May 28, 2020

The Honorable Mary Nichols
Chair, California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on the 30-day Notice for the Amendments to the Proposed Advanced Clean Trucks Regulation

Dear Chair Nichols and Board members,

We would like to take this opportunity to respond to some of the staff changes proposed in the Advanced Clean Trucks (ACT) Regulation. We stand by our strong belief that California should be doing everything in its power to focus on the near- AND the long-term emissions goals simultaneously and that choosing long-term goals over near-term federal deadlines is a choice that will have fatal consequences. In fact, the proposed ACT amendments fail the residents of California by ignoring the near-term potential benefits in the medium and heavy-duty commercial sector that could be provided by low NOx trucks powered by renewable natural gas—which are readily deployable today – and these amendments continue to lack any real policy support beyond vehicle incentives. This proposal's sole focus on long-term ZEV technology is both a disservice to the state's environment and a gamble that a technology will be able to transform the mobile sector in a very short period of time.

Staff Amendment #1: Change in the Purpose of the Rule

> *Purpose. The purpose of ~~these regulations~~ sections 1963, 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5 is to accelerate the market for on-road zero-emission vehicles and to reduce emissions of oxides of*

nitrogen (NOx), fine particulate matter (PM), other criteria pollutants, toxic air contaminants, and greenhouse gases (GHG) from medium- and heavy-duty on-road vehicles.

In the above amendment, staff is seeking to add to the purpose of the rule the goal to reduce harmful emissions from on-road heavy duty vehicles. While we agree that reducing these emissions should be a priority, we do not believe that California has to wait a decade or more to get those reductions as natural gas heavy-duty vehicles are available today.

Moreover, on Table III-4 in the updated Cost Benefit Analysis, which charts the avoided social cost of CO_2, it shows that **California will not benefit from emission reductions until 2028!** Even then it will only be a .1 MMT reduction. This large void in emissions reductions from now until 2028 is a major oversight in staff's assumptions about what this rule is supposed to accomplish.

Looming Federal Clean Air Act Attainment Deadlines Demand that CARB's Actions Address Near-Term Air Quality while Planning for the Future through the Advanced Clean Trucks Rule

The South Coast AQMD will have to file contingency measures for the agency's Air Quality Management Plan to the United States Environmental Protection Agency (EPA) and it is highly likely that those measures will be rejected by an unsympathetic federal administration[1]. Further, if EPA decided to reject AQMD's alternative plans, it would trigger a Federal Implementation Plan (FIP) that could carry substantial economic sanctions and the loss of local control to two large regions making up the vast majority of Central and Southern California. Such sanctions could include the loss of federal transportation funds, limits on port and other regional economic activities, and increased stationary source permitting requirements.

Such an outcome would be a significant economic blow to both regions in addition to the mounting health impact on the regional populations breathing the nation's worst air quality. South Coast Air Quality Management District's Executive Officer, Wayne Nastri, was very clear that if AQMD could not start the process of removing dirty diesel trucks from Southern California's roads now, it would fall out of federal attainment of the nation's ozone standards. Pursuing clean air now with existing technology and in the future by pushing new technology is a win-win. Putting off significant reductions for another 8 or more years needlessly condemns disadvantaged communities to poor air quality when they so obviously need and can obtain relief now. These amendments could promote near-term air quality reductions through a crediting mechanism for RNG-fueled HD trucks. Staff's reliance on the pending rulemaking for the Omnibus NOx rules are not expected to achieve significant NOx reductions until 2026. CARB has an opportunity to encourage OEMs to leapfrog to the more aggressive standard by providing NZE credit to 0.02 NOx engines now, without having to wait for 7 years.

Proposed Amendment

In order to get a jump start on both health-based and climate emission reductions, we strongly recommend developing a credit system, much like the one proposed by CARB staff for hybrid-electric platforms, for heavy-heavy-duty trucks that meet a 0.02 g/bhp-hr NOx certification standard or better.

This credit generation would continue to exist, allowing manufacturers to offset zero tailpipe vehicle manufacturing sales requirements, up until CARB implements a new heavy-heavy-duty emission standard for internal combustion engines that meets or exceeds a 0.02 g/bhp-hr NOx standard. By doing so, CARB would be sending a powerful market signal that would strongly benefit both the SJVAPCD and the SCAQMD as they attempt to encourage optional low NOx truck purchases in the years leading up to federal

[1] As stated during a December 17, 2019, meeting in Los Angeles focusing on truck pollution on the I-710, by South Coast Air Quality Management District's (AQMD) Executive Officer, Wayne Nastri.

ozone attainment and beyond. CARB could also revisit the continuation of this credit system in the 2027 timeframe if CARB sets a less aggressive low NOx standard for internal combustion engines than a 0.02 g/bhp-hr NOx standard. In this way, the cleanest vehicles could continue to be incentivized under the Advanced Clean Truck regulation beyond 2023 helping local air districts achieve 2031 federal ozone attainment goals and pushing internal combustion engine manufacturers to further advance their product lines toward the most stringent of optional low NOx engine standards identified by ARB.

Staff Amendment #2: Amend to Commonly Used "Near Zero" Definition

(~~15~~16) "Near-zero-emission vehicle" or "NZEV" means one of the following:

(A) An on-road plug-in hybrid electric vehicle which has the same definition as that in 40 CFR section 86.1803-01, amended on July 1, 2011, incorporated by reference herein, that achieves ~~a minimum~~ all-electric range as defined in section 1963(c)(1).; or

(B) An on-road hybrid electric vehicle that has the capability to charge the battery from an off-vehicle conductive or inductive electric source and achieves ~~a minimum~~ all-electric range as defined in section 1963(c)(1).

This proposed definition of "near zero" is another different and conflicting regulatory and statutory definition that is confusing to stakeholders, industry and government alike. The following are the commonly-held and traditionally used definitions for advanced vehicle technologies:

- ***Zero Emission:*** *battery electric or fuel cell electric powered vehicle (i.e. no tailpipe)*
- ***Near Zero****: anything that meets or exceeds 0.02 g/bhp-hr NOx*
- ***Low NOx****: anything that meets the CARB low NOx rule, which is currently drafted as 0.05 g/bhp-hr NOx for engines sold in California, or an optional 50-state certification of 0.1 g/bhp-hr NOx (another way to say this is anything between the near zero Emission level of 0.02g NOx and the federal EPA standard of 0.2g/bhp-hr NOx)*
- ***PZEV*** *is a vehicle that has the ability to operate partially in zero emission mode. This would be a consistent definition to what is used in the light-duty vehicle sector.*

This general PZEV definition is really what should be used in the ACT rule, not the proposed artificially manipulated "near zero" definition that would add widespread confusion. "Near zero emission" has been used for years by the collective clean fuel industry, air quality and energy agencies, and other stakeholders – at every level – to refer to a medium- and heavy-duty vehicles that achieve the 0.02g NOx certification level.

With CARB's official policy being to use "zero emission vehicles (ZEV) everywhere feasible, and near zero-emission vehicles powered by clean, low-carbon renewable fuels everywhere else,"[2] they are not talking about ZEVs where feasible and vehicles that have "partial zero" emission operations everywhere else. In fact, this does not make much sense and is significantly confusing there are not any commercially available technologies that fit staff's definition in the marketplace today that has the ability to operate in partial or limited zero emission mode. Specifically, there are no OEMs working to develop nor commercialize a medium- or heavy-duty truck technology that is intended to operate in a limited zero emission mode.

[2] https://ww2.arb.ca.gov/our-work/programs/zero-emission-powertrain-certification

As shown by October's over-subscription of the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)—within less than one week—it is clear that the program as currently structured is not sufficiently funded and is falling far short of stimulating the substantial deployment of clean trucks on California's roads that are needed to meet federal attainment goals or state regulatory programs. Given the recent budget issues for the state, the ability to maintain or increase needed funding is questionable. **This is all the more reason why including more affordable low NOx trucks that meet a 0.02 gram NOx standard must be included within the final ACT rule's definition of "near zero"**. Failure to include 0.02 gram low NOx trucks with hybrids, which are poised to receive credit as CARB staff proposes under the ACT rule, will not result in any meaningful clean truck adoption at California's ports in the near- to mid-term. Such an outcome should not be allowed to happen while California simultaneously anoints itself as a clean air champion.

What if the state's electric or fuel cell projections, particularly in the heavy, heavy-duty sector, fall far short as the finalized ACT rule progresses? Then what? California's highly impacted and disadvantaged communities would continue to be exposed to high levels of air toxins and pollutants for decades to come without an answer. CARB simply cannot allow diesel to be the fuel of choice through the next set of attainment deadlines. As described above, a recent ICCT study confirmed that the cleanest diesels are 5 to 6 times more polluting than their certification levels when moving at speeds of 50 mph or less. Furthermore, the study found that line-haul vehicles were within emissions certification limits less than 50 percent of their total time in operation (while at highway speeds over 50 mph). We simply do not have the luxury to fail our communities or time to make up contingency plans in the future to make up for lost time. Our current circumstance requires bolder action supported by broader inclusion of advanced truck technologies. To put it simply, CARB must include low NOx engines that meet 0.02g NOx values with hybrid strategies to help clean up California's trucking fleet in the near- to mid-term.

For all of the above reasons, we strongly encourage CARB to include low NOx engines that meet a 0.02 g NOx value into the "near zero" definition of the ACT rule. Our industry would also be supportive of CARB staff requiring the use of renewable fuels that are capable of reducing CO2 emissions by at least 40% when compared to baseline diesel. The majority of natural gas vehicles in the state already run on RNG largely due to the state's successful low carbon fuel standard (LCFS) and the propane industry plays an increasing role in renewable energy for heavy duty vehicles.

Limiting the ACT rule's definition of "near zero" to only vehicles capable of achieving zero emission tailpipe miles is too limiting at this point in time and will result in negative and real public health consequences. Furthermore, it is now more important than ever to support and advance gaseous technology platforms as by doing so could help move hydrogen-dependent technologies forward**. We urge CARB to make the ACT Rule bolder and include low NOx set at 0.02 g NOx in the "near zero" definition.**

Staff Amendment #3: Update to the Cost Benefit Analysis

The new updated Cost Benefit Analysis shows a lack of urgency to the air quality issues that many Californians are dealing with on a daily basis.

For example: On Table II-3, which charts the statewide estimated annual valuation for avoided health outcomes, it shows that the first year a premature death can be avoided is 2025, and the total deaths avoided is 1! In the first year that the current ACT rule goes into place, zero deaths will be avoided. What about between now and 2024? Do we not care that people will be subject to unacceptable levels of morbidity and mortality before this rule goes into effect? Shouldn't we be doing everything in our power to ensure that people have a chance, especially given the links between poor air quality and COVID-19? California is

capable of focusing on the short-term AND the long-term simultaneously; choosing one over the other is a false choice that has real and fatal consequences.

Southern California and Central Valley residents are currently enjoying the cleanest air in decades, but it is only temporary. As you know, the current stay-at-home orders as a result to the COVID-19 pandemic has significantly reduced vehicle miles traveled and kept many cars and trucks parked for weeks. If ARB incorporates the recommendations from this coalition, many communities can enjoy the clean air well after the orders are lifted.

Thank you for your time and consideration.

Most sincerely,

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Joy Alafia, President and CEO, Western Propane Gas Association
Daniel Gage, President, NGVAmerica
Evan Edgar, California Compost Coalition
Todd Campbell, Clean Energy
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Kevin Maggay, Energy and Environmental Affairs, So Cal Gas
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