

**GWCCC**

**&**

**MEA**

**Propane Workshop  
Infrastructure &  
Safety**

**May 25, 2017**



**SHARP**  
**AUTOGAS**  
POWERED BY PROPANE

# Our Company



- Investor – owned utility; publicly traded on NYSE:CPK.
- Almost 1 Billion of Market Capitalization.
- Sharp Energy is a subsidiary of Chesapeake Utilities Corporation.
- Sharp Energy currently services over 38,000 residential, commercial, industrial, agricultural and AutoGas customers in Delaware, Maryland, Virginia, Pennsylvania.
- Sharp Energy has over three million gallons of propane storage capacity.



# Intro to Propane AutoGas



## AutoGas is:

- LPG or propane when used as a vehicle fuel
- The third most widely used vehicle fuel in the world with over 20 million vehicles – making it the most popular alternative fuel worldwide
- Currently there are over 12,000 propane school buses in the U.S today serving over 600 school districts.
- Using propane as a vehicle fuel helps fleets achieve:

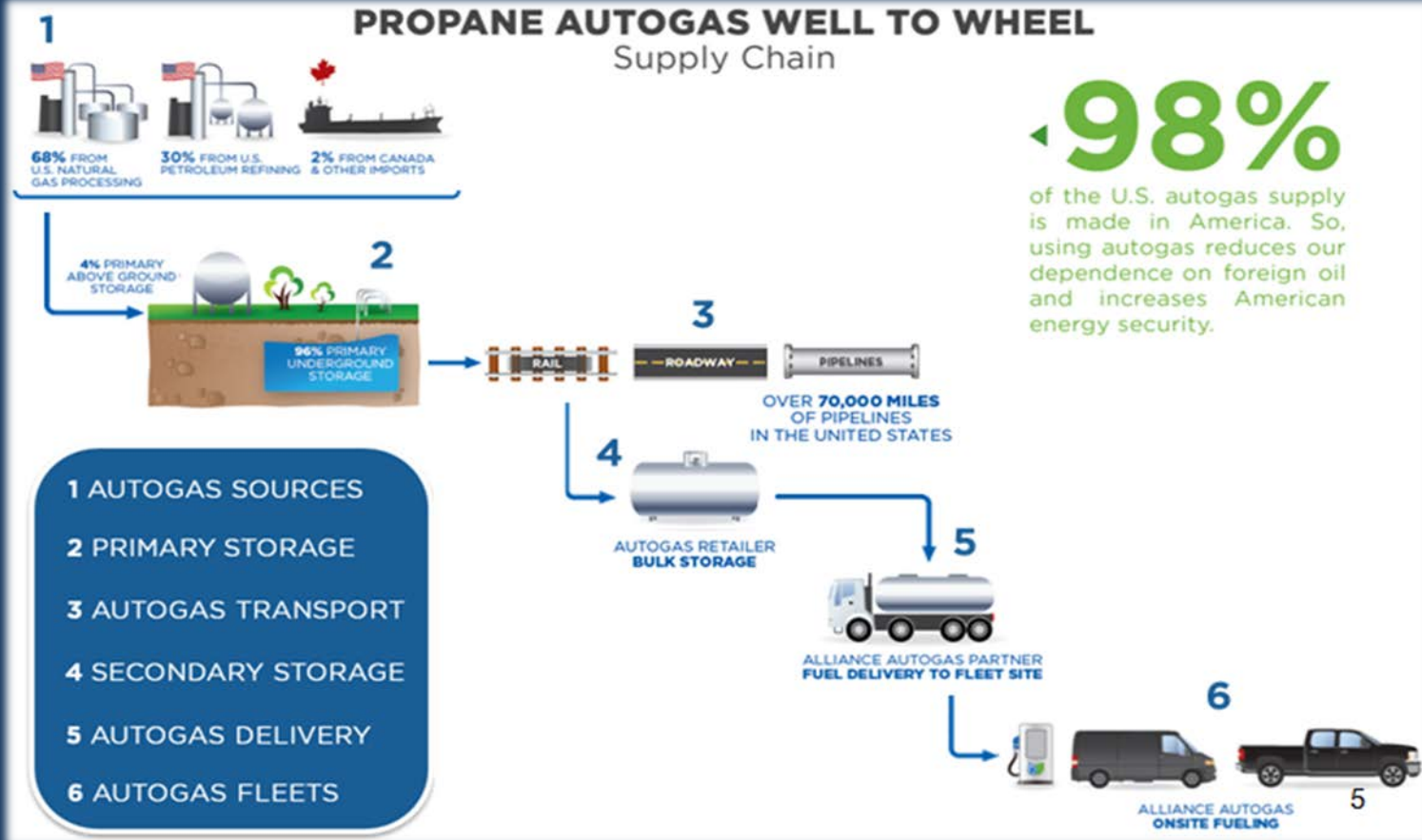


LOWER FUEL COSTS

REDUCED EMISSIONS

DOMESTIC FUEL

# Where Does Propane Come From?





**AutoGas has the most advanced U.S. distribution network of any alternative fuel.**

**MATURE FUEL INFRASTRUCTURE • ABUNDANT DOMESTIC SUPPLY • UNMATCHED PORTABILITY**

- Over 70,000 miles of pipelines in the U.S. alone, with domestic production consistently outweighing domestic demand.
- Sharp AutoGas offers private on-site fueling stations at no cost to your fleet.
- AutoGas is easily and safely transported in bobtail and transport trucks at less than 10% the pressure of natural gas.

# AutoGas Vehicle Technology

**SHARP**  
**AUTOGAS**  
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## Fueling station installed with little to no cost to the fleet:

- AutoGas station installed onsite, at fleet home base
- Or public/shared AutoGas stations installed to serve multiple fleets
- Fully scalable infrastructure to serve fleets of all sizes
  - **If your AutoGas fleet grows beyond the program or your AutoGas use increases, your infrastructure can be scaled to meet your needs**
- All necessary training for fleet personnel.

# Sharp AutoGas Fueling



## Fueling Solution Includes:

- Spill-free fueling station at fleet facility
- No fueling equipment cost to customer with appropriate gallon requirements.
- AutoGas data integration with fuel management systems
- Continual pumping flow rate of 8-10 gallons/minute
- Permit application and required inspections
- Comprehensive AutoGas education includes extensive safety and operational training
- 24-hour safety support
- Green branding message support





# Sharp AutoGas Fueling



## Fueling Infrastructure Site Preparations:

- Electrical power (230v 30 amp circuit)
- Crash posts per local Fire Marshall specifications & NFPA 58
- Communication line for data integration with fuel management systems
- Trenching if tank is separated from dispenser



# Sharp AutoGas Fueling



## Fueling Examples



# The Sharp AutoGas Fueling Solution





# Data/Fuel Management Integration





# AutoGas is Safe & Reliable



## Proven Safe and Reliable Worldwide

### State of the Art Tanks

- Tanks are ASME tested and certified at 4 times normal operating pressure
- Propane tanks are 20 times more puncture resistant than standard gasoline or diesel.
- Check valves on tanks to prevent fuel from leaking through fill port
- Fuel tanks have a manual shut off valve.

### Low Flammability Range

- AutoGas has much lower flammability range than gasoline 2.2-9.6%
- Gasoline has an ignition temp of 350-450 degrees F, while propane has ignition temp between 900-1000 degrees. Propane must be mixed with air to ignite, propane inside a tank cant combust because of a lack of oxygen.

### Non-Toxic

- Unlike gasoline, diesel, methanol and ethanol, AutoGas is non-toxic, non-poisonous is insoluble in water
- Should a rare accidental release of AutoGas occur, it dissipates into the atmosphere with no harmful contaminants released into the air, soil or water. Propane will not pool under a vehicle.



## Sharp Energy Turn Key Solution

- We work with customer to find eligible vehicles for conversion and fuel analysis.
- Scope over site location for future fueling station to meet all local and state codes.
- Conversion of vehicles with approved 3<sup>rd</sup> party conversion partner.
- Installation of fueling infrastructure.
- Safety and fuel dispenser training.
- Technical and maintenance support.
- Delivery of fuel.
- Green branding messaging support.



# Contact Information

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