NATURAL GAS VEHICLES

AMERICA'S NEW CHOICE FOR CLEAN TRANSPORTATION

www.tngas.org

Natural Gas Terminology

- CNG – Compressed Natural Gas
  - 3600 – 5000 psi
- LNG – Liquefied Natural Gas
  - -260^{o} F
- NGV – Natural Gas Vehicle
  - Cars, pickups, buses
- GGE – Gasoline gallon equivalent
  - ~1.2 CCF depending on heating values

Natural Gas Fast Fill Station

Fast fill stations fill vehicles rapidly using compression equipment and fuel storage systems. They take about the same time to fill as any gasoline pump.

Natural Gas Time Fill Stations

Time fill stations typically fill the vehicles overnight. They are ideal for fleets that return to a central location or for a home filling station.

WHAT'S AVAILABLE

Below are just a few examples of the CNG vehicles on the road today!






3 Reasons to Choose Natural Gas as a Transportation Fuel

- Environmental
- Political
- Economic

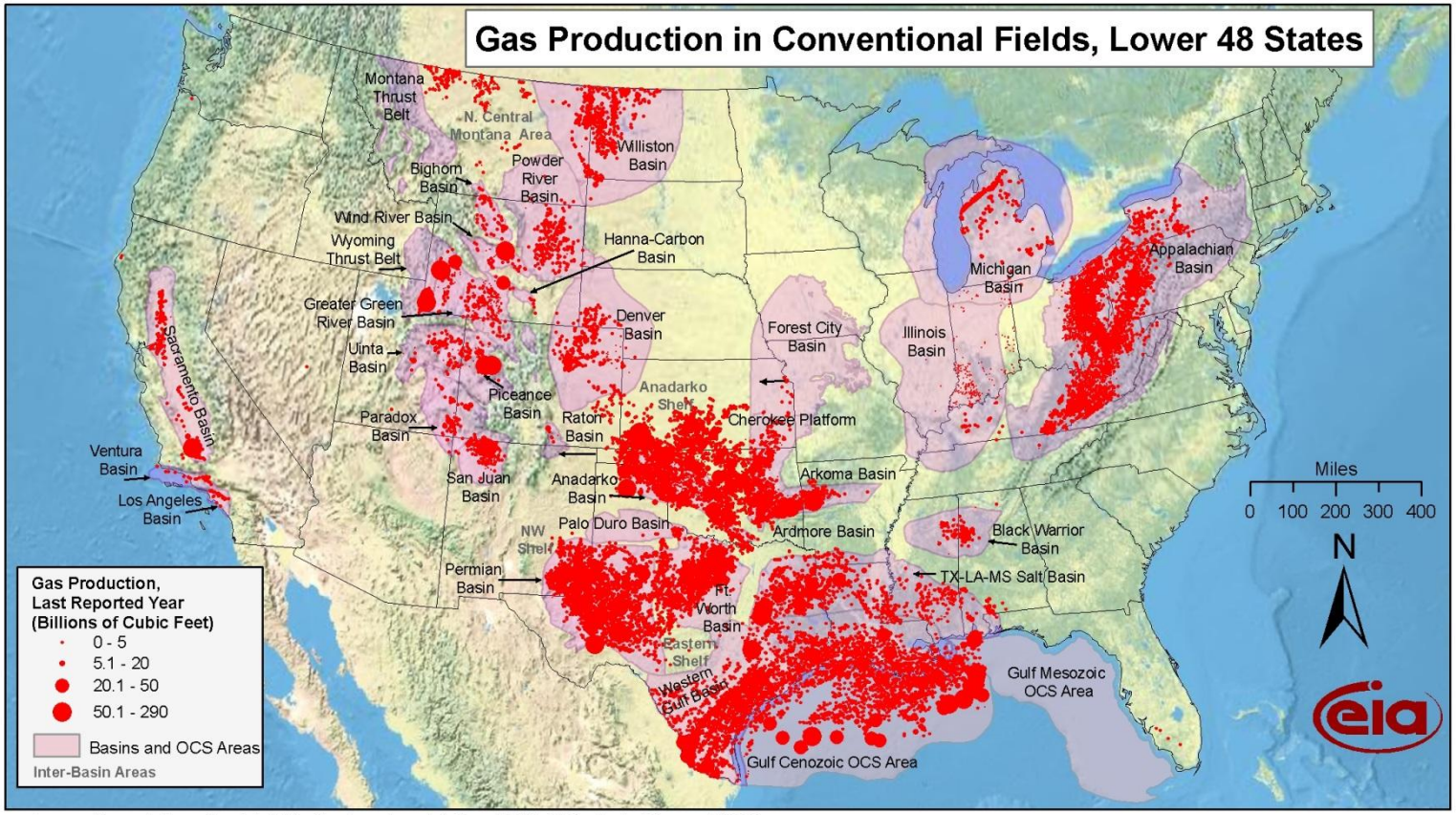
Natural Gas is Clean

- It is considered to be the cleanest fossil fuel because it produces fewer emissions than other fuels.
- Compared to gasoline and diesel, natural gas has less carbon
  - CH4 vs. C14H30 vs. C8H18.
- NGV's produce approximately
  - 25% less CO2
  - 80% less nitrogen oxide
  - 90% less particulates

Natural Gas is Domestically Produced

- 98% of the Natural Gas we use comes from North America!
- Approximately 60% of the oil we use comes from foreign countries.
- Approximately $1 billion a day leaves this country due to oil imports.
- American Fuel = American Jobs!!

Onshore Gas Reserves



Source: Energy Information Administration based on data from HPDI, IN Geological Survey, USGS
Updated: April 8, 2009

Abundant Natural Gas

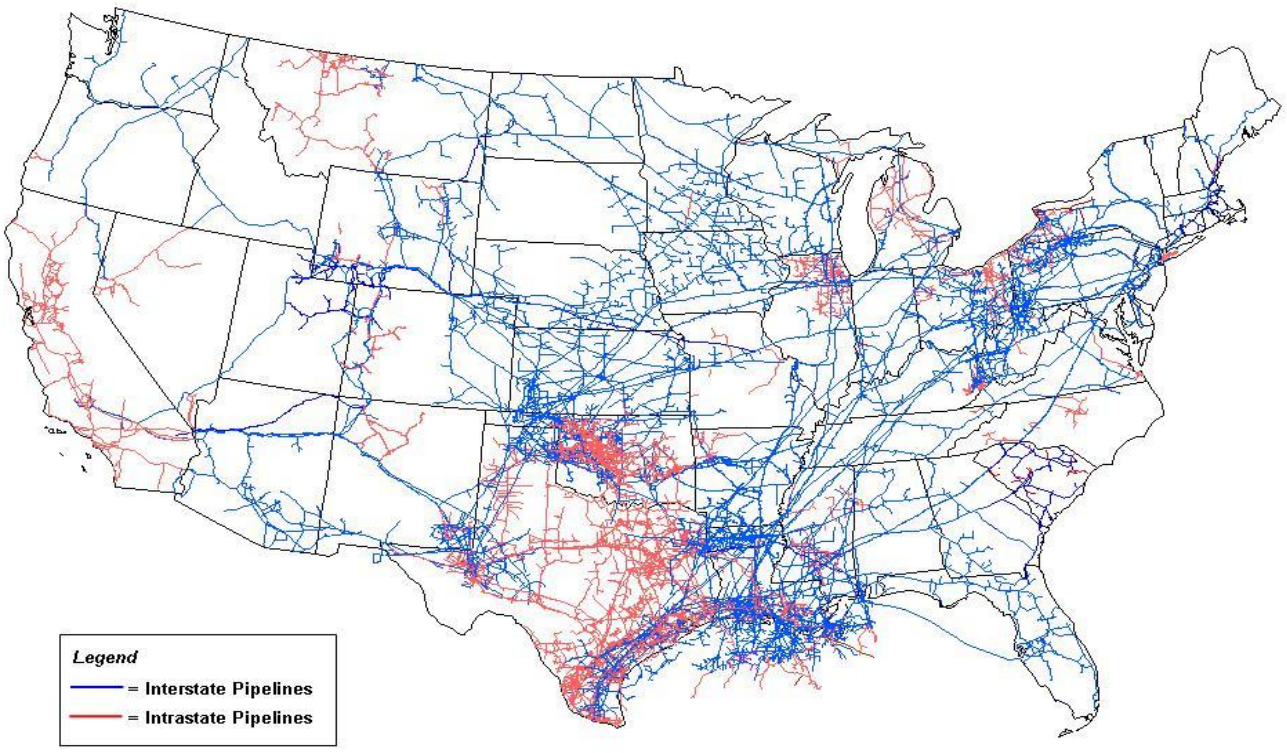
- The ongoing shift in natural gas prices reflects a permanent change across the energy sector—affecting the electricity, pipeline, coal and rail industries—and will make it more difficult for coal to compete with natural gas as a power source in the future.

- Generators will be reluctant to build anything but gas-fired plants over the next decade.

- Even if utilities and unregulated power companies built 80,000 MW of new natural gas combined-cycle generation to replace coal and nuclear retirements and support renewable energy, the natural gas surplus would only drop by half.

Moody's Investor Services, April 4,2012

U.S. Pipeline Map



Source: Energy Information Administration, Office of Oil & Gas, Natural Gas Division, Gas Transportation Information System

Economics

- Natural Gas is less expensive than gasoline or diesel.
  - $2.09/gge for CNG
  - $3.87/gal for gasoline

- JEA Example - ¾ Ton Pickup Analysis
  - 18,000 miles/yr, 10 mpg, $11,000 conversion
  - 4 year breakeven, $14,821 NPV over 10 year life

JEA's First NGV

Tennessee NGV Expo

Tennessee Activities

More Information

www.tnngv.org
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www.middletncleanfuels.org
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