

Natural Gas as a Transportation Fuel

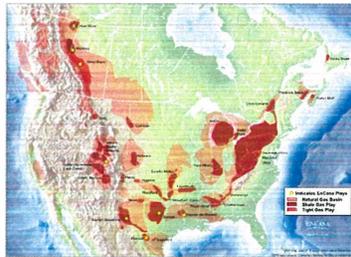
Natural Gas – From New Mexico, For New Mexico

Sherrie Merrow | Encana Natural Gas
 July 12, 2012



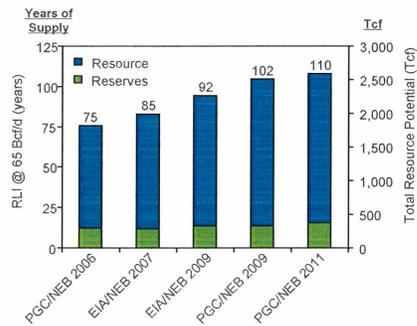
North American Natural Gas Landscape Increased Reserve and Resource Base

Location of Shale Plays



Gas Shale Plays are an Industry Changing Breakthrough

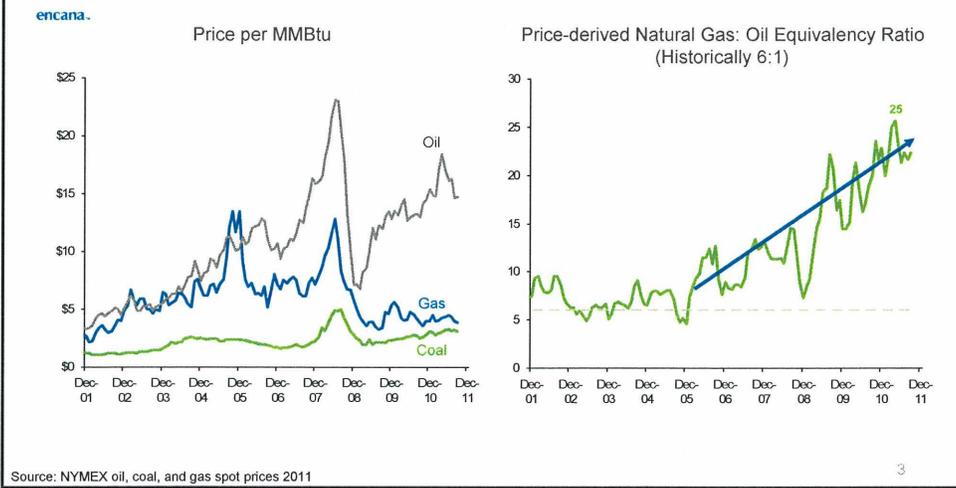
Canada and U.S. Resource Estimates



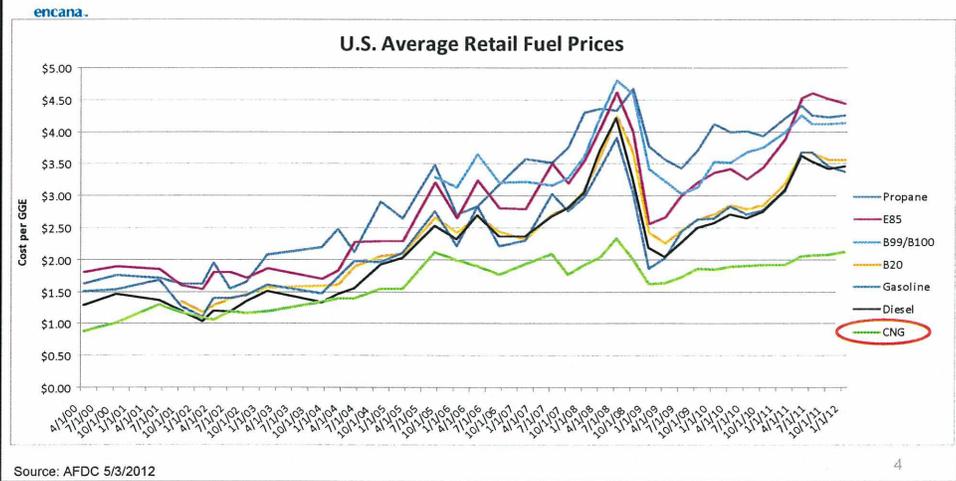
- 2,600 Tcf of Total Resource
- 100+ Year Supply at 70 Bcf/d
- 70+ Year Supply at 100 Bcf/d

Historic Energy Commodity Price Spreads Situation Enables Expanded Markets for Natural Gas

*Abundance of Natural Gas expected to sustain price difference...
...making it an attractive economic choice*

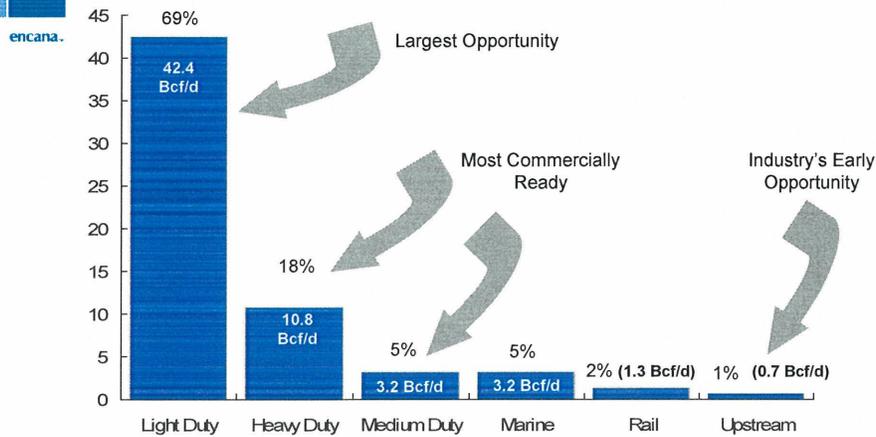


U.S. Average Retail Fuel Prices Natural Gas Consistently is the Lowest Price



Taking Action U.S. Transportation Sector Displacement

Fuel Consumption by Market Segment Displaceable Market Volume: 61.6 Bcf/d



Source: Data and forecast from EIA, Encana, 2010
Displacement opportunities exclude Air, International Shipping, Military, Pipeline Fuel

5

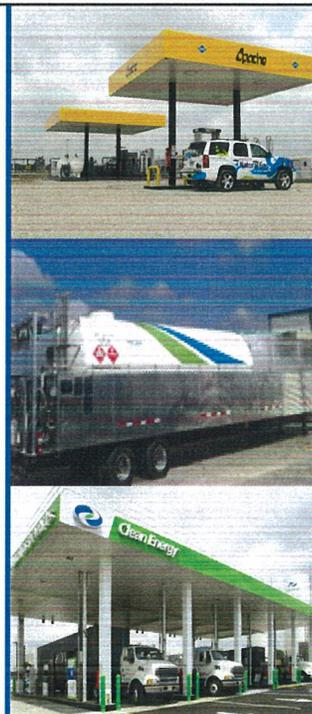
Natural Gas Solutions

Compressed Natural Gas (CNG)

- Source: Pipeline
- Compressed to 3,600 psi
- Primarily for light and medium duty vehicles
- Ideal for return-to base fleets or fleets that require fast-filling
- Time-fill and fast-fill capability / stored in pressurized tanks

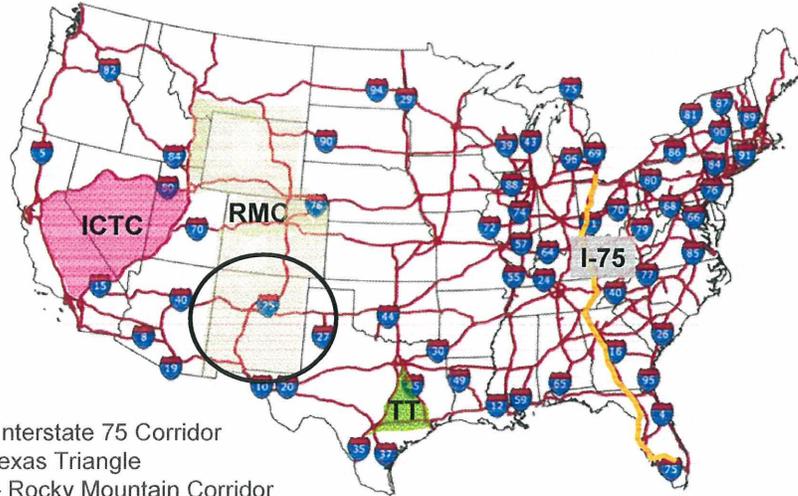
Liquefied Natural Gas (LNG)

- Source: Liquefaction Plant
- Converted to liquid form for ease of storage and transport
 - (Cooled to -260° F and 40 psi)
- Ideal for medium to heavy duty fleets
- Fast-fill / stored in tanks (similar to diesel size)



U.S. Interstate Highway System Linking Green Corridors - Now to Focus on New Mexico

encana.



- I-75 – Interstate 75 Corridor
- TT – Texas Triangle
- RMC – Rocky Mountain Corridor
- ICTC – Interstate Clean Transportation Corridor

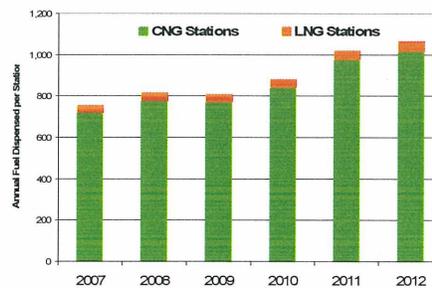
7

And the U.S. Market is Responding Natural Gas Infrastructure

encana.

- Since 2009:
 - 32% increase in CNG stations
 - 45% increase in LNG stations
- Planned Stations:
 - 95 CNG stations
 - 99 LNG stations
- Regional Corridors:
 - Rocky mountains
 - Texas triangle

1,015 CNG stations and 52 LNG stations



Top States for NGV Stations

- California: 264
- New York: 109
- Utah: 84
- Oklahoma: 72
- Texas: 43

8

Vehicle Categories – Choices Already Exist



■ Light Duty CNG



■ Medium to Heavy Duty CNG



■ Heavy Duty On Road LNG

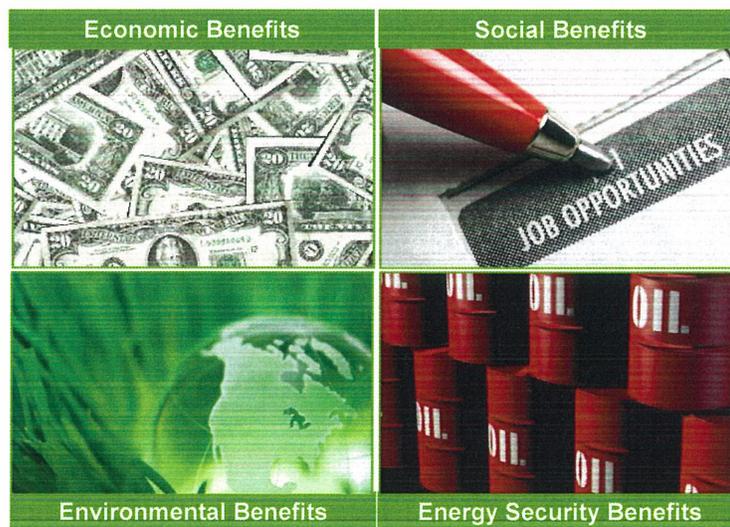


■ Heavy Duty Off Road LNG

encana.

9

Creating a Unique Value Proposition



encana.

10

Natural Gas – Working for New Mexico

encana.

- Leading NG producing state (10% of U.S. production)
- More than 46,000 total jobs (5% of total employment)
- \$3.5 billion in economic output
- \$4.3 billion in direct value added to the state



Source: ANGA 2009

11

New Mexico NGV Coalition Natural Gas for Transportation

encana.

The purpose of the Coalition is to advance natural gas infrastructure and vehicle growth in New Mexico through planning for best infrastructure placement, connecting stakeholders together to create the infrastructure, and engaging appropriate fleets and vehicles.

ALBUQUERQUE

Apache
CORPORATION

aztecwell

BEATTY & WOZNAK, P.C.
Energy in the Law

Chesapeake
ENERGY

LAND OF ENCHANTMENT
Clean
Cities

Clean Energy

el paso

encana.
natural gas

New Mexico
GREEN CHAMBER of COMMERCE



NMOGA
NEW MEXICO OIL & GAS ASSOCIATION

New Mexico Energy, Minerals and Natural Resources Department



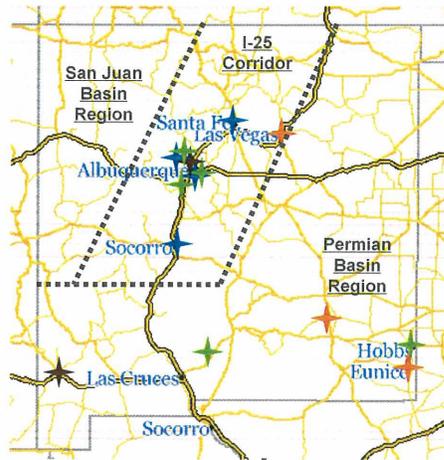
Socorro
your next stop!

Williams

windstream.

12

Natural Gas Fueling Stations and Regional Leadership in New Mexico



9 Existing CNG Stations

- ★ 4 Public - Albuquerque (2), Santa Fe, Socorro
- ★ 5 Private - Albuquerque (2), Hobbs, Kirtland AFB, White Sands Missile Range

3 Planned CNG Stations

- ★ Artesia, Eunice, Las Vegas

2 LNG Stations

- ★ Albuquerque, Lordsburg

Regional Leadership

I-25 Corridor – EMNRD, LOE Clean Cities Coalition

Permian Basin Region - Apache

San Juan Basin Region - Williams

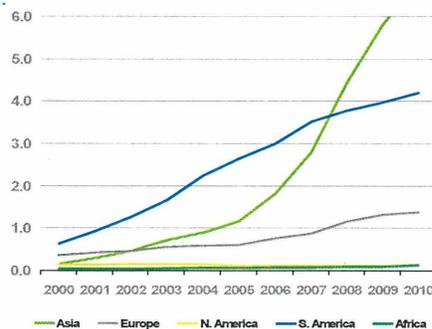
Station Count as of 6/14/2012

13

Natural Gas Vehicle Growth by Continent Great North American Opportunity

Natural Gas Vehicles by Continent

Natural Gas Vehicles (Millions)



Italy as an Example

- ~600,000 NGVs
- 37% growth since 2007
- NGVs have 7% market share of all new vehicles purchased
- Cost of CNG is 50% to 60% less expensive than gasoline
- Government incentives
- Imports 89% of natural gas



Fiat Qubo Natural Power

Source: IANGV, NGVA Europe, Fiat 2010

14

Natural Gas Vehicle Incentive Comparisons Leading States with Incentives

	Federal	Texas	West Virginia	Oklahoma	Oregon	Colorado	Louisiana
Natural Gas Vehicle Count*	117,446	10,440	22	2,932	1,675	1,197	361
Natural Gas Stations (E/P)	1,036 / 197	39 / 27	1 / 0	69 / 6	12 / 3	28 / 7	15 / 7
Infrastructure/ Home fuel		Texas Clean Transportation Triangle funds up to \$2MM	50% of the construction costs up to \$250,000 (\$312,500 if allows public access) Expires: 01/01/21	75% of infrastructure Expires: 01/01/14	25% of the incremental cost or \$750 for residents / 35% for businesses		50% of the cost of constructing an alternative fueling station No expiration
Vehicle Incentives	Accelerated depreciation on 50% of the vehicle cost in 2012	Texas Gas Services offers \$2,000 rebate for the purchase of a NGV / \$3,000 for the conversion Texas Clean Transportation Triangle funds 60-90% of cost up to \$8MM	35% of the purchase price or 50% of the conversion cost up to \$7,500 for < 26,000 GVWR and up to \$25,000 for > 26,000 GVWR Expires: 01/01/21	50% of the incremental cost Expires: 01/01/14	25% of the incremental cost or \$750 for residents / 35% for businesses	55% of incremental cost in 2012 Decreases: 35% - 2013 25% - 2014 and 2015	50% of the incremental cost, or 10% of the cost of the motor vehicle or up to \$3,000 No expiration
Fuel Credits		Preferential NG Fuel rates					Deregulation of CNG as a Motor Fuel
Mandates/ Goals	Acquisition Requirements	Acquisition Requirements	Acquisition Requirements	Acquisition Requirements CNG highway/station every 100 miles by 2015	Acquisition Requirements	Acquisition Requirements	Acquisition Requirements
Funding	Grants / Loans	Grants / Loans	Grants / Loans	Infrastructure Loans	Loans	Grants	Loans

Source: AFDC April 1, 2012, Vehicle Count 2009

17

Current NM NGV Legislation

State Incentives:

- Alternative Fuel Vehicle (AFV) Fueling Infrastructure Grants and Fuel Tax Exemptions
 - The New Mexico Energy, Minerals, and Natural Resources Department administers the Clean Energy Grants Program provides grants for projects using clean energy technologies. As of April 2012, funding for this program is unavailable.
 - Alternative fuel distributed by or used for U.S. government, state government, or an Indian nation, tribe or pueblo purposes, is exempt from the state excise tax.

encana.

Laws and Regulations:

- Natural Gas Fuel Rate Reduction and Infrastructure Maintenance
 - Clean Energy Fuels offers services to the natural gas vehicle industry that include CNG fueling station equipment maintenance and competitive fuel pricing for larger fleets, as well as AFV financing.
- AFV Acquisition Requirements - Albuquerque, NM
 - All motor vehicles purchased by the City of Albuquerque must be dedicated, flexible fuel, or dual-fuel AFVs.
- Alternative Fuel Definition
 - The definition of an alternative fuel includes natural gas, liquefied petroleum gas, electricity, as well as other renewables.
- Alternative Fuels Tax
 - The excise tax imposed on an alternative fuel distributed in New Mexico is \$0.12 per gallon. Alternative fuels subject to the excise tax include liquefied petroleum gas or propane, compressed natural gas, and liquefied natural gas.
- Alternative Fuel Vehicle (AFV) and Hybrid Electric Vehicle (HEV) Acquisition Requirements
 - A minimum of 75% of state government and educational institution fleet vehicles purchased must be HEVs, bi-fuel, or dedicated AFVs (which includes plug-in electric vehicles).
 - Up to \$5 million is authorized for a revolving loan fund for AFV acquisitions by state agencies, political subdivisions, and educational institutions. The maximum amount of a loan per vehicle must not exceed the actual cost of acquiring the vehicle, or \$3,000, whichever is less.

Source: AFDC 5/29/2012

18

NGV MOU

- Led by CO, OK, PA and WY, states are joining together to use NGVs in state fleets
 - Aggregate vehicle purchase numbers for auto manufacturers – joint RFP that all states can use
 - 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



Memorandum of Understanding

This Memorandum of Understanding (MOU) describes a coordinated effort between the undersigned States (States) to attract automotive manufacturers to the U.S. to develop a functional and affordable original equipment manufacturer (OEM) fleet natural gas vehicle (NGV) that will also meet public demand. The States recognize the benefits and unique attributes of clean burning natural gas and understand the significant opportunity compressed natural gas (CNG) presents for new State and taxpayer dollars by encouraging an energy future that utilizes domestic energy resources to fuel our nation's transportation needs. Through the joint solicitation of a Multi-State Request for Proposal (Joint RFP) that aggregates annual State fleet vehicle assessments, the States will endeavor to provide a demand base sufficient to support the design, manufacture, and sale of functional and affordable OEM NGVs by automotive manufacturers in the United States.

In anticipation of soliciting a Joint RFP, the States will endeavor to coordinate with local agencies, municipalities, and companies to determine the number of NGVs each State can commit to purchase and the required specifications necessary to meet fleet needs. The Joint RFP shall require that the ultimate cost of an OEM NGV should be comparably priced to an equivalent gasoline powered model and that warranty and reliability concerns are not compromised. Simultaneously, the States understand the need for continued development and expansion of CNG fueling infrastructure and should endeavor to encourage private investment, predicated on demonstrating an anticipated increase in State NGVs, to meet growing demand.

Pursuant to the terms of the Joint RFP, to be executed at a later date, the States intend, where practical, to transition new fleet vehicle acquisitions, to committed volumes, to a resulting OEM NGV. Such future acquisitions should, where economically feasible, not be traditional disposition awards that bypasses local businesses in procurement processes. In continued recognition of the benefits of CNG, the States should also endeavor to pursue fleet vehicle conversions to CNG, where economically compelling, based on a life cycle cost analysis. The States will also reach out to fellow Governors to determine broader interest and participation in the principles and process outlined in this MOU.

This MOU embodies the principle understandings of the States but shall not create any legal relationship, rights, duties, or obligations binding or enforceable at law or in equity. Notwithstanding the foregoing, each State shall in good faith endeavor to reach a mutually agreeable and economically beneficial Joint RFP, on non-contingent terms. This MOU does not create additional state power, enhance existing state power, or interfere with federal authority or law. This MOU shall continue to demonstrate the States' understanding until execution of the Joint RFP, or until either is discontinued by either State.

Set forth by:

State of Colorado

Mary Fallin
Mary Fallin, Governor

State of Colorado

John H. Schoemaker
John H. Schoemaker, Governor

Source: States' Governors Energy Offices 2012.

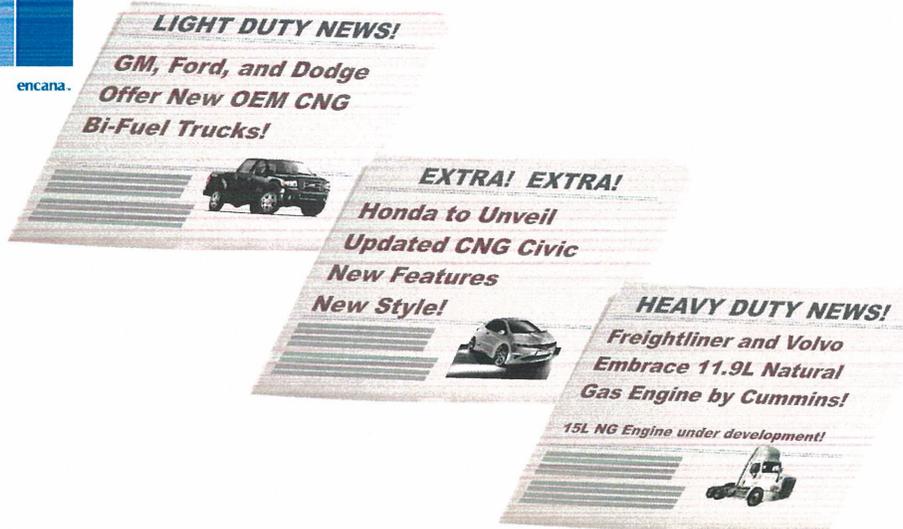
19

Who's Converting in New Mexico?

- ABQ Ride
- Albuquerque International Support
- East Side Animal Control Center
- Municipalities
 - City of Albuquerque
 - City of Las Vegas
 - City of Socorro
- Natural Gas Producers
- Sandia National Laboratory
- Santa Fe Trails Transit
- University of New Mexico
- White Sands Main Post
- Waste Management



And the U.S. Market is Responding Vehicle Markets



Resources

- American Natural Gas Alliance (ANGA)
 - <http://www.anga.us/>
- Alternative Fuel Stations and Prices
 - <http://www.afdc.energy.gov/afdc/stations/advanced.php/>
 - <http://www.altfuelprices.com/>
 - <http://www.cngprices.com/>
 - <http://www.fueleconomy.gov/>
- Clean Vehicle Foundation
 - <http://www.cleanvehicle.org/index.shtml/>
- Natural Gas Vehicle Institute
 - <http://www.ngvi.com/>
- Natural Gas Vehicles for America
 - <http://www.ngvc.org/index.html/>
- US DOE Alternative Fuels & Advanced Vehicles Data Center
 - <http://www.afdc.energy.gov/afdc/>
- Weld County Smart Energy
 - <http://www.weldsmartenergy.org/>

Natural Gas is...

- Abundant
- Affordable
- Clean
- Reliable
- Domestic Solution



encana.