



Natural Gas

Methane CH₄





Liquefied Natural Gas (LNG)

Cryogenic Liquid

- Energy Dense
 - Super-cooled methane -260F
 - 600 times more condensed than gas
 - Half the weight of water
- Environmentally Friendly
 - CO reductions of 90%+, CO₂ reductions 25%, NO_x reductions of 35% to 60%
 - Virtually no particulate emissions
 - 80% to 90% lower noise pollution compared to diesel vehicles
- “Natural”
 - Non-toxic
 - Non-corrosive



Natural Gas-scalable Vehicle Fuel

- Natural Gas is cleanest fossil fuel
- Easier, cheaper, safer to extract worldwide
- U.S. has more natural gas than Saudi Arabia has Oil.
- Heavy Duty trucks are best place to start
- U.S. has large untapped Bio-Gas / Bio-Methane resources



Clean and Green

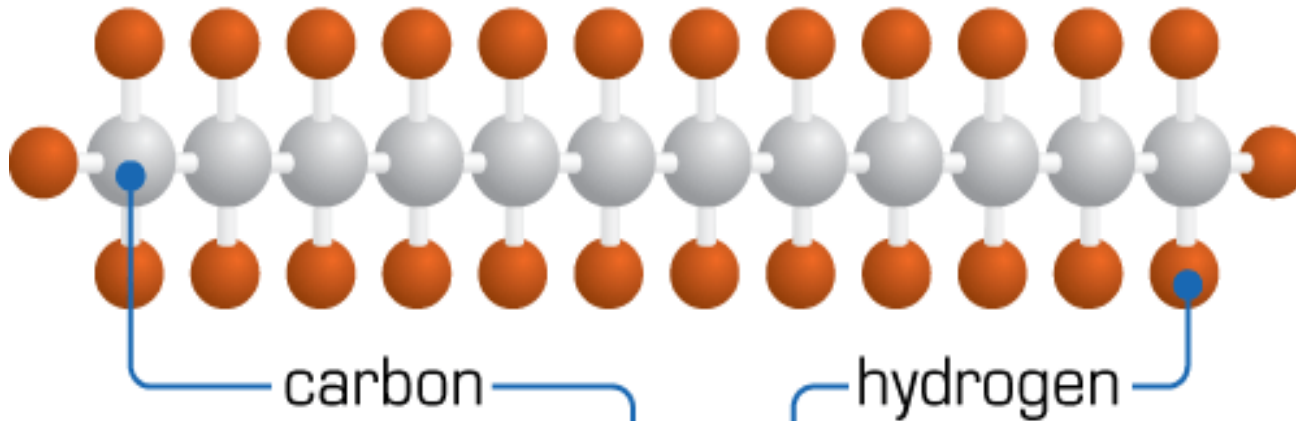
- 75% Hydrogen
- Greenest passenger vehicle 10 years running is Honda Civic GX
- Heavy Duty trucks are small steps away from almost zero emissions.



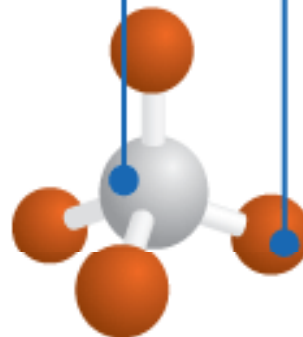
Cleanest production car in America



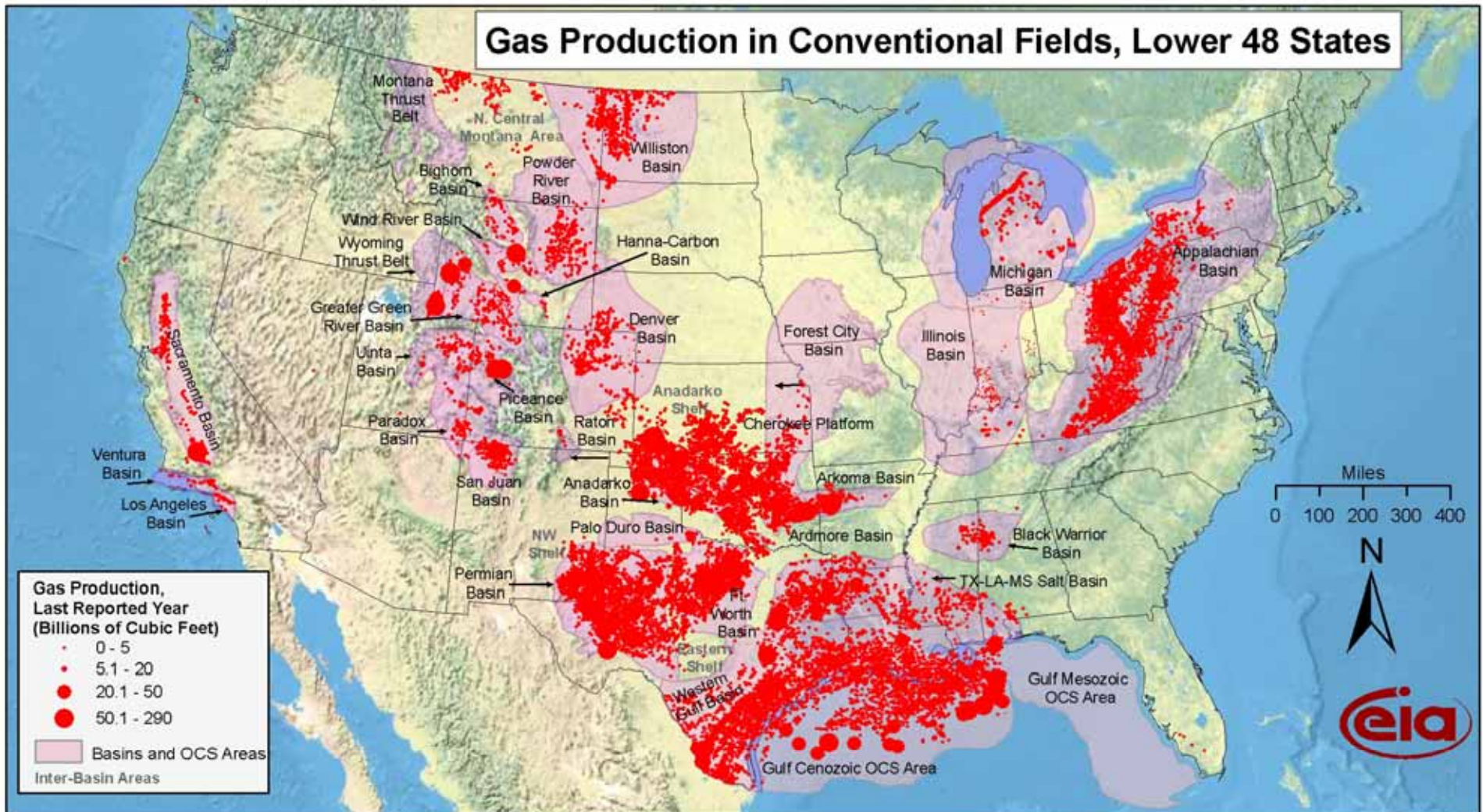
typical diesel molecule



methane molecule



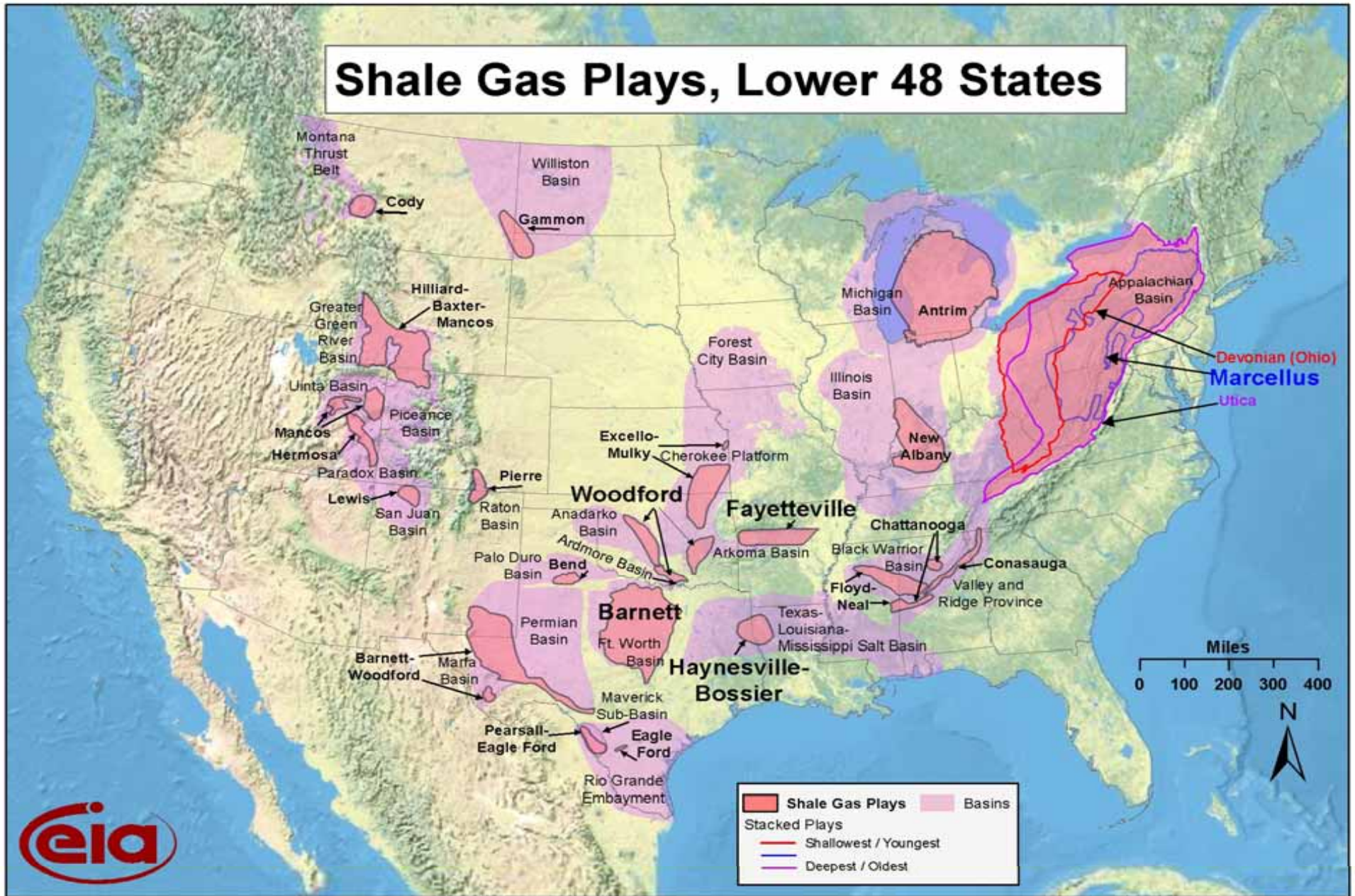
Natural Gas Abundance in U.S.



Source: Energy Information Administration based on data from HPDI, IN Geological Survey, USGS

Updated: April 8, 2009

Shale Gas Plays, Lower 48 States



Source: Energy Information Administration based on data from various published studies.
 Updated: March 10, 2010

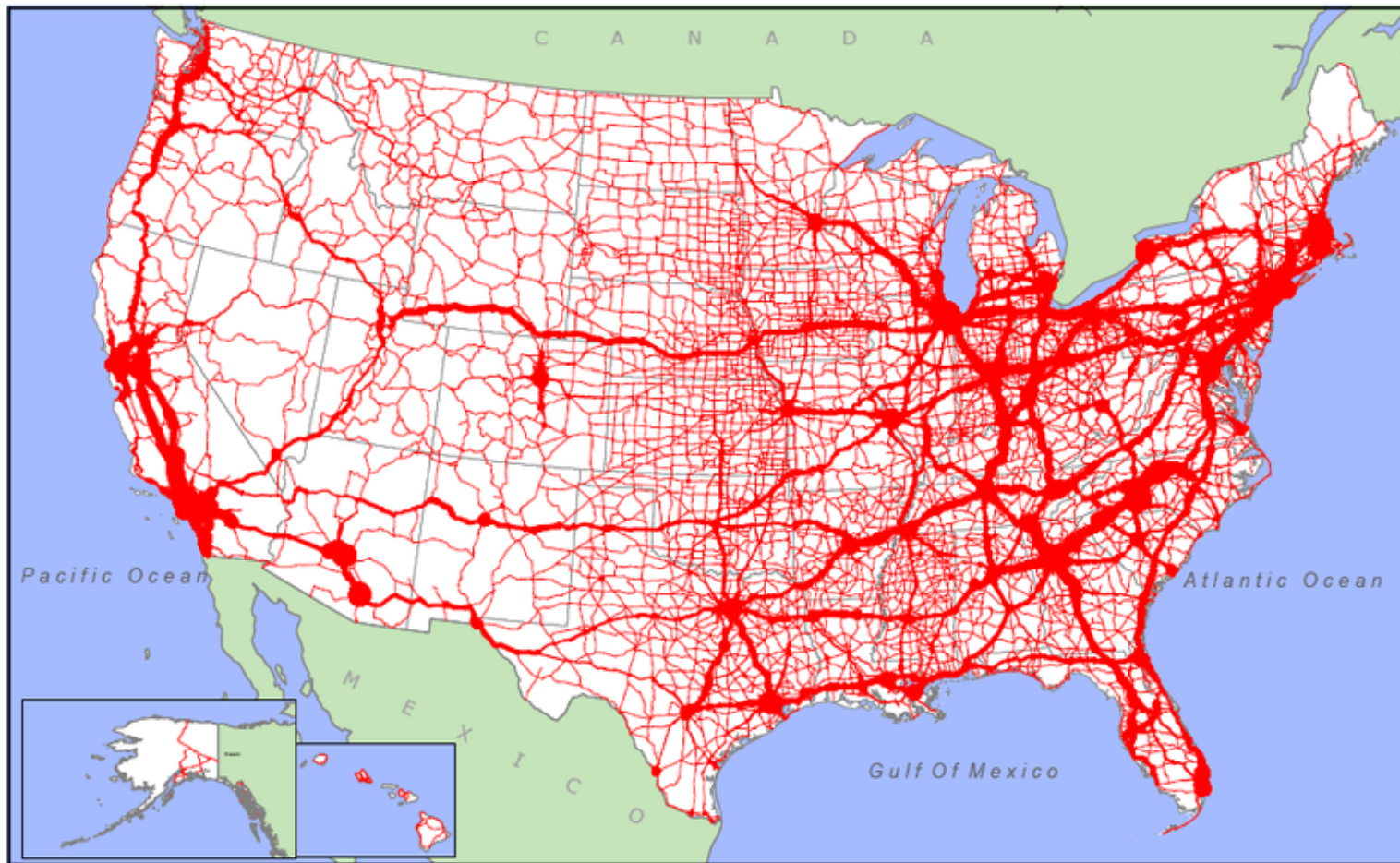


Target Heavy-Duty Trucks

- Heavy-duty trucks account for less than 4% of U.S. vehicles but consume approximately 24% of our Nations fuel.
- Routes and thus fueling infrastructure requirements are inherently more predictable.
- Centralized fleet operations and sensitivity to fuel cost create a receptive market.



Heavy-Duty Truck Traffic



US Department of Transportation
Federal Highway Administration
Office of Freight Management and Operations
Freight Analysis Framework

Estimated Average Annual Daily Truck Traffic

(1998)





LNG Truck Availability





Bio-Methane

- Agriculture (Diary Farms etc.)
- Foodwaste
- Landfills
- Sewer Treatment plants
- Other by products

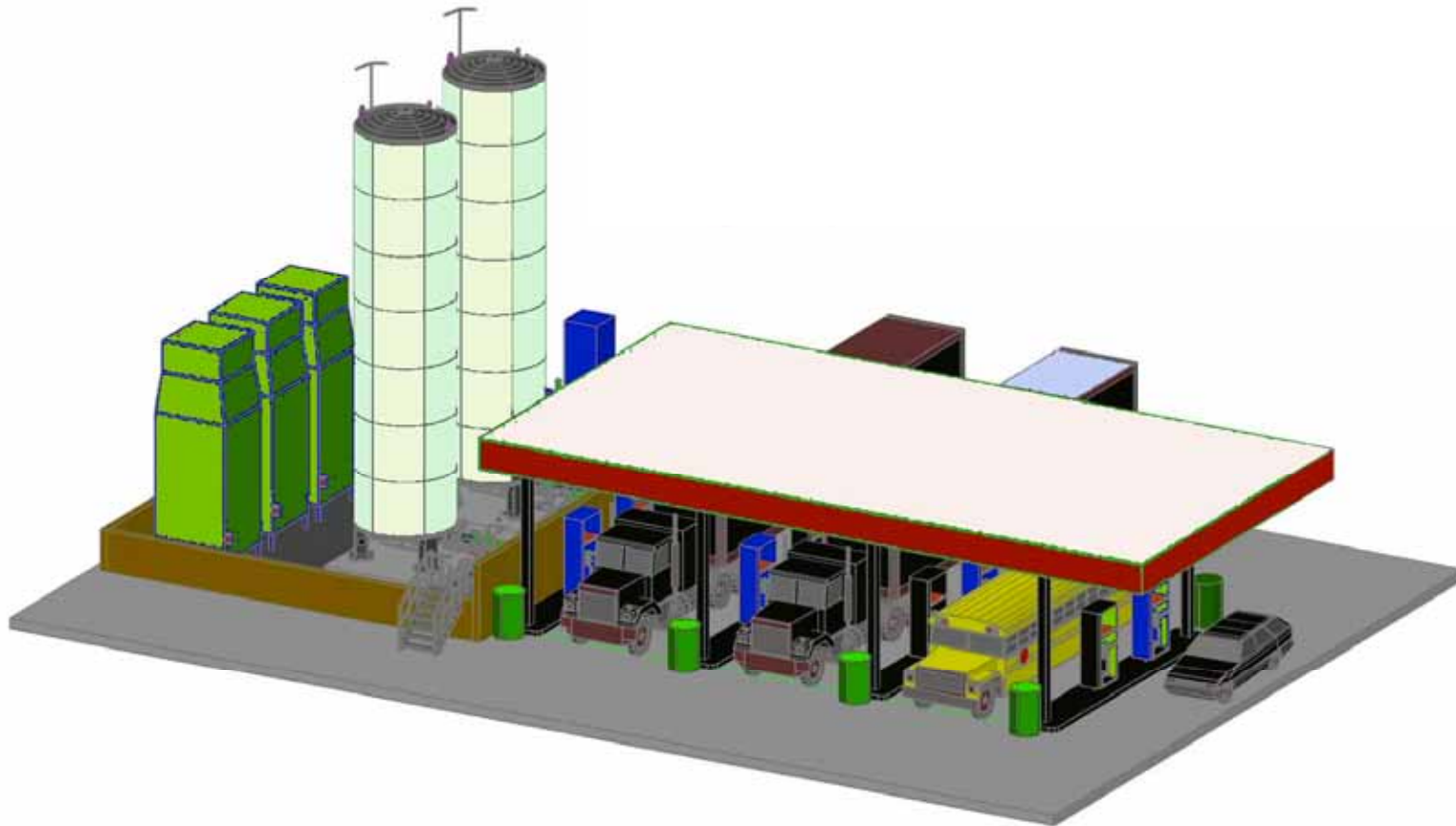


Altamont, CA





CH4 Energy Salt Lake Station





Tank Install 1/3/2011





Utah's First LNG L/CNG station











Utah Economy Jobs

- Vehicle modification
- Fuel Tank Manufacturers
- Station builders
- Sub-component suppliers

- Win/Win



- Appendix