANE AUTOGAS ADVANTAGE

**LOWER  
-COST OF-  
OWNERSHIP**



### LOWER TOTAL COST-OF-OWNERSHIP

The costs of diesel add up quickly: expensive fuel, additional fluids, and pricey particulate filters. These are the most influential reasons why propane autogas vehicles save more money, from purchase to retirement of the asset.



**SUPERIOR  
COLD WEATHER  
PERFORMANCE**

### POWERFUL VEHICLES

Choose from a wide selection of OEM-supported vehicles that are EPA- and CARB-certified — without sacrificing the horsepower, torque, and towing capacity you'd get from their conventionally fueled counterparts.



**REDUCED  
DOWNTIME**

### MORE UPTIME

With propane autogas, you can skip the downtime typically caused by diesel's extra repairs and maintenance. Propane autogas vehicles also provide superior cold-weather performance compared with diesel.

**FLEXIBLE  
INFRASTRUCTURE**



**TO MEET YOUR NEEDS**

### AFFORDABLE, FLEXIBLE INFRASTRUCTURE

Fleets can choose private, on-site refueling infrastructure scaled for their needs, or take advantage of flexible public or private refueling networks.



**CLEAN  
ENERGY**

### SAFE FOR EVERYONE

Propane autogas vehicles operate quieter than diesel models, allowing drivers to better focus on their passengers and the road. Standard safety features designed into propane autogas vehicle fuel systems provide added peace of mind for everyone.

### CLEAN, AMERICAN-MADE FUEL

By using propane autogas, your organization can reach its sustainability goals without additional, costly emissions technology. You're also supporting our country's economy — nearly 90 percent of propane supplies are produced in the U.S.



# SAVE ON THE 3 F's

Propane autogas lowers fleets' total cost-of-ownership by saving more money in these three key areas.

1

## FUEL

The cost of wholesale propane falls between the price of oil and natural gas, the fuel's two sources. As a result, propane autogas is consistently less expensive than diesel, even as fuel prices fluctuate.

2

## FLUIDS

New, lower-emissions diesel technology comes with an added inconvenience: diesel emissions fluid to purchase, store, and change. This is on top of needing more oil by volume compared with propane autogas. In cold temperatures, diesel vehicles also require anti-gels to prevent clogging of fuel filters and lines. Propane autogas provides reliable performance without additional fluids.

3

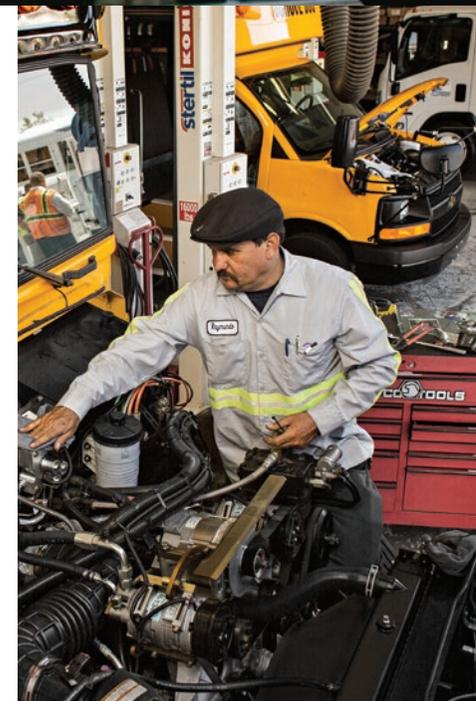
## FILTERS

To meet emissions requirements, new diesel technology requires diesel particulate filters that must be cleaned every 200,000 miles. Excessive idling will accelerate cleaning intervals. Either way, extra maintenance expenses are piled on top of additional upfront costs.

*"Day-to-day maintenance on a propane bus is a lot less than on a diesel model. You don't have the multi-thousand-dollar particulate filters, and you don't have to put any other fluid in. I could change the oil on a propane engine three times for the cost of one diesel service."*

**Brian Urwin**

Shop Manager, Student Transportation Inc.,  
Omaha, Neb.





# SPEND TIME ON THE ROAD... NOT ON REPAIRS

New diesel vehicles may offer fewer emissions than older diesel technology, but they're also susceptible to expensive, time-wasting repairs that aren't an issue with propane autogas.



## COMMON DIESEL HEADACHES

Without proper preventative maintenance, diesel fleets can expect to spend time and money replacing injectors, exhaust gas recirculation valves and coolers, turbochargers, dirty aftercoolers, and irregular closed crankcase filters.

## THE COST OF IDLING

Today's diesel engines are designed for minimal idling, which should not exceed five minutes. Excessive idling fouls injectors and damages EGR valves, turbochargers, and diesel particulate filters. It has also been proven to increase the need for engine emissions regenerations, which increases downtime and maintenance expenses.



*"Without proper preventative maintenance, EPA- and CARB-compliant diesel engines can have an array of issues that you just don't have with propane-autogas-powered engines. We don't worry about the downtime and maintenance that goes into cleaning or replacing diesel particulate filters — and those costs really add up."*

**Tim Stevens**

President, Stevens Sausage,  
Smithfield, N.C.

# PROPANE AUTOGAS REFUELING OPTIONS

The best refueling option for your fleet depends on its size, routes, and refueling timing. Your local propane provider can help you select the right option for your situation.



## USING A PRIVATE OR PUBLIC NETWORK

Small-budget fleets with limited space, or fleets needing more fueling locations along their routes can take advantage of this option with no infrastructure investment. Network refueling stations are accessible 24/7 through a card lock system.

If a network is not currently available in your area, a propane provider may create one for your fleet, if it's large enough. Alternatively, multiple fleets can team up to provide adequate load for requesting a refueling network.

## STANDARD PRIVATE STATION

*Best for small fleets needing a central refueling location*

A 1,000- to 2,000-gallon tank and a single dispenser, which can support up to 25 vehicles

### OPTION 1

#### PROPANE PROVIDER OWNS INFRASTRUCTURE

The fleet is responsible for site preparation: crash protection and electrical.

#### COST FOR FLEET

**\$1,500-\$5,000**

(SITE PREPARATION)

### OPTION 2

#### FLEET OWNS INFRASTRUCTURE

The fleet will need to account for purchasing the propane tank, pump, motor, and dispenser.

#### COST FOR FLEET

**\$25,000-\$50,000**

(INFRASTRUCTURE)

+

**\$1,500-\$5,000**

(SITE PREPARATION)

## ADVANCED PRIVATE STATION

*Best for large fleets needing a central refueling location*

Larger tanks, a canopy, and multiple dispensers to support 25 vehicles or more

### OPTION 1

#### PROPANE PROVIDER OWNS INFRASTRUCTURE

The fleet is responsible for site preparation: crash protection and electrical for a two-dispenser setup.

#### COST FOR FLEET

**\$3,000-\$7,500**

(SITE PREPARATION)

### OPTION 2

#### FLEET OWNS INFRASTRUCTURE

The fleet is responsible for the cost of a canopy, propane tank, pump, motor, and dispenser with card lock and vehicle tracking capability, which can vary based on the complexity of the station.

#### COST FOR FLEET

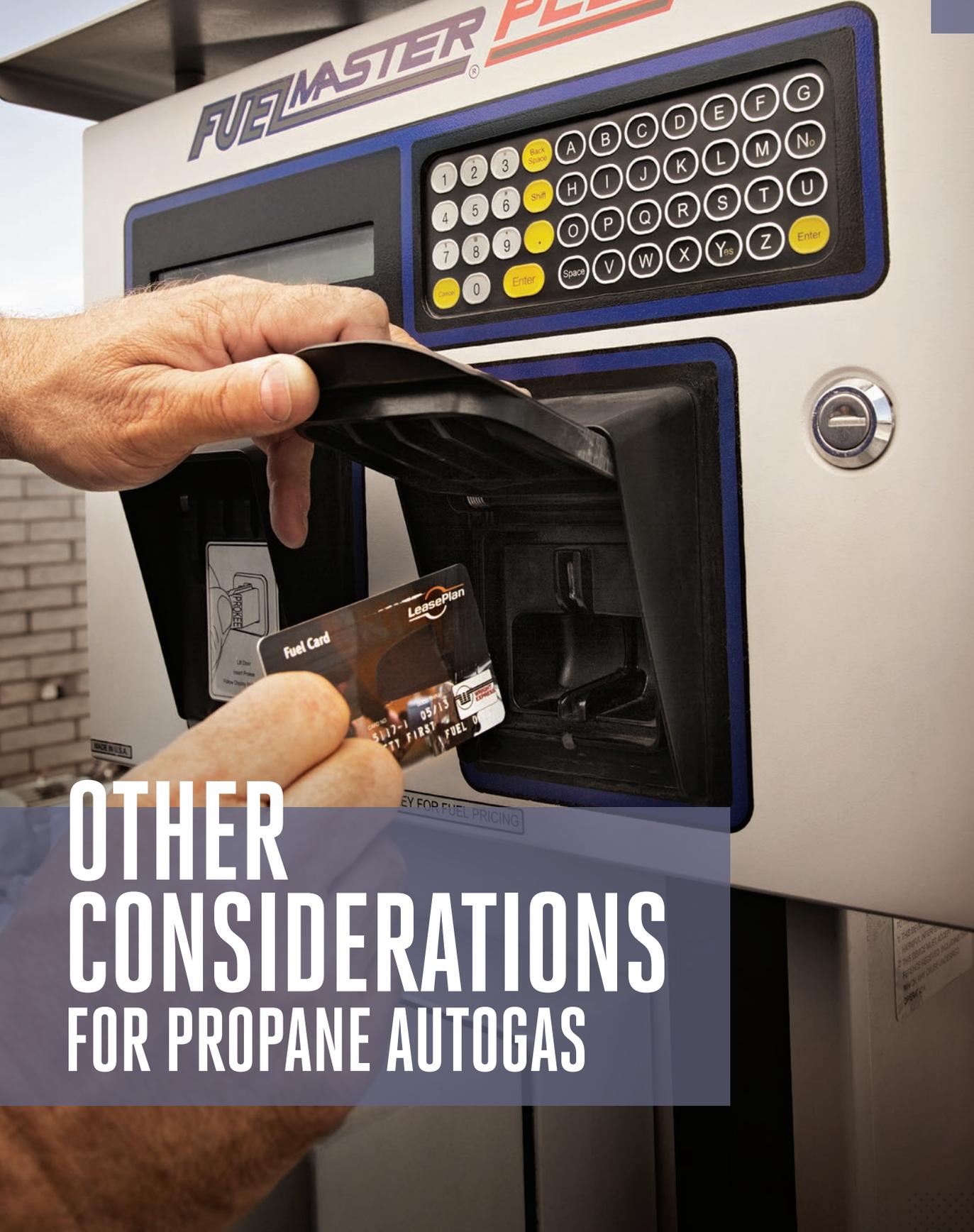
**\$50,000-\$200,000**

(INFRASTRUCTURE)

+

**\$3,000-\$7,500**

(SITE PREPARATION)



# OTHER CONSIDERATIONS FOR PROPANE AUTOGAS



## MAINTENANCE FACILITY NEEDS

Switching from conventional fuel to propane autogas is quick and cost-effective, because the requirements for a propane autogas vehicle repair facility are generally the same as those for conventionally fueled vehicles. Other alternative fuels, however, may require different facility requirements than conventional fuels, like additional gas detection and ventilation equipment — costing fleets more to switch.

Contact your local Authority Having Jurisdiction (AHJ) for applicable codes regarding building or modifying a propane-autogas-powered vehicle repair or maintenance facility.



## PROPANE DISPENSER SPECIFICATIONS

There is a variety of technology available to use in your refueling station. It's important to choose a dispenser that will deliver a similar user experience to gasoline, is the correct dispenser for your vehicle, and will meet all applicable codes and regulations.

To learn more, download the Propane Autogas Dispenser Specifications guide from [propane.com/on-road-fleets/safety-and-training](http://propane.com/on-road-fleets/safety-and-training).

*"The local propane provider comes with a bobtail truck every other or every third week and fills up our tanks. We've had absolutely no issues at all, and we didn't have to make any alterations to our facilities and shop, either."*

**John Dufor**  
President, All-Star Transportation,  
Torrington, Conn.



# PROPANE AUTOGAS

FUEL AT THE TOP OF ITS CLASS





# FUEL FIT FOR YOUR DISTRICT'S NEEDS

Propane autogas is budget-friendly, clean, and safe — all while delivering the performance you need.

## DOLLARS AND SENSE.

*Buses powered by propane autogas are providing long-term savings for school districts and private contractors alike as school transportation budgets continue to shrink. Conventional and other alternative fuels stop short of delivering the same benefits..*

### HIGH-VALUE FUEL

The cost of operation per mile with propane autogas is lower than gasoline or diesel. And, when you take advantage of potential government tax incentives, the payback period on propane autogas is even shorter.

### LOWER MAINTENANCE COSTS

Thanks to the dependable, clean-burning performance of propane autogas in school buses, school districts and private contractors will enjoy lower maintenance costs. Propane autogas engines require less oil by volume than diesel, no additional filters, and no costly emission fluids, leaving more dollars to be spent in the classroom, and less on the way there and back.

### AFFORDABLE INFRASTRUCTURE

Propane autogas providers specialize in helping schools choose the right refueling option for their situation, which may include a standard or advanced on-site refueling infrastructure plan. Either option offers convenience for fleets needing a central refueling station.

## FEDERAL AND STATE INCENTIVES

For more information about incentives, laws, regulations, and programs related to propane autogas, visit [propane.com/on-road-fleets](http://propane.com/on-road-fleets).



## PROSPER INDEPENDENT SCHOOL DISTRICT

To transport over 2,800 student passengers annually, Prosper Independent School District relies on a 75-bus fleet, 68 of which are powered by propane autogas. After four years, its fuel savings compared with diesel are at least \$200,000.

*"These financial savings allow us to spend much-needed funds on education, and reduce the amount of funds to keep our fleet operational."*

**Jody Woolverton**  
Director of Transportation

## PORTLAND PUBLIC SCHOOLS (PPS)

For the past 30 years, PPS has set an alternative fuel example for schools nationwide. The district began running several buses on propane autogas in 1983, and, after finding it to be more cost-effective than conventional fuels, converted most of its remaining fleet. It has reaped the benefits. PPS recorded a 50 percent savings for its 2012 propane autogas purchases compared with those for gasoline.

*"With all these advantages, propane autogas is clearly the way to go."*

**Melvin Philbrook**  
Fleet Maintenance Supervisor

## TIPPECANOE SCHOOL CORP. (TSC)

Community members know their tax dollars are being well spent on TSC's propane-autogas-powered buses. Unreliable diesel fuel costs prompted Kevin Neafie, transportation director, to seek an alternative fuel. Less than a year after purchasing five propane autogas buses, the district has saved more than \$10,000 on fuel, and benefits even further from federal alternative tax credits, incentives, grants, and deductions.

*"From the information we've gathered so far for our report, we're going in the right direction."*

**Kevin Neafie**  
Transportation Director

## PERFORMANCE THAT PASSES THE TEST

### THE BUSES

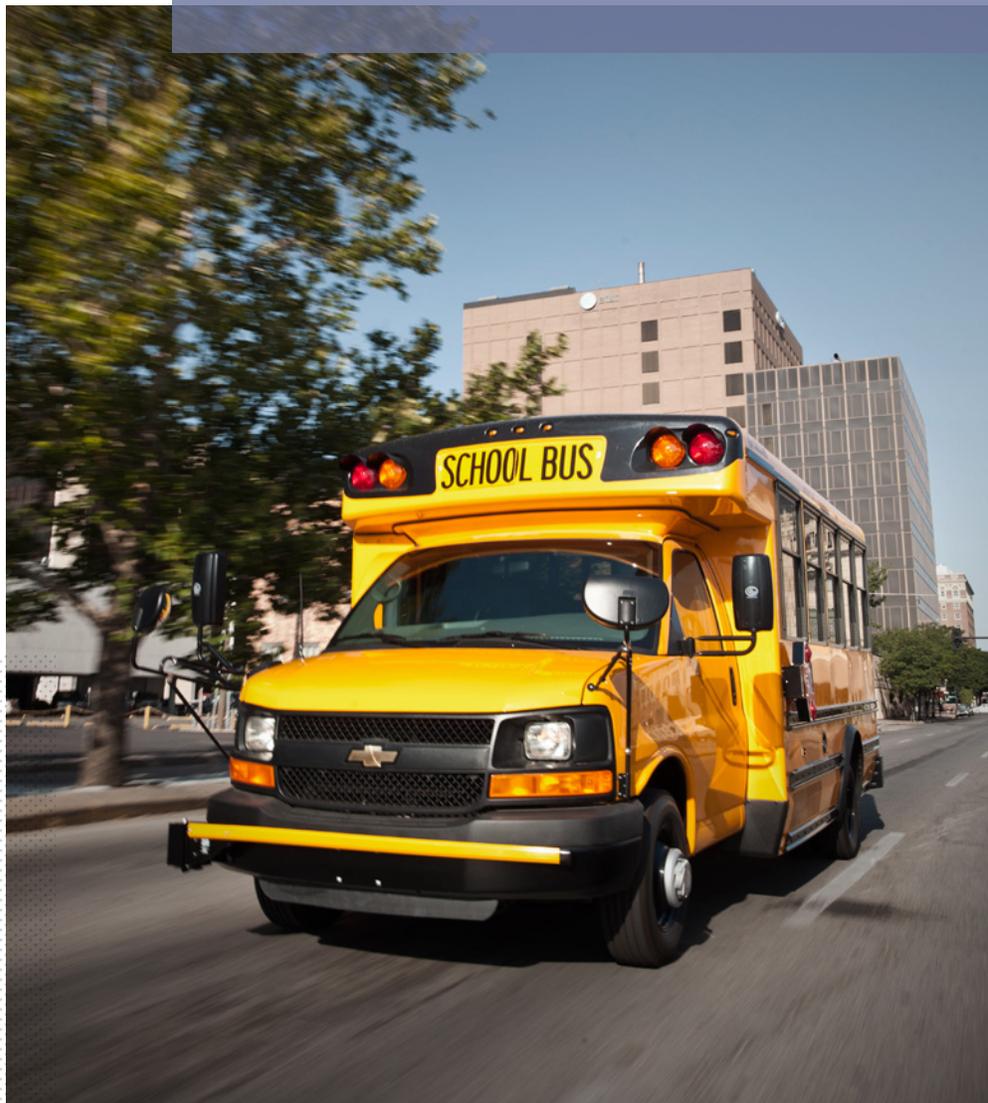
School districts can choose from a selection of Type A and Type C propane autogas buses developed by industry-leading manufacturers. These include the Blue Bird Type A Micro Bird and Type C Vision in partnership with Ford and Roush CleanTech. Collins offers the Type A NexBus and Thomas Built has the Type A Minotaur in partnership with General Motors and CleanFuel USA. The Thomas Built Type C Saf-T-Liner is also available in partnership with Freightliner Custom Chassis Corp., Powertrain Integration, and CleanFuel USA. Finally, IC Bus offers the Type C CE.



These buses offer proven OEM-backed performance to school districts across the country, delivering capabilities comparable to conventionally-fueled models. In fact, Portland Public Schools reports its propane autogas buses run up to 30,000 miles longer than those fueled by gasoline.

### THE REFUELING STATIONS

Refueling with propane autogas is quick, quiet, and safe. It's the same experience as refueling with diesel or gasoline, making the transition easy for school districts.



## A SAFE, SMOOTH RIDE

While managing a budget and choosing proven technology are critical, passenger safety is always your first priority. Powering buses with propane autogas is one way to cut costs without cutting corners. Propane autogas buses are crash tested for impact in the side and rear areas, meeting rigorous U.S. FMVSS and Canadian CMVSS motor vehicle safety standards.

### INTERNAL DESIGN

Propane autogas fuel systems are designed to keep everyone safe. Any risk of autogas leaks (or pilferage) is minimal, thanks to a closed loop fuel system. Protective design features include critical valves that are strategically positioned away from potential damage, and an automatic fuel shut-off in the event of a fuel line rupture.

### QUIETER

Safely transporting more than 70 students to school, home, and extracurricular activities while navigating through all types of traffic, weather, and terrain is a major task for school bus drivers. This job requires focus, so the fact that propane autogas engines are 50 percent quieter than diesel engines not only makes for a more pleasant ride, but a safer one.

## NO MORE BLACK SMOKE

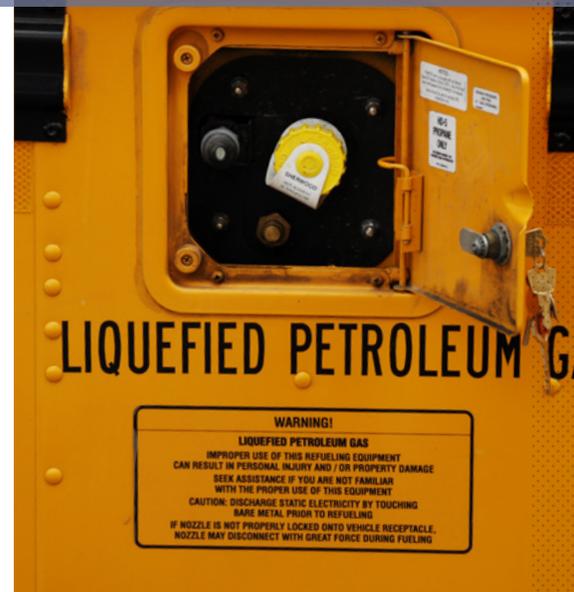
The World Health Organization and the Environmental Protection Agency have identified diesel engine exhaust as a carcinogen, which can cause short- and long-term health effects. With the emergence of alternative energy like propane autogas, however, the days of exposing young passengers to a black cloud of diesel exhaust are over. Propane autogas vehicles:

- Reduce greenhouse gas emissions by 11 percent compared with gasoline light-duty vehicles — a reduction comparable to, and in some cases better than, emissions from compressed natural gas vehicles.
- Reduce greenhouse gas emissions by 18 percent compared with gasoline heavy-duty vehicles.
- Will not expose students to harmful particulate matter found in diesel exhaust, which is known to escalate breathing-related issues and aggravate asthma.
- Are not subject to anti-idling restrictions due to their low-emissions status.

Considering the facts, your opportunity to choose cleaner, affordable propane autogas is even more valuable.

## ABUNDANT FUEL SUPPLY, RIGHT HERE

90 percent of U.S. propane supplies are produced domestically, supporting jobs at home. Choosing American-made propane autogas is healthier for passengers, the environment, and America's energy security.



### NOW'S THE TIME TO SWITCH

Propane autogas is proven to be the best value for school buses. Its affordability alone makes it a smarter alternative to conventional fuels. Add to that the many benefits provided for children, communities, and the planet, and it's no wonder more school districts are choosing propane autogas every day.

To learn more about powering your district's school buses with clean, affordable propane autogas, visit [propane.com/on-road-fleets](http://propane.com/on-road-fleets).

Propane Education & Research Council  
1140 Connecticut Ave. NW, Suite 1075  
Washington, DC 20036  
202-452-8975