Comments of the Charge Ahead California Campaign on Funding Plan for the Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund Investments

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June 19, 2014

Submitted to:

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1 Summary of Contents

The steering committee members of the Charge Ahead California Campaign (Coalition for Clean Air, Communities for a Better Environment, Environment California Research and Policy Center, The Greenlining Institute, and the Natural Resources Defense Council) submit these comments to the Air Resources Board ("ARB" or "Board") on the *Fiscal Year 2014-15 Funding Plan for the Air Quality Improvement Program and Low Carbon Transportation Greenhouse Gas Reduction Fund Investments* ("Funding Plan").

The Charge Ahead California steering committee commends staff for developing a comprehensive Funding Plan meant to ensure the state's light, medium, and heavy-duty vehicle fleets shift towards zero and near-zero emission operations and to improve access to clean transportation in disadvantaged communities. The considerable amount of time, thought, and effort staff has devoted to this plan is much appreciated.

Findings

1. The package of programs, projects, and pilots outlined in the Funding Plan is well designed to transform California's transportation sector and provide benefits in disadvantaged communities.
2. The proposed Clean Vehicle Rebate Project incentive reduction is unnecessary, could undermine the efficacy of the program, and is premature given SB 1275 will require the Board to conduct long-term planning to deploy one million zero and near-zero emission vehicles, with incentives stepping down as volume-based sales targets are met.
3. Reducing the plug-in hybrid rebate by a third (to $1,000) leaves little room for future rebate step downs that will be required by SB 1275 without surpassing a threshold below which the impact on consumer purchase decisions may be compromised.
4. The full federal plug-in vehicle tax credit can only be claimed by approximately 20 percent of tax filers, is not available near the time of purchase, and will expire for many manufacturers in the coming years; this incentive should not be combined with the CVRP rebate (which is available close to the time of purchase and regardless of tax liability) to demonstrate that a $500 cut to the CVRP rebate represents a small reduction relative to the total amount of incentives available.
5. An income cap is a better tool to improve the cost-effectiveness of the program without undermining progress towards the state's long-term zero-emission vehicle goals.
6. An income cap at any of the levels analyzed by ARB staff would likely provide sufficient budget savings to ensure the CVRP remains within its FY 14-15 budget.
7. Unlike a contingency measure based upon vehicle attributes, an income cap is not binary and could be micro-adjusted as needed mid-year to ensure the CVRP lives within its means. An income cap could also be gradually lowered overtime as the average new plug-in vehicle buyer looks more and more like the average new car buyer.
8. An income cap could be implemented in an efficient manner that would not require supporting documentation at the time of application, but relies on intelligent back-end auditing to ensure programmatic integrity.

9. The pilot programs proposed in disadvantaged communities are extremely promising and could be scaled up in future years to meaningfully increase access to clean transportation in areas of the state historically exposed to dangerous air pollution.
10. Proposed zero and near-zero medium and heavy-duty vehicle projects are well-designed to overcome the “Valley of Death” between prototype development and commercialization.

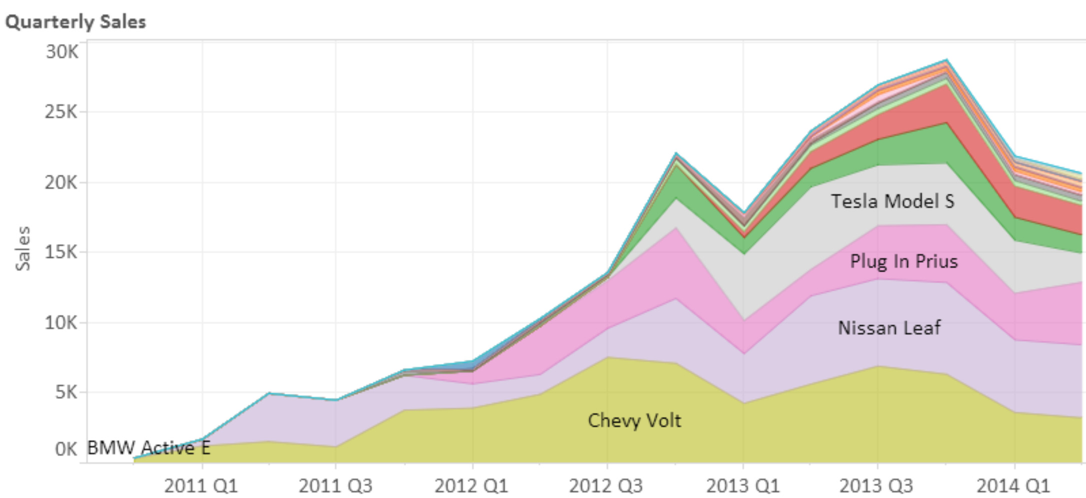
Recommendations

1. Refrain from adopting a CVRP rebate reduction before the long-term planning that will be required by SB 1275 has occurred.
2. Implement an income cap that provides immediate budget savings but does not undermine progress towards the state’s long-term zero emission vehicle goals.
3. Monitor sales data and make small adjustments to the income cap mid-year *if needed*.
4. Reserve the right to implement a waiting list toward the end of the year in the unlikely event the previous two actions fail to provide sufficient savings.

2 Clean Vehicle Rebate Project

2.1 Reducing Rebates at this Juncture Is Unnecessary and Premature

The proposed reduction in rebate amounts is meant to support a level of rebate demand that corresponds to sales of 105,000 PEVs in California in a single 12 month period.[1] For reference, approximately 88,000 PEVs have been sold in California cumulatively to-date. As illustrated in the chart below, historical sales growth in the US PEV market has largely been driven by the introduction of a significant number of new models over the past three years: [2]



With few new model introductions anticipated in FY 14-15, there is little reason to expect sales to jump to levels that would result in California’s PEV fleet increasing 224 percent in only twelve months, the scenario the proposed rebate reduction would accommodate. Based on PEV model specific analysis conducted by the Union of Concerned Scientists (UCS), we believe the Funding

[1] Assuming “take-rate” of 83% based on historical CVRP data from CCSE.
[2] Union of Concerned Scientists compilation of data from “InsideEVs.com”

Plan's "Low" scenario, which would still require an annual growth rate of 50 percent, actually represents a "Best Estimate" of projected demand absent program modifications. The Board should not now take the largely irreversible action of reducing the rebates for battery-electrics and plug-in hybrids by 20 percent and 33 percent respectively based on the understanding that scenario represents a lower bound on real world demand, which could be higher, but could also be lower. We do not believe there is a pressing need to implement a rebate reduction designed to accommodate a level of sales growth that is unlikely to materialize.

Cutting the plug-in hybrid rebate by a third, from $1,500 to $1,000, is especially problematic. Plug-in hybrids have been historically adopted in greater numbers in disadvantaged communities and are better suited to serve single-car families. Automakers have testified that rebates below $1,000 have little impact on a consumer's purchase decision. SB 1275 will require the Board to conduct a long-term plan to deploy one million zero and near-zero emission vehicles, stepping down rebates as sales targets are met and technology costs come down. If the plug-in hybrid rebate is reduced to $1,000 now, any future reductions would result in rebates that may have little impact on future purchase decisions, undermining the efficacy of the program and removing crucial support for a vehicle type that is especially well-suited for single-car families in disadvantaged communities.

The Funding Plan partially justifies the proposed rebate reductions by asserting that, if the federal tax credit is considered, the relative reduction in total incentives available is less significant. However, the federal tax credit and the CVRP are not equivalent. The Congressional Budget Office estimates that 80 percent of tax filers lack sufficient federal income tax liability to be able to take full advantage of the federal incentive, and those that do must wait until tax day in order to realize the benefit.[3] In contrast, the CVRP provides rebates within 60 days, regardless of the applicant's federal tax liability. Lumping the CVRP rebate and the federal tax credit together also ignores the fact federal incentives will expire for many manufacturers well before California meets its long-term zero emission vehicle deployment goals.[4]

2.2 An Income Cap is a Better Way to Stretch Funding and Improve Program Cost Effectiveness without Undermining Program Efficacy

Given the program's history of budget shortfalls, it is important to ensure the CVRP lives within its means. However, as noted above, a large cut to rebate amounts at this time is unwarranted and could undermine progress towards the state's long-term zero-emission vehicle goals. A better alternative to provide immediate budget savings and improve the program's cost-effectiveness is to stop issuing rebates to those who have told the Board they would buy vehicles without encouragement from the CVRP.

The Board has access to *PEV Owner Survey* data revealing the strong correlation between household income and the importance of the rebate to purchase decisions. Rather than reducing rebates for all, which will adversely impact those who need the rebates the most, the Board should maintain current rebate amounts, but implement an income cap that ensures it does not waste rebates on those who have reported to the Board they are not influenced by them. Individual and household income caps could be set at a level that would have little adverse impact on progress towards the state's long-term zero-emission vehicle deployment goals, but provide immediate budget savings.

[3] http://www.cbo.gov/sites/default/files/cbofiles/attachments/09-20-12-ElectricVehicles_0.pdf
[4] The number of federal tax credits is capped at 200,000 per manufacturer. Given

The table below combines ARB staff estimates of budget savings and sales reductions from various household income caps with the UCS "Best Estimate" of CVRP demand to reveal that any of the income cap levels staff analyzed would likely result in a projected budget surplus.

Total Household Income Cap	CVRP Budget Savings	Reduction in CA Sales	Projected Budget (millions)	Projected Surplus[5] (millions)
$400K	10%	1%	$115	**$11**
$300K	18%	3%	$105	**$21**
$250K	25%	5%	$96	**$30**
$200K	36%	8%	$82	**$44**
$150K	55%	14%	$58	**$68**

Staff estimates of budget savings and sales reductions of the various income caps were presumably based on *PEV Owner Survey* responses revealing that many higher income households report they would have bought their PEVs regardless of rebate availability. ARB has access to the underlying survey responses and could more precisely determine an initial income cap that would provide sufficient budget savings without undermining progress towards the state's zero-emission vehicle deployment goals. Unlike the proposed across-the-board $500 rebate reduction, a well-designed income cap would improve the program's cost effectiveness without endangering its efficacy.

2.3 An Income Cap is a More Flexible Contingency Measure

Adopting contingency measures that could be deployed mid-year if rebate demand exceeds expectations is prudent. Staff had previously proposed lowering a cap on vehicle price mid-year as a means to stretch dollars further and is now proposing the Executive Officer be granted the ability to exclude shorter electric range plug-in hybrids mid-year as needed. Both of these vehicle-attribute based contingency plans are binary in nature (a vehicle is either "in" or "out") and lack the flexibility inherent in an income-based approach. An income cap could be adjusted mid-year precisely as deemed necessary to hit a budget target. Likewise, an income cap could be gradually lowered over time as the market matures and the average new PEV driver looks more and more like the average new car buyer.

2.4 The Administrative Barriers to the Implementation of an Income Cap Are Overstated

Currently, CVRP applicants are required to check a box attesting to the fact they will not sell the vehicle within three years. Board staff conducts back-end auditing of DMV registration data to enforce this provision and has the ability to claw-back a *pro rata* share of rebates from those who sell their vehicles before three years have passed. A second box could easily be added to the CVRP application requiring participants to attest to the fact their individual or household incomes were below specified amounts. No supporting documentation need be required up-front, and the Board could rely on intelligent auditing to ensure programmatic integrity, as it currently does to ensure vehicles are not resold within three years. The Charge Ahead California campaign is confident the agency which administers the world's most comprehensive economy-wide cap-and-trade system is capable of implementing an income cap that would improve the cost-effectiveness of the CVRP in

[5] Based on publicly available data, the projected budget surplus accounts for a projected balance of $5 million in unused funds from the $30 million transfer from the Vehicle Inspection and Repair Fund that could be used to supplement the proposed $121 million FY14-15 CVRP budget.

an efficient manner.

2.5 Recommended Course of Action

Rather than taking the largely irreversible and unwarranted step of cutting rebates now, before the long-term planning SB 1275 will require has occurred, we recommend the Board follow the following course of action:

1. Implement an income cap that provides immediate budget savings, but does not undermine progress towards the state's long-term zero-emission vehicle goals.

2. Monitor programmatic expenditures and vehicle sales data and, *if necessary*, make a small mid-year adjustment to the income cap calculated to meet a budget target.

3. Reserve the right to implement a waiting list towards the end of the year if the previous two actions fail to stretch the dollars sufficiently.

The Charge Ahead California campaign intends to provide greater certainty for future year funding for low carbon transportation programs and will continue to advocate for a fifth of future Greenhouse Gas Reduction Fund allocations, which will increase significantly when fuels come under the cap. Once this certainty is achieved, the Board could more confidently rely upon a wait-list towards the end of the year in the unlikely event an income cap adopted in June and potentially adjusted mid-year fails to provide sufficient savings.

2.6 A Self-Sustaining Market Will Likely Not Be Achieved as Soon as PEVs Represent Five Percent of New Passenger Vehicle Sales

The Staff Report suggests CVRP rebates will no longer be needed once PEVs represent five percent of new passenger vehicle sales. To meet the state's mid- and long-term air quality and climate goals the majority of new passenger vehicles sold in the 2040 timeframe must be zero or near-zero emission vehicles. There is little reason to believe incentives will not be necessary when the market is well short of the ultimate goal. The labels and corresponding sales thresholds of "early-adopter" and "fast-followers" suggested by the National Research Council and adopted in the Funding Plan were not meant to demarcate a shift to a self-sustaining market. In fact, the successful transition from an "early adopter/fast follower" market, to a mainstream market will likely require significant support. If anything, mainstream consumers will tend to be more price-sensitive and more demanding of a shorter pay-back period.

Given incremental technology costs are likely to persist well after federal tax credits have expired for the leading PEV manufacturers, there is little reason to believe rebates will no longer be necessary as soon as PEV sales surpass five percent of new passenger vehicle sales. This is not to assert that rebates will be needed in perpetuity, or that they should not be reduced over time as technology costs decline. In fact, SB 1275 will require as much. However, the Board should not take the largely irreversible step of cutting rebate amounts nor suggest sales targets at which rebates will no longer be necessary before that long-term planning has occurred.

3 Pilot Programs in Disadvantaged Communities

The steering committee members of the Charge Ahead California campaign commend staff for developing a package of pilot programs in disadvantaged communities that should improve access to clean transportation for those who have historically been exposed to dangerous air pollution. We also appreciate staff has suggested budget targets within the category to ensure adequate "start-up" funding is allocated to each of the proposed pilots. Some flexibility should be retained to shift funding within the category, given the needs of such novel programs cannot be precisely predicted. The Charge Ahead California campaign suggests the Board keep a portion of the largest proposed allocation (up to $3 million for public fleet incentives) in reserve to supplement funding for other pilot programs as needed, anticipating that any unused portion of that reserve could likely be committed more easily and rapidly at the close of the fiscal year by increasing the size or number of public fleet vehicle purchases.

As noted in Charge Ahead California's comments on the "Discussion Document," the success of the proposed pilot programs will especially depend on engagement with community based organizations that have the experience needed to conduct effective education and outreach in disadvantaged communities.

4 Medium and Heavy Duty Vehicle Programs

4.1 Clean Trucks and Buses

We strongly support the proposed continued funding from AB 118/AB 8, as well as funding from the Greenhouse Gas Reduction Fund, to reduce GHGs and criteria air pollutants from goods movement, as well as from buses. Developing and deploying zero and near-zero-emission vehicles and engines in the medium-heavy duty sector is essential to meeting air quality standards and GHG goals. The proposal is well-targeted toward overcoming the biggest obstacle to widespread deployment of zero and near-zero-emission vehicles in this sector, the "Valley of Death" between prototype development and commercialization. We also appreciate the focus on projects that are located in or will benefit disadvantaged communities, and we urge ARB to continue to hone its ability to assure the delivery of benefits to those communities in accordance with SB 535. We appreciate staff's positive response to our proposal to increase the HVIP voucher amounts for plug-in vehicles in disadvantaged communities, which will ensure HVIP remains an attractive option.

We also enthusiastically support the proposed Zero-Emission Truck and Bus Pilot, which has the potential to advance clean technology for heavy-duty vehicles while reducing emissions in some of California's most polluted communities.

4.2 Advanced Technology Freight Demonstration Projects

In the advanced freight demonstration category, we agree with the focus on port drayage trucks and multi-source facility "node" projects. These sectors can help relieve the disproportionate burden of air pollution currently borne by communities around large ports and distribution facilities.

We appreciate ARB staff's agreement with our suggestions to incorporate an evaluation component to the pilot and demonstration projects, which will maximize the opportunity to learn from the successes and failures of the projects, and to work with project applicants to find opportunities for fuelling infrastructure for clean vehicles that is funded by AQIP to also be made available to the public.

5 Conclusion

The undersigned commend ARB staff for developing a comprehensive Funding Plan to clean up the state's cars, trucks, and buses and to improve access to zero and near-zero emission vehicles in disadvantaged communities.

Sincerely,

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