



NEAR ZERO LPG



**ROUSH**<sup>®</sup>

## **ROUSH Industries**

OEM manufacturing, engineering, prototyping and design



## **Roush Fenway Racing**

Dominant NASCAR Sprint Cup racing team



## **ROUSH Performance**

Industry leading high performance vehicles

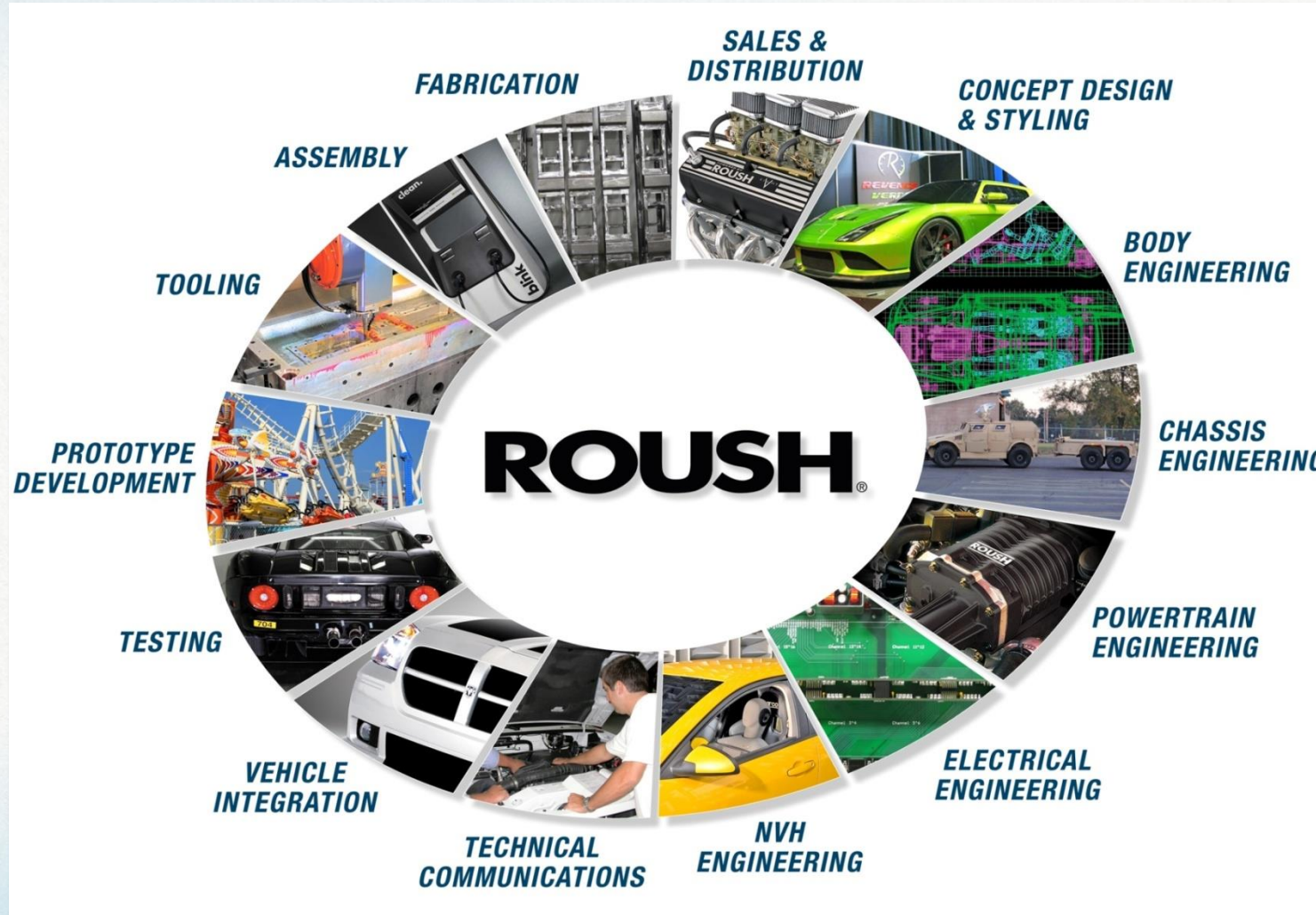


**ROUSH**<sup>®</sup>  
CLEANTECH

## **ROUSH CleanTech**

Propane autogas powered commercial vehicles.

# Wheel of Capability



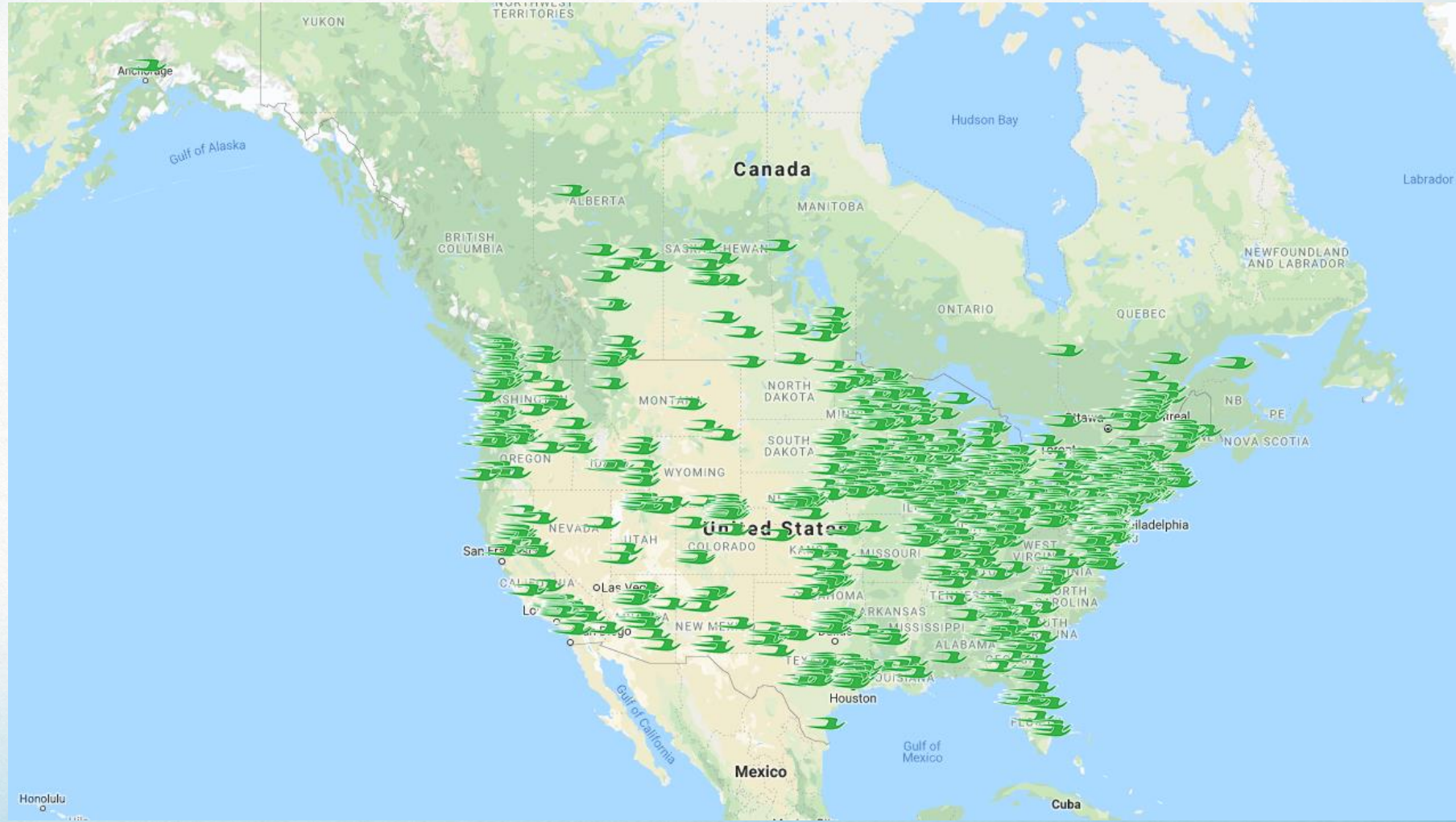
OVER  
**24,500**  
VEHICLES ON  
THE ROAD

ACCUMULATED  
OVER  
**1**  
BILLION MILES

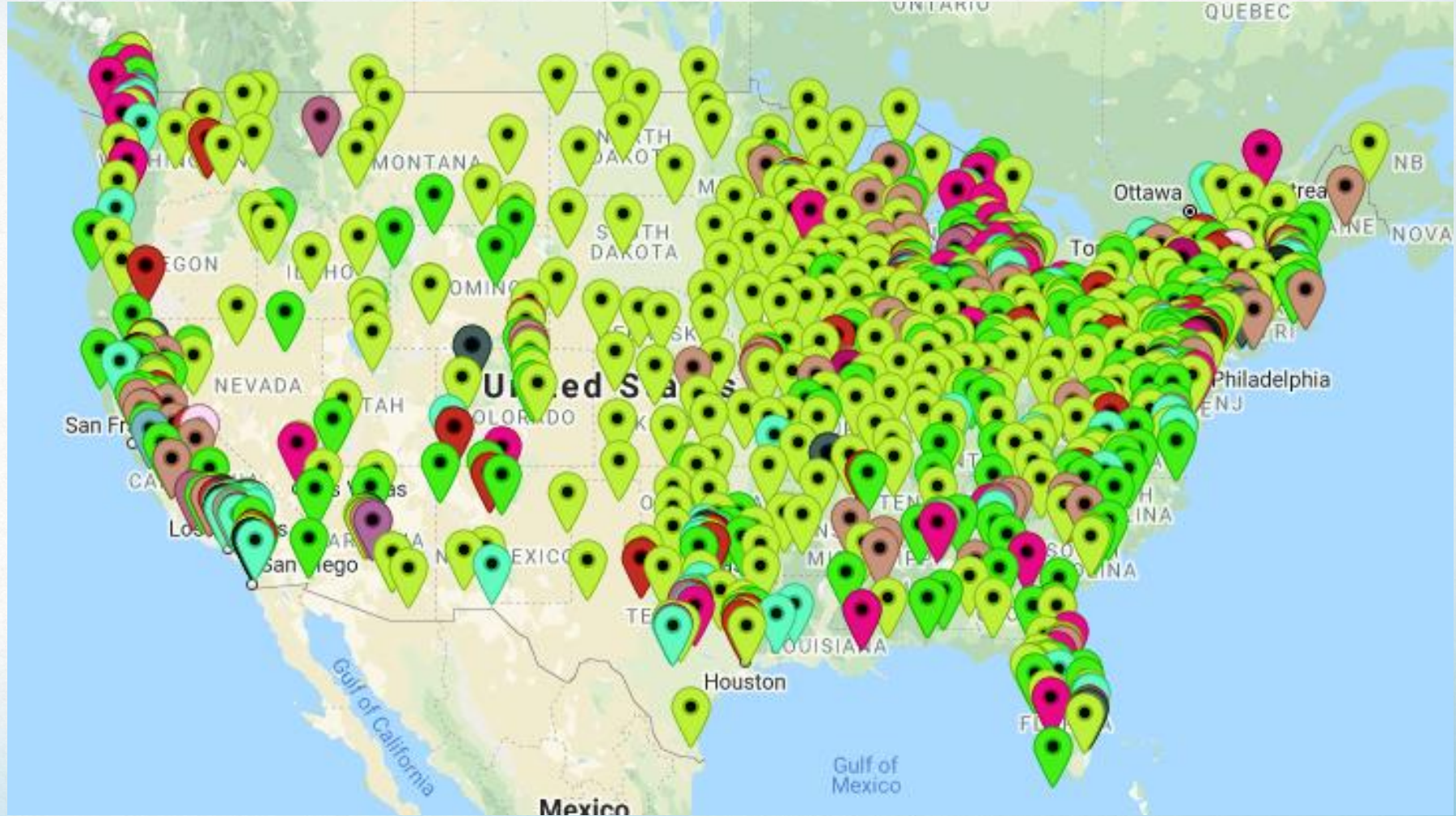
OVER  
**1,300**  
CUSTOMERS



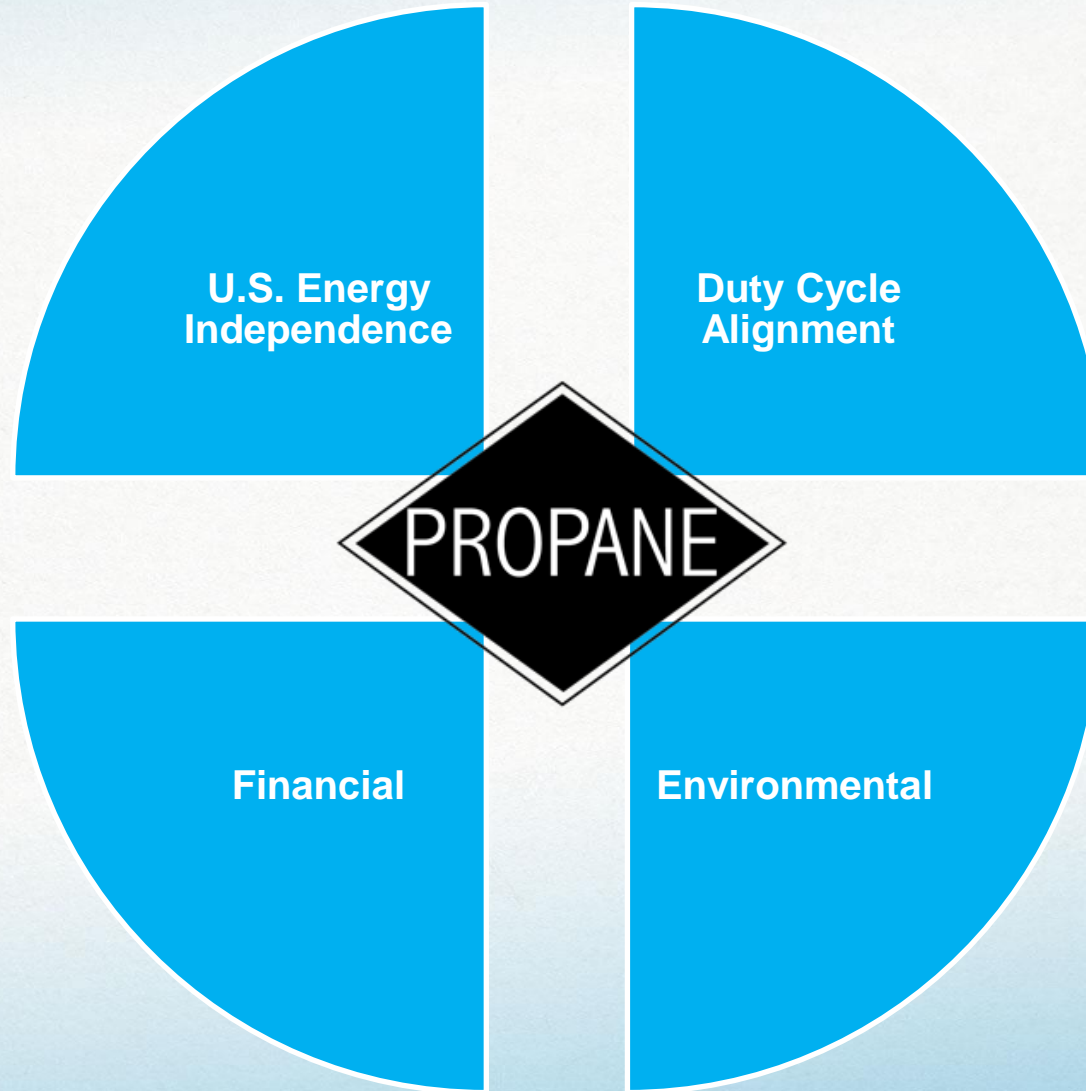
# School Bus Deployments – Over 15,000



# Non-School Deployments



# Consideration Summary

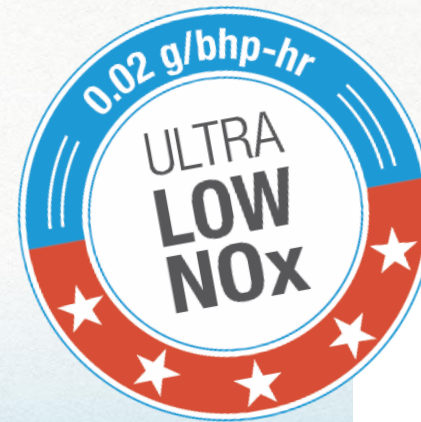


- CARB (California Air Resources Board)
  - Established a mechanism for engine MFR's to pursue lower NOx certification than Federal requirement of 0.20 g/bhp-hr

- Federal or 0.20
- 50% lower or 0.10
- 75% lower or 0.05
- 90% lower or 0.02

STANDARD

OPTIONAL



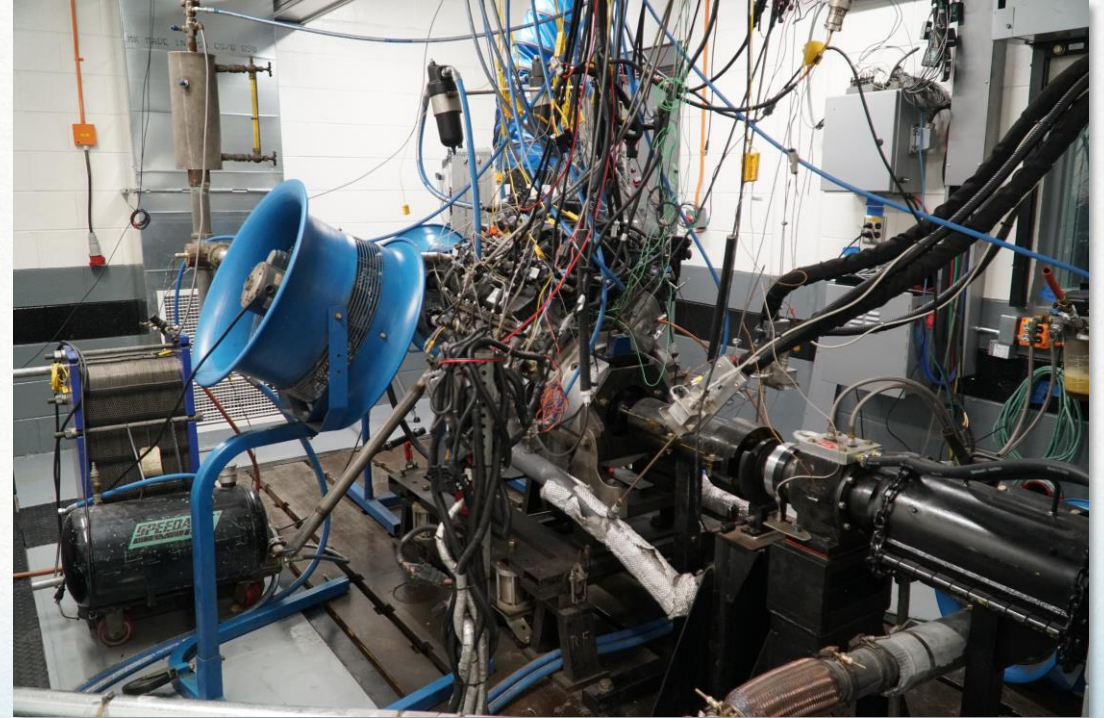


# ROUSH 7.3L Propane - Emissions

Emission Constituent	ROUSH 7.3 LPG
NOx (Nitrogen Oxides)	0.021
HCHO (Formaldehyde)	0.00
PM (Particulate Matter)	0.002
NMHC (Non-Methane Hydrocarbons)	.051
CO (Carbon Monoxide)	5.85
<b>Greenhouse Gas Emissions</b>	
GHG Carbon Dioxide (CO <sub>2</sub> )	545
GHG Methane (CH <sub>4</sub> )	0.032
GHG Nitrous Oxide (N <sub>2</sub> O)	0.02



- Approximate average: 70% cleaner than standards



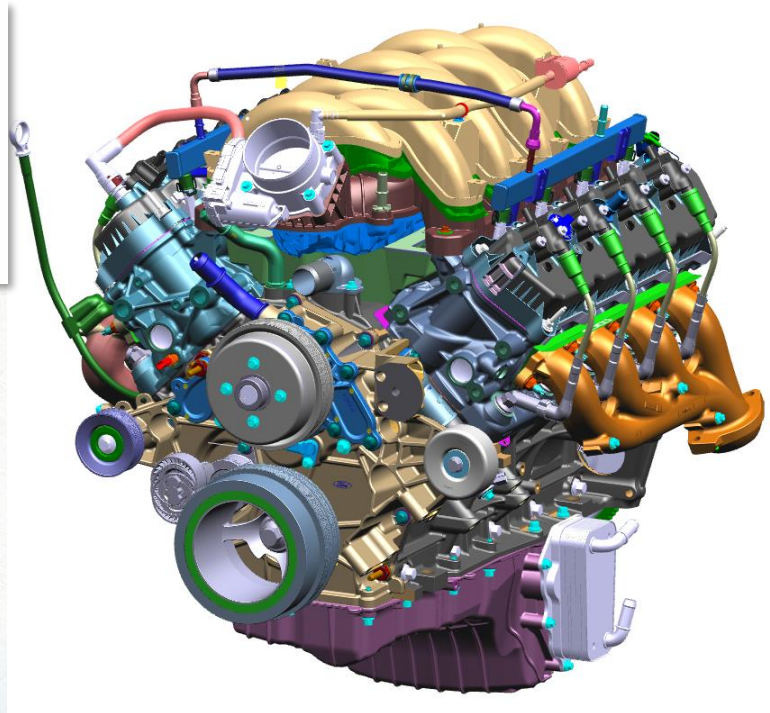
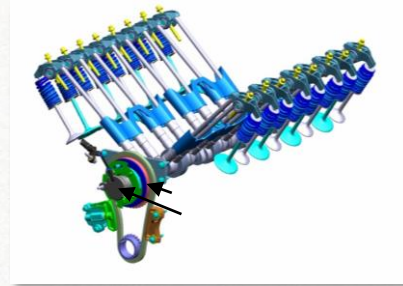
**DME / RLPG**

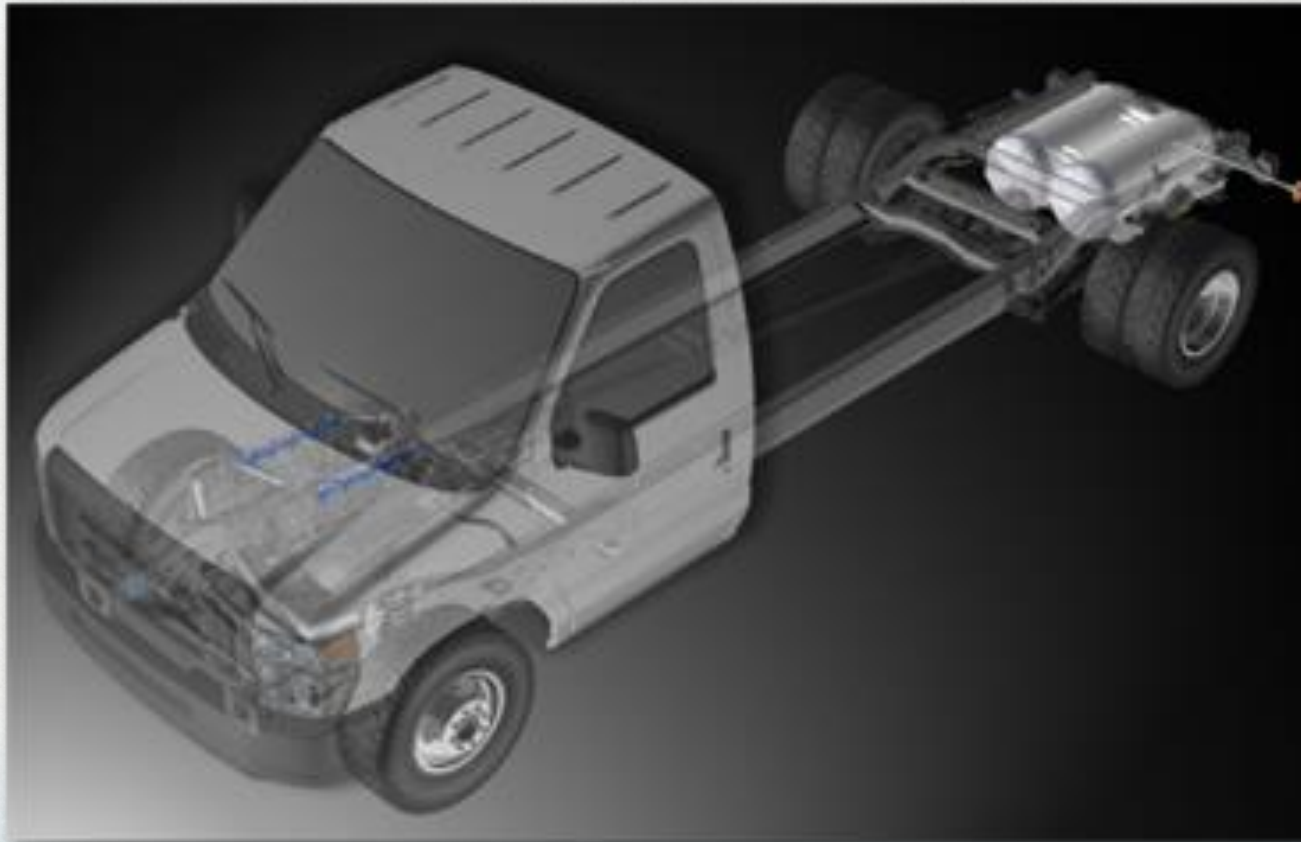
# Propane Autogas Product Lineup

- Medium duty Ford trucks, chassis cabs, cutaways, and stripped chassis
- Purpose Built Engine
- OEM Ordering Options
- Ship-Thru / Drop-Ship Arrangements
- Factory Ford warranty maintained
- No loss of HP / torque / towing capacity
- Serviceable with existing diagnostic equipment

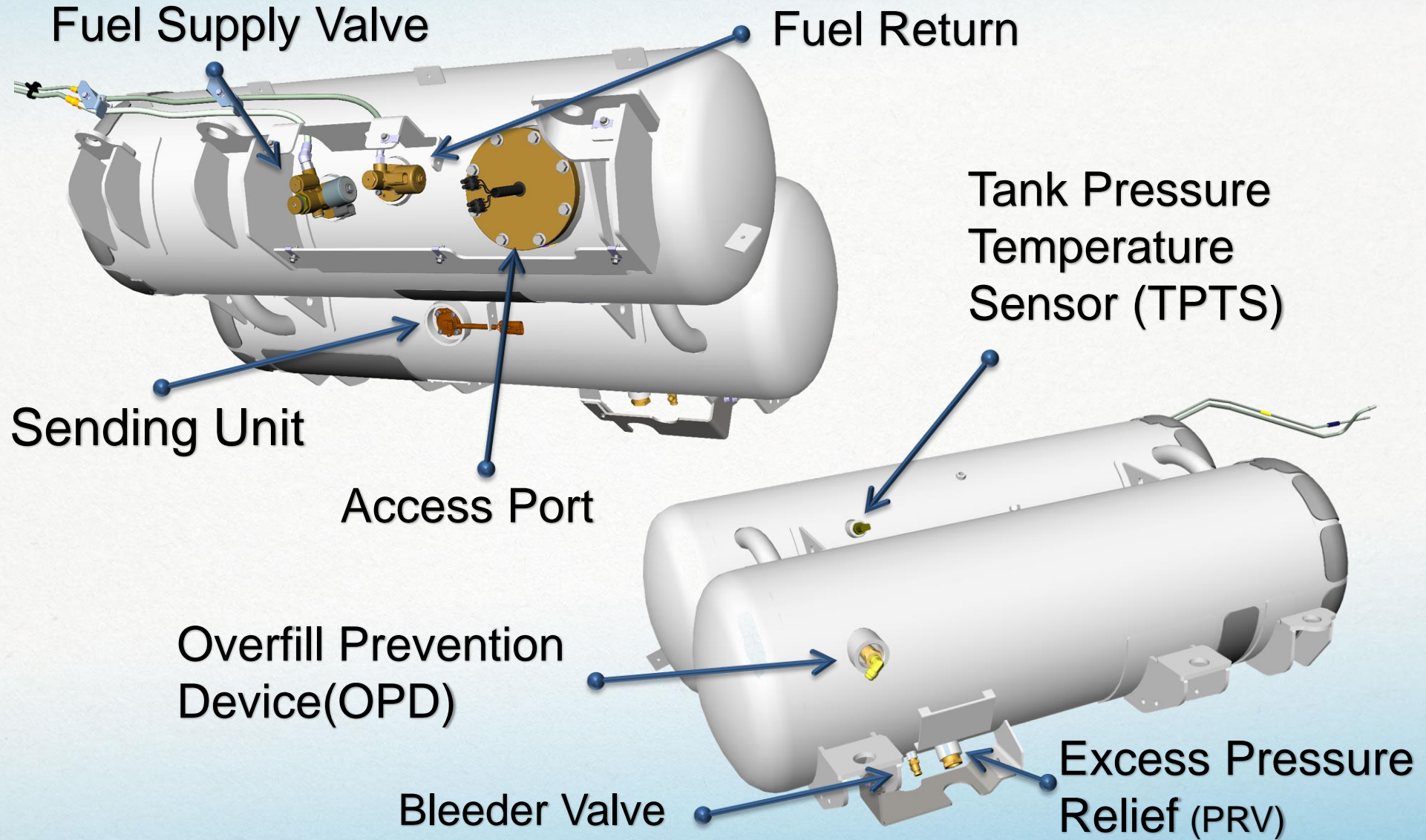


- Improved Power
- Cam in block
- Port injection
- Oil / Piston Cooling
- Sleeve thickness



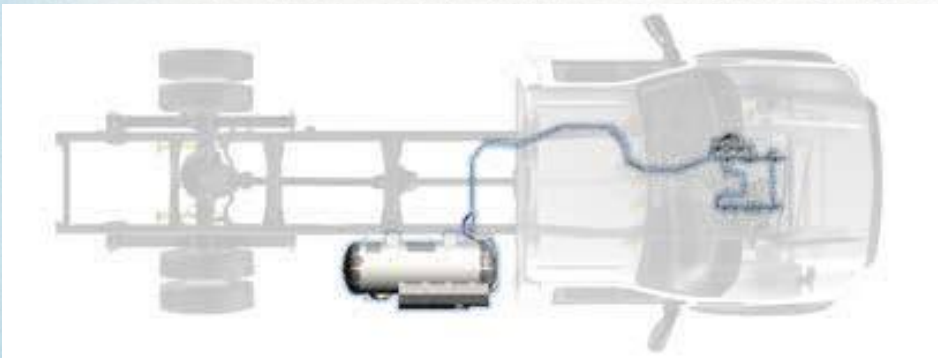


# Gen 5 Fuel Tank



## Ford F-450 / F-550 – Class 4 / 5

- 6.8L / 7.3L Ultra-Low NOx
- <19,500lbs GVWR
- >169"WB and 64"CA
- Passenger Side Tank
- 35 Usable Gallons
- Up to 200 Miles
- **F-600 (<22,000lbs GVWR)**



## Ford F-650 / F-750 – Class 6 / 7

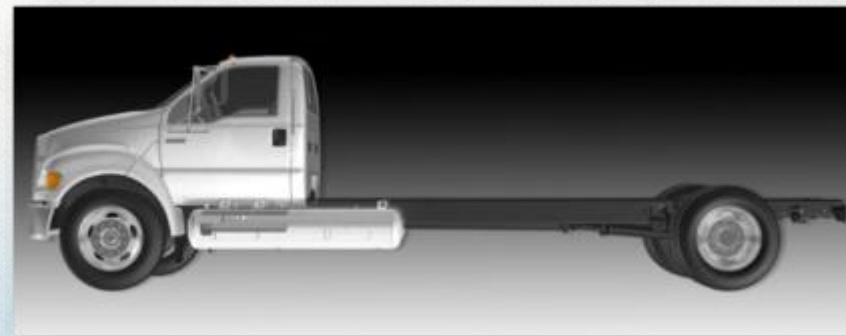
- 6.8L / 7.3L Ultra-Low NOx
- <33,000lbs GVWR
- All Configurations
- Dual Saddle Mount Short Tanks -
  - Drop Frame
- 55 Usable Gallons
- Up to 250 Miles





## Ford F-650 / F-750 – Class 6 / 7

- 6.8L / 7.3L Ultra-Low NOx
- <33,000lbs GVWR
- All Configurations
- Driver Single Side Tank
- 50 Usable Gallons
- Up to 225 Miles
- Dual Long / Short Combination  
74 Usable Gallons
- **Air Brakes Coming CY2021**



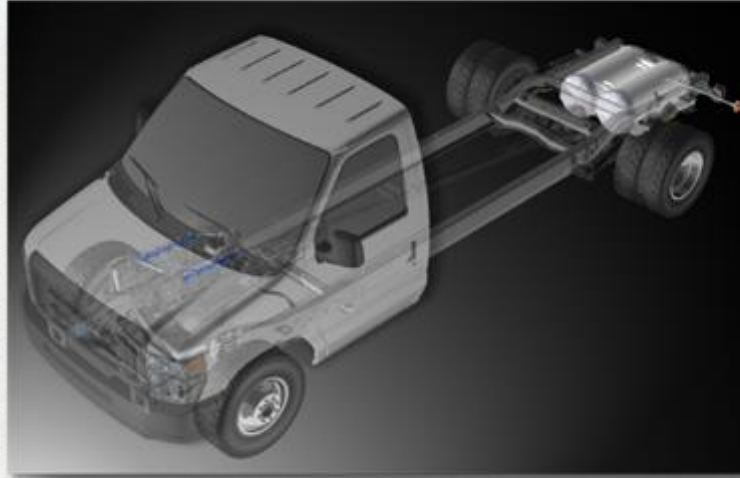
## Ford F-53 / F-59 – Class 5 / 6

- 6.8L / 7.3L Ultra-Low NOx
- 16,000lb – 26,000lb GVWR
- >168" WB
- Driver Side and After Axle Tank
- 45 Usable Gallons
- Up to 260 Miles



## Ford E-350 / E-450 – Class 3 / 4

- 6.8L / 7.3L Ultra-Low NOx
- 10,050 – 14,500lbs GVWR
- Any WB and CA
- After Axle Tank
- 41 and 64 Usable Gallons
- Up to 360 Miles





**Customer  
Support**



**Technical  
Support**



**Field Service**



**Technical  
Publications**



**Training**



**Warranty +  
Service Parts**