



Re: HVIP: OPPOSITION TO DEFUNDING LOW NOx VEHICLES

The 42 undersigned organizations, representing leading organizations working to clean California’s air and meet greenhouse gas emission reduction goals, want to work collaboratively with the California Air Resources Board (CARB) to preserve funding for low NOx trucks in the *Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)* in the 2019-2020 Fiscal Year *Funding Plan for Low Carbon Transportation Investments*. We **STRONGLY OPPOSE** any recommendation to defund low NOx (near zero) heavy-duty vehicles under HVIP as such an action would circumvent state statute, the legislative intent behind said state statute and side-step CARB’s own adopted policies that attempt to mitigate heavy-duty truck pollution to protect public health. As you know, these vehicles have a proven track-record as a critical, cost-effective, emissions reduction strategy and still need additional support from the *HVIP*

program to become fully commercialized. Please work with our industries to help prevent cuts to this crucial funding source so that we can help reduce climate and air pollution impacts upon all Californians.

CALIFORNIA STATUTE

Senate Bill 1204 (Lara, 2014; sunset extended to December 31, 2020 by SB 1403, Lara) created the *California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program (Program)*, from which HVIP is funded via Greenhouse Gas Reduction Fund (GGRF) moneys. The plain language of SB 1204, codified at California Health and Safety Code section 39719.2, requires continued *HVIP* funding for low NOx (near-zero) heavy-duty trucks. Section 39719.2(b)(1) clearly states:

(b) Projects eligible for funding pursuant to this section include, but are not limited to, the following:

(1) Technology development, demonstration, precommercial pilots, and early commercial deployments of zero- **and** near-zero emission medium-and heavy-duty truck technology, including projects that help to facilitate clean goods-movement corridors. **Until** January 1, 2018 [now **December 31, 2020**], **no less than 20 percent of funding made available for purposes of this paragraph shall support early commercial deployment of existing zero- **and** near-zero emission heavy-duty truck technology.**

The use of “and” clearly means that “near-zero emission heavy-duty truck technology” **MUST** be funded under *HVIP*. **Failure to fund near-zero (low NOx truck) applications would be a clear violation of California state law. We therefore encourage CARB to adopt a funding plan that appropriately considers the requirements of section 39719.2(b)(1).**

LEGISLATIVE INTENT

Statutes must be interpreted so as to effectuate legislative intent. *See Hunt v. Superior Court* (1999) 21 Cal.4th 984, 1000. As such, the respective committee analyses leading up to a bill’s passage are essential to understanding what the Legislature was trying to accomplish. The committee analyses of SB 1204 clearly demonstrates the Legislature’s desire for near-term investments in near-zero heavy-duty vehicles (HDVs) from *HVIP* via the *GGRF*. Note the use of present-tense language, the near-term program sunset date of Jan. 1, 2018, the discussion relating to existing contemporary problem areas of need, the intention for “existing” fleet owners to transition, the fact that the turning over of the fleet had yet to be successful, and the need for better market penetration.

- **ASSEMBLY’S INTENT: The Senate floor analysis memorializes the Assembly amendments and intent which includes near-term near-zero HDV commercial deployment:**

Add projects that support greater commercial motor vehicle and equipment freight efficiency and greenhouse gas (GHG) emissions reductions, as specified to the list of projects eligible to be funded; require until January 1, 2018, no less than 20% of funding made available support early commercial deployment of existing zero- and near-zero emission heavy duty truck technology...

- **SENATE FLOOR ANALYSIS: Includes present-tense language supportive of near-term near-zero HDV technologies:**

Given that cars and trucks **are** responsible for nearly 40% of California's GHG emissions; it stands to reason that addressing transportation sector

emissions represents the logical next step toward achieving the state's emissions reduction goals. To this end, California has worked diligently to address transportation sector emissions across many platforms, but particularly toward replacing **existing fleets** (light-duty through heavy-duty) with zero and near-zero emissions vehicles and equipment. While the light-duty fleet sector has made much progress, turning over the fleet for medium- and heavy-duty vehicles has not had the same level of success despite the fact that these vehicles represent a significant source of GHG and fine particulate matter emissions.

While programs at ARB and CEC address both light- and heavy-duty vehicle sectors, the authors believes that additional, focused efforts are needed for the medium- and heavy-duty zero and near-zero-emission vehicles and equipment to improve market penetration and make the purchase and use of this technology a viable, and affordable option for medium- and heavy-duty fleet operators.

- **AUTHOR'S INTENT STATEMENT TO THE SENATE COMMITTEE ON ENVIRONMENTAL QUALITY:**

"SB 1204 is the vehicle to invest in clean heavy-duty trucks and buses. This investment will make it easier for truck owners to transition to zero- and near-zero technology and it will improve the health of millions Of Californians residing in communities that are burdened daily by transportation pollution."

CARB'S CURRENT THREE-YEAR INVESTMENT PLAN

State law (Senate Bill 1403) requires ARB to conduct a rolling three-year investment strategy "that includes the immediate fiscal year and a forecast of estimated funding needs for the subsequent two fiscal years for zero- and near-zero-emission heavy-duty vehicles..." The Senate Floor Analysis for SB 1403 expresses such intent: "This bill adds important planning elements to the ongoing three-year investment strategy plans developed by ARB to facilitate investments in zero- and near zero-emission heavy-duty vehicles and equipment."

The current *Three-Year Investment Plan* lists "low NOx linehaul trucks" as a "priority" for each of fiscal years 2020-2021 and 2021-2022. Eliminating such funding would go against the established *Plan* that was publicly vetted and approved by CARB's Governing Board. Furthermore, eliminating funding would undermine the public's interest in achieving and maintaining stable clean energy policies based on consistent investment planning and private capital.

THE PROBLEMS WITH NOT FUNDING NEAR-ZERO TECHNOLOGY

Renewable natural gas, or biomethane, has great potential to reduce methane, a potent greenhouse gas. As California develops the in-state market, RNG will become more commonly used, delivering deep carbon reductions for the California transportation sector if the low NOx vehicles have continued state support.

Our state suffers from the worst air quality in the nation and federal ozone deadlines are looming for the South Coast Air Quality Management District (SCAQMD), the San Joaquin Air Pollution Control District (SJAPCD), and at least seven other California air basins identified by the American Lung Association as ranking in the top 10 worst air sheds in the nation for tropospheric ozone. These local air districts must reduce regional NOx emissions by up to forty-five percent by January 1, 2023 or face federal regulatory and financial consequences in addition to the true public health impacts of poor air quality which easily could reach into the billions of dollars.

Further, both extreme non-attainment regions have identified medium- and heavy-duty diesel trucks as the leading source of regional NOx pollution even though these vehicles make up less than two percent of the vehicle population on California's roads today. Heavy-duty diesel trucks are also largely responsible for added air toxic emissions as demonstrated by the SCAQMD's Multiple Air Toxics Exposure Studies V (MATES) and represent roughly 20 percent of all carbon emissions attributed to mobile sources.

Additional incentive dollars in the near term will increase the rate of deployment, bring low-NOx technology closer to true commercialization, and ensure the comfort of engine manufactures to move toward a mandatory requirement. A removal of the *HVIP* incentive will slow the commercialization of this technology and make a mandatory requirement less feasible. Near-zero technologies are an available near-term solution which should be embraced, not rejected by policy makers and incentive funding programs. Near-zero technologies are available today to achieve NOx and toxic emissions goals. The metrics in CARB's current strategy should be compared to the levels of truck incentive funding that is needed to achieve truck fleet turnover to near-zero or better over the next 12 years. The California Trucking Association estimates a need of \$700 million per year statewide. SJAPCD and SCAQMD estimate the need to be \$1 Billion per year statewide.

PERFORMANCE-BASED STANDARD OVER PICKING WINNERS

It is abundantly clear that if we hope to reach federal ozone attainment goals by 2023, or accomplish even more ambitious federal ozone targets by 2031, California must adopt a more inclusive, broad, performance-based air-quality strategy. This includes an advanced clean truck strategy which pushes **vehicles to full commercialization and deployment that meet a 0.02 g/bhp-hr NOx standard or better.** California cannot afford to ignore or exclude available cost-effective technologies with looming federal deadlines.

The funding decisions presented thus far lack an analysis of cost-effectiveness or performance-based metrics, and for an agency charged with meeting federal and state clean air standards, we would like to see greater transparency and scientific justification when significant funding decisions are made for HVIP and other key implementation programs. We believe it is CARB's responsibility to show what this potential change in policy means in terms of both air quality and climate change emissions gains or losses so that CARB's Governing Board can make a fully informed decision.

CARB DISCUSSION DOCUMENT: SUPPORTIVE OF NEAR-ZERO HDV INVESTMENTS

We understand and acknowledge that CARB's *Mobile Source Strategy*, *Sustainable Freight Action Plan*, and *Greenhouse Gas Scoping Plan* have all called for zero emission vehicles wherever feasible. However, these planning documents also explicitly state that attaining the State's air quality and greenhouse gas goals will require broad deployment of near-zero emission vehicles, such as low-NOx natural gas trucks, using renewable fuels, everywhere else.

CARB's June 2019 Low Carbon Transportation Funding Plan *Discussion Document* includes the following key supporting policies (pages 4-5) that are informing investment decisions. These also support investments in near-zero technologies:

- SB 1204 (see above)
- SB 1403 (see above)
- Meeting the **federal health-based ambient air quality standards** for ozone by 2023 and 2031 as well as federal fine particulate matter (PM2.5) air quality standards.

- **Reducing emissions of short-lived climate pollutants** by up to 50 percent below 2013 levels by 2030 as called for by SB 1383.
 - **Reducing petroleum use in vehicles** by 50 percent by 2030, one of the pillars of the State’s climate change strategies, and reducing GHG emissions from the transportation sector to 80 percent below 1990 levels by 2050.
 - The 2016 *California Sustainable Freight Action Plan* requires the deployment of near-zero emission vehicles in classes where ZEVs are not available, notably the heavy-duty sector;
 - **Reducing GHG emissions** to 1990 levels by 2020 as required by AB 32 (Núñez, Chapter 488, Statutes of 2006) and to 40 percent below 1990 levels by 2030 as required by Senate Bill (SB) 32 (Pavley, Chapter 249, Statutes of 2016).
- Furthermore, eliminating HVIP funding for low NOx trucks would run counter to the strategy approved by ARB in the *Mobile Source Strategy* document calling for 900,000 low NOx trucks to be deployed by the 2031 federal nonattainment deadline. **Staff believes alternative programs are acceptable substitutes for HVIP, such as VW Settlement and Carl Moyer, but we respectfully disagree based on our industry expertise and market experience with the scrappage requirement.** These programs require scrappage of older trucks that are typically not in fleets that are interested in or have the financial wherewithal to own and operate advanced truck technology platforms. Carl Moyer, for example, provides air districts an average of just about \$1 million annually for natural gas vehicles and requires the scrappage of a 2009 or older truck that a fleet owner might not own.

Additionally, the cyclical application process and extended evaluation, award and contracting processes would substantially delay new opportunities to deploy near-zero equipment (the next SCAQMD *Carl Moyer* application acceptance won’t likely be until the second quarter of 2020). Repowering with the latest near-zero engine would be essentially eliminated if *HVIP* no longer funds low NOx vehicles. And the voucher nature of the *HVIP* allows reaction to the immediate decision process associated with repowering versus repairing. Absent this funding, fleets will pursue a repair strategy. These are clear limitations to this program, which has muted demand from diesel truck owners.

- Finally, there should be some caution over timing of the low NOx truck regulation implementation timeframes at both the state and federal level. It is our understanding that the federal rulemaking has been delayed substantially, making MY 2026 or MY 2027 trucks the first possible year that the rule could go into effect. Further, while ARB staff has every intention to implement the low NOx rule by 2024, some have raised concerns over whether or not EPA will be able to deliver the necessary waiver to ARB in time or if the rule could get delayed to 2025. Either way, the 900,000 low NOx truck strategy is dependent upon both state and federal cooperation with a low NOx standard.

THREAT TO LOW NOx ENGINE MANUFACTURING AND PURCHASING

Business investment, market certainty, innovation, truck owner consideration and low NOx engine manufacturer planning will certainly all be jeopardized by a CARB decision to cut the *HVIP* funding stream for the heavy-duty transportation sector’s cleanest engines.

Purchasing decisions are fragile enough that perceived regulatory signals upending the long-term acceptance of a technology can spiral and hamper the market for the cleanest options available today. Such a dynamic will most likely result in a near-term void in the cleanest purchases possible in the heavy-duty sector because zero-emission heavy-duty technologies are years from commercial deployment. The existing programs, notably *HVIP*, help provide a balanced, multi-strategy approach where each clean technology can compete and deliver clean air emissions. In addition, there is strong interest by our

industry to commercialize a 15L near-zero engine, which could be jeopardized if CARB decides to make one less funding source available.

ELIMINATION OF THE ENERGY COMMISSION'S ARFVTP LOW NOx VEHICLE FUNDING

The California Energy Commission's (CEC) *Alternative and Renewable Fuel and Vehicle Technology Program* (ARFVTP) has included a budgeted line item for low NOx vehicles since its inception, averaging about \$10 million per year. The CEC has cut this funding from ARFVTP the past two years and recently indicated intent to do so permanently on the basis that ARB has vehicle incentive programs on the books that adequately provide for low NOx vehicle funding, including HVIP. Thus, any cuts to HVIP by CARB are compounded by the loss of ARFVTP, creating a double hit on an industry that can help CARB meet pressing clean air goals.

It's important to note that AB 118, from which ARFVTP was created, states, "The emphasis of this program shall be to develop and deploy technology and alternative and renewable fuels in the marketplace, without adopting any one preferred fuel or technology." The natural gas vehicle industry was and continues to be a strong supporter and initial architect of the program initially put forward by then Speaker Fabian Nunez. In other words, the original intent of this program was to support low carbon fuels by placing the very vehicles that use them on California's roads. Ironically, RNG has the greatest potential to reduce carbon and as California develops the in-state market, this type of RNG will become more commonly used, delivering deep carbon reductions for the California transportation sector if the vehicles have continued state support.

AGENCY COMMITMENTS TO LOW NOx TRUCKS

CARB has made several commitments to advance the deployment of and turnover towards near-zero trucks from the existing diesel fleet as a mechanism to help support the *State Implementation Plan* (SIP). Removing funding for low NOx trucks would be contradictory to these long-standing commitments under the state's current plan and would potentially put the state in a position where it is unable to achieve clean healthful standards by the federally required deadlines.

The 2016 CARB *Mobile Source Strategy* highlights the immediate need to turn over the state's heavy-duty truck fleet to zero **and near-zero** technologies. The *Strategy* even uses the "Cleaner Technology and Fuels" scenario which **assumes the deployment of 900,000 low NOx trucks by 2031. If CARB and the CEC decide to make HVIP and ARFVTP cuts for low NOx trucks, and CARB is limited in its ability to force fleet turnover given SB 1 constraints, how will this critical 900,000 truck deployment be achieved!?!** In fact, the *Mobile Source Strategy* includes the following measure: *Incentive Funding to Achieve Further Emission Reductions from On-Road Heavy-Duty Vehicles*, which states:

"Implementation will require commitment of at least \$28 million of the current State and South Coast District incentive funds described above to truck replacement projects in the 2015 to 2020 timeframe. In addition, pending annual appropriation by the Legislature and approval by the Board, ARB's Low Carbon Transportation and AQIP funds can be apportioned from 2015 through 2020, with approximately \$7 million per year allocated for low-NOx trucks using renewable fuels in South Coast."


Additionally, SCAQMD's *Air Quality Management Plan* (AQMP), which was approved by CARB, heavily relies upon low NOx trucks to meet attainment and therefore relies upon meaningful vehicle incentives for low NOx trucks to achieve said deployment. Specifically, the AQMP depends heavily on incentives and

specifically calls out HVIP in measure MOB-7 and MOB-8 (*Accelerated Retirement of Older On-Road Heavy-Duty Vehicles*) by stating:

“The incentive programs will place the highest priority on on-road vehicles that meet the cleanest optional NOx emission standard and provide their service to the above facilities in the region and have gross vehicle weight ratings of 26,001 lbs or greater.” (AQMP p. IV-A-157)

And please note this was voted upon and approved:

BE IT FURTHER RESOLVED, that the mobile source incentive program for heavy-duty vehicles outlined in the 2016 AQMP place priority on the most cost-effective technologies to reach short-term air quality goals such as current and emerging near-zero emission natural gas engine technologies.

Amended
3/3/17


Also, just last year, CARB approved the *State Implementation Plan Supplement for the San Joaquin Valley*. In the *Supplement*, CARB commits to incentivize the turnover of 33,000 heavy-duty trucks in the San Joaquin Valley. The *Supplement Measure: Accelerated Turnover of Trucks and Buses* requires the turnover of diesel trucks that meet or exceed “an optional low-NOx standard until implementation of a new federal low-NOx standard begins.” How will such a commitment be achieved under CARB staff’s current recommendations to the future of HVIP?

Any withdrawal of *HVIP* funding for low-NOx trucks runs counter to all of the previously-articulated CARB strategy. We respectfully ask why CARB now feels it’s appropriate to go against the bulk of all of these established plans, especially given the robust stakeholder engagement processes that underlie each of these efforts. If the agency’s prior publicly-stated strategy to support low-NOx trucks has shifted, CARB should articulate what new information has led to this change in strategy by updating the relevant plans in a clear and transparent manner.

HVIP BUDGET

We understand and sympathize with CARB that funds are indeed limited. However, the proposed elimination of low NOx trucks from *HVIP* would account for **only 18.6%** of the total pot (\$34 million from \$182 million). As a result, CARB would violate state statute, undermine legislative intent, substantially harm the near-zero HDV market and risk not meeting near-term climate and clean air goals and responsibilities in order for this small amount of funds to transfer to commercially unready zero-emission heavy-duty technologies. Transferring these funds to such buckets would do very little to accelerate ZEV technologies but would have a real impact on the immediate needs to reduce significant air pollution for our most troubled air sheds throughout the state.

RECOMMENDED ACTION

When considering cuts to the *HVIP* program, our industries support well thought-out reductions that maximize the priorities of the program with the budget constraints with which we are faced. Initial cuts to the program should be to technologies that are not deemed priorities in the current *Three-Year Heavy Duty Investment Plan*. To help contain the potential backlog, our industries would support a \$34 million dollar cap on *HVIP* allocations for low NOx trucks (refuse and heavy-duty trucks), equal to the small 18.6% amount of the total pot this fiscal year. That would leave a substantial 81.4% of the total pot for investments in other technologies. Low NOx trucks need support in order to achieve full commercialization, either through continued incentives or, eventually, through a well-designed low NOx standard.

We appreciate your consideration of the foregoing comments provided in the spirit of collaboration and joint interest in meeting our state's climate and clean air goals. We look forward to working with CARB staff to develop an HVIP funding plan that supports the cleanest heavy-duty truck technology currently available on the market to advance climate protection and air quality goals.

Sincerely,

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Mark Bragg, Chief Executive Officer, U.S. Biogas, Inc.
N. Ross Buckenham, CEO, California Bioenergy, LLC
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Todd Campbell, Vice President of Public Policy, Clean Energy
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