



Clean Energy

North America's leader in clean transportation

Compressed Natural Gas: Greening Your Fleet - Domestically

Todd Darr
Business Development Manager
Solid Waste

November 3, 2010

Company Profile - Clean Energy



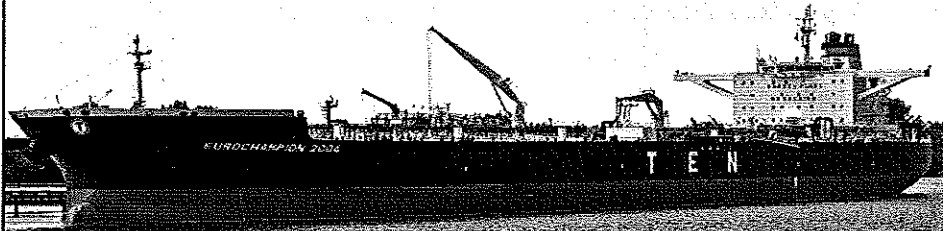
- **Largest provider of vehicular natural gas (CNG & LNG) in North America**
 - 100 million gallons sold during 2009
 - Fuel 20,000 + customer vehicles daily
- **Full service**
 - Design, Build & Operate Stations
 - Fuel and Fleet Marketing
 - Vehicle Grants (Awarded over \$220 Million)
 - Financing
- **Operating Territory**
 - 200+ stations
 - 16 U.S. States
 - 25 Airports
 - 9 Airports In Development
- **Publicly-traded as CLNE on NASDAQ**



What's the problem?



In 1970, we imported 24% of our oil.

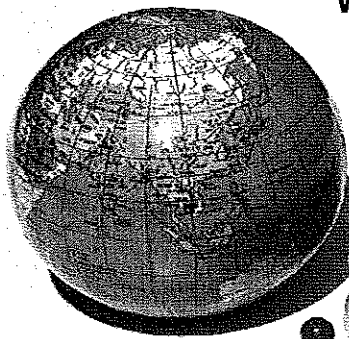


Today it is nearly **70%**

Out of Balance



Worldwide Increasing Demand
For an Ever Decreasing
Supply of Oil



China = 19%

India = 16%

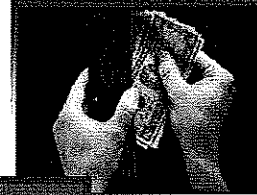


Why Natural Gas for Transportation?



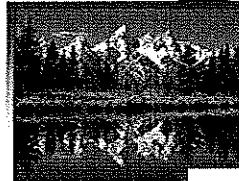
- **Cheaper**

- \$0.50 - \$1.00 less per gallon than gasoline



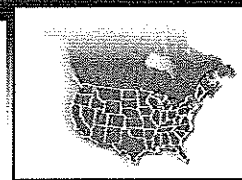
- **Cleaner**

- Cleanest burning fuel available
- Reduces GHG emissions by up to 30% and NOx emissions by 85%



- **Domestic**

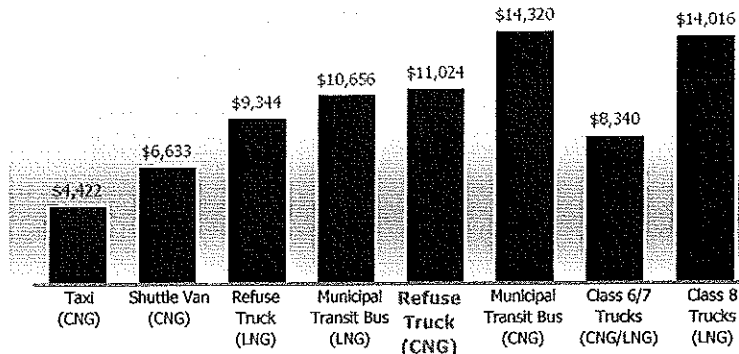
- 97% domestically produced
- Gallon per gallon displacement of foreign oil
- 120+ year supply



Natural Gas is Cheaper



Estimated Annual Fuel Cost Savings



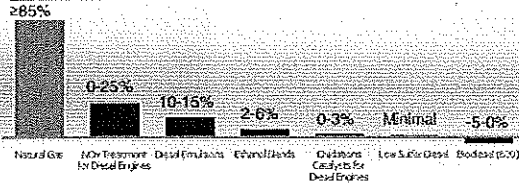
Incremental Cost*	\$7,000	\$7,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$18,000
Annual Fuel Usage (Gallons)	6,000	7,500	11,120	16,680	11,024	16,680	8,340	16,680
Comparison Fuel	Gas	Gas	Diesel	Diesel	Diesel	Diesel	Diesel	Diesel

* Includes Vehicle Tax Credit of \$32,000

Natural Gas is Cleaner



NOx Reduction: Less Smog

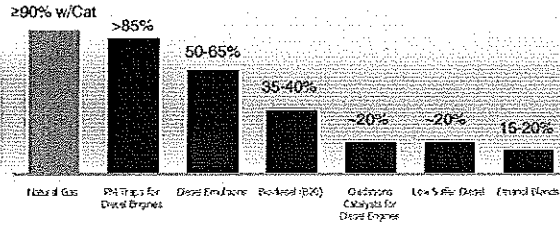


Greenhouse Gases

CEC's Well to Wheels Study

- 23% GHG reduction compared to diesel fuel
- 30% GHG reduction compared to gasoline fuel

PM Reduction: Less Soot



Source: South Coast Air Quality Management District 2007 Air Quality Management Plan Summit Panel

Natural Gas is Domestic & Plentiful



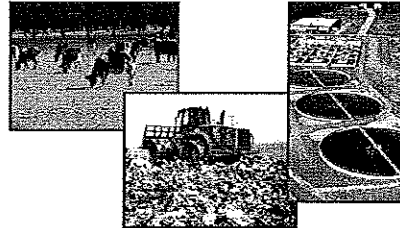
98% Supplied from the U.S. and Canada

Non-Renewable Sources (2,074 TCF)



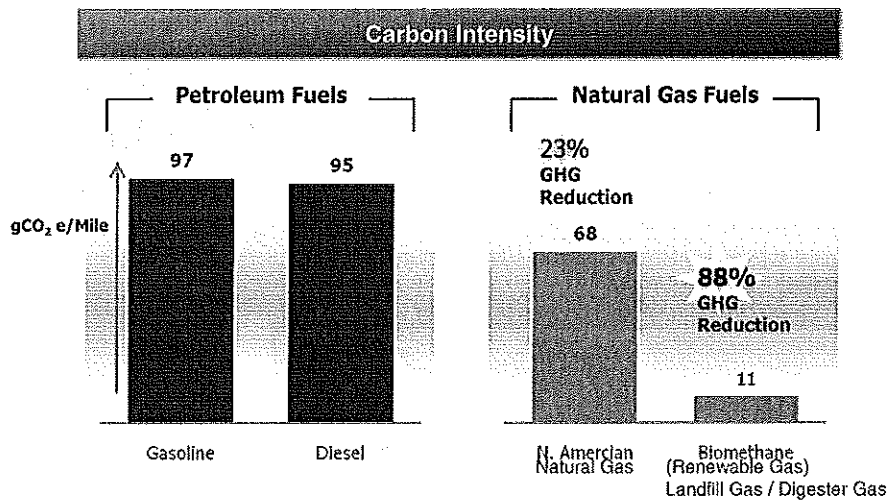
- 22 Shale Basins in 20 States
- 118+ years of Domestic Reserves
- 35% Increase in Reserves last 2 years

Renewable Sources (1,750 landfills)



- Landfill Gas (Biomethane)
- Dairy Farms
- Digester Gas (Sewer Treatment)
- Can be nominated CNG stations to achieve greater GHG reductions

Natural Gas Reduces GHGs



Source: CARB Fuel Pathways Analysis

NG Opportunity for Petroleum Displacement

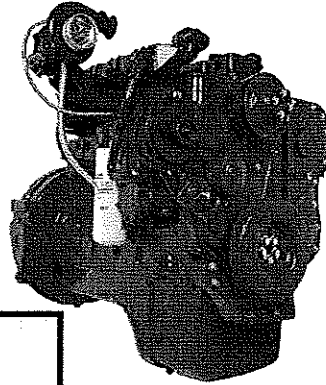


- What can Natural Gas Displace?
 - **40% of on-road diesel = 16 billion gallons of diesel = 1 million trucks**
 - **28% of on-road gasoline = 38 billion gallons of gasoline = 30-50 million LD vehicles**
- Natural gas is only fuel that can achieve significant foreign oil displacement

Proven Technology – Cummins Westport ISL G



- 2010 emissions standards met in 2007
- No Particulate Filters or SCR (Urea) Required
- Diesel-like performance
 - 34% more torque at idle than 2006 L Gas Plus
 - Great Startability & Gradability
- Improved fuel economy
- Maintenance Free Exhaust System
- Engine Available in Multiple Chassis – Manufactured Installed – Seamless Warranty
 - Front, Side, & Rear load, Recyclers, Roll-off

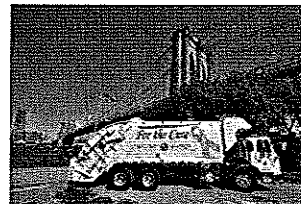
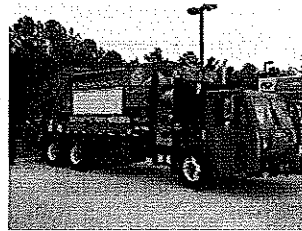


11

CNG is a perfect fit for refuse industry



- Refuse industry increasingly moving to CNG:
 - Currently, over 4,000 refuse trucks run on natural gas (doubled in three years)
 - Truck OEMs: CNG fueled Refuse Trucks is approaching 40% of their refuse market production
 - 90% reduction in engine noise
 - CNG fuel price stability for long-term municipal contracts

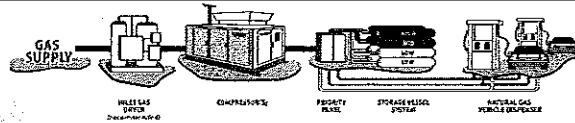


12

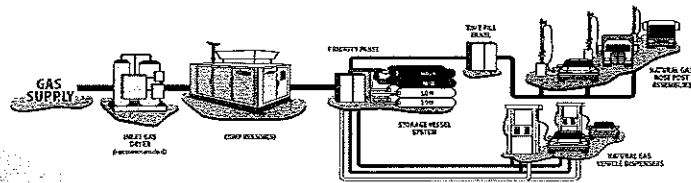
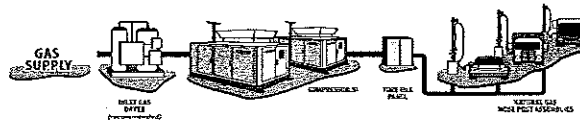
CNG Stations



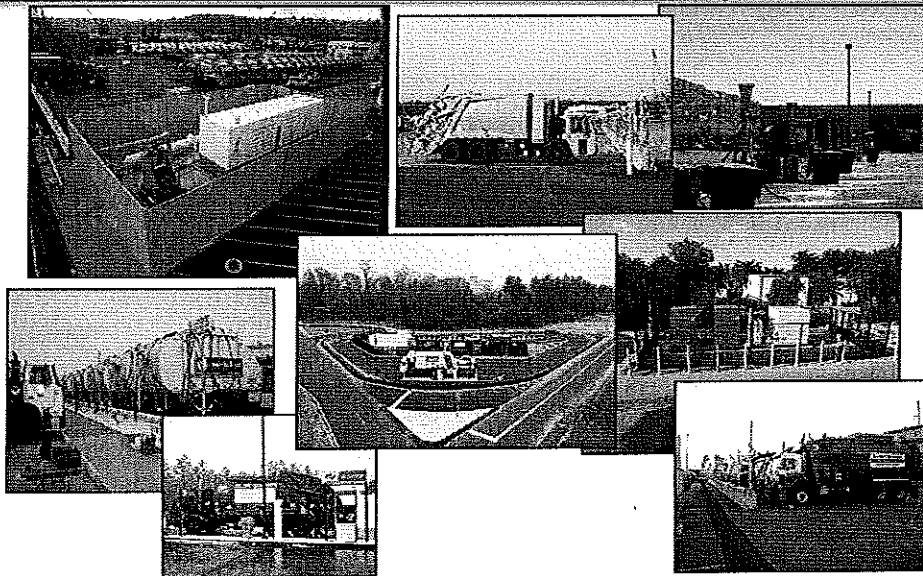
FAST-FILL SYSTEM



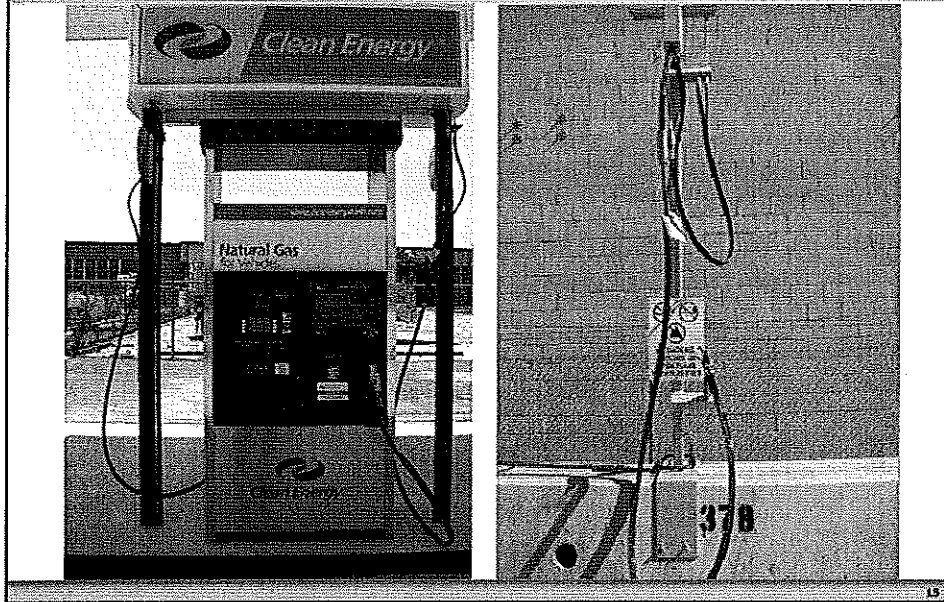
TIME-FILL SYSTEM



Typical Refuse Station Time Fill & Fast-Fill



CNG DISPENSERS: FAST-FILL & TIME-FILL



What's in it for You?



- Cleaner, Cheaper, Domestic and Abundant
- No Particulate Filters or DEF Diesel Exhaust Fluid (Urea) Required
- No diesel soot = Longer engine life
- Significantly Reduce Fleet Greenhouse Gas Emissions
- Improve environmental stewardship recognition

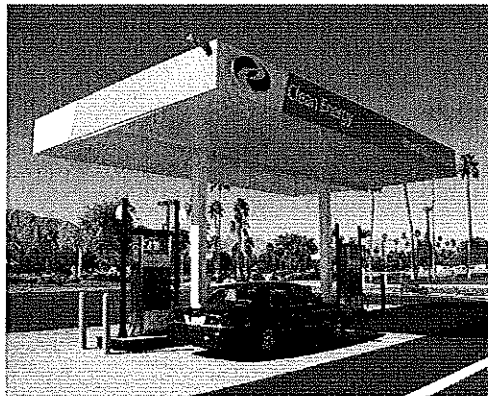
Conclusion



- The benefits of natural gas for vehicles is that it is CLEANER, CHEAPER, and DOMESTIC
- Natural gas refuse trucks can reduce GHG by over 23% vs. diesel
- Cities and private companies are making the transition to natural gas vehicles due to economic and environmental reasons
- Public policy is driving further interest in natural gas for low carbon and domestic energy security reasons
- Excellent examples exist across the US for municipalities and private companies to emulate

17

Questions?



Todd Darr
Business Development Manager
Clean Energy
314-440-2416

18

The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that every entry should be supported by a valid receipt or invoice. This ensures transparency and allows for easy verification of the data.

In the second section, the author outlines the various methods used to collect and analyze the data. This includes both primary and secondary data collection techniques. The primary data was gathered through direct observation and interviews, while secondary data was obtained from existing reports and databases.

The third part of the document provides a detailed analysis of the results. It shows that there is a significant correlation between the variables studied. The data indicates that as one variable increases, the other also tends to increase, suggesting a positive relationship.

Finally, the document concludes with a summary of the findings and offers some recommendations for future research. It suggests that further studies should be conducted to explore the underlying causes of the observed trends and to test the findings in different contexts.