

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking to Adopt
Biomethane Standards and Requirements,
Pipeline Open Access Rules, and Related
Enforcement Provisions

Rulemaking 13-02-008
(Filed February 13, 2013)

**CALIFORNIA NATURAL GAS VEHICLE COALITION COMMENTS
ON THE ASSIGNED COMMISSIONER'S AMENDED
SCOPING MEMO AND RULING**

Dated: July 27, 2018

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In accordance with Rule 6.2 of the California Public Utilities Commission (“Commission”) Rules of Practice and Procedure (“Rules”), the California Natural Gas Vehicle Coalition (CNGVC) submits comments to the Order Instituting Rulemaking 13-02-008 (“Rulemaking”).

I. Introduction

The California Natural Gas Vehicle Coalition represents the state’s natural gas vehicle industry and includes major automobile manufacturers, utilities, heavy-duty engine manufacturers, fueling station providers, equipment manufacturers, and fleet users of natural gas vehicles. We are united in the belief that wider adoption of clean-running natural gas vehicles—running on renewable gas—is key to helping California reduce greenhouse gas emissions, air pollution and petroleum dependence. We are working together to advance natural gas as an alternative transportation fuel. Many of our member companies are spending time, energy and resources to dispense, create, and inject renewable natural gas (RNG) to ensure that CA has all the tools in its toolbox to meet its ambitious goals.

We appreciate the CPUC's recognition of renewable natural gas as a viable alternative fuel. RNG has already been instrumental in helping the state de-carbonize the transportation sector. Near-Zero engines running on RNG are reducing short-lived climate pollutants and GHG reductions in mobile sources. Projects are connected to the pipeline and interjecting biomethane are also sites where RNG is used as a transportation fuel. It is critical to the overall expansion of heavy-duty natural gas vehicles to identify and overcome barriers to pipeline interconnection and injection of biomethane. Based on our insight into the industry we offer the following comments in support of prioritizing biomethane as an end-use for renewable gas.

II. Comments

The California Natural Gas Vehicle Coalition understands how using renewable gas as a transportation fuel is an important component of a statewide strategy to reduce emissions from short lived climate pollutants. CNGVC supported SB 1383 (2016, Lara), which will ensure that renewable natural gas (RNG) is part of the list of tools that California will use to meet its ambitious climate goals in 2020 and beyond. Furthermore, this bill mandates that regulatory agencies create "policies and incentives to increase the sustainable production and use of RNG, including biomethane and biogas" are essential to creating clean energy jobs and cleaning up the air in our most disadvantaged communities.

RNG is the lowest carbon-intensity fuel commercially available today and, depending on the feedstock is also a carbon-negative fuel. The California Air Resources Board recently awarded the lowest-carbon intensity score ever certified (-255) to an RNG production facility processing cow manure. RNG production facilities are necessary to reduce GHG emissions and capture and convert methane, a short-lived climate pollutant many times more potent than carbon dioxide (CO₂) that would otherwise be flared or escape into the atmosphere from landfills.

Cutting Edge Technology is here today

In 2016, Cummins Westport Inc. (CWI) certified the 8.9L Low NO_x Near Zero engine. That engine, the first of its kind, provides a 95% reduction in NO_x for heavy duty vehicles.

Not resting on their laurels, CWI has continued to offer clean technology by certifying the 12L Low NO_x Near Zero engine at the end of last year. This engine will be a direct

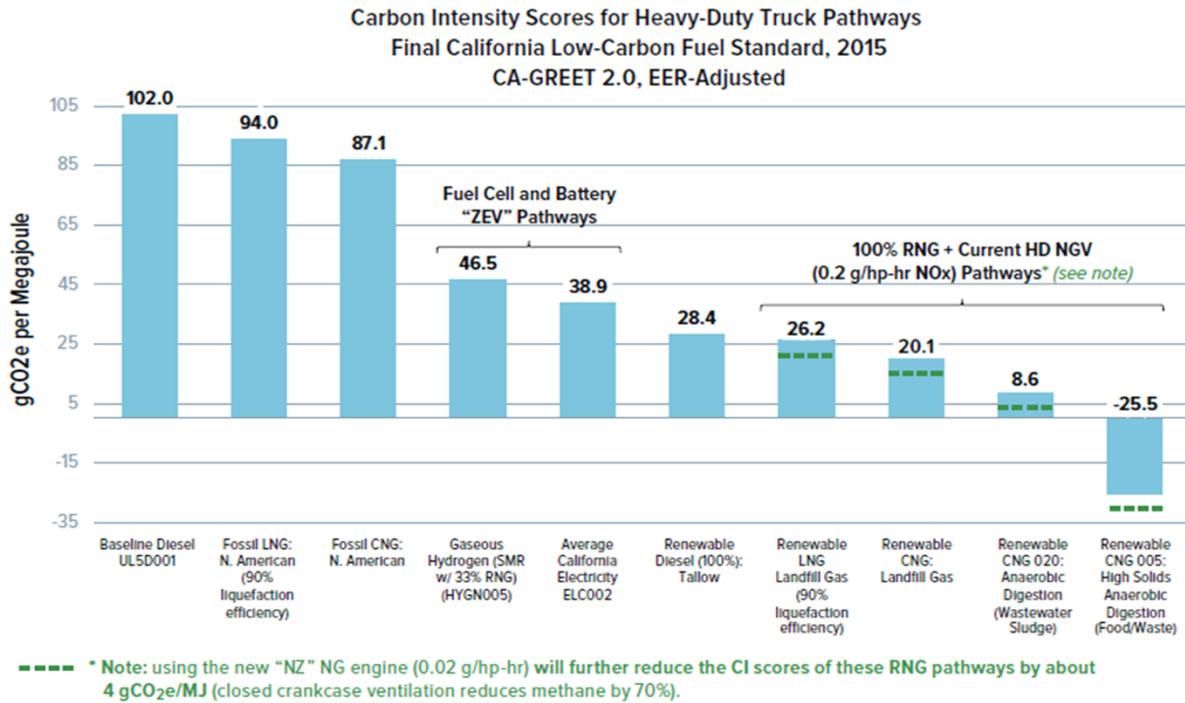
replacement for class 8 trucks in California. Since this engine is larger and will be targeting replacement in diesel trucks, it will be vital to remove any barriers to fleets of all sizes to adopting vehicles with cleaner fuels, so to not tie the hands of those that want to help California reach its goals.

Removing barriers is only the first step. CNGVC strongly believes that agencies should go a step further and adopt policies that send strong signals to the private sector on how RNG fits into California's short term *and* long-term plan to decarbonize and provide cleaner air. RNG projects require large amounts of planning, time, and capital investment so ensuring that these projects have pipeline injection and a healthy transportation market is vital for the state.

Over the last few years, the NGV industry has weathered the low cost of oil per barrel along with the development and transition to a new technology. This has not slowed our march toward creating clean alternatives. CWI has decided to no longer make a regular natural gas engine and will offer only the Low NOX, .02 emission certified Near Zero engines in the 6.7L, 8.9L and 11.9L versions in 2018 and beyond. The price of oil is double what it was this time a year ago, coupled that with the new diesel excise tax in CA, many fleets will be looking for cleaner, cost effective vehicle alternatives. A diverse menu of incentives will play a vital role in weaning these fleets off diesel.

RNG: Key Element in Greening the Heavy-Duty Truck Sector

The Gamechanger report released in 2016 highlighted the tremendous benefits of RNG in the heavy-duty truck space. It concluded that “the most important benefits of RNG relate to its potential use to fuel hundreds of thousands of near-zero-emission heavy-duty NGVs. Used together to replace conventional diesel HDVs, this fuel and engine technology can immediately and uniquely begin delivering 90 percent (or greater) reductions in NOx emissions for the large U.S. fleet of on-road HDVs. Simultaneously, RNG will provide deep GHG reductions (80 percent or greater), due to the very low (and in some cases negative) carbon intensity values of various production pathways. This is clearly illustrated in the figure below, which compares preliminary “carbon intensity” (CI) values (in grams per mega joule of “CO2 equivalent” GHGs) for eight different heavy-duty transportation fuel pathways.



Source: California Air Resources Board, "LCFS Illustrative Fuel Pathway Carbon Intensity Determined using CA-GREET2.0," discussion presented by staff on 9/17/15 and/or CARB LCFS Final Regulation Order, Table 6; note that "HSAD pathway is EER-adjusted by the CARB formula (-22.93 base CI divided by EER of .9), even though this improves its CI score.

Air Regulators Agree. Concluding that “combustion technology will continue to dominate” the on-road HDV sector over the next 15 years, CARB has found that low-NOx trucks are “the most viable approach” to meet California’s mid- and longer-term goals to attain NAAQS for NOx and PM2.5. CARB has noted that it is technically and economically feasible to deploy approximately 400,000 near-zero-emission HDVs by 2030, and this “large-scale deployment” of low-NOx, very-low-PM goods movement trucks “will provide the largest health benefit of any single new strategy” under consideration by California. To simultaneously meet GHG and petroleum-use-reduction targets, CARB will target approximately 55 percent of fuel demand for these trucks to be met with renewable fuel.

These plans to deploy large numbers of near-zero-emission HDVs in California are urgently geared towards attaining the ozone NAAQS by 2023 in the South Coast and Central (San Joaquin) Valley areas, which both face extremely tough challenges to drastically reduce ozone. Over the next five years, these air basins require very large NOx reductions from high-impact heavy-heavy-duty goods movement trucks and other HHDVs. At the same time, state and local

goals for GHG reductions must also be met. The major tool that air quality regulators have in these two areas is to maximize government incentives towards immediate replacement of in-use diesel HHDVs with commercially available near-zero-emission heavy-duty NGVs using RNG”.¹

Case study. The benefits of using RNG can already be seen in Santa Monica’s transit fleet, Big Blue Bus. This fleet transports 61,000 people a day and has a fleet of 200 vehicles. When the company switched from Liquefied Natural Gas (LNG) to RNG, they reduced their GHGs by only 2,300 metric tons per year but after switching over to RNG, they have reduced their GHGs to over 9,100 metric tons per year!

RNG’s Economic Impact

CNGVC partnered with the Coalition for Renewable Natural Gas on a study on the economic impact of using RNG in heavy duty trucks. This new study revealed that deploying trucks fueled by renewable natural gas could create up to 130,000 new jobs and add \$14 billion to California’s economy.

A switch to renewable natural gas trucks could quickly help California achieve its air quality, greenhouse gas emissions, and climate change-related goals, the two coalitions say. More than 95 percent of the trucks on California roads currently use petroleum-based diesel fuel and are a major source of particulate, nitrogen oxide (NOx) and GHG emissions.

The study, produced by ICF, reflects options to deploy low NOx natural gas trucks in various applications and vehicle classes through 2030. The number of trucks considered is linked to one of two strategies:

- Low NOx trucks deployed at the San Pedro Bay Ports in Southern California.

- Low NOx trucks deployed in the California Air Resources Board’s mobile source strategy.

¹ Gladstein, Neandross and Associates. Gamechanger: Next Generation Heavy-Duty Natural Gas Engines Fueled by Renewable Natural Gas. Executive Summary. (California, GNA, 2016), 11-14.

As shown in the chart below, switching to natural gas trucks fueled by RNG at the two San Pedro Bay Ports in Southern California would add more than 23,000 jobs and \$2 billion in economic benefits. A state-wide solution that includes the Air Resources Board’s mobile source strategy would result in up to 134,000 jobs and \$14 billion in economic benefits.

Economic Parameter	Port Trucks	Statewide Low NOx RNG Trucks, Market Share		
		25%	50%	75%
Capital Expenditures (\$M)	\$2,703	\$15,718	\$27,326	\$38,934
Total Employment	23,459	80,981	107,594	134,206
Total Value Added (\$M)	\$2,512	\$8,657	\$11,483	\$14,308

For every job created through direct investment in the trucking and goods movement sector powered by California-produced renewable natural gas, two more jobs will be created. The study estimates that these are high-paying jobs, with estimated labor income more than double California’s current median income.

The jobs and economic activity from investments in a natural gas trucks powered by in-state renewable natural gas support California’s diverse economy, as well as supporting various levels of skilled workers in sectors including construction, fabrication, vehicle manufacturing, engineering services, waste management, and service industries. The full study can be found [here](#).

We would also like to express our **STRONG** support for the following recommendations made by the Bioenergy Association of California:

1. Establish a Biomethane Procurement Requirement

The lack of market certainty is a major impediment to biomethane development in California. The gas sector needs a procurement policy like the RPS in the electricity sector, which has increased renewable power from 10 to 33 percent in just 16 years. As the SLCP Strategy notes, building “market certainty and value for the energy . . . will help to secure financing to accelerate and scale project development.”

The Legislature is currently considering SB 1440 (Hueso), which would establish a small biomethane procurement requirement (32 billion cubic feet by 2030). If SB 1440 is not enacted this year, CNGVC urges the Commission to adopt a biomethane procurement requirement that:

- Focuses on instate biomethane to meet the requirements of AB 1900, SB 1383, SB 840, and other state policies.
- Includes all organic waste sectors and conversion technologies.
- Prioritizes the lowest carbon sources of biomethane that reduce SLCP emissions and protect public health and safety.

2. Allocate a Portion of Gas Utilities' Allowance Revenues to Biomethane

As noted above, the Commission has allocated up to 15 percent of the electricity utilities' cap & trade allowance revenues to projects that reduce climate emissions from the electricity sector. CNGVC urges the Commission to adopt a parallel decision for the gas utilities' allowance revenues. This allocation is even more urgently needed in the gas sector which is far behind the electricity sector in reducing its climate emissions and moving to renewable sources. Allocating a portion of the gas utilities' allowance revenues would help to reduce SLCP emissions and provide important air quality and other benefits.

3. Need to Adopt Pipeline Standards for Additional Sources of Biogas

Decision 14-01-034 adopted pipeline biogas standards for three sources of biogas: landfill gas, wastewater treatment, and dairies. The Decision also provided that diverted food waste should, on an interim basis, follow the standards and monitoring requirements established for wastewater biogas. CNGVC urges the Commission to adopt pipeline biogas standards for at least the following additional sources of biogas: forest waste, agricultural waste and diverted organic waste (not just food waste).

Adopting additional standards is critical to meet the diverted organic waste requirement of SB 1383, which requires a 75 percent diversion of organic landfill waste by 2025. Food waste comprises only a small portion of organic landfill waste. To meet the 75 percent diversion

requirement will require a standard for diverted organic waste that includes green waste (grass and yard waste), wood waste and construction debris, soiled paper, etc.

Adopting pipeline biogas standards for agricultural and forest waste is also critical to reduce black carbon emissions from open burning and wildfires, as well as smog-forming pollution and other air and climate pollutants. This is why the Forest Carbon Plan calls for commercialization of forest biomass to pipeline biogas technologies.

CNGVC urges the Commission to consult with the Air Board and Office of Environmental Health Hazard Assessment to identify the Constituents of Concern for public health protection, as required by AB 1900. CNGVC further urges the Commission to consult with CCST on the appropriate standards and monitoring requirements for constituents of concern for pipeline integrity and end use equipment.

III. Conclusion

We believe that the above comments and recommendations will ultimately make this a stronger rulemaking. We appreciate the opportunity to engage on this important issue and we look forward to future conversations about how this will play out in the real world, while helping our state meet its goals.

Dated: July 27, 2018

Respectfully submitted,

/s/ Thomas Lawson

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President

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VERIFICATION

I am a representative of the California Natural Gas Vehicle Coalition and am authorized to make this verification on its behalf. The statements in the foregoing document are true of my own knowledge, except as to matters which are therein stated on information or belief, and, as to those matters, I believe them to be true.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 27th day of July 2018 in Sacramento, California.

/s/ Thomas Lawson

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