



AGA Viewpoint on Natural Gas as a Transportation Fuel

Using natural gas instead of gasoline or diesel to power vehicles is a low-cost, low-emissions solution for reducing our nation's dependence on foreign energy sources while also reducing greenhouse gas emissions and urban smog. Natural gas-powered vehicles (NGVs) in use today are helping to improve air quality by displacing petroleum-powered cars, vans, trucks and buses which contribute about three fourths of the carbon dioxide pollution found in urban areas. In 2008, use of NGVs displaced almost 300 million gallons of petroleum use in the U.S. Increasing the use of natural gas, an abundant domestic resource, as a transportation fuel, is a national security imperative – 70% of the oil consumed by the U.S. is imported.

Natural gas-powered vehicles produce up to 30% fewer greenhouse gas emissions (GHGs) -- based on a wells-to-wheels analysis (source: California Air Resources Board) – than petroleum-fueled vehicles. Light duty vehicles fueled by natural gas can reduce greenhouse gas emissions by 30 percent as compared with gasoline fueled vehicles, while use of natural gas instead of diesel to fuel medium- to heavy-duty vehicles can reduce greenhouse gas emissions by 20%. Converting just one refuse truck from diesel to natural gas has an emissions reduction impact equivalent to taking 325 petroleum-fueled cars off the road. Relative to new model gasoline-fueled vehicles, natural gas powered vehicles can reduce exhaust emissions of carbon monoxide (CO) by about 11%, volatile organic compounds (VOCs) by 55% and nitrogen oxides (NOx) by 54%, while producing an insignificant amount of ground-level ozone.

The environmental profile for NGVs is further improved when renewable natural gas (biomethane) or natural gas/battery hybrid vehicles are used. Renewable natural gas is produced in landfills and agriculture waste sites, among other places. When captured and used as a fuel, it reduces carbon emissions both by preventing the direct release of methane into the atmosphere and by replacing the petroleum-based fuel that would have otherwise been used for transportation. On a wells-to-wheels basis, an NGV fueled with 100% renewable natural gas results in almost 90% fewer GHGs than if it were fueled with gasoline or diesel. Natural gas/battery hybrid vehicles, relative to the average new gasoline-powered vehicle, produce 58% fewer GHGs.

NGVs are available to meet American transportation needs today. The natural gas fueled Honda Civic has been rated "Greenest Vehicle" for six years by the American Council for an Energy Efficient Economy and the EPA has called it the "cleanest internal-combustion vehicle on Earth." Natural gas fueled vehicles, especially in high-use, urban applications such as fleets, provide significant emissions and air quality improvements over gasoline and diesel counterparts. As cities and states seek ways to minimize local air pollution and global carbon emissions, government, industry and interested stakeholders must work together to ensure that NGVs are further developed as a choice.

Over 98% of the natural gas consumed in the U.S. is produced in North America. The Potential Gas Committee estimates the domestic resource base for natural gas to last 100 years at current usage levels. Increasing the use of natural gas as a transportation fuel is an important tool in reducing our nation's dependence on foreign oil. An array of options will need to be developed to meet that goal. Federal legislation supporting transportation alternatives like natural gas will be crucial -- including extending tax incentives for alternative fuel vehicle purchases, conversions and production, alternative fueling station infrastructure, alternative fuel use, along with support for renewable natural gas production. Natural gas vehicles powered by domestically-produced natural gas are available now to get our country on the path to a more secure future – economically, environmentally and geopolitically.