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The Honorable Mary Nichols  
Chairman, California Air Resources Board  
Post Office Box 2815  
Sacramento, CA 95812

June 20, 2016

**RE: SUSTAINABLE FREIGHT ACTION PLAN DRAFT**

Dear Chairman Nichols:

On behalf of Clean Energy, please accept the following comments concerning the latest draft of the *Sustainable Freight Action Plan dated May 2016*. We appreciate the time and energy staff has contributed toward making this a robust and thorough document. Clean Energy strongly supports the state's goal to create a sustainable freight system that will promote both public health and a strong economy that promotes critical state air quality, energy, and social justice goals. We hope that our comments will help to further improve upon the final document that ultimately will be considered by the agency's Governing Board.

**Who Are We?**

As North America's largest provider of natural gas transportation fuel with over eighteen years of leading industry experience, Clean Energy provides construction, operation and maintenance services for refueling stations nationwide. We have a deep understanding of the growing marketplace, and our portfolio includes over 589 stations in 43 states, including a significant presence of 165 stations in California.

Already used as a clean, low carbon source of energy around the world, natural gas is abundant and proven to be a cost-saving alternative fuel to diesel and gasoline. Natural gas for transportation fuel strengthens our economy with lower fuel costs, increases our energy security, and significantly benefits our environment by reducing carbon emissions and smog-forming NOx emissions by up to 23% and 90%, respectively, relative to diesel fuel. Carbon emissions are reduced even further – approximately 80% to 90% - when renewable natural gas is used to power our engines compared to diesel.

**Next Generation Heavy-Duty Engines Powered by Renewable Natural Gas is a Game Changer for State and Non-Attainment Regions**

In May 2016 a groundbreaking report was released entitled *Game Changer*<sup>1</sup> – sponsored by several stakeholders including the South Coast AQMD – which concluded that there should be an immediate start to deploying zero-emission and near-zero-emission heavy-duty vehicle (HDV) technologies on a wide-scale basis in the United States. In sync with many recent documents being produced by the Air

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<sup>1</sup> <http://ngvgamechanger.com/>

Resources Board the report states that, “(e)xpeditious action is needed to reduce smog-forming emissions from HDVs to restore healthful air quality—as is legally required under the federal Clean Air Act—for approximately 166 million Americans who reside in areas with exceedingly poor air quality. At the same time, to combat global climate change, the United States must aggressively reduce greenhouse gas (GHG) emissions from HDVs, which are the fastest growing segment of U.S. transportation for energy use and emissions.”

The report further identified that near-zero engines result in 3 to 8 times more NOx reductions, have 5 to 14 times more greenhouse gas emission reductions, and near-zero natural gas trucks are four times more cost-effective compared to fuel cell or electric vehicle options at this time. In addition, these engines help meet Short-lived Climate Pollutant reduction goals by reducing black carbon and methane, especially if renewable natural gas fuel blends are used to power the engine.

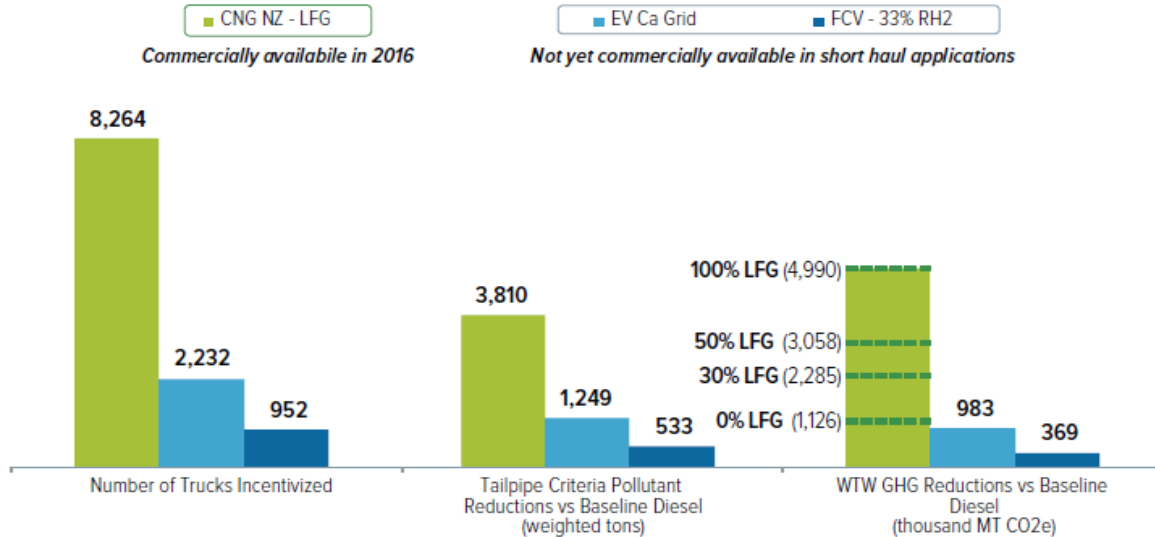
California will not reach greenhouse gas emission (GHG) reductions and other goals, including a large reduction in black carbon, without dedicating significant resources to the heavy-duty class 7 and 8 transportation sector to decrease its dependence upon diesel fuel use and increase the use of much cleaner low carbon fuels. To this end, the recent ARB-certified Cummins Westport’s 0.01 g/bhp-hr NOx heavy-duty engine will play a significant role as it is a **game changer** for the transportation sector and public health. The 9L engine is now available for deployment and the 12L is expected to be certified by late 2017.

These engines will provide immediate environmental and health benefits, especially to disadvantaged communities. As the ARB *Mobile Source Strategies Discussion Draft* specifically states on page 59, “Based on ARB staff’s technology assessment, the most viable approach to meeting the 2031 and 2030 goals is low-NOx trucks.” In other words, the only technically feasible way to meet the 2031 federal 8-hour ozone standards and the state’s low carbon fuel and petroleum reduction goals is to place approximately 430,000 low-NOx trucks using renewable fuels like renewable natural gas by 2031.

These low-NOx engines set at the 0.02 g/bhp-hr standard, powered by natural gas or renewable natural gas, or a blend of the two, will achieve greater environmental benefits than any electrified system for 1/5<sup>th</sup> to 1/10<sup>th</sup> the cost and far fewer operational and logistical challenges, as natural gas technology can be seamlessly integrated into large natural gas fleet operations such as drayage, goods movement, refuse, transit, and airport operations.

### Short Haul Truck Incentives

What does \$500 million buy?



Incentive amounts based on incremental purchase cost of advanced heavy-duty short haul trucks over baseline diesel truck  
 Based on emissions and vehicle activity data from CARB EMFAC 2014  
 Weighted emissions = NOx + 20\*PM10 + ROG  
 GHG emissions based on illustrative fuel pathways calculated by ARB Staff using CA-GREET 2.0  
 Cost effectiveness uses Moyer program capital recover factors based on typical retention period of first owner

*Game Changer* supports the argument why ARB and her sister agencies must pursue **all** advanced technology choices, not just a focus on zero emission vehicle tailpipe strategies that have yet to be commercialized and are only forecasted to replace 11,000 last mile delivery trucks over the next 15 years.

Other than the clear advanced technology metric that the plan calls out – “deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030” -- there does not appear to be any discussion on how the agencies will advance their zero and near-zero emission targets over the next 15 years. This is particularly concerning when there does not appear to be any relief in sight for a near zero emission standard until 2023 and creates a strategy that is completely dependent upon financial incentives.

In fact, the challenge becomes even more daunting when one reviews the draft *Mobile Source Strategy* document and the draft State Implementation Plan which identifies the need to deploy 400,000 to 430,000 near-zero emission trucks, respectively, and 11,000 last mile delivery (lighter-heavy duty trucks such as box trucks) by 2031. This, in our opinion, is a disappointing shortfall of the *Action Plan*.

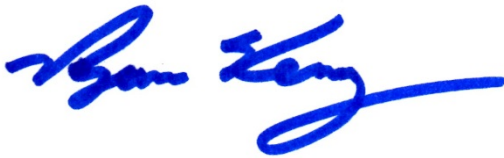
The *Plan* should have also taken a close look at the success stories that were enjoyed by the San Pedro Bay ports through their implementation of a joint Clean Air Action Plan and Clean Truck Plan. If we are ever to move away from polluting trucks and toward near-zero and zero emission strategies, we need to be able to have the mechanisms in place that can cull out aging trucks and replace those trucks with cleaner options.

Also, it is unclear if the great state of California has any plans to require near-zero emission or better levels for trucks until 2023. Thus, it is clear the only way to deploy the sheer volume of near-zero trucks required to meet federal clean air standards is to develop a number of strategies that include meaningful

truck incentives, the phase out of older model year trucks throughout the freight system, the acceleration of renewable natural gas production statewide, and other innovative strategies.

These comments reflect what our expectation of the *Action Plan* is and we therefore strongly urge both the Board and ARB staff to consider the incorporation of such action items within the document.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ryan Kenny". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Ryan Kenny  
Senior Public Policy & Regulatory Affairs Advisor  
Clean Energy

CC: Staff, California Air Resources Board