

**ROUSH**<sup>®</sup>  
**CLEANTECH**

**WELCOME**



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**ROUSHcleantech.com**

# Enterprise Brand Portfolio

**ROUSH**<sup>®</sup>

## ROUSH Industries

OEM manufacturing, engineering, prototyping and design



## Roush Fenway Racing

Dominant NASCAR Sprint Cup racing team



## ROUSH Performance

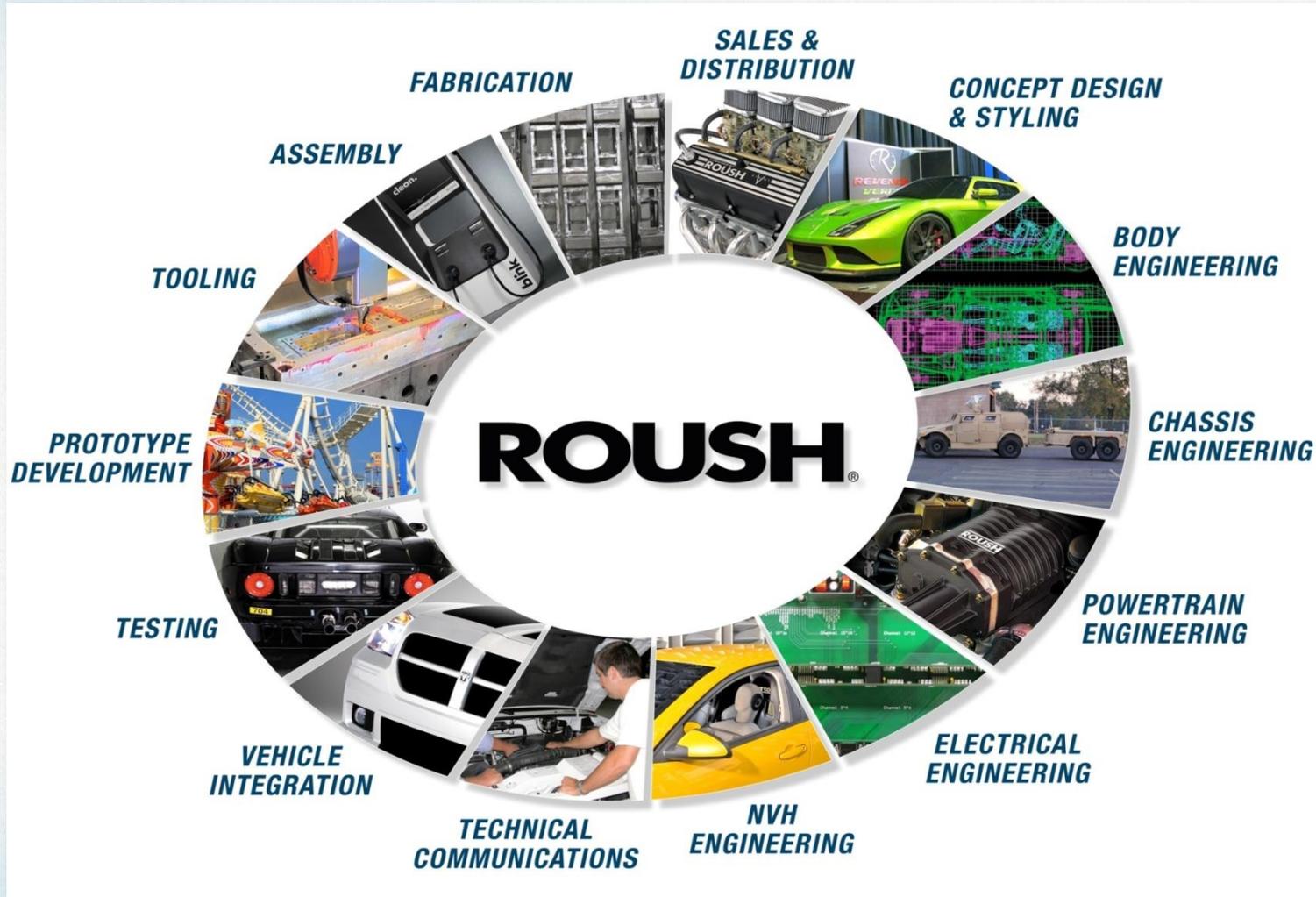
Industry leading high performance vehicles

**ROUSH**<sup>®</sup>  
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## ROUSH CleanTech

Propane autogas powered commercial vehicles.

# Wheel of Capability





# PROPANE AUTOGAS



# Your Fuel Options

					
Ease of Adoption					
Energy Independence					
NOx Emissions					
Fuel Infrastructure					
Cost of Ownership					
Range					
Maintenance					
Scalable					
Cold Weather Operation					

# Blue Bird Propane Vision

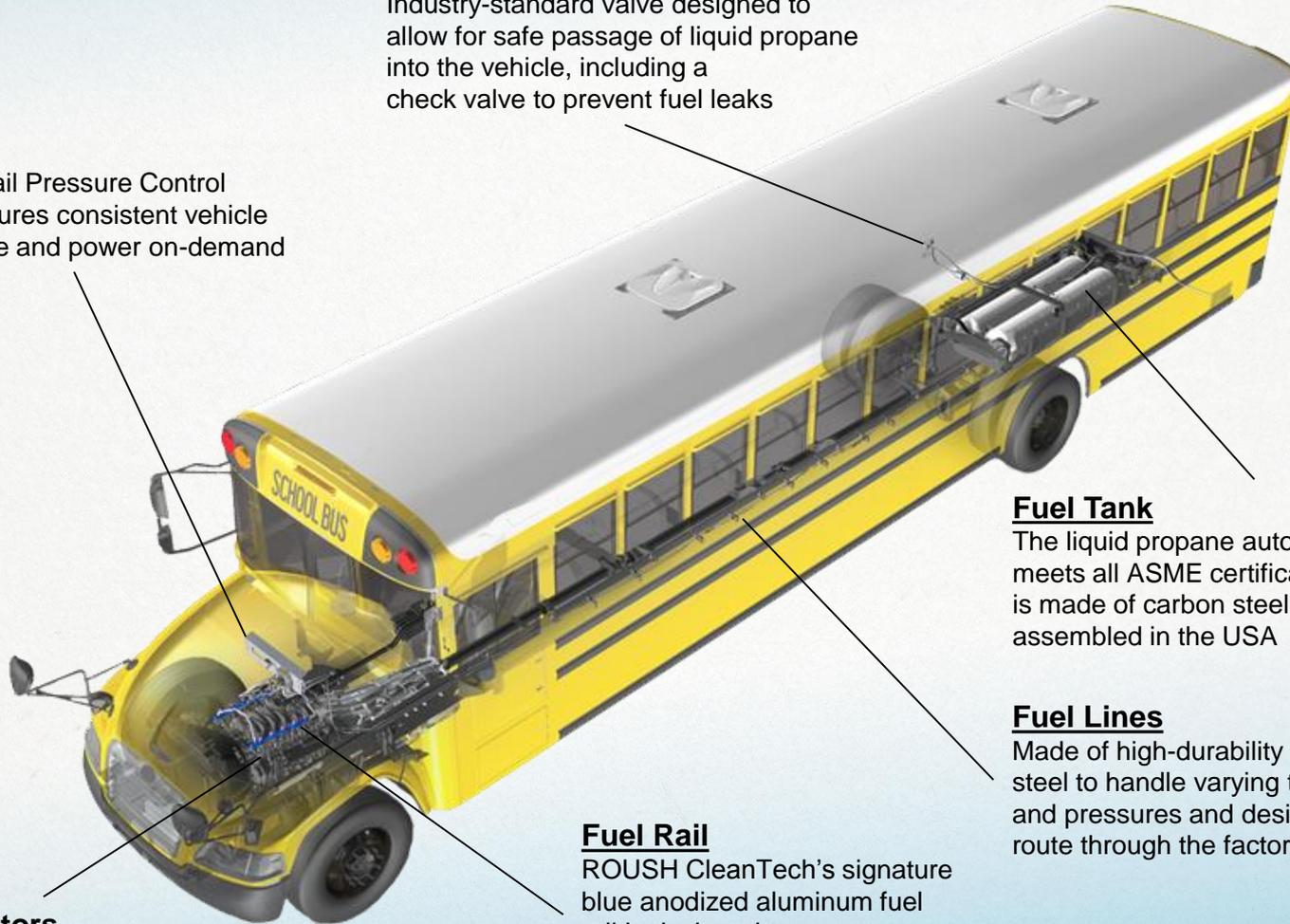


## Fuel Fill

Industry-standard valve designed to allow for safe passage of liquid propane into the vehicle, including a check valve to prevent fuel leaks

## FRPCM

The Fuel Rail Pressure Control Module ensures consistent vehicle performance and power on-demand



## Fuel Tank

The liquid propane autogas fuel tank meets all ASME certification standards, is made of carbon steel, and is built and assembled in the USA

## Fuel Lines

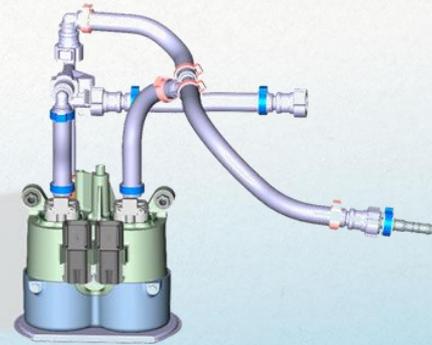
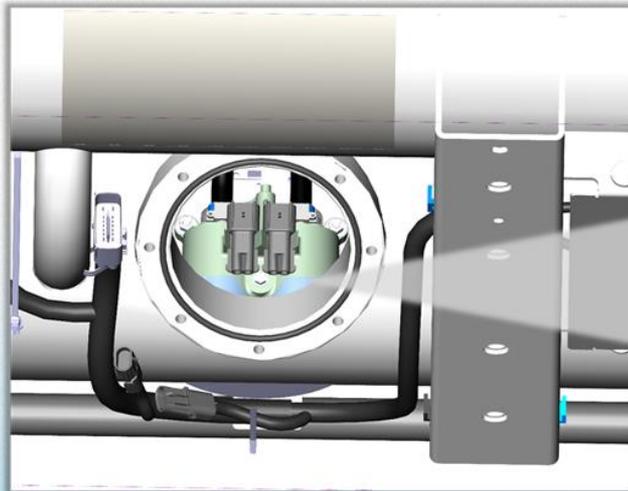
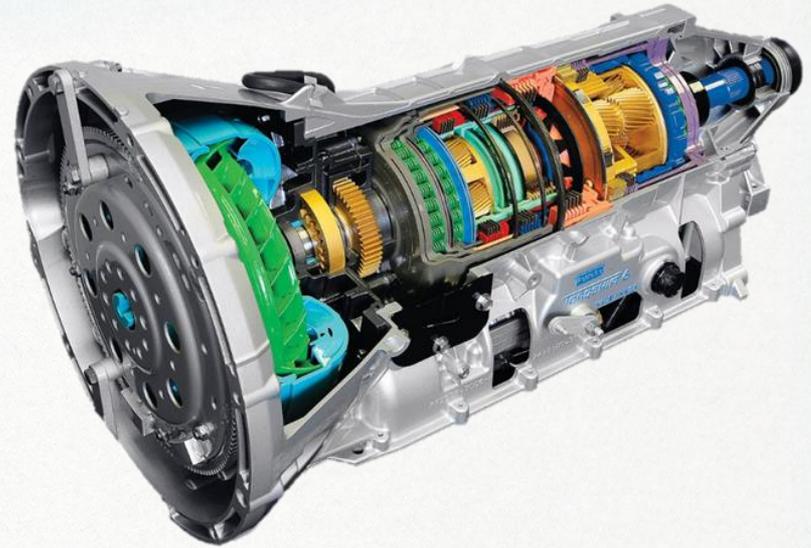
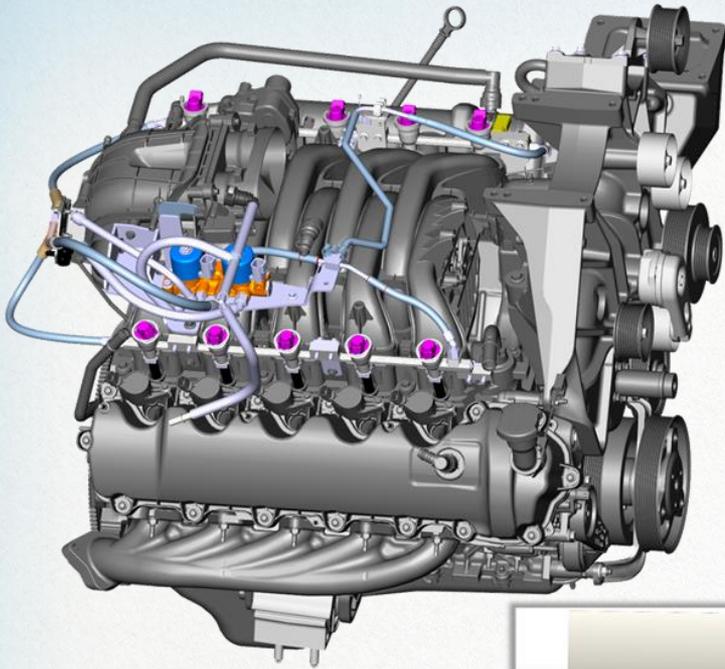
Made of high-durability stainless steel to handle varying temperatures and pressures and designed to route through the factory line locations

## Fuel Rail

ROUSH CleanTech's signature blue anodized aluminum fuel rail is designed to operate under varying temperatures of liquid propane

## Fuel Injectors

Special fuel injectors are used to inject liquid propane into the cylinders for ignition



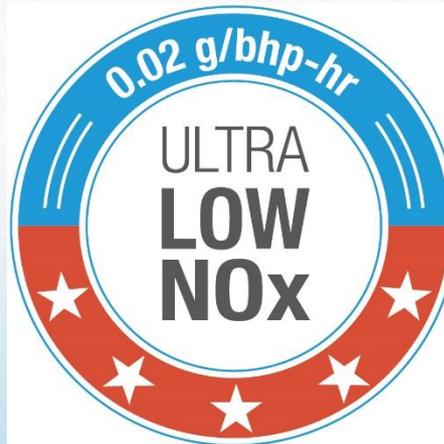


❖ Engine held equal

- NMHC 50% lower
- NOx 62% lower (approx. 63% from Transportation)
- CO 79% lower

❖ GHG (Only 27% from Transportation)

- CO2 .8% lower
- CH4 57% lower
- N2O Equal



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BLUE BIRD

## Blue Bird Vision Propane

**The Most Cost-Effective Solution to Reduce NOx Emissions from School Buses**

School buses transport 25 million children across the U.S. to and from school each year. Because of the stop-and-go driving conditions, diesel buses emit increased exhaust emissions filled with tiny soot particles and toxic gases. Using the Volkswagen Environmental Mitigation Trust (EMT) to fund propane buses enables states to meaningfully reduce this harmful exposure, which benefits our nation's children.

<b>PROPANE</b>	<b>DIESEL</b>	<b>ELECTRIC</b>
Purchase price: \$95,000 NOx reduced: 894 lbs. <b>Cost per pound of NOx reduced: \$106</b>	Purchase price: \$90,000 NOx reduced: 67 lbs. <b>Cost per pound of NOx reduced: \$1,330</b>	Purchase price: \$300,000 NOx reduced: 1,119 lbs. <b>Cost per pound of NOx reduced: \$268</b>

**92%**  
more cost-effective than diesel school buses

**60%**  
more cost-effective than electric school buses

\*Vehicle purchase price may vary by state. Calculations assume the full cost to display the cleanest commercially available Type C buses for each fuel type based on emissions calculations from the 2017 AIA, AIA/LEI tool with diesel in-use adjustment.

**750+**  
School transportation fleets in operation

**12,000+**  
School buses in service across North America

**ROUSH**<sup>®</sup>  
CLEANTECH



**BLUE BIRD**<sup>®</sup>

OVER  
**12,000**  
SCHOOL  
BUSES



OVER  
**800**  
SCHOOL  
DISTRICTS

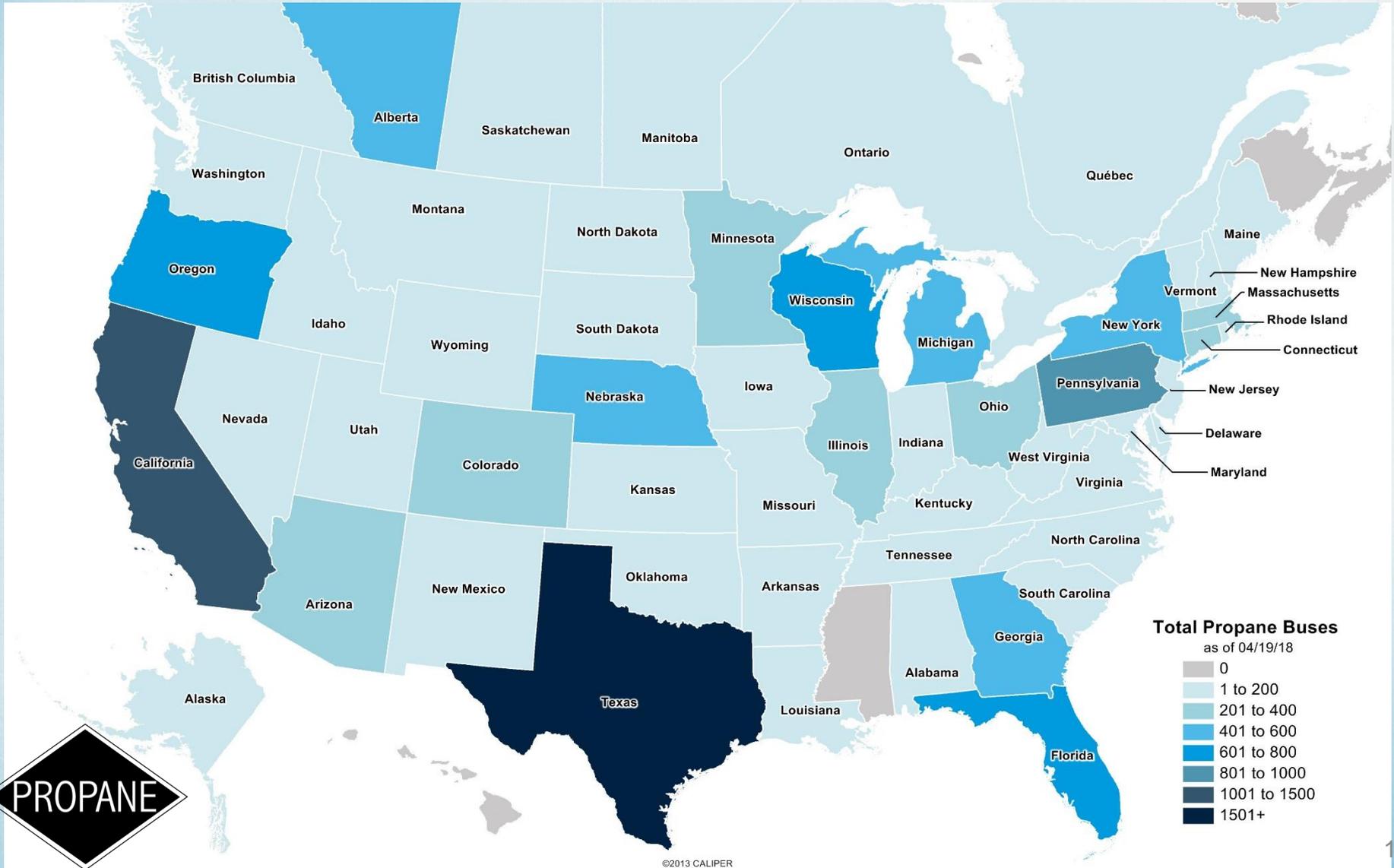
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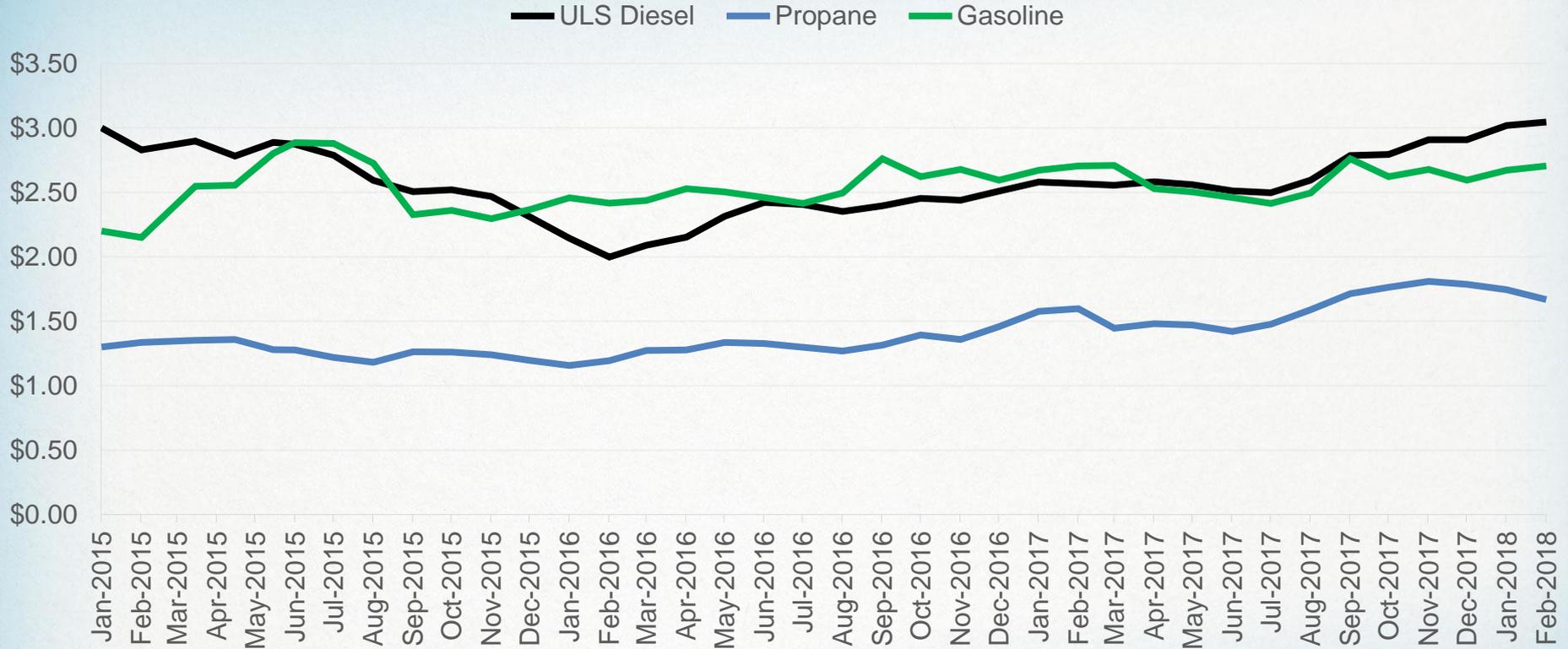
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# 800 School Districts Can't Be Wrong



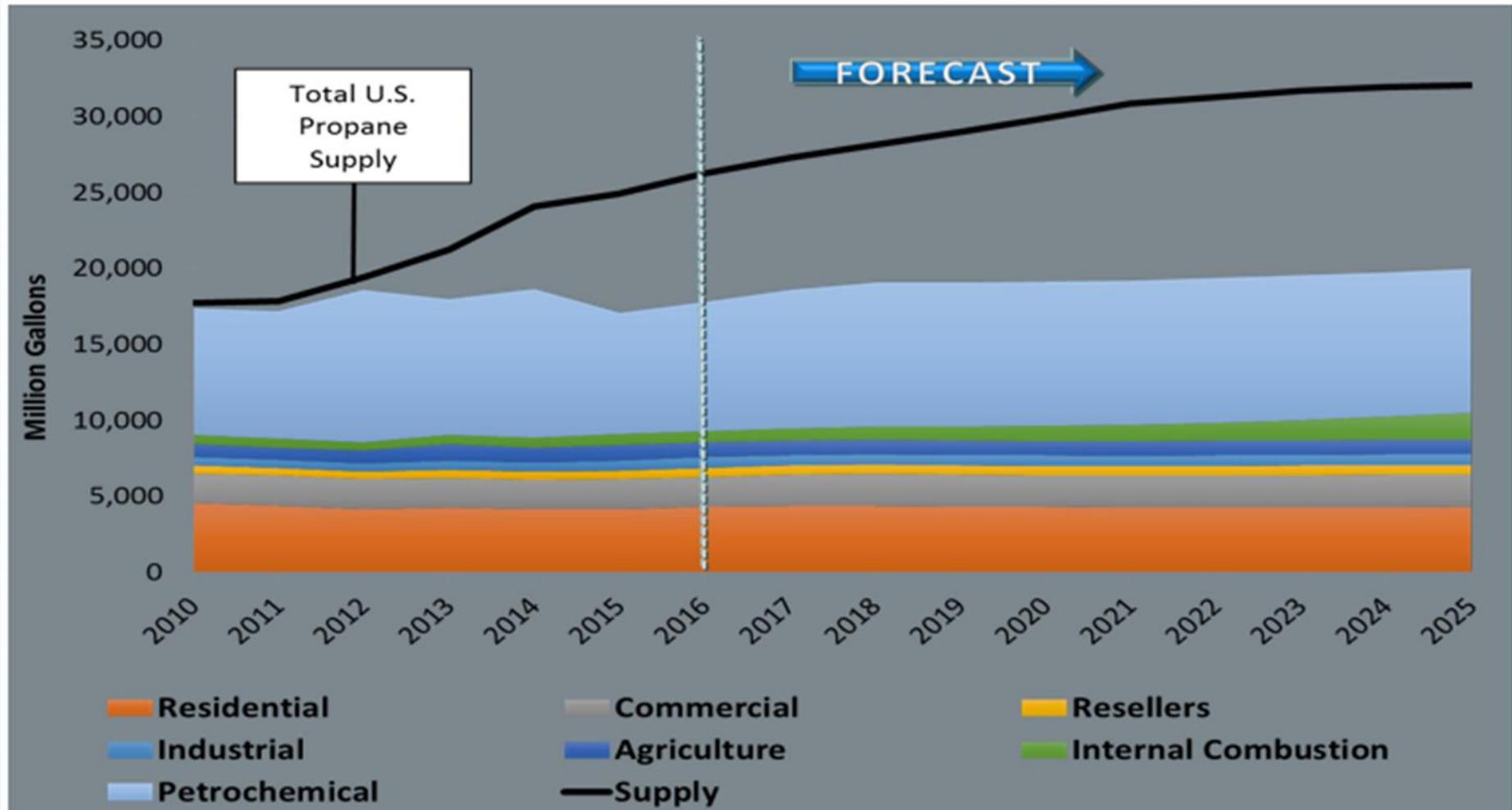
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# Fuel Cost Trends



- Propane has a stable price history
  - Recent surge in gasoline and diesel
- Price lock contracting for multiple years
- Eligible for rebates, bringing District dollars back

# Propane Supply Outlook





# ROUSH Overview Video

