Transforming our Nation’s Transportation Sector

The Role of Natural Gas

Kathryn Clay, Ph.D.
Executive Director
Drive Natural Gas Initiative

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Drive Natural Gas Initiative

Who We Are:

• Over fifty participating companies - distributors and producers of natural gas

• Representing the natural gas supply chain from production to delivery

• Working to support market growth for natural gas vehicles and the infrastructure to support them nationwide.
Natural gas: Clean, domestic, secure, affordable energy for transportation

*Clean.* NGVs produce 60 to 90 percent lower emissions of criteria pollutants.

*Affordable.* Natural gas prices are projected to remain low and stable compared to gasoline and diesel, benefiting consumers and budgets for cities and school districts.

*Job Creating.* Supports local economies and can improve the national balance of trade.
According to the Energy Information Administration and the Potential Gas Committee, the U.S. has enough natural gas to meet America’s diverse energy needs for 100 years.
The oil market uncertainty we’re seeing due to the turmoil in the Middle East has caused crude oil prices to soar, but natural gas prices are relatively low and stable.

The U.S. national average price of CNG is nearly 50 percent cheaper than gasoline or diesel fuel.
Natural gas vs conventional gasoline

On average, CNG costs 47% less than gasoline

Seattle
CNG - $1.60
Gas - $3.79

San Francisco
CNG - $2.44
Gas - $3.89

Los Angeles
CNG - $2.74
Gas - $3.81

Salt Lake City
CNG - $1.26
Gas - $3.37

Denver
CNG - $2.50
Gas - $3.45

Omaha
CNG - $1.93
Gas - $3.68

Detroit
CNG - $1.94
Gas - $3.78

New York
CNG - $2.70
Gas - $4.03

Wash., DC
CNG - $2.40
Gas - $3.94

Ft. Lauderdale
CNG - $2.19
Gas - $3.77

San Diego
CNG - $2.89
Gas - $3.80

Nashville
CNG - $1.63
Gas - $3.59

Atlanta
CNG - $2.34
Gas - $3.72

Source: CNG prices captured in July 2011 by CNGPrices.com

Gas prices reflect city average on July 20 from GasBuddy.com

On average, CNG costs 47% less than gasoline

Natural gas vs conventional gasoline
Other nations are realizing the potential of natural gas vehicles and moving forward.

North America 120,000 NGVs

South America 4,200,000 NGVs

Europe 1,300,000 NGVs

Asia and Middle East 6,300,000 NGVs

Africa 122,000 NGVs

There are over 12 million natural gas vehicles on the road worldwide – but less than 120,000 are in the United States.
Realizing the Potential: Natural Gas as a Transportation Fuel
Identifying the Opportunities: Fuel Consumption by Transportation Market Segment

Total Transportation Energy Market Equivalent to 61.6 Bcf/day

- **Strong Market Growth**
- **Significant Market Potential**

Bar chart showing fuel consumption by transportation market segment:
- **Light Duty**
- **Heavy Duty**
- **Medium Duty**
- **Marine**
- **Rail**

**Total** transportation energy market equivalent to 61.6 Bcf/day.
Major vehicle manufacturers are bringing NGVs to the North American market.

Medium and Heavy Duty

- Peterbilt
- Freightliner
- Kenworth
- Volvo

Light Duty

- Honda
- GM
- Chrysler
- Ford
Recent OEM Announcements:

**Bi-Fuel Pickup Trucks Hit the U.S. Market**

**Chevrolet Silverado and GMC Sierra 2500 (bi-fuel)**

- 650 miles of combined natural gas and gasoline range
- GM previously ended NGV production in 2006 – but is now returning.

**Chrysler Ram 2500 (bi-fuel)**

- America’s only factory-built, CNG-gasoline bi-fuel pickup truck
- OEM built means more than $6,000 in savings over comparable vehicle conversions.
Leading the Way: NGVs in Fleets Across America

- Waste Management announced on May 11th it will convert its entire fleet – over 18,000 trucks – from diesel to CNG.
- UPS, AT&T, Comcast, Sysco, and Ryder have made significant commitments to NGVs in their national fleets.
- One-fifth of city transit buses run on natural gas today, and market share of is growing.
- More than 35 U.S. airports use NGVs in their fleets or encourage NGVs in private fleets operating on premises.
“The economics and payback of natural gas are so strong that it dwarfs any other technology.”

- Eric Woods
Vice President of Fleet and Logistics
Waste Management
Natural Gas Utilities will play an important role in building and supporting an national NGV fueling infrastructure.

• Many business models, and many market participants, will be needed to build out a national NGV refueling infrastructure.

• Innovative regulatory approaches are emerging in other jurisdictions:
  • In Georgia, Atlanta Gas and Light received approval last fall to use their Universal Service Fund to assist investors in retail stations, and a pilot program for leasing home refueling appliances.
  • In California, Southern California Gas is seeking approval for provision of natural gas compression services to retail station operators.
Our national CNG refueling infrastructure is growing each year. The period between 2009 to 2012 shows a growth rate of 11 percent annually.
Building a National Fueling Infrastructure:
Progress along the Interstate Highway System

This partnership between Chesapeake, Clean Energy, and Flying J will build the backbone of a national L/CNG infrastructure.
State Governments Leading the Way:

- Led by CO, OK, PA and WY, states are joining together to use NGVs in state fleets
  - Aggregate vehicle purchase numbers for vehicle manufacturers to issue a joint RFP
  - Commit to converting state fleets (county, municipal, and other government)
  - ME, UT, NM, WV, KY, TX, OH, MS, LA have joined and others are in progress
Transforming the transportation sector to meet our energy and environmental goals:

America’s natural gas industry is committed to being a part of the solution.
Drive Natural Gas Initiative Participating Companies

Distributors – AGA Members

AGL Resources
Alagasco
Atmos
Avista
Cascade Natural Gas
CenterPoint Energy
Citizens Energy
DTE Energy
Integrys
Intermountain Gas
Metropolitan Utilities District
MDU Resources Group:
  Montana Dakota Utilities/Cascade Natural Gas / Intermountain Gas / Great Plains Company

National Fuel
National Grid
New Jersey Natural Gas
NiSource
ONEOK: Texas Gas Service
Piedmont Natural Gas
Questar Gas
Sempra: San Diego Gas & Electric/Southern California Gas
Southwest Gas
TECO Energy
UGI
Vectren

Transportation Collaboration
Drive Natural Gas Initiative Participating Companies

Producers – ANGA Members

- Anadarko Petroleum Corporation
- Apache Corporation
- BG Group
- BHP Billiton
- Bill Barrett Corporation
- Cabot Oil & Gas Corporation
- Chesapeake Energy Corporation
- Cimarex
- Devon Energy
- El Paso
- Encana Corporation
- Energen
- EQT
- High Mount Exploration & Production LLC
- Laredo Petroleum
- Linn Energy, LLC
- Newfield Explorations Company
- Noble Energy, Inc.
- Petrohawk Energy Corporation
- Pioneer Natural Resources
- Plains Exploration & Production Company
- QEP Resources
- Range Resources
- Seneca Resources
- SM Energy Company
- Southwestern Energy Company
- Talisman Energy Inc.
- Ultra Petroleum Corp.
- Williams Company
- XTO Energy Inc.