October 24, 2013

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

Air Resources Board Members:

Subject: **Intermediate Volume OEMs Joint Comments Regarding the 2013 Minor Modifications to the Zero Emission Vehicle Regulation**

On behalf of Jaguar Land Rover, Mazda, Mitsubishi Motors, Subaru, and Volvo Cars (the IVMs), we submit the following joint comments regarding the 2013 Minor Modifications to the Zero Emission Vehicle (ZEV) Regulation as proposed on September 4, 2013. In general, the IVMs support the proposed changes to the ZEV regulations except for some details important to our companies. Our concerns, as well as some proposed solutions are provided in this letter.

The IVMs acknowledge the ARB staff's willingness to work with our staff in an open and cooperative process. ARB staff's willingness to meet and discuss the issues in a cooperative manner will directly contribute to the development of a regulation that properly balances the need for cleaner, more efficient vehicles with the realities of consumer demand and vehicle technology development, validation, certification, production, and use.

Introduction

The following comments are respectfully submitted by a group of automakers that are currently classified as Intermediate Volume Manufacturers (IVMs) and reflect their combined and shared opinions. These manufacturers include Jaguar Land Rover, Mazda, Mitsubishi Motors, Subaru, and Volvo Cars.

The regulations that support the ZEV program have traditionally been more focused on the larger sales volume automobile manufacturers in the Large Vehicle Manufacturer (LVM) category. Beginning with the 2001 ZEV amendments, the ZEV Mandate specified that the IVMs could comply by using partial zero emission vehicle (PZEV) technologies, a path that these companies have followed. These PZEVs emit 9% of the NMOG emissions of a standard low emission vehicle, with substantial benefits to the environment. While the 100,000th pure BEV was recently sold in the US, the 5 IVMs identified above have sold over 250,000 PZEVs in California.

However, the ZEV regulation is changing at 2018MY. The changes pose critical issues for our companies. In these comments we outline key areas that we invite for further study by the Air Resources Board.

Issues for Consideration

All auto companies are different, and while the IVMs identified above submit these comments jointly, each has unique needs. At the same time, they are united in the desire to craft a ZEV program that is fair and equitable, and gives smaller OEMs equal opportunities and incentives to be full participants in helping ARB achieve its goals. This is consistent with previous board discussions on this topic, especially when the Advanced Clean Car program was discussed at the January, 2012 board meeting.

The Path to Technology and Credit Equity with LVMs

For all automakers, the stringency of the ZEV program increases in 2018MY and ZEV credit for PZEV is eliminated.

In the 2018MY regulation ARB staff provided flexibility for IVMs – they can choose to fulfill the credit requirements by only producing and selling plug-in hybrid vehicles. IVM companies appreciate ARB's recognition of the IVMs difficulties to produce both full electric vehicles and plug-in hybrid vehicles as soon as 2018MY. As commonly known, the proportionally smaller size of IVMs R&D budgets do not allow concurrent development of expensive new technologies as LVMs are able to accomplish. Therefore, it takes IVMs longer to bring new technologies to market.

Additionally, the amount of credits of a typical plug-in hybrid electric vehicle (with a 20 mile range) is significantly lower than a full battery electric vehicle. As a result, IVMs who need to use the flexibility provided by ARB, would have to produce and sell as much as 44% of their fleet as plug-in hybrids in 2025MY. This would require numerous vehicle models in each IVMs product line. Such high levels of plug-in hybrid development to support this sales mix are unachievable by IVMs.

Therefore the IVMs propose the development of a voluntary program that would serve to move IVMs toward technological and credit equity with the LVMs through regulatory incentives This program could parallel the regulatory path ("ACP") the LVMs used to comply with the ZEV Mandate and build credit balances. The development of credit balances are an essential part of a robust compliance plan for any Automaker. The purpose of credit balances is to offset the risk of the marketplace. This is especially true for resource-limited IVMs who have fewer product offerings.

The IVMs request that the ARB Staff study the development of a path to compliance and credit equity with LVMs.

Lack of Managed IVM to LVM Category Transition at 2018MY

The 2012 Advanced Clean Car rule significantly shifted the IVM definition. At that time, several board members raised the concern that the effects of this change should be monitored to avoid any unintended consequences. By lowering the California sales threshold from 60,000 per year to 20,000 per year, some smaller OEM's are shifted into the Large Volume Manufacturer (LVM) category. This unintended consequence will require affected companies to produce and sell full electric vehicles from 2018MY, far ahead of their capability and R&D capacity. Comparing worldwide sales, revenue, profitability, R&D budgets, and dealer network size, these affected manufacturers share far more similarity with the remaining IVMs than any of the LVMs.

For these smaller companies, being subject to the full LVM requirements too early could be devastating. At best, it only encourages the use of stop gaps to only *possibly* comply with the requirements. These strategies would not support the policy intents of the ZEV program. IVM companies instead favor the development of the unique EV technologies that can fully differentiate our brands in the marketplace, thereby making a more valuable contribution to the ZEV program, to California and its consumers.

Therefore, the IVMs are proposing some form of transition period to full LVM status for any OEM that falls in between the new more stringent sales criteria. This would encourage the development of unique and competitive ZEV products being introduced to the market and allow for an orderly and progressive "ramp up" of EV investment by smaller companies that are less able to devote resources to EV development while still investing in other technologies demanded by their target consumers.

Too Short ZEV Deficit Recovery Period

The current ZEV regulations in the Advanced Clean Cars program require that any deficit for ZEV credits be made up within one year.

This is extremely difficult to accomplish. All OEMs report their model year sales results and credit balances in May of the following year. Given that Automakers traditionally begin sales of the model year prior to the calendar year (e.g. 2014 model year sales begin in 2013), the sales of the model year following the deficit is nearly complete before the deficit is realized. This makes it impossible to make any adjustment to the vehicle design and nearly impossible to make any changes to sales strategies.

ARB Staff acknowledged this problem - in the same Advanced Clean Cars Program, ARB allows five years for a manufacturer to cover any shortfall in GHG credits. In addition, under the US EPA's federal GHG program, three years are allowed to cover any deficit. The additional time allowed in the ARB and EPA GHG programs reflects the need for flexibility in attaining challenging goals.

Therefore, the IVMs request that the ARB staff study lengthening the ZEV deficit recovery period.

Meeting ZEV Requirement in Each Section 177 State

Under the current regulation, ZEVs are eligible for the interstate travel provision which allows manufacturers to meet their obligation by combining the credits obtained in all ZEV Mandate States. This effectively created a pool of all the ZEV Mandate States. This provision is removed effective with the 2018MY and requires all Automakers to comply in each State.

Prior to the 2012 Advanced Clean Cars Board Hearing, the large volume manufacturers met with representatives of the 177 States and created an agreement. This was included in the 2012 Advanced Clean Cars Program. Though this agreement was intended to apply to IVMs, none of the IVM companies were included in the discussions.

The 177 States and the LVMs continued to refine the program – still without the inclusion of any IVM companies. As proposed, IVMs could participate in the Pooling provision if they meet the same requirements as the LVMs. However, this optional section-177 state compliance path, which begins in 2016MY and allows manufacturers to pool credits amongst those states in return for a small additional

ZEV requirement in 2016-17MY, is unattainable for smaller manufacturers who do not yet have the required technologies to participate. Both of these provisions – pooling and travel - , which would be of greatest benefit to IVMs, are, in practice, only available to larger manufacturers. Most difficult of these is the sale of BEVs and PHEVs in 2016 and 2017MYs in the 177 States. As reported elsewhere, most IVMs do not have a BEV or PHEV development program. This makes is very unlikely that most IVMs could participate in the Pooling program.

Given this problem, the IVMs recently approached the 177 States to begin to develop a program workable for IVM companies.

Regional pooling is even more important to IVM companies. IVM have a limited number of dealerships in Section 177 States. For example, Mazda and Mitsubishi Motors have only two dealers in Vermont, JLR none whilst Subaru have only three in Rhode Island. As these dealerships are independently owned, those electing not to sell electrified vehicles significantly reduce the ability of the manufacturer to comply with the ZEV regulation; the fewer the number of dealerships, the greater the challenge to meet the required sales of ZEV or TZEV.

The IVM companies and the 177 States have agreed to continue discussions after this Board Hearing and tentatively agree to have plan by 2014. Therefore, the IVMs request that the ARB staff provides some regulatory support for this process.

Summary

The IVM companies are committed to the intent of the ZEV Mandate – minimize emissions with the most advanced automotive technologies. Since 2004MY, our companies have provided the cleanest conventional vehicles that significantly reduced emissions in California and the 177 States.

To continue our compliance with the ZEV Mandate, the IVMs ask the ARB to work to develop a path to participation in the full ZEV program that recognizes our unique needs. This includes both time to develop in-house technology and to build credit balances necessary for a sustainable program.

To accomplish this goal, the IVMs request the Air Resources Board to direct Staff to study and develop important changes to the 2018-25MY regulation in order to address the critical issues outlined herein. Proposed changes to the regulation should be brought back to the Board for action in 2014 to allow maximum planning time for companies once amended regulations are finalized.

The IVMs would welcome the opportunity to continue to cooperate with the ARB staff to help define a pathway which encourages smaller auto companies to contribute beneficially to ARB's policy goals.

Respectfully submitted,

Jaguar Land Rover
Mazda
Mitsubishi Motors
Subaru
Volvo Cars