

Unified Government of Wyandotte Co/ Kansas City KS



Propane (Autogas) Conversion Project

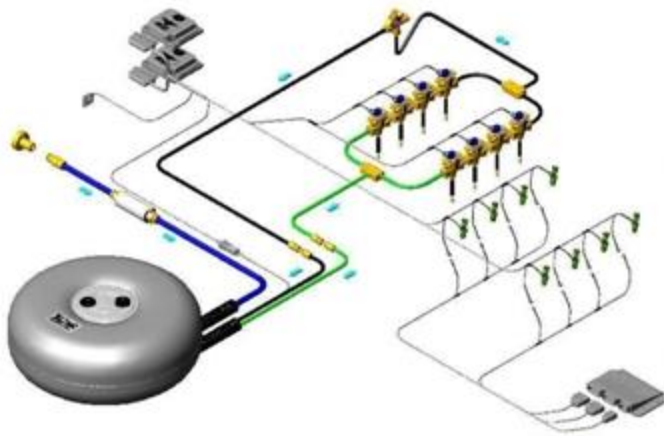
Vehicles converted to autogas:

- 13 Ford E450 V-10 Para-Transit buses
- 2 Ford F150 V-6 Pickup Trucks
- 1 Diamond 7300 Dump Truck DT-466 Diesel (pilot project)



ICOM JTG II® Bi-Fuel System

Icom invented and patented the revolutionary JTG II® liquid propane injection system and electronically-controlled LPG multivalve



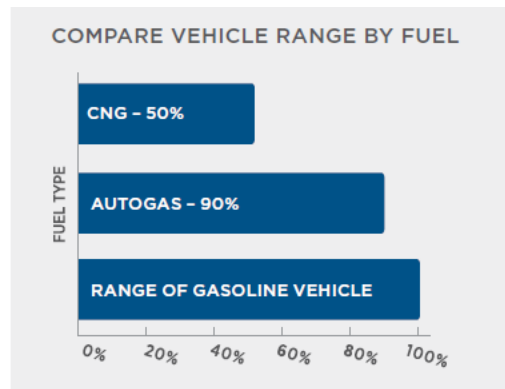
Liquid Propane Injection System

JTG II® System Advantages:

- 1) The JTG II® system is 'plug and play' – the fuel tank, fuel rails and hoses are preassembled.
- 2) No need to alter OEM ECU in any way.
- 3) Propane injectors calibrated to match gasoline injectors in amount of energy delivered with fuel.
- 4) Complete standard OBDII factory diagnostics.
- 5) Propane injection system not affected by temperature changes.
- 6) No cutting, splicing nor soldering required – only three electrical connections needed to operate the JTG II® system: two to the battery for power and one to the factory fuel injector wire harness

Deciding Factors for Converting to Autogas

- Fueling infrastructure is inexpensive and easy to maintain
- Tank and dispenser supplied by fuel supplier
- Cost of autogas is around 30-50% less than gasoline
- Over 80% efficient as gasoline



Source: Autogas of America

- Vehicles are bi-fueled, allowing longer range and added dependability
- Tank and system pressures are only 350psi or less
- Liquid Injection systems not effected by cold temperatures

Deciding Factors for Converting to Autogas

- Only one tank required to equal the range of OEM tank, resulting in less additional weight than other alt fuel options
- Autogas reduces carbon dioxide by 12%, nitrogen oxide by 20%, and up to 60% of carbon monoxides
- In our instance the ROI of the conversion will be a little over one year
- System fills at approximately the same speed as gasoline
- Operators fill units after receiving training supplied by the fuel supplier
- We were able to use a D.O.E. grant to cover the conversion and various infrastructure installation costs
- We will displace over 46,000 gallons of gasoline annually
- No modifications to existing maintenance garage ventilation, or air monitors needed (check with your local Authority Having Jurisdiction {AHJ})

The Savings \$\$\$

These numbers based on our fleet of (13) thirteen buses (averaged miles/hours) with an 80% gasoline efficiency comparison and July 30th gasoline prices:

- Annual savings at retail propane cost - **\$17,460.00**
- Annual savings at contracted fleet propane cost - **\$83,370.00**
- Annual savings with contract price *and* \$.50 Fed rebate

\$112,278.00

Thank you for allowing me to share
our story!

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