

June 15, 2017

ARB Mobile Sources Staff and Board
1001 I Street, P.O. Box 2815
Sacramento CA 95812

RE: Comments on the May 31st, 2017 modified proposed Innovative Technology Regulation (ITR)

Dear Board Members and ARB Mobile Sources Team,

At XL Hybrids we are very appreciative of the efforts of the ARB team in developing the Innovative Technology Regulations (ITR). We enthusiastically support the ITR initiative at a high level and provide the following detailed comments.

XL Hybrids is currently the leading fleet electrification company in the U.S. with over 45 Million fleet customer miles per year driving our products across North America. Our core hybrid electric upfit product for Class 2 to 6 vehicles provides 20% fuel and proportional CO2 savings, and our new plug-in hybrid electric upfit launching Class 2 pickup this year provides up to 50% mpg improvement cost-effectively on the best-selling F-150 pickup. This success is because of two important factors:

1. XL Hybrids does not significantly alter the major OEM vehicle and powertrain, and so major fleets can buy and service major OEM vehicles without any changes
2. XL Hybrids price point is under \$10,000 for a Class 2 hybrid electric full size van, under \$20,000 for larger vehicles, and under \$25,000 for a PHEV upfit which has attractive payback for fleets that considerable lifetime vehicle mileage

The reasons we support the ITR are primarily because it is an effort to address the barriers to deployment caused by “initial certification costs and engineering challenges with ARB’s robust certification program” as stated in the ISOR. The ITR recognizes that OEM full certification is not necessary or warranted because the risks are relatively low:

- Initial sales volumes of new technology vehicles are relatively small
- In most cases, the original OEM exhaust, evaporative, and OBD systems are fully or substantially preserved

The comments we have are as follows:

1. October 17, 2016 Comments and Staff Responses
All of our public comments submitted on 10/17/16 are repeated by reference here. We also request that responses to all public comments are posted asap and not wait for a

FOSR to be posted on this website for the all the comments received more than 6 months ago in October that may warrant responses.

2. Two-Day Diurnal Test

We support the change from a three-day to two-day diurnal test.

3. “AER” Should Be Replaced with “EAER without a Minimum AER Restriction”

All references to AER in the proposed new ITR and changes to the existing regulation for **“CALIFORNIA CERTIFICATION AND INSTALLATION PROCEDURES FOR MEDIUM- AND HEAVY-DUTY VEHICLE HYBRID CONVERSION SYSTEMS”** should be changed to EAER. AER which is defined in section 7(e) should be changed to EAER as defined in **“CALIFORNIA EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR 2018 AND SUBSEQUENT MODEL ZERO-EMISSION VEHICLES AND HYBRID ELECTRIC VEHICLES, IN THE PASSENGER CAR, LIGHT-DUTY TRUCK AND MEDIUM-DUTY VEHICLE CLASSES”** but eliminating the 10-mile minimum AER requirement.

First, this new ITR regulation creates new versions of terminology that already exists in other California regulations such as the second one listed above, and choses as the threshold for ITR categories the more restrictive AER instead of the less restrictive EAER. The rationale for using EAER is that if the overarching goal is to accelerate the market of new technology solutions that will support the path to 2030/2050 GHG reduction goals then EAER solutions today can produce similar GHG reductions with fewer restrictions on the technology solution than AER and likely at more cost effective price points (thus increasing early market penetration of commercial electrified vehicles that are not paid for by government pilot grants). Using AER overvalues the first miles and undervalues the remaining miles in a duty cycle. This is exactly the opposite of what California policy makers should want to do in the commercial sector. The commercial sector is characterized by higher utilization than the passenger car sector. 35 miles AER x 260 days/yr = 9,100 miles which makes lots of sense in the passenger car sector and there are now major OEM solutions that are approaching parity with non-plug-in technology. But in the commercial sector where vehicles are heavier and utilization is higher (25k mi/yr up to over 50k mi/yr) over weighting the value of the first few miles is not in alignment with cost effective progress towards the long-term 2030/2050 goals. Plus, the definitions of AER are not even fully transparent. Most PHEV passenger vehicles will have the engine come on during the AER if conditions are not ideal (e.g. high ambient temperature, low ambient temperature, high throttle demand) so policy makers are being presented something that is not entirely transparent (i.e. some may think that AER really means no engine operation) and potentially devaluing other more cost effective solutions for the commercial market. Now, if your goal is localized air quality in DACs, then we would agree that there should be some extra value to AER, but that is not the stated primary goal.

Sincerely,



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