CLEANFUEL USA

Alternative and Renewable Fuel and Vehicle Technology Program

CEC Workshop September 18, 2009

Curtis Donaldson

After graduating from Texas A&M University with a BBA in Management in 1981, Curtis was commissioned a 2nd Lt. in the U.S. Army and served eight years in National Guard units in Texas in the Field Artillery. Curtis spent over 10 years with Conoco in various capacities, ending his career in 1992 as the Coordinator of Alternative Fuel Marketing. After leaving Conoco, he started his own company, Clean Fueling Technologies which later grew to CleanFuel USA. Curtis completed a six-year stint on the Propane Education and Research Council and also served for two years as the Chairman and Board member of the National Ethanol Vehicle Coalition. The Department of Energy's Clean Cities Group also awarded him the Alternative Fuel "Hero" Award and also named his company Alternative Fuel Exporter of the Year in 2005. Curtis lives in Belton, Texas; he is married to Teresa and they have four children and considers family and basketball as his hobbies.

Autogas

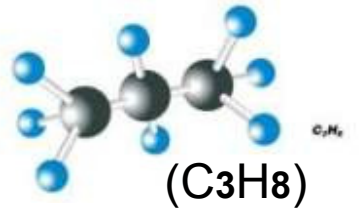
- There are more than 10 million LPG Autogas powered vehicles on the road in Europe - including 2.6 million in Poland - and more than 20,000 LPG fuel stations. In Germany alone there are more than 4,700 filling stations. Australia has 3,200.

- LPG vehicles using the latest technology deliver a CO2 reduction of approximately 10 per cent compared to petrol. In the medium term, it is extremely difficult for any other vehicle fuel alternative to match these emissions savings on existing vehicles.

- In 2008, more than 125,000 vehicles were fitted with LPG in Australia, resulting in an estimated 104,000 fewer tonnes of CO2 being released into the atmosphere. The total fleet is about 700,000 vehicles and Autogas consumption is the third highest in the world per capita.

Source: World LPGas Association

Propane Advantages



- Low cost and domestically produced alternative fuel
- Non-toxic, burns cleanly & is not a ground contaminant
- Abundant supply in the U.S.
  - 55% comes from natural gas & 45% from refining oil
- Propane is naturally a low emission fuel
- Similar MPG and fuel fill rate as gasoline
- Promote a green fleet image
- Support Energy Independence

Propane Advantages

- Propane is an approved alternative fuel listed in both the Clean Air Act of 1990 and the National Energy Policy Act of 1992 and 2005.

- It is currently the world's most proven, reliable and widely used alternative fuel, fueling more than 10 million vehicles internationally.

- Provides a clear environmental advantage. Compared to gasoline, propane yields 70% less smog-producing hydrocarbons, up to 50% less carbon monoxide, 12% less carbon dioxide, 20% less nitrogen oxide and cuts emissions of toxins and carcinogens by up to 96%.

- The D.O.E. website states the low carbon and oil contamination characteristics of propane have resulted in documented engine life of up to two times that of gasoline engines. http://www.afdc.energy.gov/afdc/vehicles/propane_what_is.html

Source: Southwest Research Institute, California Energy Commission, World LP Gas Association

- Headquartered in Georgetown, Texas with offices in Novi, Michigan
- Established in 1993
- Manufacturer of motor fuel dispensers and fueling infrastructure - LPG & E85
- Owns or franchises 34 fueling locations in California, Arizona, Texas and Colorado
- Develop liquid propane fuel injection systems

CLEANFUEL USA

provides a complete alternative fuel solution

- Vehicle Fuel Systems
- Fueling Infrastructure
- Fuel Management
- Fuel

CLEANFUEL USA

LIQUID PROPANE INJECTION

The LPI System

- Clean-Low Emission
- Simple Design
- Economical
- Superior Performance
- Safe
- Supported

Clean – Low Emissions

2009	NOx Only
EPA & CARB – HD Diesel Standard	1.0
EPA & CARB – HD Gasoline Standard	0.2
LPI 8.1L Certification Level	0.170

- Certified with EPA & CARB at Zero Particulate Matter

- No need for DPF, Cooled EGR or SCR Systems

CLEANFUEL USA

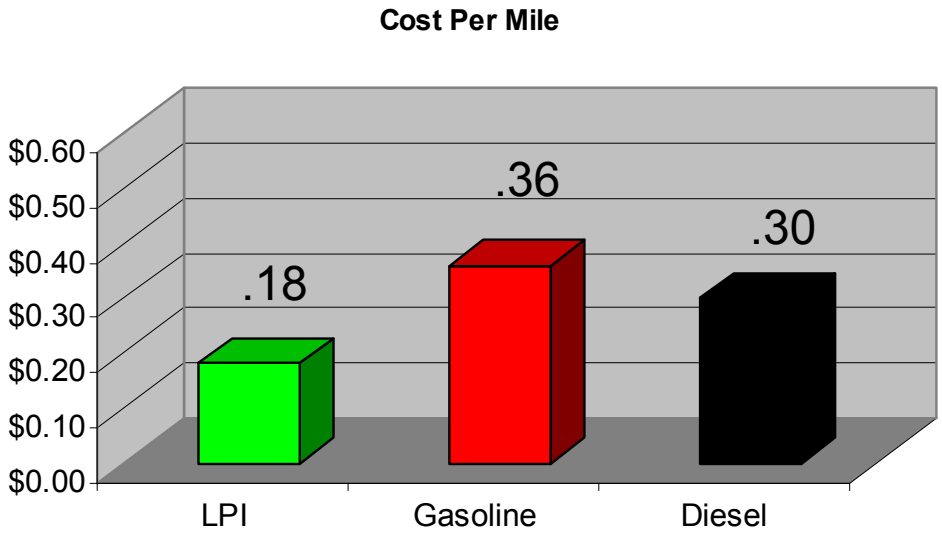
Economical

8.1L Medium Duty Truck – Fuel Cost
23,000 lbs. GVWR
30,000 Miles per Year
Fuel at Fleet Price

- Diesel	$2.40
- Gasoline	$2.30
- LPI – Propane	$1.50
Est. Tax Credit	- 0.50
Net Price	$1.00

Annual Fuel Savings
LPI vs. Gasoline = $5,327
LPI vs. Diesel = $3,545

Fuel Savings Over 7 Years
LPI vs. Gasoline = $37,287
LPI vs. Diesel = $24,818



Propane fuel price reflects the VETC Tax Credits
Prices will vary based on local conditions

Service and Support…Warranty

- Match OEM engine warranty with a 2 year / unlimited mileage warranty
- Technical training available
- Technical manuals and CD provided
- Technical service bulletins
- Technical assistance hotline

CLEANFUEL USA

Coming in 4th Quarter 2009 and 1st Quarter 2010
GM 6.0L 3500/4500 Cutaway Van & Workhorse W42
Walk in Van Applications

think green! think propane.

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Coming in 2nd Quarter 2010
GM 6.0L 2500/3500 HD Chassis Cab Application

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Coming in 2010
GM 2500/3500 Complete Van & Pick Up Truck & W Series Cab Over Applications

CLEAN FUELING TECHNOLOGIES DISPENSER OPTIONS

PRO 6100 Series

PRO 7200 Series

Gilbarco Self Serve Style

Program Overview

Clean Fuel USA received a Department of Energy grant to develop alternative fuel propane autogas refueling stations in select US metropolitan markets.

ConocoPhillips

Conoco Phillips has partnered with CFUSA to provide the retail station footprint and wholesale fuel supply for this program.

Program Partners

- LPG Fuel Marketers
  - Local retail fuel supply and storage tank installation
- Propane Education & Research Council
  - Fleet marketing and outreach support
  - Funding for contractor(s) already ready to drive “City Plans”
  - Funding for market research
- CFUSA
  - Key “Marketer” to Potential Fleet users
    - Fueling equipment supplier
    - Fueling network operator
    - Propane Engine Technology integrator
- ConocoPhillips
  - Wholesale Propane supply
  - Multi state branded marketing sites
    - Corporate approval for Propane Marketing to work directly with retailers

DOE ARRA Grant Awards

- AoI-1 $1M
  - 25 stations in 5 major metro areas (5 new stations in Sacramento)
- AoI-4 $12.3M (Clean Start Project)
  - 153 stations, 150 vehicles, 11 service centers, comprehensive education outreach and technical training program
  - **TSTC-CFUSA AoI-4 / ARRA / CA Investment:**
    - **35 New Public Stations (4) Private Fleet Sites**
      - **3 LA Unified & 1 Anaheim Resorts Shuttle Service**
        - » **25 Medium-Heavy Duty Trucks**
        - » **90 LPI / Blue Bird School Buses**

- Clean Start Project
  - 16 Cities in the USA
  - ConocoPhillips along with CFUSA & Propane Marketers to install 8 to 10 public stations in each city
  - Rush and CFUSA to offer service & installation support for fleets in each city
  - TSTC to train and certify mechanics with propane vehicle specific curriculum
  - PERC and DOE Clean Cities to support with fleet marketing & outreach

- Selected Cities & Support
  - Phase 1
    - Atlanta, Chicago, Houston, Denver & **Sacramento-East Bay**
  - Phase 2
    - **Los Angeles & San Diego**, Dallas/ Ft. Worth, Austin, San Antonio, OKC, Phoenix, Indianapolis & Orlando
  - Phase 3
    - St. Louis, & Louisiana Corridor
    - Energy Offices from Each State, Governors, City Leaders, Clean Cities Coordinators from each city

Infrastructure & Field Support Partnerships

CleanFUEL USA – Station Equipment Design, Manufacturing, Installation and Fuel Management

ConocoPhillips – Third Largest Integrated Oil Company in the USA and Infrastructure and Supply Partner to expand Autogas Market as a partner in the Clean Start project

Texas State Technical College – Education and Training Partner as part of Clean Start Project. TSTC will develop mechanic training curriculum, implement courses at 9 campuses and partner with other technical colleges throughout the USA. Graduates will be certified to service propane vehicles

Rush Enterprises – Largest Medium Duty Truck Center in the USA. Rush will be the initial Service and Conversion Partner in 11 Metro Areas for Propane Expansion Project Clean Start

CA Autogas Development

- Thirty-five new station in CA to enhance the 13 existing CFUSA stations originally developed in collaboration with the CEC.
- Three CFUSA Service Centers
- CFUSA / Conoco / PERC and WPGA education and outreach activities
- 10 to 12 new vehicle platforms in 2009-2010

Moving Forward

- Now!
  - 6L Program
  - Collins Bus
  - ESI 7.6L Medium-Heavy Duty Engine Program
    - Navistar Chassis
    - Transit Bus
- *Soon!*
  - *Capacity Port Truck*
  - *6L Hybrid*
  - *9.3 Navistar*

Investment Plan

- Industry has momentum on the product and infrastructure side but would like partnering support from the CEC to come alongside industry stakeholders and leaders to invest in R&D which would help accelerate a larger variety of engine options for the marketplace!
- Consider increasing current planned investment relative to support other fuels are receiving.
- Increase funding the next 3 years then scale back to lower amount.
- Propane is the “Right Now” fuel option and the industry is ready to GO!