

**DOCKETED**

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**CNGVC Concerns RE: E3 report to CEC**

*Additional submitted attachment is included below.*



California Natural  
Gas Vehicle Coalition

June 21, 2019

The Honorable David Hochschild, Chair  
The Honorable Andrew McAllister, Commissioner  
California Energy Commission  
1516 Ninth Street  
Sacramento, CA, 95814

**RE: Concerns with Details and Conclusions in the Report Titled “Deep Decarbonization in a High Renewables Future”**

Dear Chair Hochschild and Commissioner McAllister,

On behalf of the California Natural Gas Vehicle Coalition (CNGVC), I would like to add our voice to the concerns being shared about E3’s *Deep Decarbonization* Report that was presented to the California Energy Commission (CEC).

**Who We Are**

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 goals.

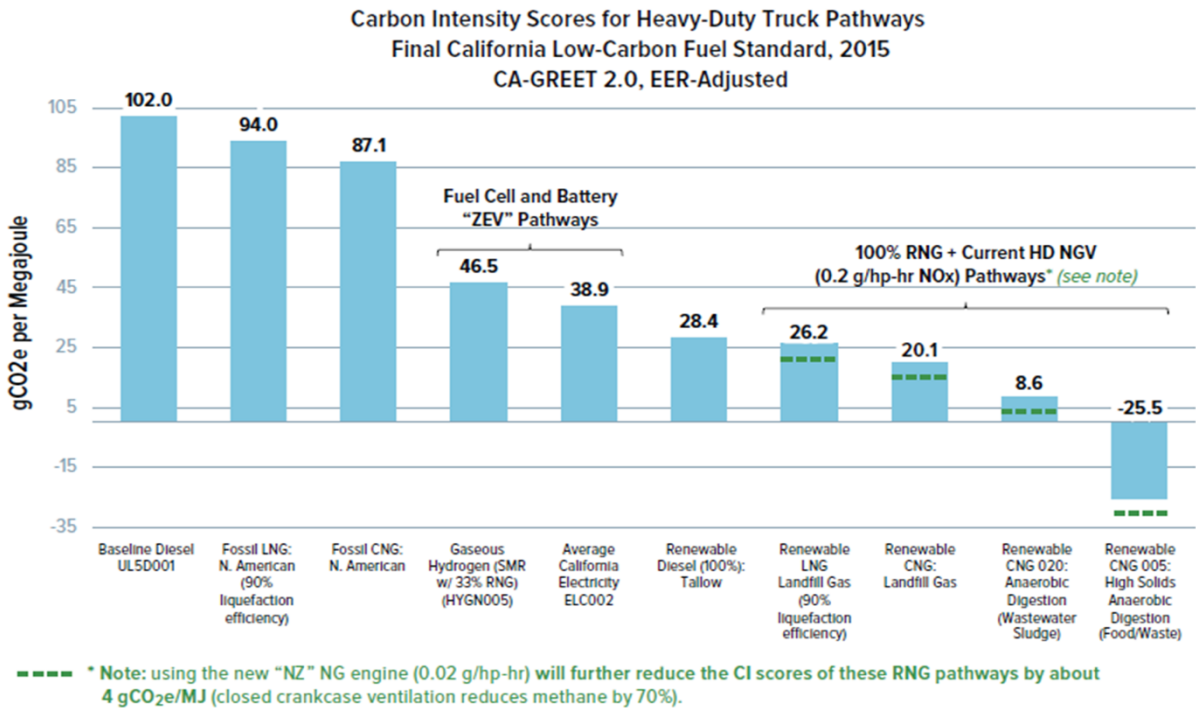
Our association has been a strong supporter of the state’s goals to reduce emissions from the transportation sector and to support renewable energy adoption. We have demonstrated that support in the legislature by supporting a plethora of bills (AB 2061-Frazier, SB 1440-Hueso, SB 1383-Lara, SB 1403-Lara, AB 1073-Garcia, E, and AB 3187-Grayson) that seek to create multiple options to meet our goals.

We believe that the conclusions and findings were very one-sided and did not accurately portray the role that RNG has and will continue to play in helping the state meet its goals. Cherry picking information and outcomes sets a very disturbing precedent on how we are approaching energy policy in this state. For instance, the report finds that in order for the California to reach its GHG goals it must require electrification of key sectors, including transportation, industry and buildings. The report

ignores that extreme risks and shortfalls of using only one technology to solve all of our problems such as how will the state deal with having all our sectors be 100% electric when utilities have been approved to cut power for an unspecified time during dangerous weather under wild fire threats?

### 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”.<sup>1</sup>

**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.

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<sup>1</sup> 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](#).

In conclusion, the current report leaves out all if these facts and some very serious flaws need to be addressed. We implore the CEC to not use this report until a more balanced and factual draft is resubmitted.

Thank you for your time and consideration, please contact me if you have any questions at [thomas@cngvc.org](mailto:thomas@cngvc.org) or at 888-538-7036.

Sincerely,



Thomas Lawson  
 President, California Natural Gas Vehicle Coalition