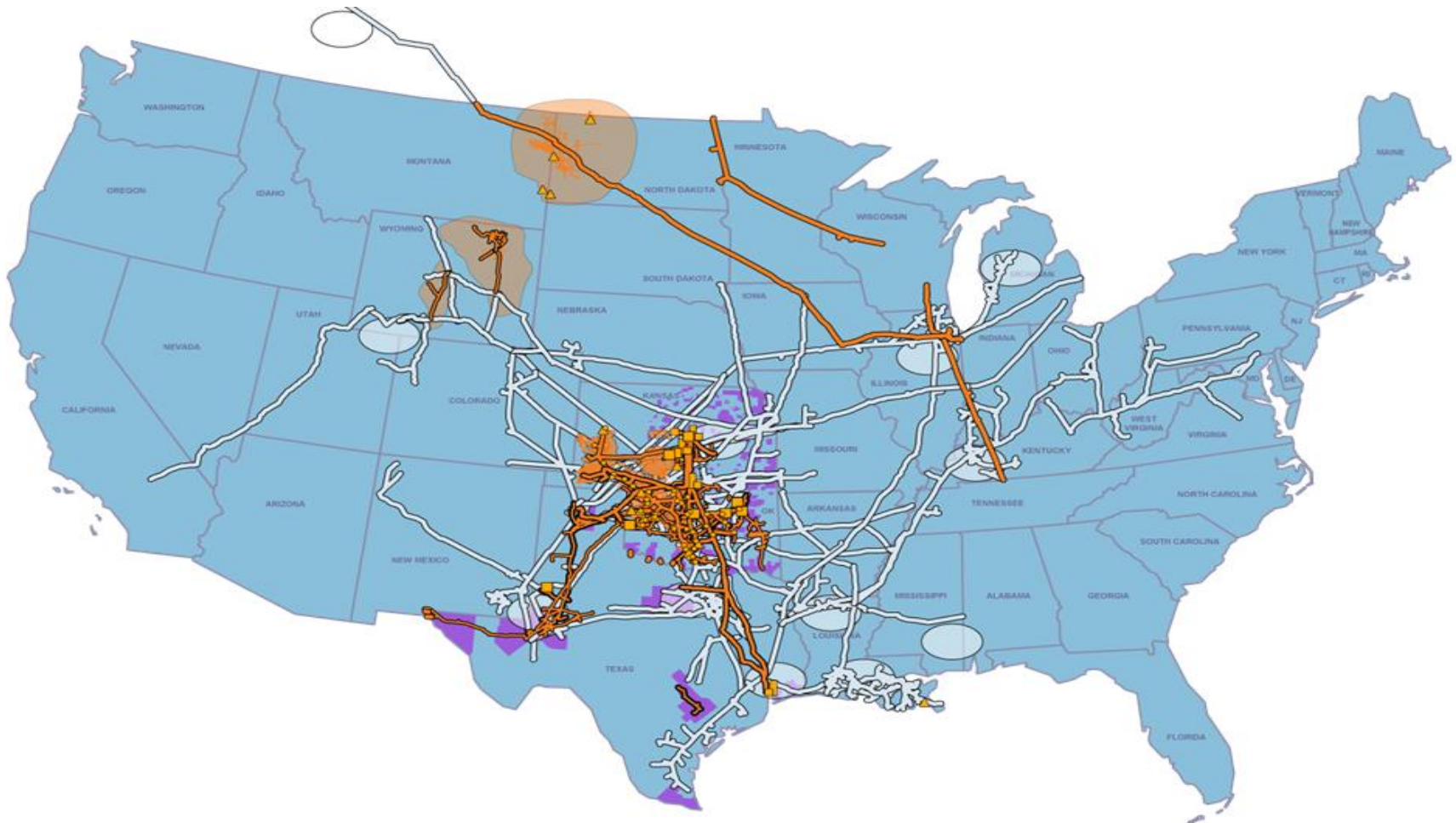




Compressed Natural Gas (CNG)
CNG4Kansas
September 17, 2013



- A Diversified Energy Company





Kansas Gas Service Public CNG Fueling Stations





Overland Park – 11401 W. 89th St.





Topeka – 200 E. First Ave.





ONEOK – Oklahoma CNG History

- Fleet operations implemented in 1983
 - Four vehicles converted
 - Modified IMPCO propane technology
 - Bi-fuel operation
 - Poor performance
- By 1986
 - Conversions done internally
 - Training/experienced technicians
 - Improved vehicle performance
 - 130 NGVs
 - On-site fueling infrastructure installed at key operational sites
 - Non-public
 - Fast-fill and time-fill capabilities



ONEOK – Oklahoma CNG Operations

- 1987
 - Marketing group formed
 - NGV fleet numbers continued to grow
- 1989
 - Tulsa Public Schools project (Exxon oil overcharge funds)
 - Fueling facility dedicated by Governor Henry Bellmon
 - City of Tulsa and Enid Public Schools projects
- Early 1990s
 - Public stations opened
 - Conversions grew
 - IMPCO, GFI, DAI Syncro-Start, Baytech
- Late 1990s
 - OEM purchases increased
 - EPA exerted influence on NGV market



ONEOK – Oklahoma CNG Operations

- Late 1990s to early-2000s
 - NGV fleet increased to 1,200
 - Opened company-owned/operated CNG stations to public access
 - Expanded purchase of OEMs
 - Internal conversions decreased
 - Conversion kit availability dwindled
- Mid-2000s
 - Last OEMs purchased
 - Very limited conversion activity
- 2008
 - IMPCO Partnership
 - Conversion of 2008 GM pickup
 - Maintenance centers became certified IMPCO installers
 - Reinvigorated internal conversion activity



ONEOK – Oklahoma CNG Operations

- 2009 – present
 - Strong conversion activity
 - In-house at approximately \$8,500
 - 728 IMPCO systems
 - 10 Natural Drive systems
 - Purchased 30 GM OEMs
 - 564 fleet NGVs of various types
 - Sedans, 1/2 ton and 3/4 ton pickups, and 1 1/2 ton trucks



ONEOK – Oklahoma Fleet Operations

- Two fleet maintenance centers
 - Oklahoma City
 - Tulsa
- Maintenance technicians
 - Perform all levels of work on rolling stock
 - Vehicles, construction equipment, trailers
 - CNG licensed by State of Oklahoma
 - Certified by conversion companies
 - Perform warranty work
 - GM
 - IMPCO



CNG Market Update

- NGV Options:
 - OEM
 - Dodge, GM, Ford, Honda
 - Conversion Companies*
 - Altech-Eco, American Alternative Fuel, American Power Group, Auto Gas America, BAF, Baytech, Clean Air Power, CNG Interstate, CNG Solutions, EcoDual Group, EvoTek, FuelTek Conversions, Go Natural Gas, Greenkraft, High Pressure Group, IMPCO, Landi Renzo, Nat Gas Car, Natural Drive Partners, NGV Motori, Omnitek Engineering, Parnell USA, Peake Fuel Solutions, PowerFuel, The CNG Store, Westport, Wise Gas, Zavoli
- *_{NGVAmerica}



CNG Market Update - OEMs





CNG Market Update - OEMs





CNG Market Update - OEMs





CNG Market Update - OEMs





Home Refueling Appliance (HRA)

- Quick Analysis
 - 12,000 miles annually
 - 20 mpg
 - 600 gallons fuel
 - 75 Dth (600/8)
- About equal to one residential customer
- Attractive market



Home Refueling Appliance (HRA)

- BRC FuelMaker
- Hypress
- Simpkins
- Coltri
- CNGPump
- North American Compressor
- Others
- Future participants?
 - GE
 - Whirlpool



Home Refueling Appliance (HRA)

- Major public/private investments
 - MOVE (Methane Opportunities for Vehicular Energy)
 - ARAP-E Projects
 - Home refueling, conformable vehicle storage, absorption materials
 - GTI
- HRA market
 - \$500 identified as the ‘target’ to reach customer acceptance



CNG Fueling Station Update

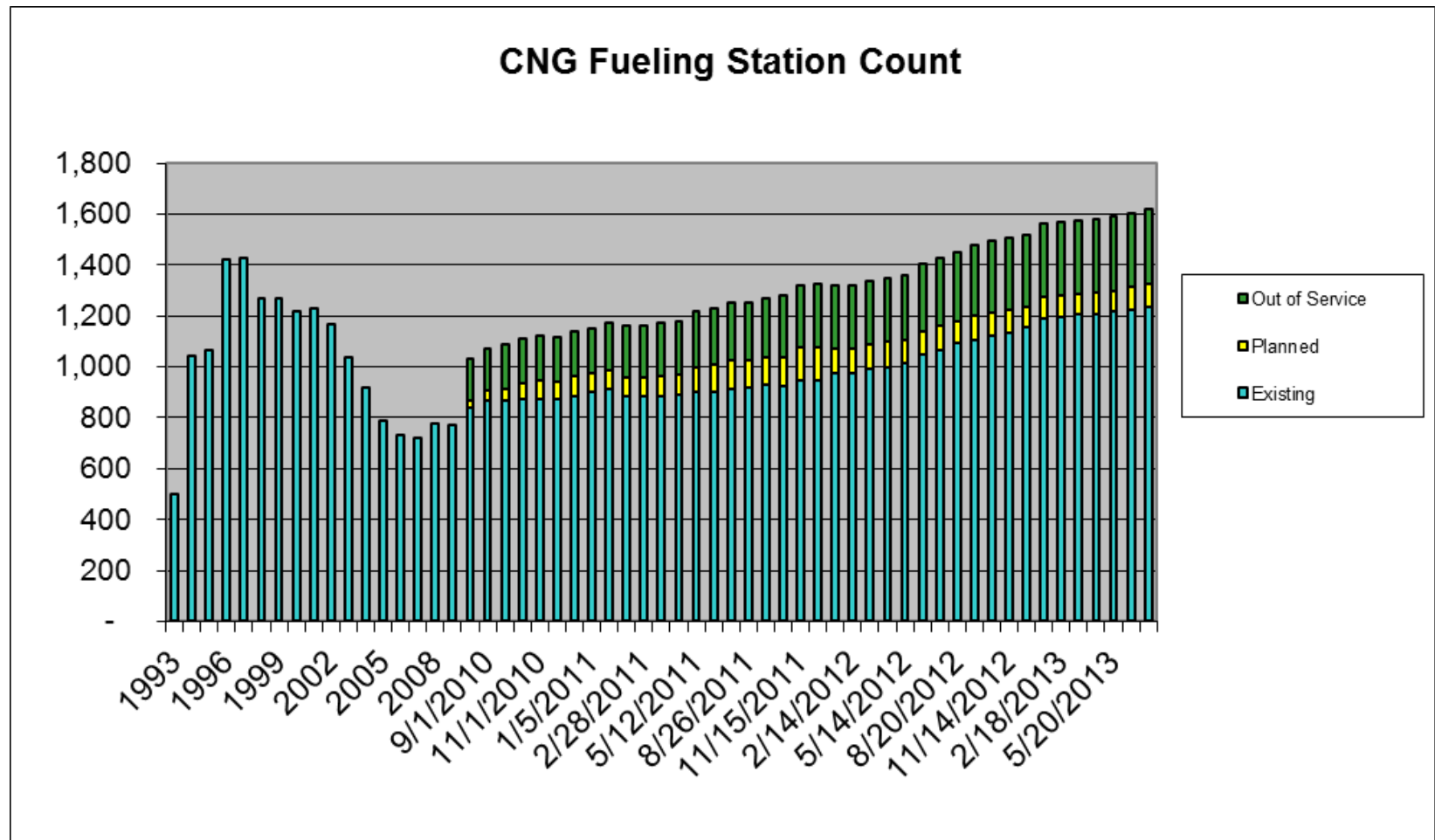
- 1,235 CNG stations in U.S.*
- 596 public access*
- 93 planned new stations*
- 60 percent increase since 2009*
- 112,000 NGVs in U.S.*
- 14.8 million NGVs worldwide*
- Less than 1 percent of U.S. natural gas consumption is used in transportation*
- Natural gas costs nearly 75 percent less than gasoline/diesel
 - CNG: 88 cents GGE vs. gasoline: \$3.49 per gallon

Includes 50 cents per gallon federal tax credit

*U.S. DOE/AFDC



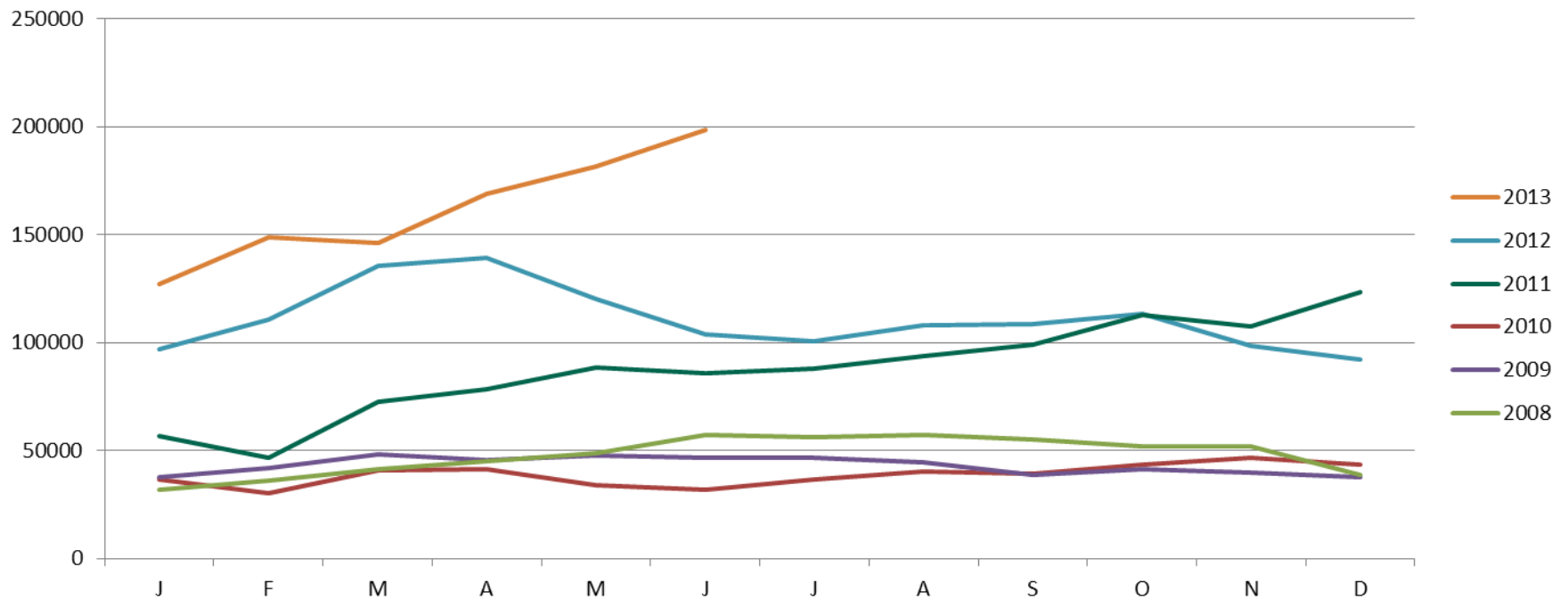
CNG Fueling Station Update





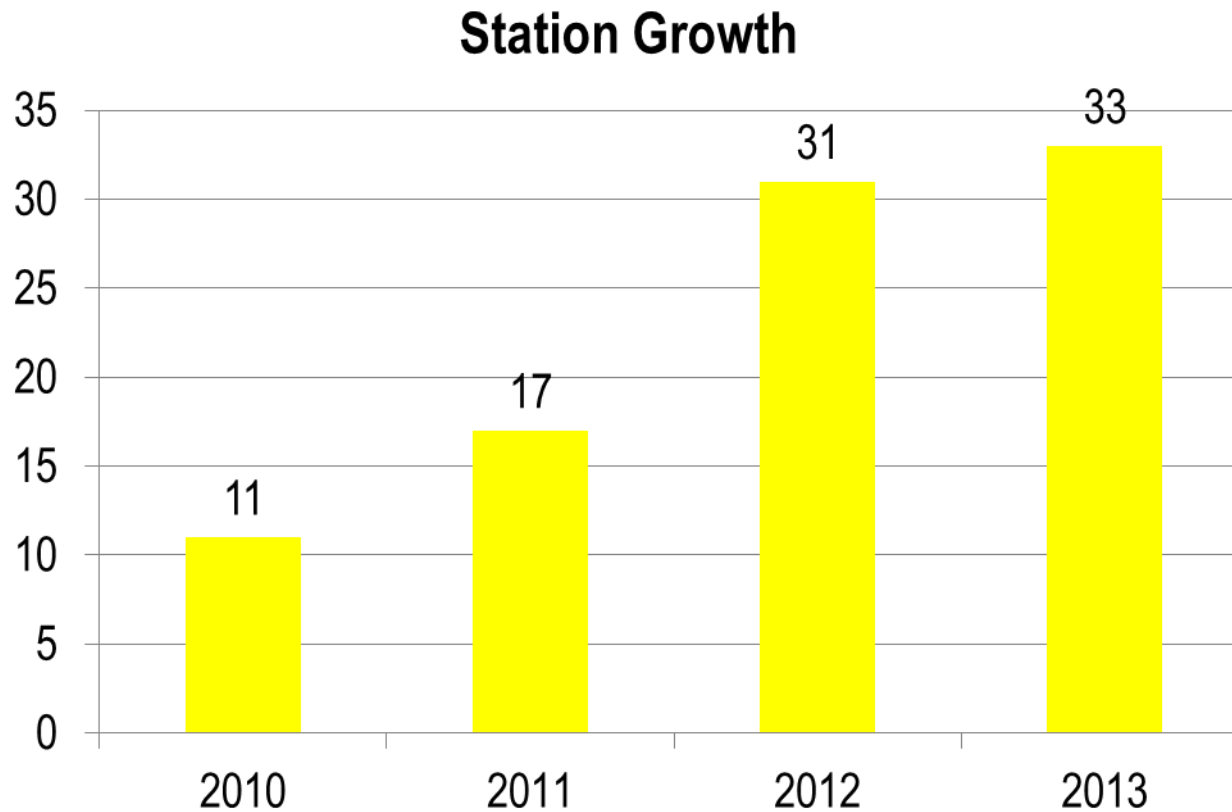
ODC Owned CNG Stations

Public CNG Usage



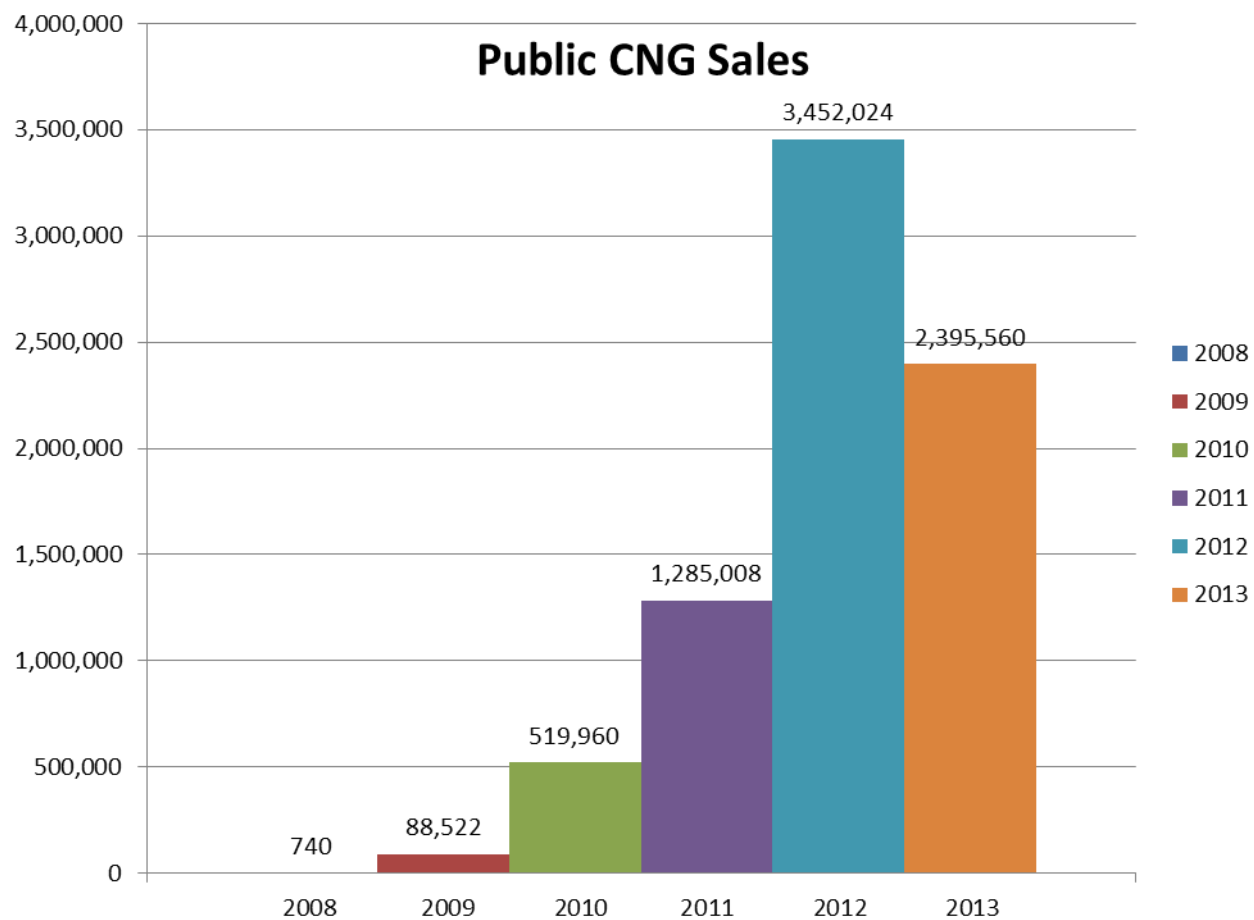


Third-Party Retail CNG Stations - Oklahoma





Third-Party CNG Stations - Oklahoma





Drive Natural Gas Initiative

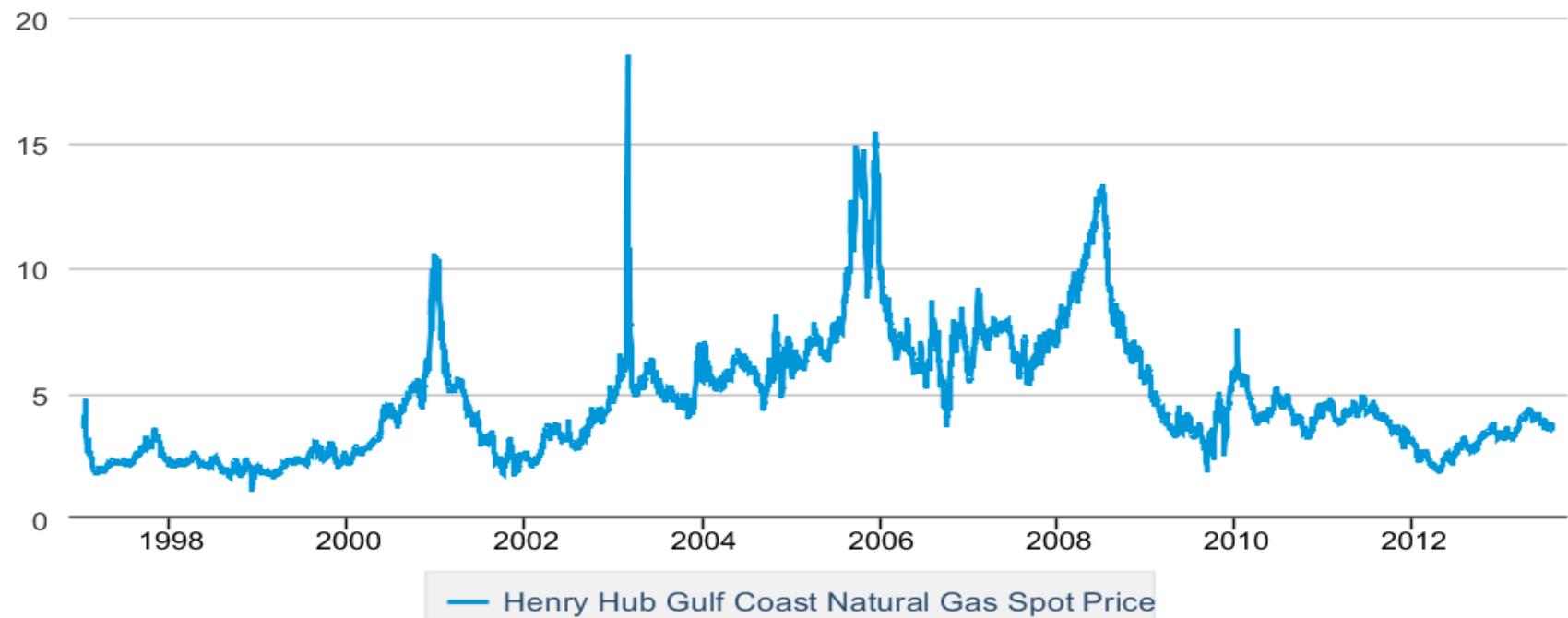
- 2017 – 2025 CAFE standards include NGVs
 - Multiplier >1 for NGVs
- 6 x 6 Program (ANGA)
 - BMW X3, Chrysler 300, Ford Mustang GT, GMC Acadia, Honda CRV, Hyundai Sonata
- TIAX Analysis
 - NGV market analysis



Economic Outlook

Henry Hub Gulf Coast Natural Gas Spot Price

Dollars/Mil. BTUs





Economic Outlook

Figure 86. Annual average Henry Hub spot natural gas prices, 1990-2040 (2011 dollars per million Btu)





CNG/NGV Economic Outlook

- \$15 Dth natural gas
 - \$1.88 GGE CNG
- \$10 Dth natural gas
 - \$1.25 GGE CNG
- \$5 Dth natural gas
 - 63 cents GGE CNG



CNG/NGV Economic Outlook

- CNG/NGV Opportunities
 - Sustained/rising crude prices
 - Stable natural gas supply
 - Affordable/reliable HRA
 - High horsepower applications
 - Additional incentives
 - More public fueling outlets
 - Increased OEM offerings
 - Decreased upfront NGV costs



CNG/NGV Economic Outlook

- CNG/NGV Risks
 - Crude prices tumble
 - Hydraulic fracturing issues
 - Environmental
 - Drastic improvements in battery technology
 - Improved liquid fuel alternatives
 - Algae, saw grass, grains
 - Incentive expiration
 - Major incident
 - Safety regulations



NGV Market Activity - Oklahoma

- CNG rebate program initiated July 2012
 - EPA-certified systems
 - 10 model year and newer NGVs
 - Limited to one rebate per NGV/HRA
- 25 cents per GGE surcharge
 - Collected only at company-owned/operated public CNG stations
- To date:
 - 621 NGV rebates totaling \$788,000 paid
 - 37 HRA rebates totaling \$77,500 paid



Partnership Opportunities

- Develop tax incentives
 - Legislative partnerships
- Utility serve as anchor fleets
 - Fuel provider partnerships
 - Conversion center partnerships
- Utility owns/operates CNG stations
 - Incent retail property owner
- Develop pro-CNG tariffs
 - Regulatory partnerships
- Leasing opportunities
 - HRAs



CNG/NGV Competition

- Liquid fuels
 - Gasoline, diesel, ethanol, propane, other liquid alternatives
- Electric
 - Batteries
 - Production restraints
 - Grid limitations
 - Peak demand
- Great unknown
 - Technologies yet discovered



CNG Value

- Benefits from CNG
 - Green fuel (environmentally friendly)
 - Reduces carbon footprint
 - Safe fuel
 - Extended vehicle lifecycle
 - Burns cleaner than liquid fuels
 - Increased vehicle resale value
 - Increased natural gas production
 - Job creation, tax revenue, creates wealth
 - Operational savings vs. liquid fuels
 - *Reduces dependency on foreign oil*



Questions?

