

June 22, 2015

Clerk of the Board  
California Air Resources Board  
1001 I Street Sacramento, CA 95814

**RE: Comments from the Union of Concerned Scientists on the Fiscal Year 2015-16  
Funding Plan for the Air Quality Improvement Program and Low Carbon  
Transportation Greenhouse Gas Reduction Fund Investments**

Dear Chairman Nichols and Members of the Board,

The Union of Concerned Scientists (UCS) submits the following comments to the Air Resources Board (ARB) on the Fiscal Year 2015-16 Funding Plan for the Air Quality Improvement Program (AQIP) and Low Carbon Transportation Greenhouse Gas Reduction Fund (GGRF) Investments.

Prior AQIP funding plans have played an important role in supporting the purchase of over 100,000 electric light-duty vehicles and 2,000 medium and heavy-duty trucks, as well as implementing low emissions advanced technology demonstration projects. These incentive programs, along with other AQIP programs have successfully reduced criteria pollutant exposure, global warming emissions, and petroleum use.

This Funding Plan developed by ARB staff supports the further development and implementation of less-polluting, lower carbon transportation technologies and will help accelerate the necessary transformation to low and zero emission transportation systems. UCS thanks ARB staff for the developing a well-reasoned plan and strongly supports this year's proposal to fund a variety of light-duty, heavy-duty, and freight related projects with a focus on delivering benefits in disadvantaged communities.

***The following is a summary of our support and recommendations:***

- We support the proposed funding and incentive structure for the Clean Vehicle Rebate Program (CVRP).
  - We support the implementation of an income cap that will increase program efficiency while minimizing potential negative effects on Zero Emission Vehicle (ZEV) sales.
  - We support the establishment of increased rebates for lower income purchasers to increase investment in disadvantaged communities.

- We recommend the board adopt point-of-sale rebates and financing assistance programs for lower income buyers to ensure that ZEVs are an option for the broadest range of California vehicle purchasers.
- We support the proposed implementation of light-duty pilot projects to expand access to cleaner vehicles in disadvantaged communities.
- We support the expansion of programs to reduce emissions from medium and heavy-duty vehicles
  - We recommend that the percent of the Zero-Emission Truck and Bus Pilot Commercial Deployment funding targeted to benefit disadvantaged communities be increased to 75 percent.

The remainder of our comments describe in greater detail our support for various portions of the plan as well as recommendations for increasing the program benefits.

## **Light-Duty Vehicle Investments**

### ***Clean Vehicle Rebate Program***

We support the decision to continue the CVRP incentive as we agree with ARB staff's assessment that the ZEV market is not yet at the point where rebates should be phased out. Similarly, we agree with the decision to keep the base rebate amounts unchanged from the previous year's funding plan.

UCS analysis estimates that program as designed will cost approximately \$164M in the next fiscal year, consistent with staff's projections. However, there will likely be large variability in the monthly demand with the introduction of new models and improved versions of existing ZEVs (including several models with high sales in California). Because of this variability, it may be difficult to extrapolate from the first half of the fiscal year to assess if the annual program costs will exceed the budgeted amounts. Due to this difficulty and the inherent uncertainty in any market forecast, the ability to establish a CVRP waiting list is an important tool to avoid unneeded cuts in incentives or a suspension of the program.

We agree with staff's determination of an income cap that is consistent with SB 1275 but is not likely to inhibit growth in EV sales. However, we note that the existing CVRP participant income data is a household income and is not differentiated by tax-filing status. It may be necessary to reassess the single-filer income cap if data show that the income cap is resulting in significant reduction in vehicle sales for this group of buyers.

Additionally, the CVRP administrator should be directed to collect more data (through surveys) on rebate recipients' demographics and motivation for EV purchase. If future data show a correlation between higher income and lower importance of the CVRP incentive, the Board should take action to lower the income cap and increase program effectiveness.

We support ARB's effort to increase CVRP benefits to and spending in disadvantaged communities through an increased rebate for lower income participants. The board should also develop a method to provide point-of-sale rebates or vouchers for buyers that qualify for the enhanced CVRP amount. While we agree that converting the entire CVRP to a point-of-sale program would risk reducing program effectiveness, we believe that benefits would

outweigh risks for the low-income portion of CVRP and would make the program accessible to a large group of potential EV buyers.

### ***Light Duty Pilot Projects to Benefit Disadvantaged Communities***

We support the inclusion of pilot projects targeted at increasing benefits of, and expanding access to, clean vehicle technology in disadvantaged communities.

In particular, we believe that additions to the Enhanced Fleet Modernization Program (EFMP) are an important pilot project for AQIP. The provision of additional incentives for electric vehicles is important as well as the support for the purchase and installation of home recharging equipment if needed so EFMP participants would not be dissuaded by the inability to recharge at their home.

In our comments on the previous year's AQIP plan we raised concerns over the addition of public fleet incentives as part of the pilot projects. Since this program is able to use the existing CVRP program structure, "pilot" investigation of public fleet incentives is less needed as compared to the other potential programs. In addition, the incentives per vehicle are much higher than most of the consumer-oriented incentives. Given the high interest in other pilot projects, such as the oversubscribed car-sharing project, allocating more funding to public fleets is not warranted. However, public fleet support when paired with infrastructure investment could be a useful pilot project. For example, light-duty public fleet vehicles could be paired with local fueling/recharging infrastructure investments to insure that hydrogen filling stations or fast chargers are fully utilized.

### ***Heavy-Duty Vehicle and Off-Road Equipment Investments***

We strongly support the investment of \$167 million in the freight, off-road and heavy-duty vehicle sector to advance new technology development and deploy lower emission truck, buses, and other equipment - an increase of more than \$70 million compared to last fiscal year. This type of investment is critical to transforming the freight system in California to improve public health, meet air quality standards, and reduce climate change emissions and oil use.

Zero-emission technologies are critical for the long-term health of our communities and meeting air quality and climate goals and we support ARB's program focus on bringing these technologies to market and incentivizing early deployment. It is important that these technologies are deployed across various sectors and vehicle sizes and classes from delivery trucks and transit buses, to school buses and drayage trucks. We support ARB's proposal to accelerate commercial deployment across many heavy-duty vehicle sizes and classes of vehicles to meet the requirements of SB 1204.

We also recognized that freight and heavy-duty transportation sources disproportionately impact communities near rail yards, warehousing, freeways, ports and logistics centers. Therefore we strongly support targeting incentives funding to projects directly in these communities and to projects that provide benefits to these communities.

### ***Zero-Emission Truck and Bus Pilot Commercial Deployment***

Consistent with comments we have submitted along with numerous other organizations representing public health, science, environmental, sustainable technology, and environmental justice interests, we are recommending an increase in the percent of

investments of the Zero Emissions Truck and Bus Pilot Commercial Deployment which deliver benefits to disadvantaged communities.

Specifically, we propose that 75 percent of total truck and bus funding be spent on projects that deliver benefits to disadvantaged communities compared to the 50 percent proposed in the Funding Plan. Within the specific categories, 50 percent of bus funding should go to projects directly in disadvantaged communities, with an additional 25 percent benefitting those communities, and 25 percent of truck funding should go to projects directly in disadvantaged communities, with an additional 50 percent benefitting those communities.

A greater commitment to deliver benefits to disadvantaged communities should be included in the funding plan, since those communities suffer the greatest impacts of heavy-duty diesel exhaust and have the least resources with which to mitigate its impacts. In the future, ARB should evaluate the project solicitation process and received proposals to understand more fully any challenges of meeting the disadvantage community requirements. This will assist in determining appropriate future commitment levels that maximize benefits to disadvantaged communities while accelerating overall deployment of cleaner trucks and buses

### *HVIP*

We support the staff's goal of incentivizing more manufacturers to bring fully-integrated hybrid vehicles to market. We also support the inclusion of hybrid vehicle conversions in the HVIP. The practice of converting new or rebuilt vehicles to zero emission or hybrid drivetrains is a more common practice in the heavy-duty market than for passenger vehicles. Bringing these vehicles into the incentive programs including HVIP, as proposed, will help provide additional options for fleets.

### *Telematics*

We support for the inclusion of requirements for and use of telematics devices to track vehicle operation. To better evaluate the benefits of the program and ensure projects are meeting expectations particularly with respect to disadvantage community requirements, we support the staff's proposal to include the use of telematics devices for the HVIP program and the Truck and Bus Pilot Commercial Deployment projects.

### *Low NOx Truck Incentives*

In addition to zero-emission technologies, cleaner combustion technologies will also be important for meeting health based air quality standards. We support the use of AQIP funds to incentivize the deployment of diesel and natural gas engines meeting the lowest voluntary certification levels for NOx emissions prior to the development of mandatory requirements. To ensure that these projects deliver the greatest overall benefits to both air quality and climate reductions, we support an additional requirement for projects using GGRF funds to include the use of lower carbon fuels. However, given the lack of natural gas and diesel engines currently certified to the lowest voluntary NOx standard of .02 grams per brake horsepower hour, ARB should also assess the need for supporting pre-commercial development or demonstration of this technology.

UCS thanks ARB and the ARB staff for producing a robust plan for supporting the implementation of cleaner light-duty and heavy-duty vehicles. The plan will provide air quality and climate benefits for the entire state and provides specific benefits to disadvantaged communities. Thank you for the opportunity for comment.

Sincerely,

A handwritten signature in black ink that reads "David Reichmuth". The signature is written in a cursive style with a large, prominent "D" and "R".

David Reichmuth

Senior Engineer  
Clean Vehicles Program  
Union of Concerned Scientists  
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A handwritten signature in black ink that reads "Don Anair". The signature is written in a cursive style with a large, prominent "D" and "A".

Don Anair

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