



Support Funding for Successful Low Carbon Transportation Programs

We support the Governor’s proposed 2017-18 Greenhouse Gas Reduction Fund (GGRF) allocation of at least \$363 million for Low Carbon Transportation Programs, but recognize that an average of \$695 million per year, for the next five years, is needed. The air quality, climate change and health benefits of zero-emission vehicles are proven. Zero-emission technologies reduce emissions of criteria and toxic pollutants over 90%. These reductions are critical to address the health impacts caused by vehicular emissions, such as asthma.ⁱ These technologies also reduce climate-change pollutants by about 75%.

As documented by the California Air Resources Board in its 2016-17 Funding Plan for Low Carbon Transportation and Fuels Investments and the Air Quality Improvement Program, all of these programs provide benefits to disadvantaged communities most impacted by poor air quality.ⁱⁱ These programs are proven successful and should continue to be funded using GGRF.

Low Carbon Transportation Program funding also responds both to legislative and regulatory direction outlined in [SB 1275 \(De León, 2015\)](#), [SB 1204 \(Lara, 2015\)](#), and [Governor Brown’s 2016 ZEV Action Plan](#).

As the Cap-and-Trade Program revenue is considered, and the need for additional investments in disadvantaged communities is explored, we urge you to look to Low Carbon Transportation Programs as a solution. Additional dollars, with a multi-year appropriation, would ensure disadvantaged communities continue to benefit, and would provide certainty to manufacturers, suppliers, utilities, investors, and local governmental entities, who are investing in these technologies. It would also impart upon consumers and fleet operators, especially those in disadvantaged communities, that the state is serious about the transition to zero-emission vehicles.

For reference, the following page outlines currently funded Low Carbon Transportation Programs and their benefits.

Now is the Time to Invest in Successful SB 1275 and SB 1204 Programs

✓ **Low- and Moderate-income Programs are bringing zero-emission vehicles to those otherwise unable to afford these vehicles.** The Enhanced Fleet Modernization Program (EFMP) Plus-Up has generated huge demand, and other important equity pilots have just started.

✓ **Incentives for plug-in electric vehicles are critical to expanding the market.** The value of incentives to consumers is proven; so is the impact of eliminating them.ⁱⁱⁱ At this early phase of the market, uncertainty in federal and state incentive programs is devastating to the market.

✓ **Zero- and near-zero-emission vehicles create jobs.** Increasing fuel diversity creates jobs and increases household income across all income brackets, particularly for low- and moderate-income households.^v Leading manufacturers and suppliers of zero-emission cars, trucks, and buses are California employers.

Light-Duty Vehicle Programs

SB 1275 (De León) created the Charge Ahead California Initiative to deploy 1 million zero- and near-zero-emission vehicles by 2023 and to improve access to such vehicles in disadvantaged communities. CA also has a 100% light-duty ZEV goal by 2050.^{viii}

Additional programs that benefit Disadvantaged Communities include agricultural-worker vanpools, financing assistance, car-sharing and mobility options. These equity pilots provide valuable benefits for disadvantaged and low-income communities. These programs will fight poverty and pollution by cleaning the air and creating reliable mobility options.

Goods- and People-Movement Programs

SB 1204 (Lara) created the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program, to fund zero- and near-zero-emission medium- and heavy-duty technologies. This primarily benefits disadvantaged communities as they are most likely to be located near industrial sites, highly polluting freight hubs and heavily-traveled freeways. These programs have been consistently oversubscribed and require increased investments.

Advanced Technology Demonstration^x funding is needed for the following programs to develop cleaner technologies, bring them to market, and address cost and performance barriers:

- **Zero-Emission Vehicles:** Builds on existing zero-emission truck and bus demonstrations.
- **Near-Zero-Emission Long Haul Trucks:** Brings advanced engines and powertrains to market.
- **Zero- and Near-Zero-Emission Off-road Equipment:** Accelerates development of advanced technologies for marine, rail, construction, and agriculture sectors.
- **Intelligent Transportation Systems:** Develops efficiencies for medium- and heavy-duty applications.

✓ **Market factors are trending in the wrong direction.** Low oil prices, the rise of fuel consumption, and the sunset of High Occupancy Vehicle lane access indicate the need for CA's leadership. Low oil prices have reduced the economic benefits of zero-emission vehicles, making incentives critical. The looming sunset of HOV-lane access has a negative impact on the market.

✓ **The air quality, climate change and health benefits of zero-emission vehicles are proven.** Zero-emission technologies reduce emissions of criteria and toxic pollutants over 90%. These reductions are critical to address the health impacts caused by vehicular emissions, such as asthma.^{iv} These technologies also reduce climate-change pollutants by about 75%.

✓ **All stakeholders are making increased investments in market-acceleration efforts.** Automakers, utilities, local governments, and nonprofit stakeholders are increasing efforts and investments to support zero-emission vehicles in California and the U.S.^{vi} California's leadership is needed for a successful national transition.

✓ **The Low Carbon Transportation Programs have a proven record of success.** California leads the nation with nearly half of all new light-duty plug-in vehicle sales^{vii} and the most zero- and near-zero-emission truck and bus deployments.

The Enhanced Fleet Modernization Plus-Up Program provides incentive funding to low-income households, in addition to CVRP incentives, for retiring high-polluting vehicles and purchasing zero- or near-zero-emission vehicles. EFMP Plus Up benefits low-income households directly and improves local air quality in highly polluted areas.^{ix}

The Clean Vehicle Rebate Project (CVRP) provides incentives to qualifying households to purchase a new plug-in electric vehicle.

- CVRP has been instrumental in accelerating the adoption of new, light-duty zero-emission vehicles and transitioning the market towards clean transportation. It is the primary reason California comprises nearly half of the U.S. sales of plug-in electric vehicles.
- Low- and moderate-income households are now eligible for enhanced CVRP rebates.

Additional Truck, Bus, and Freight Commercial Deployment^{xi} funding is needed to support early market demand for cleaner vehicles, including expansion of the market to smaller fleets that are new to advanced technologies.

- **The Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)** helps meet demand and provides market certainty for manufacturers and suppliers. This funding is essential as truck fleets, transit agencies, and school bus fleets transition to safer and cleaner technologies. Although HVIP has continued to receive stop-gap funding, the funds allocated for 2016-17 have already been spent and there is currently a waiting list.
- **Zero Emission Trucks and Buses** need significantly increased funding to support early commercial deployment.^{xii,xiii} Zero-emission truck, school and transit bus pilot projects were shelved as a result of lack of funding for these programs in FY 15-16. Demand has exceeded available funding by more than 10x.^{xiv} The funding allocated to these programs for FY 16-17 has already been reserved, due to this high funding need. Many of these projects benefit disadvantaged portions of the state, such as the San Joaquin Valley.

ⁱ See, e.g., *Asthma in California* factsheet, Regional Asthma Management and Prevention, <http://www.phi.org/uploads/application/files/jm80nnuexi4kpbef2c78mm2ho9on99jnw5dq2jwwqka3flpnk.pdf>, which reports that “In California 1 in 6 children (1.5 million children in total) has been diagnosed with asthma,” and air pollution from vehicular traffic likely causes or worsens asthma. See also, *Asthma’s Impact on California Recent Data from the California Breathing Asthma Program*, California Department of Public Health, http://www.californiabreathing.org/images/asthmas_impact_on_california_fact_sheet_2.pdf, which reports that “1 in 8 Californians has asthma.”

ⁱⁱ Proposed Fiscal Year 2016-17 Funding Plan for Low Carbon Transportation and Fuels Investments and the Air Quality Improvement Program, see, e.g., pp. 84-89, <https://www.arb.ca.gov/msprog/ajip/fundplan/fundplan.htm#2016-17>

ⁱⁱⁱ See, e.g., *Without state subsidies, electric car sales in Georgia crash*, October 28, 2015, <http://watchdog.org/244308/subsidies-electric-car/>, considering data obtained from R.L. Polk & Company, which shows that the tax credit’s expiration has resulted in a dramatic drop in the number of all-electric vehicles purchased in Georgia; *When Electric-Car Incentives Return: British Columbia Case Study*, January 26, 2016, http://www.greencarreports.com/news/1102023_when-electric-car-incentives-return-british-columbia-case-study.

^{iv} See, e.g., *Asthma in California* factsheet, Regional Asthma Management and Prevention, <http://www.phi.org/uploads/application/files/jm80nnuexi4kpbef2c78mm2ho9on99jnw5dq2jwwqka3flpnk.pdf>. See also, *Asthma’s Impact on California Recent Data from the California Breathing Asthma Program*, California Department of Public Health, http://www.californiabreathing.org/images/asthmas_impact_on_california_fact_sheet_2.pdf.

^v David Roland-Holst, U.C. Berkeley, *Plug-in Electric Vehicle Deployment in California: An Economic Jobs Assessment*, September 2012. Materials and link to full study at: <http://caletc.com>.

^{vi} Automakers are introducing new and/or next generation models. Utilities and charging infrastructure providers are significantly increasing their investment in infrastructure and education and outreach. Local governments are more active than ever before in supporting the broad state transportation-electrification goals, while environmental non-governmental organizations and equity groups have increased advocacy efforts and education efforts significantly.

^{vii} California is only 10 percent of the national new-vehicle market, but 40 percent of new plug-in vehicle sales are in California. Incentives are a major reason why California is receiving far more than its “fair share” of plug-in vehicles.

^{viii} See California Environmental Protection Agency press release, *California Announces New Under 2 MOU Signatories, International Effort to Accelerate Zero-Emission Vehicles*, December 3, 2015: <http://www.calepa.ca.gov/PressRoom/Releases/2015/EVehicle2MOU.htm>.

^{ix} Increased incentives through this program, often referred to as “EFMP Plus-Up,” assist low-income participants with the purchase of zero-emission or near zero-emission used vehicles when they turn in higher-polluting vehicles.

^x This is a partial list of areas needing investment. The overall estimate is conservative and reflects priorities and numbers from the technology roadmap done by the California Hybrid, Efficient, and Advanced Truck (CalHEAT) Research Center, which outlined a plan for the development and commercialization of technologies needed to meet California’s climate and air quality goals. These estimates are in line with investments needed to develop advanced technologies in a timeframe that allows the state to meet emissions goals for trucks (including long-haul), buses, and off-road equipment. A slower investment ramp-up would delay the market availability of zero- and near-zero-emission options, particularly in the long haul and off-road sectors.

^{xi} These estimates take into account supplier/maker production capacity as well as expected fleet demand. Zero-emission bus demand, in particular, is growing and makes up a substantial portion of the zero-emission truck and bus pilot funding. However, these are rough estimates that could vary depending on several unknown factors. Changes in product offerings and incentive eligibility could affect demand, as could changes in expected program solicitation structures and restrictions.

^{xii} Based on conversations with manufacturers, suppliers, transit agencies, and others, we expect demand for zero-emission truck and bus pilot project funding to grow substantially in FY 17-18 and in the following fiscal years. This funding is important to commercialize these technologies and build economies of scale to bring down costs. This funding also provides immediate emissions benefits in the disadvantaged communities where the vehicles are deployed.

^{xiii} SB 1204 (Lara) requires that “Until January 1, 2018, 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.”

^{xiv} Zero-emission truck and bus pilot projects were shelved due to a lack of funding for these programs in FY 15-16. Although transit and truck fleets submitted proposals worth \$290 million in response to the ARB Zero-Emission Truck and Bus Pilot solicitation, in addition to a minimum of 25% private match funding equaling at least \$400 million worth of projects, the program only had \$24 million to allocate.