



California Natural Gas Vehicle Coalition

July 15, 2009

Mr. Matthew Crosby
Regulatory Analyst, Policy and Planning Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

RE: Staff White Paper: Light-Duty Vehicle Electrification in California

Dear Mr. Crosby:

The California Natural Gas Vehicle Coalition (CNGVC) represents the state's natural gas vehicle industry and includes major automobile manufacturers, the state's major gas utilities, heavy-duty engine manufacturers, fueling station manufacturers, equipment manufacturers, and fleet users of natural gas vehicles. The CNGVC is encouraged to see that the CPUC is investigating opportunities and barriers related to the use of energy sources from regulated utilities as transportation fuels. As the White Paper notes;

The widespread use of PEVs and CNG vehicles presents a major opportunity to cut GHG emissions from the transportation sector. Increased electricity and natural gas usage for transportation also complements state mandates to improve vehicle efficiency and reduce total vehicle miles traveled (VMT). p. 9

We are disappointed, however, that the White Paper did not give more attention to natural gas as a transportation fuel. While plug-in electric vehicles (PEVs) clearly merit the kind of analysis provided in the White Paper, the CNGVC strongly believes that natural gas vehicles (NGVs) offer significant and complementary benefits that will help advance state goals and policies. We urge the CPUC to undertake a similar White Paper analysis of the opportunities for and barriers to greater adoption of natural gas as a vehicle fuel in California.

The time is ripe for the CPUC's further engagement on transportation fuels. The CNGVC strongly supported the utility Low Emission Vehicle program during the 1990s, and utility expenditures authorized by the CPUC led to material improvements in natural gas fuel infrastructure and the public's understanding of using natural gas as a transportation fuel.

Although the original program was downsized and finally closed in 2005, since that time the Legislature and Governor have taken numerous actions to promote the use of clean alternative fuels for transportation and other applications, including the enactment of AB 2076 (2000) to study ways to reduce petroleum dependence, AB 1007 (2005) to develop a plan to increase the use of alternative fuels, AB 32 (2006) the Global Warming Solutions Act, AB 118 (2007) to fund projects to develop and commercialize alternative fuels and alternative fuel vehicles, and Executive Orders to adopt a Bioenergy Action Plan and a Low Carbon Fuel Standard. The Legislature also broadened the definition of "ratepayer interests" in Section 740.8 of the Public Utilities Code by going beyond "safer, more reliable or less costly service" to include activities that benefit ratepayers and that, among other things, promote "increased use of alternate fuels."

These new policies and programs represent a sea change in the state's attitude toward alternative fuels. As the experience with alternative fuels in other countries shows, policies matter, and we believe California has now adopted a critical mass of policies that has the potential to drive real progress in adoption of low emission vehicle fuels and which the CNGVC believes will reward the attributes of natural gas in the fuels marketplace.

Our view is founded on the fact that even before these policies were adopted, natural gas was the most successful alternative fuel in California with several hundred public and private fueling stations and some 30,000 vehicles in use. The use of natural gas as a transportation fuel continues to grow in spite of limited policy support over recent years: natural gas currently displaces about 150 million gallons of diesel and gasoline annually, much earlier than projected by the California Energy Commission. And there is a wide array of natural gas engines and vehicles available worldwide, across all duty classes.

On this point, we wish to correct what we believe is an erroneous assumption in the White Paper, namely that opportunities for natural gas as a transportation fuel are limited to medium- and heavy-duty vehicle applications. By limiting the White Paper to an analysis of light-duty vehicles and then focusing almost exclusively on electrification, the CPUC appears to suggest that commercial opportunities for light-duty NGVs are not worth further consideration. We disagree with this conclusion and believe it is at variance with the facts.

More than 10 million NGVs are in service worldwide and almost all are light-duty vehicles. The number of NGVs sold worldwide has almost doubled in the last two years. Major US and foreign auto manufacturers, including GM, Ford, Honda, Toyota, Volvo, Volkswagen, Mercedes, Peugeot and Fiat, manufacture NGVs in all major world markets; GM alone produces at least 18 NGV models. Unlike with most other alternative fuel vehicle applications, natural gas vehicles have proven repeatedly that they are technologically and commercially viable.

In other words, the fact that in California and elsewhere in the U.S. light-duty NGVs are limited to only the Honda GX and conversions of conventional vehicles by a number of small volume manufacturers does not indicate that light-duty NGVs face daunting technological hurdles that may never be overcome. We believe it is instead an indication that the kinds of policies that promote the adoption of alternative fuels and alternative fuel vehicles have not previously been in place in California. However, California has made important policy changes in recent years that, we think, will improve opportunities and reduce barriers to the greater penetration of light-duty NGVs in California. And it is on that basis that we urge the CPUC to give increased attention to CPUC policies that can further that process.

We agree with the White Paper that medium- and heavy-duty natural gas applications can complement the state's efforts to develop light-duty alternative fuel and vehicles. Natural gas engines are available in California in a number of sizes and truck and bus duty applications that comply with state and federal 2007 emission levels, and two engines already meet the very strict 2010 emission standards. Carbon emissions from natural gas engines are 20-30% lower on a life-cycle basis than from comparable diesel engines. Considering that heavy-duty diesel vehicle engines contribute almost 50% of the state's emissions of both criteria air pollutants and carbon, the replacement of diesel with natural gas MD and HD engines can contribute significantly to the state's attempts to reduce emissions of NOx, particulate matter and greenhouse gases.

The natural gas vehicle industry is particularly excited about the prospects for developing renewable ultra-low carbon sources of natural gas, known as biomethane, from landfills, animal waste and wastewater treatment plants. Pursuant to its adoption of the Low Carbon Fuel Standard, the Air Resources Board analyzed the carbon intensity of gasoline, diesel and a number of alternative fuels. On a life-cycle basis, it found that CNG from landfill gas had a carbon intensity up to 88% lower than diesel and gasoline. In fact, the carbon intensity of landfill biomethane was the lowest of any fuel analyzed, including electricity and hydrogen.

California has vast opportunities to develop and use biomethane as a transportation fuel. According to the CEC's Biomass Roadmap and a study on biogas production by the University of San Diego, 121 billion cubic feet of biomethane are feasibly recoverable from landfills, wastewater treatment and dairy waste. This amount of biomethane equates to 860 million diesel gallon equivalents of diesel fuel, or about 40% of all diesel fuel used in California for transportation purposes. And that figure would more than double if thermal gasification and other advanced techniques were employed to recover biomethane.

The development, conditioning and transportation of pipeline quality biomethane can be accomplished in a more effective manner with the active involvement of the state's regulated natural gas utilities. In fact, the utilities are well positioned to work with private sector stakeholders to help foster the development of this emerging ultra low carbon resource, given the appropriate policy guidance from the CPUC. Therefore, we urge the CPUC to take an active role in establishing policies that encourage the utilities to aid in the development of this clean, ultra low carbon domestic resource.

The CNGVC is pleased that the CPUC has turned its attention to an analysis of policies it can adopt to increase opportunities for, and remove barriers to, the adoption of alternative fuels. As we stated above, we believe the time is ripe for the CPUC to be more proactive on this front. We strongly believe, however, that it is essential for the CPUC to give equal attention to the opportunities for natural gas that it has given to electricity in the White Paper. On behalf of the companies, including gas utilities, that are members of the California Natural Gas Vehicle Coalition, we would welcome the opportunity to meet with you and other appropriate staff to answer any questions you might have and help develop a path forward from your analysis of natural gas as an integral part of California's alternative fuel future. Please feel free to contact me at 916-448-1015 or pete@pricecon.com.

Sincerely,



Pete Price
Executive Director