



USA RENEWABLE ENERGY

The Honorable Liane M. Randolph
Chair California Air Resource Board
P.O. Box 2815
Sacramento, CA 95814

July 9, 2021

Re: 2022 Scoping Plan Update

Dear Chair Randolph:

On behalf of the 11 signatories to this letter, we appreciate the opportunity to comment on the 2022 Scoping Plan Update, the focus of which “will assess the progress towards achieving greenhouse gas emission (GHG) reductions by 2030 and lays out a path to achieve carbon neutrality by mid-century.” This diverse coalition of stakeholders firmly believes that any viable scenario to achieve Carbon Neutrality by 2045 must include renewable and carbon negative fuels. Please consider the following:

ADDRESSING SHORT-LIVED CLIMATE POLLUTANT (SLCP) REDUCTIONS SHOULD BE THE PRIORITY

The Scoping Plan must focus on climate change per state law and the top priority should be meeting statutory requirements to reduce climate pollution. Nothing can do this more effectively than renewable fuels that displace diesel because of their low carbon intensities and because diesel is a major source of black carbon.

It is unclear why CARB has been reluctant to include as a strategy the use of renewable fuels in the transportation sector, but SLCP reductions should be the highest priority in the Scoping Plan. These are the only reductions that benefit the climate right away and time is running out to avoid the most severe and irreversible impacts of climate change. Climate change is happening more quickly and more destructively than was predicted even a few years ago. Climate scientists have said that we have only six to seven years left to slow warming or we will go beyond a 1.5 degree Celsius increase that will trigger very dangerous feedback loops. If we focus only on carbon dioxide reductions, we will not begin to reverse global warming for several decades or more.

In a presentation on SLCP reductions in late June, Dr. V. Ramanathan from UC San Diego and the Scripps Institute stated that we have much less than 10 years left to bend the warming curve.¹ He also said that the only lever we have left to make a difference in that time frame is reducing SLCP reductions.² Dr. Ramanathan, along with experts from Environmental Defense Fund and ClimateWorks Foundation, said we must go all out – and fast - on SLCP reductions by doing the following:

- Eliminate diesel use right away since it causes black carbon emissions and other climate pollution;
- Reduce wildfire emissions and open burning of forest and agricultural waste;
- Reduce methane from livestock and from landfill waste;
- Reduce HFCs³.

Scientific experts also agree that these same steps will provide enormous benefits for air quality, public health, agricultural productivity, forest health, and more. **SLCP reductions must be the number one focus of the 2022 Scoping Plan Update.**

ALTERNATIVE SCENARIOS SHOULD BE CONSIDERED AND PUBLICLY ANALYZED

Transparency into the selection of all the scenarios to be evaluated, including the continued use of renewable fuels, as well as electrification, is important. The magnitude of the Scoping Plan demands that alternative scenarios to 100% electrification be considered and their analysis made public, and if rejected, provide a quantitative response. CARB has promised, and we look forward to participating in, a more complete detailed public Scoping Plan meeting to discuss project scenario alternatives and needed technical analyses with stakeholders.

During the Mobile Source Strategy development, CARB has confirmed receipt and review of the study conducted by Ramboll U.S. Consulting Inc. titled “Multi-Technology Pathways to Achieve California’s Air Quality and Greenhouse Gas Goals: Heavy-Heavy-Duty Truck Case Study.” This study found that “expanded implementation of zero-emission and low NOx vehicles, coupled with increased introduction of renewable liquid and gaseous fuels, can deliver earlier and more cost-effective benefits than a ZEV only approach.”³ The study also found that “near-term NOx reductions and long-term GHG goals can be achieved with a mix of advanced low-emitting trucks and renewable fuels.”⁴ It is the responsibility of CARB to examine alternatives that can meet or exceed the state’s goals, and provide the public with their analyses and conclusions for review and comment.

Besides a comment that CARB does not agree with some of the study’s conclusions, the public has not been made aware of why such a conclusion has been reached. The public does not know the technical rationale used in this evaluation, with what CARB does agree, what might need further study, alternative scenarios provided by CARB itself or why only electrification of the transportation sector is the sole scenario being pursued despite the plausible and valid quantitative research and conclusions provided in the Study.

¹ Presentation by Dr. Verrabhadran Ramanathan, UC San Diego, on June 24, 2021, at MoveCA’s symposium on SLCP Reductions.

² Id.

³ Id.

Transparency is critical in a democracy. We urge CARB staff to share their analysis with the public and the Environmental Justice Advisory Committee.

INCLUSION OF RENEWABLY FUELED LOW NOx VEHICLES

CARB has an obligation to produce scenarios and analysis which include near-term air quality strategies, along with scenarios which acknowledge not every HD vehicle category is a good fit for electrification. Low NOx vehicle strategies that meet CARB's 0.02g/bhp-hr NOx standard today should be included in any scenario and analysis. Addressing both air quality and GHG goals in the heavy-duty sector is key to success.

Heavy-duty Zero-Emission Vehicles (HD ZEVS) are not expected to achieve widespread commercial readiness before the 2030 deadline in SB 32. The 2045 deadline in Governor Newsom's Executive Order to electrify the heavy-duty transportation sector is a "where feasible" goal. To emphasize this point, in a recent letter to the Legislature three air districts wrote, "We are fully supportive of the deployment of ZE technology, however, the reality is that it is not yet ready for mass deployment and there is a lack of sufficient charging infrastructure. Thus, for every low NOx truck not funded now, there will be one more diesel truck in its place further polluting our communities."⁴

Omitting such a scenario will result in more diesel trucks on California's roads and highways, not less. Diesel trucks are the single largest source of air pollution in California's two most polluted air districts. Given that low NOx trucks operated on renewable fuel are such a critical component for California to achieve air quality goals, reduce GHG emissions, attain the National Ambient Air Quality Standards, and protect the health and well-being of Californians, we believe it is imperative that heavy-duty vehicle technology policy should effectively include the early adoption of low NOx trucks operated on low carbon renewable fuels now. For example, CARB's Low Carbon Fuel Standard data from the third quarter in 2020 confirms that the energy weighted carbon intensity value of Renewable CNG is now already below zero at -17.95 gCO₂e/MJ.

Zero emission technology is anticipated to eventually be market-ready and cost-competitive with today's low NOx HD trucks, but until that time, Californians breathing unclean air should not be subject to a delay in air quality improvements. Without a suite of incentives and regulations that promote the near-term implementation of low NOx technology, CARB will have failed its public health mission.

Currently available, low NOx heavy-duty trucks remain one of the most cost-effective immediate remedies **to the problems of NOx and greenhouse gas (GHG) emissions**. Available low NOx trucks are currently certified by CARB as 90 percent cleaner than today's certified diesel and provide even greater in-use emission benefits than the latest diesel technology (note: newer diesel trucks can actually emit at times 10 times above 2010 standards¹).

In today's heavy-duty truck marketplace, insufficient or ineffective incentives or policy drivers are significantly impairing any meaningful deployment of heavy-duty low NOx vehicles over the purchase of dirtier diesel trucks to meet the Truck & Bus deadline of 2023 (i.e. when fleet owners have a choice of

⁴ Letter to the Legislature, May 27, 2021, South Coast Air Quality Management District, San Joaquin Valley Air Pollution Control District, Bay Area Air Quality Management District

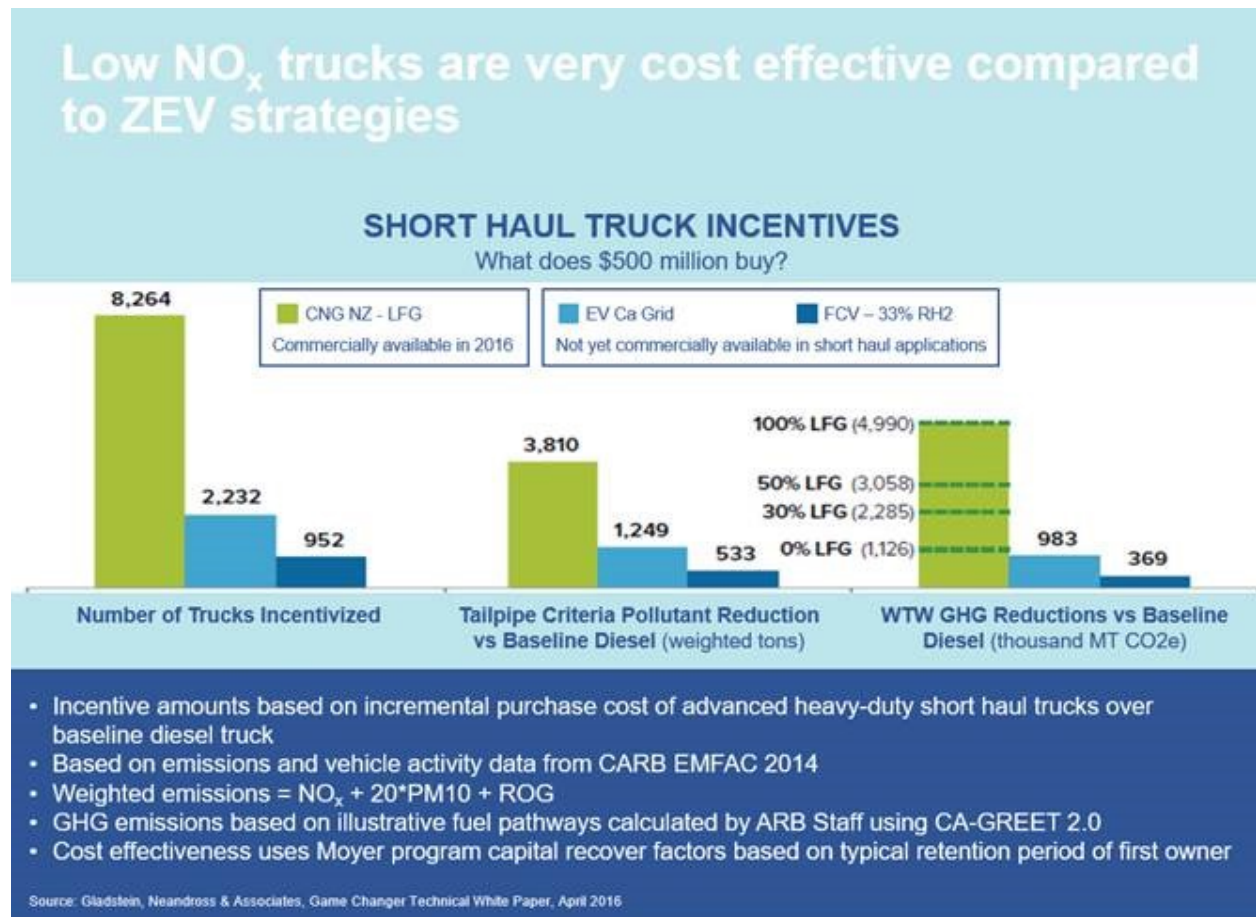
how to replace the pre-2010 diesel trucks required to be removed from California’s roads). Moreover, there is little incentive for manufacturers to bring more 0.02 NOx certified vehicles to market prior to 2027. We strongly believe that cleaner low NOx trucks would be introduced into the market to displace diesel trucks if policy drivers made them much easier to obtain.

The time to act is now. California can work toward meeting the GHG reduction and extreme ozone attainment challenges in the South Coast and San Joaquin air basins. Further reduction of NOx emissions is critical for attaining federal ozone and PM2.5 standards.”² The first major ozone deadline under the federal Clean Air Act is January 1, 2023, and even the deadline in 2031 is at risk.

COST-EFFECTIVENESS SHOULD BE INCLUDED

An electrification-only scenario comes with substantial financial resource limitations for the state with it being the highest cost and highest risk option. There are faster and lower cost pathways to get closer to the Scoping Plan goals including protecting public health. Those suffering the effects of bad air quality don’t have to wait that long; they can get relief sooner, but CARB seems to be ignoring beneficial alternative scenarios.

How many renewable natural gas vehicles can be purchased for the same amount of funding allocated for heavy-duty ZEVs? This chart was prepared to answer that exact question. It is titled “What does \$500 Million Buy?” and compares the cost-effectiveness of the technologies. This chart analyzes only “short haul trucks” because there aren’t any heavy-duty ZEVs in existence for comparison.



Please consider this chart below containing data provided by CARB. This shows the number of vehicles, by category type, which have received vouchers since CARB’s Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) program’s inception. While 596 **more** natural gas vehicles received vouchers, it cost \$158,573,126 **less than** the total received by ZEVs.

Type	# of Vehicles	% Vehicles of Awarded	Total Awarded	% of Total Funds
ePTO	226	3%	\$ 5,249,000	1%
HV	2,580	35%	\$ 64,030,276	17%
Natural Gas	2,546	35%	\$ 73,288,714	20%
ZEV	1,950	27%	\$ 231,861,840	62%
Grand Total	7,302	100%	\$ 374,429,830	100%

CARBON NEUTRALITY

An electrification-only scenario largely ignores the urgent need to reduce black carbon and smog-forming emissions from diesel fueled heavy duty vehicles this decade. Diesel trucks are the largest source of air pollution in the San Joaquin Valley and South Coast Air Districts, and they are also a significant source of black carbon emissions. Biogas from organic waste can virtually eliminate black carbon from diesel and can cut lifecycle carbon emissions by 100 percent or more. Yet, new diesel fueled trucks will continue to be sold in California through 2040 at least. This is simply unacceptable from a climate and an air quality standpoint.

California needs to focus on reducing black carbon, other Short-Lived Climate Pollutant emissions, and the utilization of fossil fuels. To the extent that we need to prioritize, it is far more urgent to reduce SLCP emissions, especially anthropogenic black carbon that is so many times more damaging to the climate than carbon dioxide and the reduction of which benefits the climate right away (which carbon dioxide reductions do not). CARB should prioritize the elimination of diesel and the reduction of open burning of agricultural waste, all of which can be done by converting organic waste to energy and fuels.

CARB is attempting to ignore vehicles which are 90 percent cleaner and can run on fuels that are low to negative carbon. For example, from CARB’s own analysis, near-zero emission low NOx trucks that run on RNG can cut NOx by 90 percent compared to diesel and can cut carbon emissions by 100-300% depending on the biogas source. Why not phase out diesel more quickly and encourage continued use of renewable fuels in near-zero emission trucks until truly commercial heavy-duty ZEV alternatives are available?

Eliminating the use of diesel should be one of California’s top priorities for both climate change and air quality since diesel emissions contain black carbon and toxic air contaminants and are a major source of smog-forming pollution. In fact, Governor Newsom has called for the end of diesel-powered vehicles by 2030.

RENEWABLE NATURAL GAS IS A CARBON NEGATIVE FUEL

On Tuesday, June 8th CARB held the first of three workshops over what would be three days to begin the process to adopt the 2022 Scoping Plan Update. An industry stakeholder asked during the public comment portion of the workshop about RNG being a carbon negative fuel and what role it would play. The response from CARB staff was that for inventory purposes, organics diversion and biofuels are “counted as zero” and not negative like in the Low Carbon Fuel Standard (LCFS.)

We are highly concerned from this response that CARB could be planning to reverse the negative carbon intensity values in favor of a carbon neutral floor, and that redefining this in order to support electric vehicles could have a dramatic impact on the various industries which values the benefits from the LCFS, and which contribute to substantial greenhouse gas emission reductions. **We request that CARB address and clarify this statement.**

We appreciate having the opportunity to comment on the 2022 Scoping Plan Update. We hope to continue to work with CARB in developing the Scoping Plan to address the State air quality and climate challenges.

Sincerely,

Mark Bragg, Managing Member, USA Renewable Energy

Tim Carmichael, State Agency Relations Manager, Southern California Gas Company

Evan W.R. Edgar, Regulatory Affairs Engineer, California Compost Coalition

Daniel J. Gage, President, Natural Gas Vehicles for America

Ralph Harrison, President, E.J. Harrison & Sons, Inc.

Ryan Kenny, Senior Policy Advisor, Clean Energy

Kathryn Lynch, Regulatory Affairs, California Waste Haulers Council

Veronica Pardo, Regulatory Affairs Director Resource Recovery Coalition of California

Ashley Remillard, Vice President, Hexagon Agility

Nicole Rice, President, California Natural Gas Vehicle Coalition

Paul Ryan, Director of Regulatory Affairs, Inland Empire Disposal Association

Cc: Chair and Members, California Air Resources Board
Ms. Dee Dee Myers, Senior Advisor and Director, California Governor’s Office of
Business & Economic Development
Cabinet Secretary, Office of the Governor