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XLhybrids™

XL Hybrids, Inc.
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California Air Resources Board
California Environmental Protection Agency
1001 I Street
Sacramento, California 95814

RE: Low Carbon Transportation and Fuels, and AQIP FY16-17 Funding Plan

Dear Board Members,

Overall XL is very supportive of the ARB staff's portfolio investment strategy and consultative approach to developing the funding plan. All of XL's comments refer to the "commercial" sector project funding starting with light duty pickups, full size vans, and larger Class 3 to 8 vehicles. We believe the passenger vehicle sector is well supported by the major OEMs and showing great signs of progress towards cost parity with conventional vehicles. Here are our comments on the funding plan.

1. Increased Flexibility on HVIP Conversion Caps
XL strongly advocates for lifting the total funding cap on conversions (aka upfits) so that staff do not need to return to the Board if they decide adjustments are warranted. If market demand for conversions increases, we do not see why HVIP would want to limit the growth to a relatively small percentage of the total HVIP funding. Until very recently, more than 80% of vouchers have gone to just one company and product so we do not see how the voucher distribution situation could be worse than that previous outcome.

2. Increased Flexibility on HVIP Incentive Amounts
Furthermore, we advocate for increased flexibility on changing the incentive amounts. In the FY15-16 program an OEM HEV receives $15,000 for a Class 3-5 truck, and the corresponding HEV Conversion receives $3,750 (25% incentive). Theoretically both products should produce roughly similar fuel and emissions savings but the OEM solution has passed more rigorous life testing and certification. As more confidence is gained with conversions, it is our hope that these two voucher amounts will converge (which could be the larger OEM incentive getting smaller).

3. The Importance of Supporting a Financially Sustainable Clean Commercial Vehicle Market (Manufacturers and Customers)
With $215M (SB1204 and Fuels) plus $28.6M (AQIP) in anticipated commercial vehicle project allocations for FY16-17, ARB has an opportunity to significantly impact the path to financial sustainability for companies actively participating in the clean commercial vehicle California market. Supporting the formation of a financially sustainable industry should be a critical strategic objective of ARB because it is a necessary underpinning in order to achieve the long term GHG and emissions reduction goals. This has been one area where ARB, CEC, and the

DOE have had relatively less success over the last two decades and XL strongly believes that more critical analysis of the gaps and causes of market failure should be informing investments. Virtually every technology product company that was in this sector 10 years ago is no longer active or has recapitalized offshore.

3a "Death by Pilot"

DOE, ARB, and CEC have a long history of funding demonstrations (1 vehicle) and pilots (multiple vehicles, but unsustained limited quantities). The purpose stated by staff is to allow the technology product company to test/validate/improve the pre-commercial product and learn how to reduce costs for subsequent serial production through the HVIP voucher program and eventually without any subsidies. Furthermore, it also allows fleets that are unfamiliar with the technology to test it out for operational suitability. For smaller innovative technology companies or business units of larger companies, history has shown us that continued piloting leads to exiting the business because it is unsustainable. We strongly suggest that ARB divert more funds to first come, first serve, technology agnostic programs (e.g. HVIP, LCFS) with smaller incentives because this will incentivize companies and their backers to make appropriate investments into developing products that have a path to financial sustainability and will avoid providing a larger than needed subsidy for well-established companies that need it less.

Pilots are also difficult for technology product companies and fleets to financially manage. Securing funding is uncertain, the timing of receiving the funding is uncertain, and the project execution timing is typically long. A company can find themselves living from grant to grant. By contrast, we firmly support continued growth of publicly available electric infrastructure funding projects. This is a common good and a necessary element of the 2050 vision.

3b Customer Psychological Conditioning to Incentives

We believe ARB should develop better strategies to move fleets, and in particular, public fleets off of incentives over time. Our general trend observation is that California fleets buy as much as is available by pilot or voucher and little more which is not XL's experience in other states. We believe this will not lead to wider market penetration needed to support the 2050 goals. There needs to be a more expansive multi-year expectation that first come, first serve commercial clean vehicle incentives will decline over time and encourage larger, earlier purchases. This is the type of behavior that will support a financially sustainable market for buyers and sellers.

We cannot state strongly enough that it is not sufficient to support technologies that are aligned with the 2050 low carbon market expectations. ARB must also focus more on strategies that 1. encourage larger, earlier purchases by fleets, and 2. that encourage private investment and product cost reduction by technology product companies. There is little robust historical evidence that a funding program heavily weighted to pilots do this well, and by contrast may perpetuate another generation of companies that never reach the sustainable volumes of 100's to 1000's per year and that exit this business, except for well-funded foreign enterprises.

Sincerely,

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