



Clean Energy Jobs and Oil Company Accountability Act

Natural Gas Vehicles

Background

Historically, natural gas has played a limited role as a transportation fuel in the United States. For example, in 2008 natural gas accounted for 0.2 percent of the fuel used by all highway vehicles and 0.2 percent of the fuel used by heavy trucks.

The lack of fuel diversity in the nation's transportation sector (95 percent reliant on oil) makes the transportation sector particularly vulnerable to increases in oil prices. The vulnerability to price spikes has prompted many groups, particularly transportation agencies, to invest in buses that are powered by natural gas. In fact, the number of natural gas vehicles (NGV's) on the road today has increased from approximately 70,000 to 120,000 and the sector's consumption of natural gas has increased from 69 million gallons to 203 million gallons over the last ten years.

The choice to invest in natural gas vehicles is driven primarily by the fact that their operational costs are 42 percent less than diesel vehicles. In addition, since oil prices are expected to rise in the future, the Energy Information Administration (EIA) predicts that natural gas vehicles will be 50 percent cheaper to operate than diesel vehicles in 2035.

Though NGV's are cheaper to operate than diesel or gasoline vehicles, NGV's also have a greater upfront cost, primarily due to their fuel storage systems. The technology underlying the fuel storage systems of NGV's is mature and significant reductions in costs are not anticipated over time. These high upfront costs, in combination with inadequate infrastructure and reduced driving range, have impeded greater deployment of natural gas vehicles.

Importance—Environment

The combustion of natural gas is substantially cleaner than the combustion of oil and gasoline. The Environmental Protection Agency (EPA) has found that when natural gas vehicles are compared against vehicles powered by diesel that the natural gas vehicles:

- Produce half the particulate matter of average diesel vehicles;
- Significantly reduce carbon monoxide emissions;
- Reduce nitrogen oxide and volatile organic hydrocarbon emissions by 50 percent or more;

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DPC STAFF CONTACT: RYAN MULVENON**

- Potentially reduce carbon dioxide emissions 25 percent depending on the source of the natural gas; and
- Drastically reduce toxic and carcinogenic pollutants.

The EPA has also found that when natural gas vehicles are compared against vehicles powered by gasoline that the natural gas vehicles:

- Reduce carbon monoxide emissions 90 to 97 percent;
- Reduce carbon dioxide emissions by 25 percent;
- Reduce nitrogen oxide emissions by 35 to 60 percent;
- Potentially reduce non-methane hydrocarbon emissions 50 percent to 75 percent;
- Emit fewer toxic and carcinogenic pollutants;
- Emit little or no particulate matter; and
- Eliminate evaporative emissions.

The combustion of natural gas emits more methane than the combustion of gasoline or diesel. While methane is a potent greenhouse gas, the combined reductions from other greenhouse gases more than offset any increase in methane emissions.

Importance—Oil Savings and Job Creation

In terms of oil savings, the natural gas industry has estimated that by the third year of this program will be saving approximately 1.8 billion gallons of oil annually and 18 billion gallons over 10 year vehicle life.

The natural gas industry has also estimated that this program will create more than 100,000 direct manufacturing and labor jobs and more than 450,000 indirect jobs.

Legislation

The *Clean Energy Jobs and Oil Company Accountability Act* would promote the purchase and use of NGV's by providing \$3.8 billion be made available from any funds not otherwise appropriated for rebates to purchase a qualified natural gas vehicle. The legislation specifically provides that the rebates would equal 90 percent of the incremental cost of a qualified natural gas vehicle. The maximum rebate for medium and heavy fleet vehicles would be \$40,000 and \$64,000 respectively.

The *Clean Energy Jobs and Oil Company Accountability Act* would also promote natural gas refueling infrastructure deployment by providing \$500 million be made available from any funds not otherwise appropriated for the installation of natural gas refueling property. The legislation specifically provides that the grants could total \$50,000 per pump to qualified natural gas refuelers.

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DPC STAFF CONTACT: RYAN MULVENON**

The *Clean Energy Jobs and Oil Company Accountability Act* would also provide up to \$2 billion in loans to help to spur the development of domestic natural gas vehicle manufacturing. In order to provide the \$2 billion in loans, the legislation would make \$200 million from any funds not otherwise appropriated.