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Clean Energy

September 12, 2012

Mr. Kurt Karperos
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Re: Clean Energy's comments on CARB's Draft "Vision for Clean Air".

Dear Mr. Karperos,

Clean Energy greatly appreciates the opportunity to comment on the draft "Vision for Clean Air: A Framework for Air Quality and Climate Planning" (the "Vision document"), a collaborative focus on mobile source air pollution by the California Air Resources Board (CARB), the South Coast Air Quality Management District (AQMD) and the San Joaquin Valley Unified Air Pollution Control District (APCD). Clean Energy, a California-based company and AB 32 success story, fuels approximately 26,000 vehicles daily at over 300 strategically located refueling stations nationwide with compressed natural gas (CNG), liquefied natural gas (LNG) and renewable natural gas (RNG).

Upon reviewing the Vision document, we believe it would benefit significantly from additional illustrative strategies. Specifically, it should include the environmental, economic and energy security benefits that natural gas vehicles (NGVs) could bring to the state of California and its severe nonattainment regions. As a California-based company focused on delivering clean low and ultra low carbon fuels to market, we support the goal to advance zero and near-zero emission strategies. However, if the Vision document is to achieve this goal, the document must be more inclusive of strategies beyond battery-electric and fuel cell scenarios. For instance, it should include a more informed discussion of natural gas as a transportation fuel in compressed, liquefied, and renewable form. These fuels, inherently and in combination with existing or developing clean air engines and technologies, can play a significant role in tackling the state's air quality challenges for tropospheric ozone, fine particulate matter and greenhouse gases. The Vision document should also provide specific 2050 emissions inventories needed were identified with corresponding vehicle emissions in grams/mile or grams/bhp-hr for the number of vehicles proposed to be in the marketplace in 2050. This would be the appropriate fuel neutral signal to the transportation industry that CARB should send.

Further, we do not believe natural gas should be grouped with diesel: a fuel whose exhaust has recently been identified as a known carcinogen by the World Health Organization. Conventional and renewable natural gas should be viewed in this document as fuels that are low to ultra low in carbon, capable of achieving even tighter near zero emissions for oxides of nitrogen and particulate matter, a strategy that can be combined with more efficient platforms, and one that can deliver these benefits in the near, mid- and long-term to light-, medium-, and heavy-duty vehicle sectors today.

The Vision Document Targets Federal and State Air Quality Goals without Distinction

The Vision document admirably lays out a loose blueprint that collectively addresses three air quality pollutant categories of concern by the federal and state governments over the next 40 years: particulate matter (PM), oxides of nitrogen (NOx), and greenhouse gases (GHG). The Vision document, however, does not highlight the fact that failure to meet federal deadlines for NOx and PM would have a far more deleterious economic and public health consequences upon California than the state's failure to meet the its own GHG standards. Specifically, there are real financial hammers, not to mention public health implications, for the state of California if she fails to meet the federal NOx and PM standards as outlined under the Clean Air Act. The state's AB 32 goals that address climate change, while important in their own right, do not carry the same federal liabilities and consequences if they are not met. While Clean Energy has been, and continues to be, a consistent supporter of California's efforts to curb climate change, it is important for the Vision document to draw this distinction and help decision makers prioritize which clean air strategies to implement.

The Vision Document Should Consider NPC Report Findings

The Vision document should take into consideration the results of a recent National Petroleum Council (NPC) Report released on August 1, 2012. The NPC Report looked at all alternative fuels and the role they will play in the marketplace by 2050. This all alternative fuels are "on the table" study evaluated the economics of the fuels, vehicles, infrastructure, and fuel production. The results are very different from the Vision document. In the NPC study, all alternative fuels made significant inroads against petroleum – but electric and hydrogen technologies were not dominant in the market. The NPC study evaluated greenhouse gas reductions at the end once economic-based market penetrations were determined for each fuel. Results indicated that alternative fuels, based upon economics, would achieve a national reduction of greenhouse gases of just under 50% from 2005 levels. These reductions are significantly lower than the 80% reduction that California is seeking over 1990 levels.

Other Penetration Forecasts of Natural Gas Vehicles Should Not be Ignored

Research reports and national studies are increasingly demonstrating a strong case for significant adoption of natural gas vehicles, particularly in the heavy-duty truck sector. Such predictions are in stark contrast to the Vision document's illustrative scenarios that narrowly focus on EVs and fuel cells. Specifically, the Vision document's illustrative scenario forecasts California Energy Consumption Scenario on page 30 of the main document to edge out conventional liquid fuels down to 2-3% whereas hydrogen, electricity and renewable liquid fuels (as opposed to gaseous) make up the rest of the transportation fuels consumes in 2050 (see Figure 24). In this scenario, natural gas as a transportation fuel is considered to be

a conventional fuel even though it can come in a gaseous state when delivered as compressed natural gas.

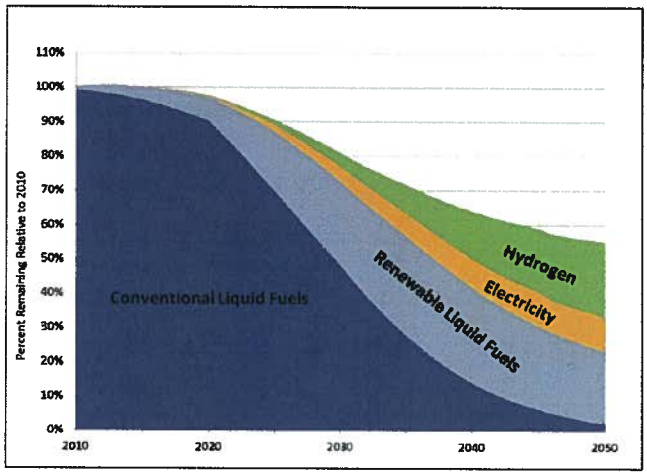


Figure 24

Comparatively, the NPC study which also applies economics and an evaluation of all available alternatives to conventional diesel and gasoline predicts natural that natural gas can penetrate the heavy-duty market by as much as approximately 48% by 2050 (see Figures 3-17 and 3-18).

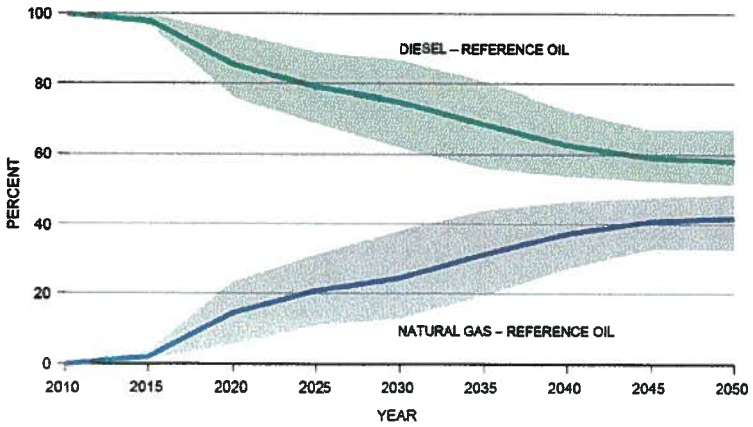


Figure 3-17. Class 7&8 Combination Market Shares of New Diesel and Natural Gas Trucks – Reference Oil Price Case

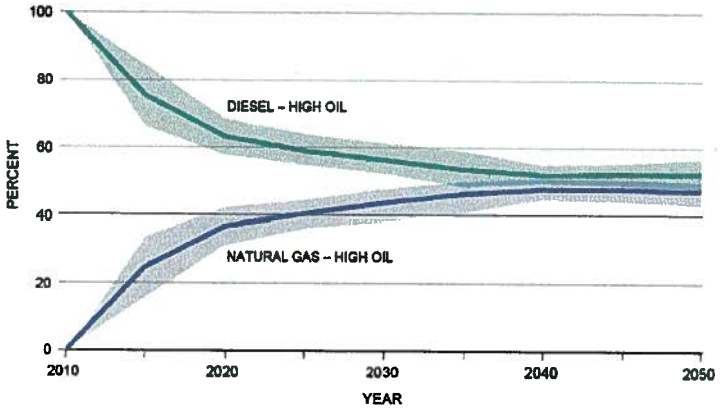
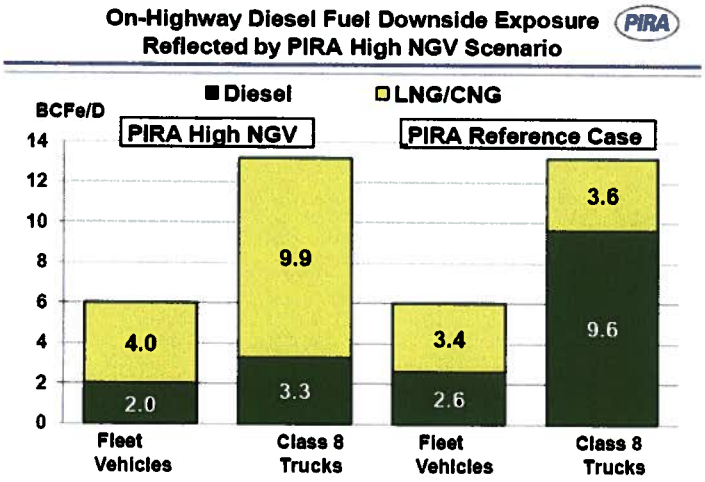


Figure 3-18. Class 7&8 Combination Market Shares of New Diesel and Natural Gas Trucks – High Oil Price Case

On August 27, 2012, the PIRA Energy Group issued another report that estimates that natural gas demand in large trucks and fleets vehicles could nearly reach 14 billion cubic feet per day (bcfd) by 2030 – about 20 percent of today's gas production – according to the report's high case scenario. In its lower scenario, total demand would hit 7 bcfd.



In addition to these two bullish documents, another report released in August 2012 by the American Clean Skies Foundation collaborated with approximately 48 stakeholders in the Natural Gas Vehicle Industry to further analyze national efforts to develop a national natural gas refueling infrastructure network over the next 10 to 15 years to serve 1.5 million NGVs.

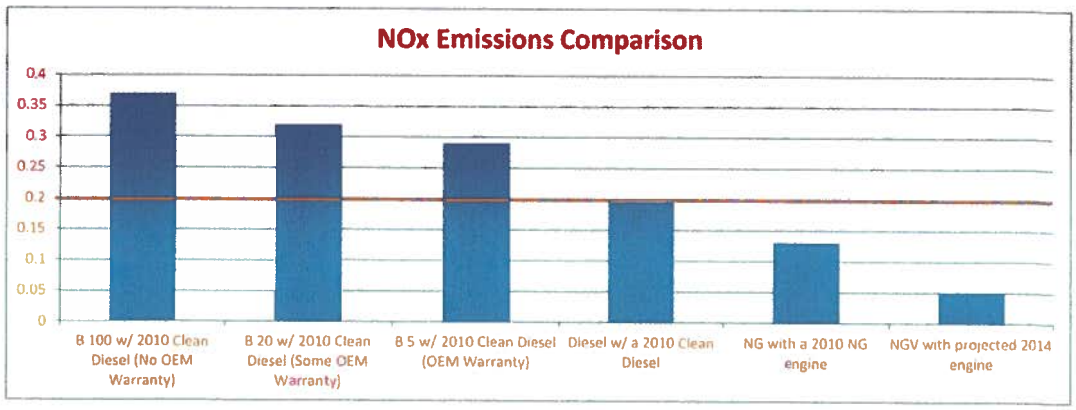
All three of these documents developed by both government and private sector sources were released in August 2012 alone and presented very bullish scenarios for NGVs. It seems warranted that the Vision document should take NGVs into greater consideration as a possible player in the near zero to zero emissions future for the state of California, if not the country.

Natural Gas Can Help California Meet Federal, State and Regional Air Quality Goals

Heavy-duty trucks consume on average 15,000-20,000 gallons of diesel fuel per year. With the emissions benefits of natural gas, converting a *single* diesel truck to natural gas has the potential to reduce up to 23 tons of criteria emissions over the lifetime of the truck (Calculated using Moyer Calculator, pre-2002 trucks). When RNG is used, emissions reductions are far greater.

A. Natural Gas Vehicles Significantly Reduce NOx Pollution

Natural gas engines have historically achieved low NOx emissions and have often helped make the case for tighter NOx standards. A most recent example would be the fact that natural gas engines were able to meet the 2010 NOx and PM standards as early as 2007 – three years in advance of the deadline. In fact, today's natural gas engines far surpass the existing NOx emissions standard for heavy-duty truck engines by 35%, and engine manufacturers have since announced plans to target a 75% reduction in NOx over the next few years. What's more, newer technology that is currently being demonstrated promises even cleaner NOx results. Clean Energy supports the immediate adoption of a series of optional low NOx standards for California that will allow manufacturers to begin the process of receiving credit for lower emissions technology. Clean Energy also would like CARB to identify emissions targets needed for 2050, instead of suggesting certain fuels, so the Vision Statement can be considered a "fuel neutral" document.

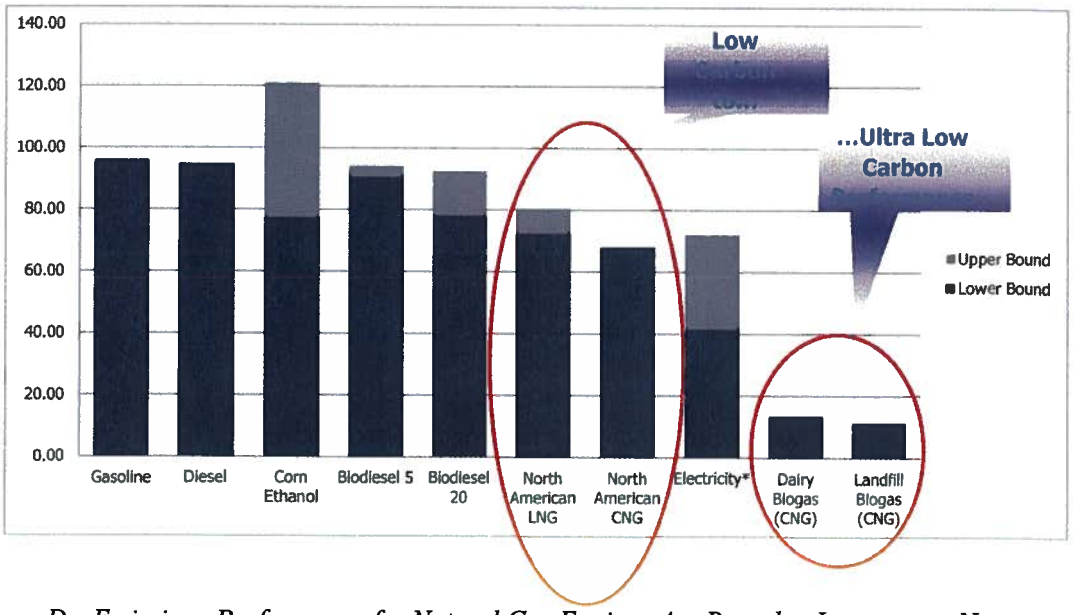


B. Natural Gas Engines Significantly Reduce PM Pollution

According to certification data produced by the California Air Resources Board, natural gas engines can reduce particulate matter emissions by 80% below the existing 2010 standard. These superior PM emissions have been achieved using a simple three-way catalyst and certainly could be improved further with technology advancement.

C. Natural Gas Engines Significantly Reduce GHG Pollution

Both CNG and LNG are listed as low carbon fuels under California's Low Carbon Fuel Standard and can reduce GHG emissions by up to 23% for heavy-duty vehicles and 29% for light-duty vehicles when compared to their diesel and gasoline counterparts. If biomethane, or renewable natural gas (RNG), is used to fuel a natural gas engine, GHG emissions can be reduced by 88.1%, which meets the federal and state's 2050 emissions goals already. Not only is RNG listed as an ultra low carbon fuel, it is the best performing fuel in the field of biofuels and it can be delivered to natural gas vehicle engines in both compressed and liquefied form.



D. Emissions Performance for Natural Gas Engines Are Bound to Improve ont Near Zero Emissions Levels

ICR Turbine Engine Corporation (ICRTEC) has teamed up with Kenworth to create a natural gas hybrid engine with NOx emissions of 0.0249 g/bhp-hr (8x lower than EPA standards) and

CO emissions of 0.0205g/bhp-hr (750x lower than EPA standards). This new engine is cheaper than current natural gas engines and is estimated to retail for the same price as a diesel engine, yet it has the potential to deliver near zero emissions. It also provides 10-20% better fuel efficiency, is half the size of a conventional diesel or natural gas engine, significantly reduces maintenance, and significantly reduces emissions far below CARB/EPA standards without sophisticated pre- or after-treatments.

Deadlines Are Quickly Approaching

Currently the United States consumes about 20 million barrels of oil per day and spends approximately $1,000,000 per minute on foreign oil. This is 50% more oil than the European Union, who has 40% more people, and more than twice the amount of oil as China, whose population is 77% larger. Furthermore, as China and other developing countries continue to industrialize and grow, oil will have greater demand and tighter supply, resulting in even higher prices. Therefore, we need to respond to the call for cleaner, cheaper, domestic energy to reduce our dependence on foreign oil, reverse climate change and clean up criteria emissions. California and the federal government have an opportunity to accomplish this with natural gas and RNG. In order to achieve quick adoption rates for a low carbon fuel, certain factors must be considered such as cost savings, performance, and infrastructure. The natural gas industry can deliver on all of these and should continue to improve in the future. In addition, *time is running out* as California has clean fuel deadlines that are quickly approaching and may not be met if natural gas use is maximized. Below are the deadlines for each mandate.

Mandate Deadlines:

2015 – SIPs are required for both air districts showing that the 0.075 ppm ozone standard will be met by 2032
2020 – 10% reduction in GHGs from 1990 levels (AB 32 LCFS)
33% of electricity from renewables (CA RPS)
20% non-petroleum fuels (AB 1007 (Pavley))
2022 – 36 billion gallons of renewable fuel (RFS II)
2030 – 30% non-petroleum fuels (AB 1007 (Pavley))
2050 – 80% reduction in GHGs from 1990 levels (AB 32 LCFS)

NGVs Are A Real Alternative to Conventional Diesel and Gasoline

A. Natural gas and renewable natural gasare both abundant and domestic.

Not only is natural gas clean, it is domestic and abundant in North America with over a 100-year proved supply. New reserves are being discovered almost daily. In fact, the United States currently produces about 20 billion cubic feet per day from shale, and that number is predicted to double by 2020 (Navigant Consulting, Inc. (2012, January). Drilling Redirection,

Supply Abundance, and Exports. Retrieved August 13, 2012, from www.navigant.com: http://www.navigant.com/~/media/www/site/downloads/energy/ngmarketnotesjanuary2012pdf.ashx).

B. Greater natural gas use as a transportation fuel can boost the economy.

Due to its abundance, natural gas is extremely cheap and is thereby capable of providing high fuel discounts to its users. For whatever reason, the Vision document overlooks the importance of cost-effectiveness. With the savings in fuel costs that natural gas provides, it is no surprise that three of five examples used within the Vision document highlighted natural gas success stories: the Ports of Los Angeles and Long Beach; the Los Angeles MTA, and Waste Management. In fact, the fourth example highlighting Foothill Transit's use of an electric bus overlooked the fact that transit operator runs the majority of its fleet on natural gas.

For business and government funding alike, cost-effectiveness is one of the most important aspects for justifying the transition of a vehicle or fleet to an alternative fuel. Most of the energy sources mentioned in the report are more expensive than gasoline or diesel, except for one source – natural gas. With all of the new shale discoveries in recent years, natural gas prices have dropped considerably and can save consumers up to $1.50 per gallon over the energy equivalent of gasoline and diesel. This is a huge benefit that provides businesses and individuals with a cost-effective way to fuel cleanly. Due to the fuel savings, more people will buy natural gas vehicles, which will ultimately lead to greater emissions reductions across the board. Furthermore, as more heavy duty trucks switch from diesel to natural gas as a cheaper alternative fuel, their massive fuel usage will displace a large amount of emissions.

C. The economics behind natural gas is forming a competitive NGV market.

At last count, Clean Energy has identified more than 40 private competitors in the NGV space providing services to build out infrastructure:

Air and Gas Technologies
- CNG and LNG Station Provider

Allsup
- CNG Station; Owner/Operator

ALT
- LNG Plant Owner; LNG Fuel Provider

American CNG
- CNG and LNG Station Owner/Provider

Enviro Express Natural Gas LLC
- LNG Station; Owner/Truck Operator

General Electric
- CNG and LNG Equipment Provider

Go Natural Gas
- CNG Station; Owner/Operator

General Physics
- LNG Equipment Provider; Station Installer, Operator

American Natural Gas
- LNG Station Owner

Atlas Copco-Greenfield Compression
- Equipment Provider

AVSG LP
- CNG Station Network; Owner/Operator

CH-4
- LNG Station; Owner/Operator

Chart Industries
- LNG Equipment Provider; Station Installer

Chesapeake Energy
- CNG Station Owner/Operator

Clean Energy Fuels
- CNG, LNG Fuel Provider; Station Network Owner/Operator

CN Gas Group Corp.
- CNG Equipment & Stations/US Agira Representative

Encana
- CNG & LNG; Station Owner

Engineered Energy Solutions
- Engineering and Design Firm, CNG Station Owner/Operator

Gulf Oil
- CNG Station Owner

Integrys
- Pinnacle Gas Systems LLC;
o *CNG; Fuel Station Owner/Operator*
- Trillium USA
- CNG; Fuel Station Owner/Operator

Kwik Trip Inc.
- CNG Station; Owner/Operator

Lehigh Gas
- CNG Station; Owner/Operator

Linde
- LNG Fuel Provider; Equipment Supplier

Love's
- CNG Station Owner

Mansfield Gas Equipment System, Inc.
- CNG Station; Supplier/Owner/Operator

Nopetro
- CNG and LNG Fueling Systems

OnCue Express
- CNG Network; Owner/Operator

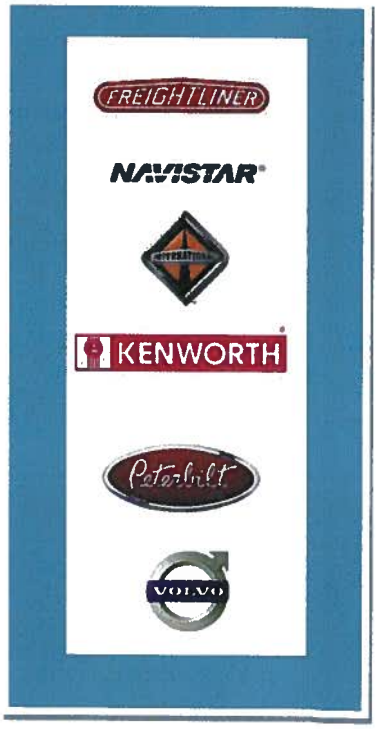
Peake Fuel Solutions
- CNG and LNG Station Equipment Supplier for Stations and Home Refueling

D. Every truck manufacturer is now in the business of NGV trucks due to demand

One of the most critical reasons why a backbone for natural gas vehicle refueling infrastructure can be contemplated is because, unlike the US auto manufacturers, all of the major heavy- and medium-duty truck manufacturers are already in the market. This is largely due to customer demand and it is the reason why both government and private sector research

expects and supports significant penetration of heavy- and medium-duty vehicles entering into the US market over the next several decades.

- Freightliner
  - Currently offers CWI 8.9 liter and 11.9 liter expected by 2013
- Navistar / International
  - Committed to deploy full natural gas truck product line
  - Currently offering 7.6 liter Navistar and CWI 8.9 liter
  - 13 liter model expected mid-2013
- Kenworth
  - Currently offers CWI 8.9 liter and 15 liter, 11.9 liter expected by 2013
- Peterbilt
  - Currently offers CWI 8.9 liter and 15 liter, 11.9 liter expected by 2013
- Volvo
  - Currently offers CWI 8.9 liter, 13 liter announced for 2014 launch

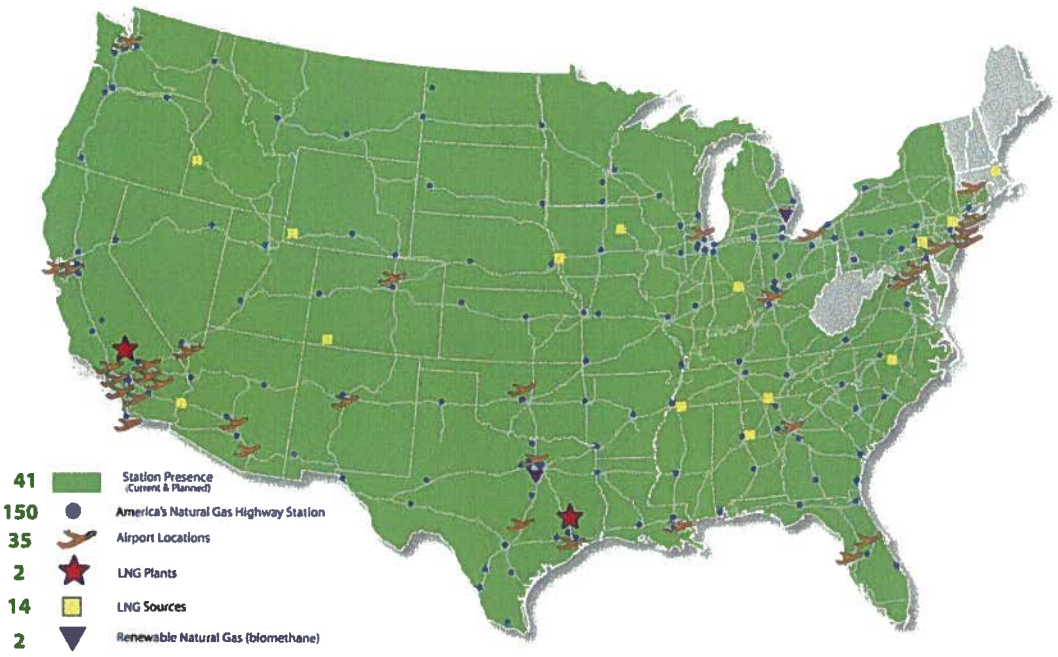


E. Natural gas refueling infrastructure is flourishing nationwide.

The Vision document highlights a growing refueling infrastructure for hydrogen and battery electric charging stations throughout the state of California in the goods movement section of the document. That said, there are approximately 300 natural gas stations in California and it is only recently that the heavy-duty sector is taking off for the NGV Industry. There are several factors for this including that the prior 300 stations were built to support other classes of vehicles and were not strategically located to capture the goods movement market. Furthermore, most of these CNG stations were not designed to accommodate heavy-duty trucks. We can only imagine that the hydrogen and EV infrastructure referenced by the

Vision document will befall the same fate, particularly when heavy-duty applications are far from proven using fuel cells or EV strategies.

Furthermore, if there is genuine concern over cleaning up the trucks on California's roads that are from out of state (roughly 30%), natural gas provides each agency with an option to reduce emissions substantially. Several national networks of LNG and CNG stations that are forming are targeting the goods movement sector. Shell, TravelCenters of America, Integrys, AmericanCNG, and Clean Energy have all announced plans to construct national refueling infrastructure networks to capture this business. In fact, Clean Energy is on target to build 150 stations from coast to coast and border to border by the end of 2013.



F. Biomethane production is increasing.

Being a California-based company supportive of CARB's Low Carbon Fuel Standard, Clean Energy has embraced the business of producing the lowest carbon fuel identified by the LCFS: biomethane, or RNG. Since then, Clean Energy has founded its subsidiary – Clean Energy Renewable Fuels – to finance, build and operate RNG production facilities across the lower 48 states. To date, CERF has been very successful in its efforts to produce RNG from landfill and agricultural-based projects, and it is very interested in participating in sanitation-based projects. CERF's success has come despite the regulated utilities current ban applied to in-state produced RNG entering the pipeline.

Clearly, it would be beneficial for this Vision document not only to evaluate the potential of RNG use in transportation fuels, but also to suggest policy actions that can take place to remove existing barriers on in-state RNG production as access to in-state pipelines as such an allowance would efficiently deliver RNG to in-state NGV vehicle fleets.

G. Natural gas truck technology continuously improving

While current natural gas engine technology delivers "near zero" emission performance today with 35 percent lower NOx emissions that 2010 heavy-duty truck standards, the technology's best days are yet to come, providing even deeper emissions benefits for criteria and climate change pollutants.

Cummins-Westport announced plans in late 2011 to develop a natural gas engine with <0.05 g/bhp-hr for NOx. The company's focus on NOx is largely due to the technology's ability to provide very near zero PM emissions that are approximately 80% below the 2010 heavy-duty truck standard. This near zero engine technology development is currently underway and is expected to be commercially available in 3 to 5 years.

As it was mentioned earlier, ICR Turbine Engine Corporation (ICRTEC) has teamed up with Kenworth to create a natural gas hybrid engine with NOx emissions of 0.0249 g/bhp-hr (8x lower than EPA standards) and CO emissions of 0.0205g/bhp-hr (750x lower than EPA standards). The technology also promises to deliver an additional 10-20 percent fuel efficiency gain.

Two years ago, Toyota demonstrated the ability to combine a hybrid platform with CNG fueling with its Camry model for the Los Angeles Auto Show. Although this was largely a demonstration technology built to show off Toyota's green ingenuity and innovation, it clearly shows that such technology combinations are possible. In fact, there is no reason not to believe that plug-in hybrid strategies could also be combined with natural gas fueling systems, further creating clean air benefit opportunities with natural gas. We understand that the South Coast Air Quality Management District is considering a technology demonstration project where a natural gas truck will be modified to run on an electric catenary system

Finally, renewable natural gas (also known as biomethane) presents a deep reduction carbon strategy (up to 88.1% when compared to diesel and gasoline) that natural gas engines can take immediate advantage of. No other low to ultra-low carbon fuel (fossil or bio-based) comes close to the carbon benefits that renewable natural gas promises future transportation options.

Limited Illustrative Scenarios Gives the Appearance of Picking Winners

The "Vision" report claims that it does not pick any specific fuel or technology as the winner. However, the document highlights hydrogen fuel cells and battery electric vehicle strategies repeatedly (pg. 3, 7-9, 11, 17, 18, 21-23, 29, 30, 32, 34, Appendix pg. 6-15, 19, 21, 22, 25-28, 30-32, 42, 44-47, 51, 52) as key clean air strategies that should be used for multiple applications from light duty passenger cars to heavy duty trucking, even though these technologies are not optimal or cost effective. Despite CARB and Air District Staff statements that these are just illustrative scenarios and not exclusive of other clean air strategies, we are already hearing from California Energy Commission that even the draft document is placing significant pressure on them to reconsider AB 118 program funding categories.

Meanwhile, natural gas is scarcely mentioned throughout the report and is grouped in the same category with oil and diesel as a "conventional fuel" that will decline in use. In fact, the report shows in Figure 26 (page 32) that electricity generation from natural gas will decrease and has been since 2005, when in reality, electricity in the U.S. generated from natural gas has been increasing and has just recently equaled electricity generated from coal (U.S. Energy Information Administration. (2012, July 6). *Today In Energy*. Retrieved from www.eia.gov: http://www.eia.gov/todayinenergy/detail.cfm?id=6990). Additionally, it is highly speculative to say that electricity generated from renewables and large hydro will increase by about 470% in the next 40 years while all other electricity sources will decline (Figure 26).
While fuel cells and battery electric vehicles (EVs) can help reduce emissions from the transportation sector, the infrastructure is not developed enough to reduce emissions a significant amount, and the cost to consumers is far too high. Most importantly, there are large hurdles in technology limitations for these types of fuels that need to be overcome to be practical.

Battery technology is nowhere near where it needs to be to power a heavy-duty over the distances that shippers and trucking firms need to go nor do they have the economics to support mass deployment (see recent L.A. Times Article on EV Port Trucks published on September 8, 2012). Furthermore, while electric vehicles do not have tail-pipe emissions, it is important to consider how their electricity is generated. Electric vehicles receive their power from the common electricity grid, which in California is derived from 52.7% natural gas, 28.9% renewables, 15.8% nuclear 1% coal and 0.5% petroleum (U.S. Energy Information Administration. (2012). *State Electricity Profiles 2010.* Washington, DC: U.S. Energy Information Administration.). Thus, the largest portion of the power comes from natural gas, so it would be more energy efficient to directly fuel cars with natural gas and cut out the dirty fuels like coal and petroleum.

As for fuel cells, their energy comes from natural gas, hydrogen and alcohols. Currently, the largest source of hydrogen for fuel cells is natural gas. Again, if fuel cells initially derive their energy from natural gas, wouldn't it make more sense to fuel cars with natural gas and further develop natural gas technology using advanced NGVs?

NGVs Deserve Equal Consideration under California's Vision

We are asking that the natural gas industry receive equal, not special, treatment under CARB's regulations and incentives. Natural gas vehicles provide comparable, if not better, environmental and energy security benefits in relation to other alternative fuels, and they deserve similar state support. Instead of advocating for future technologies like hydrogen fuel cell and electric vehicles, rules and incentives should set attainable goals for all fuel types to strive for to develop clean vehicle options for consumers and businesses. By being fuel neutral, CARB can lead the state's transportation sector into reduced emissions and cleaner air by supporting alternative fuel infrastructure, alternative vehicles, lowering costs to consumers, and pushing alternative fuel providers to improve engine technology. We ask for the same treatment for the natural gas industry. Because there is a great deal of uncertainty regarding which individual fuel-vehicle systems will overcome technology hurdles to become economically and environmentally attractive by 2050, regulations, policies and funding should be technology neutral while market dynamics drive commercialization.

In regards to natural gas incentives, the station fueling infrastructure for natural gas is well established and has more than 40 competitors in the industry, and the fuel makes economic sense, so policies and incentives should be directed toward placing NGVs on California's roads. This will help the consumer either cover the initial premium cost natural gas vehicles have over conventionally-fueled vehicles or justify paying the premium in their minds.

Concluding Remarks

Clean Energy would like to thank the California Air Resources Board, the South Coast Air Quality Management District, and the San Joaquin Valley Air Pollution Control District for allowing us the opportunity to comment on the draft Vision document. While the document provides a foundation for ways to meet federal, state and regional emissions goals well into the future, it is troubling that the document groups natural gas in the same category as diesel, appears to have little understanding of what natural gas vehicles can offer in terms of criteria and climate change emissions, offers seemingly no economic modeling for various scenarios, and does not appear to consider how various sectors would actually adopt new technologies.

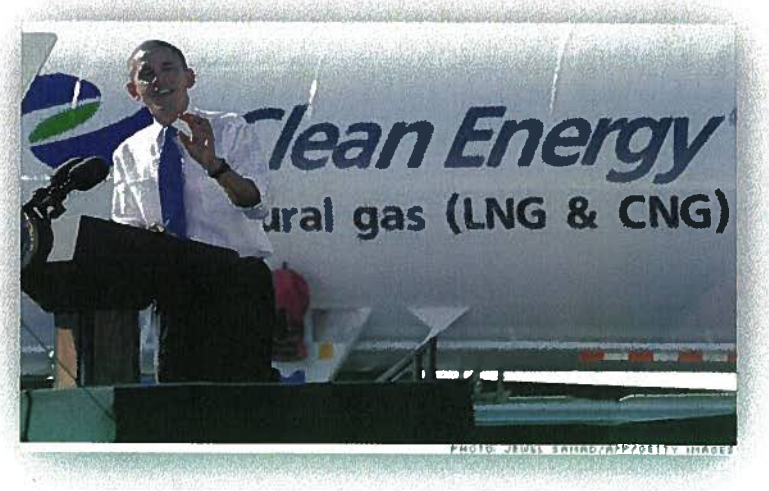
The Vision report, through the use of its narrowly focused illustrative scenarios v. broader and more comprehensive ones, appears to be a strong proponent of fuel cell and electric vehicles despite the fact that both CARB and Air District Staff denied that the illustrative scenarios should be interpreted as the best direction that state should head into, which are extremely costly, lack infrastructure, have a low range, technology limitations, and are currently not realistic for heavy-duty applications. While these energy strategies may be an alternative far down the road, natural gas, which is clean, cheap, domestic and abundant, can help California and its regional air basins accomplish each respective emissions goal today and beyond and should be considered by CARB, SCAQMD and SJVAPCD as such. While the natural gas vehicle fueling industry is well established, it continues to grow at a fast pace

and needs the support from regulatory bodies like CARB with fuel neutral policies that promote clean fuels and propulsion strategies. As long as it has state support, natural gas technology will advance to the point of complete zero emissions extremely soon. Clean Energy feels that the "Vision for Clean Air" document should be edited to illustrate the benefits of natural gas and should position the report as well as future state regulations/incentives as fuel neutral. If natural gas is pushed aside, California's emissions goals will not be met.

Clean Energy strongly recommends that CARB review the entire NPC study noted earlier. The study can be found at: http://www.npc.org/FTF-80112.html . The NPC study based on economics comes to an entirely different conclusion than the Vision Statement. In the study natural gas plays a significant role in changing the transportation fuel mix in the U.S. through 2050 for heavy-duty vehicles and the light duty consumer market. If California focuses on a technology specific agenda – it may be totally out of step with the rest of the U.S. which may cost California the ability to economically compete with the rest of the country.

Most sincerely,

Todd Campbell
Vice President, Public Policy and Regulatory Affairs



President Obama pledged support for natural gas fuel for transportation in front of one of our LNG tankers in Las Vegas in January 2012