Mary Nichols, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95819

Re: Support for 2017-18 Low Carbon Transportation Investments

Dear Chair Nichols:

On behalf of the American Lung Association in California, the Natural Resources Defense Council and Union of Concerned Scientists, we submit the following comments in support of the California Air Resources Board's adoption of the 2017-18 Funding Plan for Clean Transportation Incentives. We believe that this proposal will move California forward to achieving deep reductions in harmful air pollutants that threaten public health and our environment.

The plan marks an important step and the Board should move to approve the plan and ensure funds begin to implement the funding projects in order to secure clean air and climate benefits. American Lung Association research into zero emission vehicles found that the light duty vehicle emissions are estimated to contribute over $15 billion in health and climate change impacts annually in California, while the freight sector causes $20 billion in health impacts alone according to CARB research. The costs stem from thousands of premature deaths, cancers, ER visits and hospitalizations, asthma and other health impacts caused by combustion technologies. The investments laid out in the plan provide a strong signal that California is dedicated to the next, zero emission phase of our transportation sector.

Overall Recommendation
Approve the plan to ensure Low Carbon Transportation funding approved in September begins to provide air quality, climate and technological innovation benefits to all Californians.

Light Duty Investments
The light duty sector investments in the plan provide a strong direction forward for all Californians to access available funds to support cleaner vehicle purchase decisions. The plan helps to ensure funds are targeted where they can most influence decisions and maintain direction toward broad transition to zero emission solutions to electrification to meet clean air and climate benefits. Specifically:

- We appreciate that the plan invests heavily – over $125 million – on transportation equity projects to ensure that all Californians have the opportunity to access these climate funds. Care should be given to maintain flexibility across line items so as to avoid waiting lists due to increased demand and other barriers to accessing funds among low- and middle-income consumers.
- We strongly support efforts to open avenues for pre-qualification of consumers for participation in zero emission incentive programs at the point of sale, as well as to expand the EFMP-Plus Up program and associated emission reduction benefits.
- Our organizations support continued education and outreach efforts by CARB – and CARB providing sub-grants for outreach by community organizations - to ensure that the CVRP

program remains fully funded and accessible to all consumers, which is key to ongoing success and policymaker support for the program.

Heavy Duty Investments

Aligned with our attached principles for investments toward a zero-emission freight sector, we support the focus of the funding plan to spur greater reliance on zero emission technologies (*e.g.* battery electric, hydrogen fuel cell) for heavy duty transportation. We believe that rapid transition and specific investment in zero emission technology development and deployment will protect communities most directly impacted by fossil fuel combustion and fueling infrastructure today by providing a higher level of certainty in long-term, lasting emission reductions.

- We strongly support incentive funding being made available for zero emission transit buses to bring about greater early adoption as the Board prepares a 100 percent zero emission transit rule in the coming year. The transition to zero emission in the heavy duty sector will benefit broadly through these investments and regulatory certainty being developed under the plan.
- Our organizations support moving forward with targeting one-time Freight Facility funding within Disadvantaged Communities to ensure transformational changes in our most impacted communities.
    - This funding, coupled with off-road freight equipment vouchers accessible to projects outside of disadvantaged communities, can support key changes to reduce air toxics and other harmful pollutants from the freight sector.

Coordination with State Partners for Zero Emission Incentive Use

CARB should coordinate with partner agencies disseminating incentive funding to ensure a strong focus on zero emission technology deployment. State incentives should focus on the near-term demonstration, deployment and commercialization across all heavy duty vehicle technologies, and agencies should work to identify priority categories for exclusive investment in zero emission platforms available today.

Our organizations look forward to ongoing engagement with the CARB board and staff to continue to advance the widespread and rapid transition to zero emission technologies to benefit the health, air and climate for all California communities.

Sincerely,

Bonnie Holmes-Gen
American Lung Association in California

Don Anair
Union of Concerned Scientists

Simon Mui
Natural Resources Defense Council

GGRF Investment Strategies to Zero Out Freight Pollution

How can California align state leadership and investment strategies with the goal of transitioning to zero-emission technology across all types of on and off-road vehicles, including truck traffic and other freight systems? This transition is critical to meet state climate and air quality goals and achieve federal health-based standards. The Air Resources Board (ARB) has already set goals to deploy over 4 million light-duty ZEVs by 2030 and over 100,000 zero-emission heavy-duty vehicles and equipment by 2030, but state policy and funding support is key to meeting and exceeding these goals. A mix of smart investments to promote early deployment of the cleanest technologies and strong regulatory actions to ratchet down on engine and fuel emissions are key to accelerate and sustain our progress towards clean air.

Zero-emission technologies are coming to market now in the medium- and heavy-duty sector that can play an important near-term role in reducing emissions and improving community health. Increasing funding to support these technologies will accelerate market development and deployment and lay the groundwork for meeting both air quality and 2030 and 2050 climate goals. Therefore, public investment funding should increasingly shift away from combustion and toward the deployment of zero-emission technologies in every medium- and heavy-duty vehicle category.

While both zero-emission and low-NOx combustion technologies (diesel or natural gas engines certified to a 0.02 g/bhp-hr standard) play a role in California's clean air future, planned regulations will require all new heavy-duty vehicles to meet low-NOx emission levels after 2023. Therefore, for low-NOx combustion technologies, new public investments in the low-NOx category should be focused on the pre-2023 timeframe prior to planned regulatory requirements. This time-frame limitation on low-NOx combustion technology incentive funding will allow regulatory requirements to do their job and ensure that sufficient funding is available for zero-emission technologies that are on the verge of commercialization.

The following principles should inform the Governor and Legislature's incentive funding decisions and administrative guidance for allocation of Greenhouse Gas Reduction Funds, AB 118, and Carl Moyer/AB 923:

- ***California should support investments in zero-emission technologies in every vehicle category.*** Public dollars authorized in incentive programs should be invested primarily for developing, demonstrating and deploying long-term zero emission technologies across all applications, including transit, port, railyard and other applications.

- ***Public investments should avoid increasing reliance on combustion technologies in the heavy-duty transportation sector.*** To achieve deep reductions in both carbon emissions and criteria pollution from the heavy-duty sector, decreasing reliance on fossil-fuel combustion technologies like diesel and natural gas trucks is required.[1]

[1] UC Davis analysis examining scenarios for deep reductions in the heavy-duty sector illustrate the importance of electrification. "STEPS-NCST White Paper: Strategies for Transitioning to Low-Carbon Emission Trucks in the United States", Lewis Fulton and Marshall Miller.

- ***Investments should prioritize disadvantaged communities and investments in these communities should focus on zero-emission technologies to ensure they receive greatest air quality and health benefits over the long term.*** Communities that have suffered the greatest pollution burden should be the first to benefit from clean air technologies. While low-NOx combustion vehicles have near-term benefits, they do not provide the most reliable and consistent long-term benefits due to vehicle durability and degradation of emission controls. Low-NOx combustion technologies also do not reduce upstream emissions and the community impacts associated with diesel and natural gas production, delivery, and storage.

- ***Investment decisions must consider the limited availability of biomethane for low-NOx combustion technologies.*** While capturing methane from landfills, wastewater treatment plants, and dairy farms has climate benefits, the potential amount of in-state biomethane from these sources is very limited compared to the amount of natural gas used across California's economy, and cannot take over the majority of natural gas use. Low-carbon fuels, like biomethane from waste resources have a valuable role to play in replacing fossil fuels, but should not be used to justify the expansion of fossil fuels. The Low Carbon Fuel Standard is successfully working to support displacement of high-carbon, fossil-based fuels as transportation fuels.

- ***Deployment of low-NOx combustion, low carbon technologies should be primarily achieved through emission standards and requirements.*** Consistent with successes over the past decades, California's emission and fuel standards should be the primary tool to diffuse improved diesel and natural gas engine and control technologies throughout the fleet to reduce NOx, particulate matter, carbon monoxide, and hydrocarbons.

- ***Incentives for deploying low-NOx combustion technologies should not undermine investments in zero-emission technologies. Funding for low-NOx technology advancement must be limited in scope and duration (end in 2023) and increasingly shift to incentivizing zero-emission technologies.*** Prior to the planned implementation of low-NOx standards in 2023 by ARB, air quality funding can help support early deployment of low-NOx vehicles in applications where zero-emission technologies are not yet commercially available. Existing air quality programs to fund such vehicles include Carl Moyer and AB118.

- ***Full life-cycle analysis must be included in the decision-making process for incentive investments.*** California must always consider the complete picture when deciding how to advance air quality and climate solutions. Investment decisions must not result in shifting environmental burdens of fuel extraction, transportation and combustion from one community to another. Investments in vehicle and fueling infrastructure that support fossil fuels and related combustion technologies should not be considered as a long-term solution for our clean air and climate challenges.

- ***Investment in energy generation in California must align with renewable energy and greenhouse gas goals and continue to move away from a reliance on fossil fuels.*** The state's power supply must move to zero-emission sources as quickly as possible and focus on reducing reliance on fossil fuels. Investment in fossil fuels and increasing deployment of combustion technologies in the heavy-duty sector is at odds with this goal.

Our organizations look forward to working with the Legislature, ARB, Energy Commission, California Public Utilities Commission, air districts, ports, transit and other agencies to support the transition to clean air technologies today and into the future.