

The Case for CNG

Compressed Natural Gas

**Cost Savings • Energy Security • Environmental Benefits • Economic Development
Factory-Manufactured Vehicles • Dealer Servicing • Regional Fueling Options**

Cost Savings

- CNG is less expensive per GGE (gallon of gasoline equivalent) than petroleum, and less subject to price volatility. On Oct. 22, 2014, CNG is \$2.59 per GGE, gasoline is \$2.90, and diesel is \$3.45.
- One GGE (gallon) of CNG has same energy as 1 gallon of gasoline, with no loss in vehicle MPG.
- CNG has lower price volatility. About 70% of the pump price for gasoline or diesel is the commodity cost, so it's highly sensitive to oil market fluctuations. For CNG, only about 25% of the pump price is commodity cost, keeping CNG prices more stable and lower over time.
- Using lower-cost CNG fuel will boost business profits and protect government budgets.

Energy Security

- CNG is a domestic, Colorado-produced fuel. It's unlikely to suffer supply shocks from tariffs, blockades, civil unrest or international politics.
- Colorado exports 80% of its natural gas, and imports 70% of its petroleum – more than half of that from foreign countries. Replacing volatile petroleum imports with stable domestic natural gas builds state and national security.

Environmental Benefits

- CNG burns just as clean as gasoline or diesel in new vehicles, and is much cleaner-burning compared to older gasoline- or diesel-powered vehicles, reducing ozone and other smog-producing gases. Attention to upstream methane emissions ensures that CNG vehicles will meet or improve on carbon emissions compared to petroleum.
- Today's rate of using CNG for transportation is a tiny fraction of U.S. natural gas consumption – less than 1/10th of 1%. CNG use in cars and trucks would have to multiply 10-fold or more to be a major driver of new consumption. Export terminals are a larger focus for industry growth.
- CNG is composed mainly of methane. In addition to fossil-fuel sources, there are existing facilities harvesting methane from landfill gas and biomass. The CNG vehicle and fueling investments made today are compatible with new, renewable sources of methane.

Economic Development

- Dollars saved by using CNG instead of petroleum directly increase profit for businesses and conserve tax dollars for governments. Generally, \$1 saved by business is worth \$10 earned.
- Dollars spent on CNG stay in the U.S. to support jobs related to the natural gas industry. The oil and gas industry directly employs 32,000 people in Colorado. (Source: American Petroleum Institute)
- About \$110 million a year is spent in Garfield County on gasoline and diesel fuels; about \$50 million of that is sent abroad to buy foreign oil. Mesa County spends \$280 million a year on petroleum, and sends about \$120 million abroad to buy foreign oil. Shifting to CNG vehicles will keep those dollars at home.
- American auto manufacturers are manufacturing and local auto dealerships are selling and servicing CNG-ready vehicles. These are American industries employing American workers and buying from North American suppliers.

Factory-Manufactured Vehicles

- Manufacturers are rolling CNG and bi-fuel trucks off factory floors with full manufacturer warranties. After-market up-fitting for CNG is no longer necessary.
- Bi-fuel CNG-gasoline pickups are available from Ford, Chevrolet, GMC and Dodge. Both Ford and GMC are manufacturing dedicated CNG van options. Options include 1-ton pickups, Knapheide beds and cut-aways.
- Current year light-duty models include Chevrolet's bi-fuel Impala and Honda's dedicated Civic.
- Heavy-duty manufacturers, such as Kenworth, International, Peterbilt, Freightliner and Mack, offer trucks with CNG- or LNG-capable engines. Engines range from 300 hp to 475 hp, and from 1,000 to 1,750 foot-pounds. Available vehicle types include buses, dump trucks, refuse, box trucks and tractor-trailers.
- The Cummins-Westport ISL-G natural gas engine has no torque loss up to 12,000 feet in elevation. The turbocharged Cummins-Westport ISL-G 300 hp model has no horsepower loss until 8,700 feet. (At Silverthorne, that's a 1% power loss. The Eisenhower Tunnel summit is just a 7% loss. Naturally aspirated engines have 30% power loss at the tunnel, by comparison.)

Dealer Servicing

- Routine vehicle servicing and tank inspections are essential services to ensure a vehicle owner's security. Dealerships in Mesa and Garfield counties are retrofitting existing service bays and building new facilities to provide safe CNG servicing.
- Mesa County
 - Fuoco Honda, 741 N. First St. Grand Junction, 242-1571
- Garfield County
 - Columbine Ford, 2728 Railroad Ave., Rifle, 625-1680
 - Berthod Motors, 400 27th St., Glenwood Springs, 945-7466
 - High Country Honda (service facilities pending)
- Contact your dealer and let them know you are interested in CNG vehicle servicing.

Regional Fueling Options

- CNG fuel is sold at 768 stations across the country, and the number of public fueling stations in Colorado, currently at 20, is growing. CNG is sold at public stations in Grand Junction and Parachute, and at 18 stations on the Front Range from Greeley to Castle Rock and Fort Carson.
- Two CNG stations in western Colorado are fast-fill, 3,600 PSI, and open 24/7 with credit card payment for customers.
 - Grand Junction: Monument Clean Fuels, 2553 Riverside Parkway
 - Parachute: Encana Natural Gas Inc. at the north-side Shell, 200 County Road 215
- The Colorado Energy Office Alt Fuels Colorado grant program has funded 8 new stations, including a Trillium CNG station in Glenwood Springs to be open by summer 2015. More station funding will be awarded through 2017.
- U.S. Dept. of Energy nationwide CNG station database: www.afdc.energy.gov/locator/stations/
- Fueling stations are costly investments of \$1 million or more. To make such ventures profitable, CNG fueling developers may ask fleet owners to pledge to purchase a certain amount of fuel for CNG or bi-fuel vehicles within a certain time frame.