



CNG 101

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What is CNG?

- **C-** Compressed
- **N-** Natural
- **G-** Gas



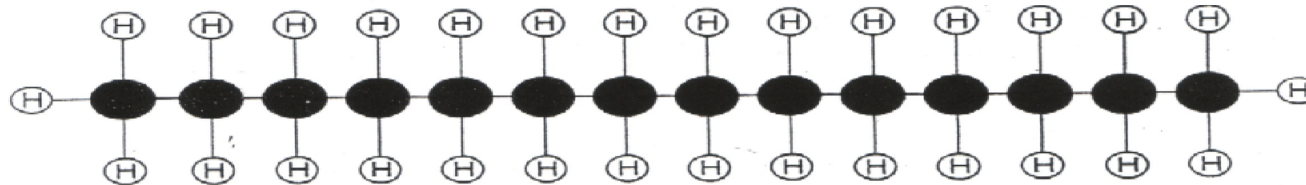
What drives demand for CNG?

- It's Clean
- It's American
- It's Available
- It's Affordable

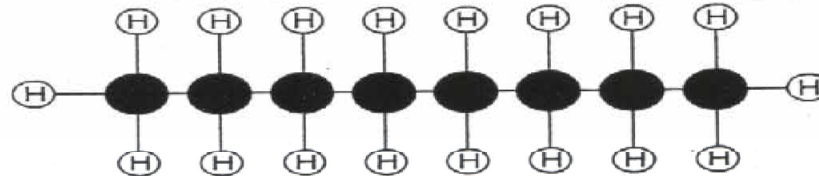


It's Simply CLEANER!

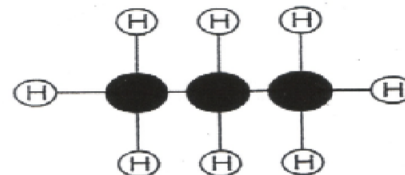
Diesel $C_{14}H_{30}$



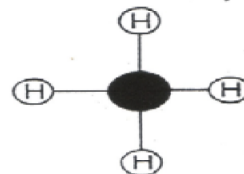
Gasoline C_8H_{18}



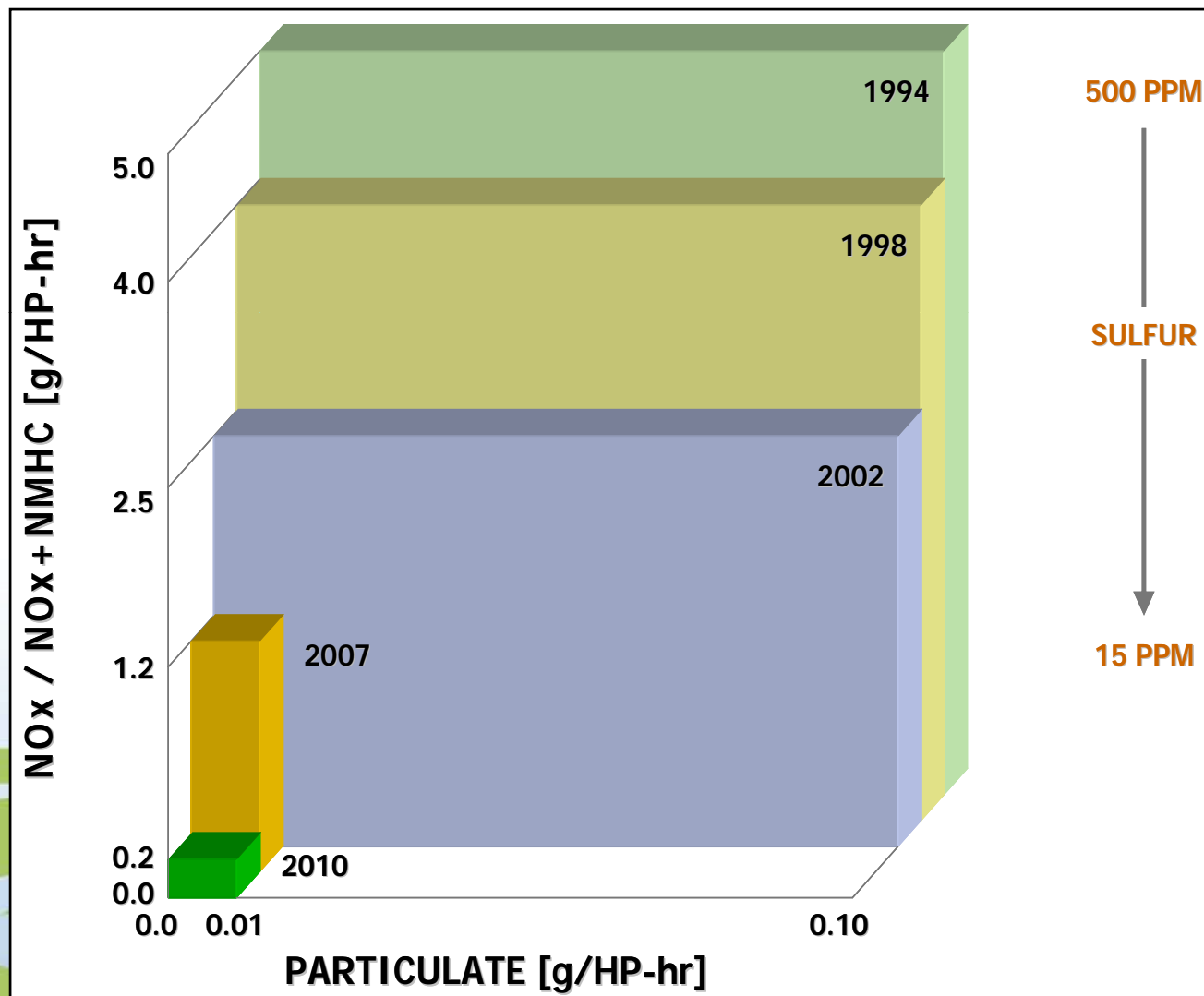
Propane (LPG) C_3H_8



Methane CH_4 (Natural Gas)



New Diesel Engine Emission Standards



Graphic courtesy of Cummins-Westport

Do you get the same MPG on CNG?

- What is a gallon (GGE) of CNG?
 - 115K BTU per gallon of gasoline
 - 1 cubic ft natural gas = 1000 BTU
 - 115 CF of natural gas = 1 GGE
- Energy Equivalent
 - 1 GGE of CNG = 1 gallon of gasoline

Do I get the same power on CNG?

- Technology
 - Fumigation Vs Direct port injection
- Octane of fuels
 - Regular gasoline 88 octane
 - Premium gasoline 92 octane
 - Racing fuel 110 octane
- **Natural Gas 130 octane!!**

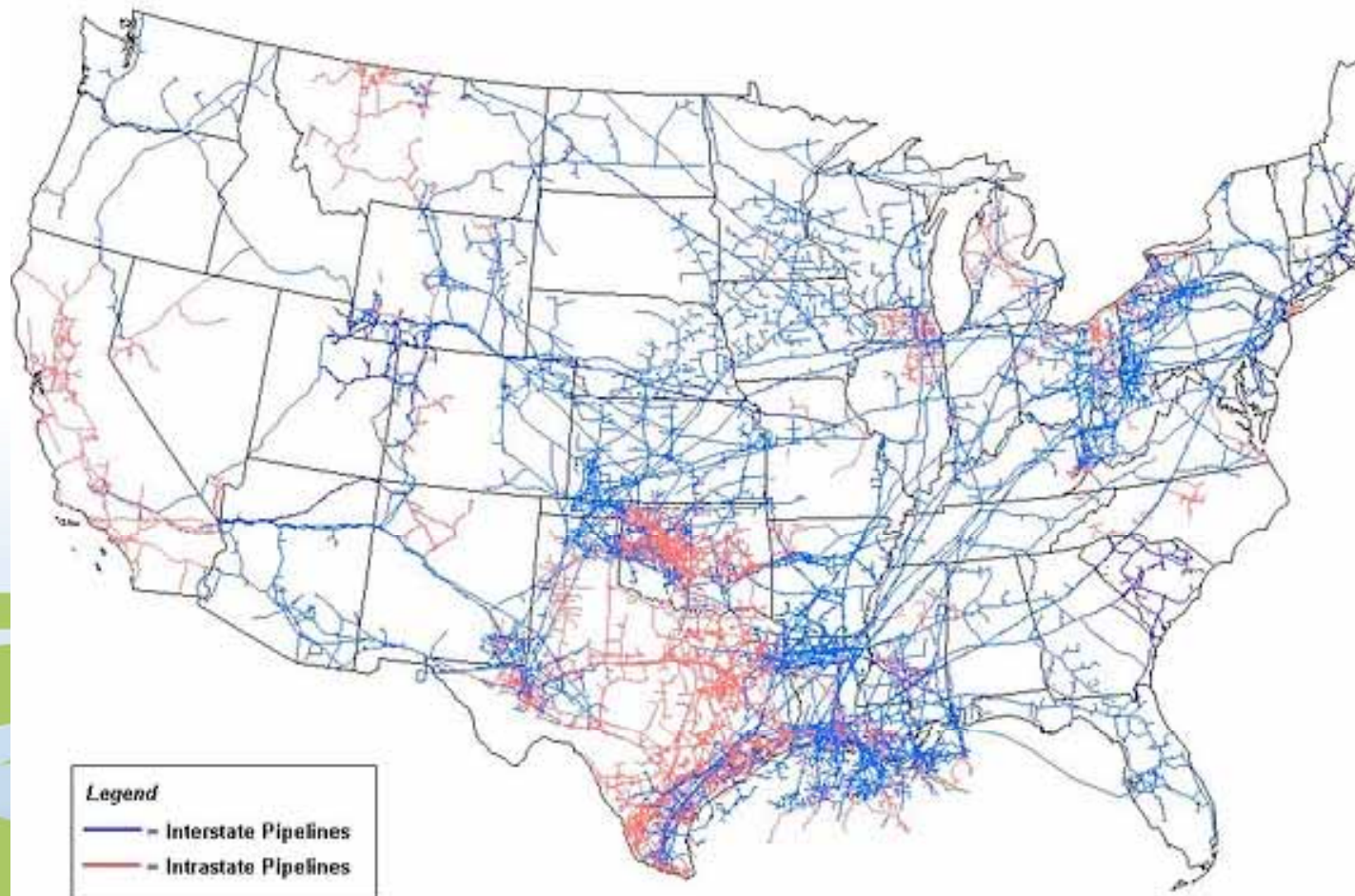
Domestic Energy

- Over \$337,000,000,000 oil imports in 2010
- Over \$130,000,000,000 already in 2011
- OPEC projected to sell \$1 trillion in 2011
- Gives America jobs and secure energy future



Fill up your car in your garage!

- Over 60 million homes in USA use natural gas





“We are swimming in natural gas!”

- Over 150 years proven reserves domestically
- America has more natural gas than Saudi Arabia has oil





What are the cost saving on CNG?

- Average price of Gasoline
 - \$3.89 per gallon
- Retail Price of CNG \$1.27 retail
 - 68% Savings
- \$0.75 per GGE GoNatural home fueler
 - 80% Savings



The Problem – The Solution





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