Steven Douglas
14-8-5

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GlobalAutomakers

October 23, 2014

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

Subject: ZEV Requirements and Test Procedures – 2014 Update

Air Resources Board Members:

We are writing on behalf of the Alliance of Automobile Manufacturers (Alliance)[1] and Association of Global Automakers, Inc. (Global Automakers)[2] representing nearly every car and light-truck manufacturers. Together our members represent about 99% of the new vehicle market in California. We are writing to discuss the challenges of ZEV sales in markets outside of California, recommend a minor change to the Section 177 State Optional Compliance path, support the adoption and/or expansion of certain proposed flexibilities, and call attention to several errors in the current and draft regulations.

1. Challenges: ZEV Sales Rate in Other Markets

While not addressed in the draft regulatory changes, the Alliance and Global Automakers would like to raise concerns regarding the growing compliance challenges in ZEV markets outside of California. We recommend the Board direct ARB staff to investigate two distinct issues – (1) the different starting points for California and the states outside of California and; (2) the inherent differences in the markets.

First, ZEV states, other than California, are just developing their programs to support the ZEV market. While we're active and enthusiastic supporters of the ZEV Action Plan adopted by all but two of the ZEV states, and we believe that they will improve market conditions and increase ZEV sales, implementation of measures in the ZEV Action Plan is still at least a couple of years away. In contrast, California has actively implemented a comprehensive ZEV Action Plan for nearly a decade. The regulatory requirements should reflect the difference in starting points of California and the other ZEV States.

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[1] Alliance members are BMW Group, Chrysler Group LLC, Ford Motor Company, General Motors, Jaguar Land Rover, Mazda, Mercedes-Benz USA, Mitsubishi Motors, Porsche, Toyota, Volkswagen, and Volvo.

[2] Global Automakers' members include Aston Martin, Ferrari, Honda, Hyundai, Isuzu, Kia, Maserati, McLaren, Nissan, Subaru, Suzuki, and Toyota.

Second, even if the state support programs were identical, the markets in the East Coast Region States[3] (ECS) are inherently and undeniably different than California. For example, cold weather and substantial snow mean about 45% of new vehicle sales in the Northeast are all-wheel drive compared to only about 17% in California; additional differences between the markets can be seen below in Table 1. Cities in closer proximity (that consumers frequently travel between) in the ECS can lead customers away from battery electric vehicles (BEVs) that have a shorter range not conducive to the longer trips between frequently traveled cities. Thus, we believe the regulatory requirements should reflect the inherent differences in markets between California, Oregon, and the ECS.

	Percent of New Vehicles		
	Car	Truck	AWD
CA	**62%**	**38%**	**17%**
CT	53%	47%	55%
ME	44%	56%	58%
MD	54%	46%	37%
MA	51%	49%	52%
NJ	55%	45%	46%
NY	51%	49%	50%
OR	51%	49%	49%
RI	56%	44%	44%
VT	43%	57%	63%
National Average	46%	54%	41%

Table 1

The remainder of this section further expands on the points above.

For almost a decade, California has demonstrated sustained commitment to the ZEV market through an array of incentives (high-occupancy vehicle (HOV, or carpool) lane access, rebates, parking, chargers, utility rates, etc.), infrastructure development (both plug-in electric vehicle and hydrogen fuel cell vehicles), and public outreach and education. For example, California adopted and maintained substantial and important ZEV incentives since January 2005, when it provided HOV lane stickers for hybrid electric vehicles (HEVs). California followed with HOV access and financial rebates for plug-in hybrid electric vehicles (PHEVs) and battery electric vehicles (BEVs). For the past seven years, California has provided heavy, sustained investment in the ZEV refueling infrastructure (both charging and hydrogen). This comprehensive commitment, combined with a nearly ideal climate, geography, and population distribution, led to significantly increasing ZEV sales year after year.

Nonetheless, meeting the aggressive ZEV requirements will be exceedingly difficult for all OEMs going forward, even in California where a significant amount of work must be done to increase sales in line

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[3] The East Coast Region states include Connecticut, Maine, Massachusetts, Maryland, New Jersey, New York, Rhode Island, and Vermont.

with the ramp-up in the requirements. Achieving continued growth will take time and a sustained commitment of resources from multiple stakeholders.

We appreciate and support the ZEV Action plan developed by the MOU States.[4] Furthermore, we are committed to continuing our work with the MOU States to promote ZEV technology and grow the ZEV market and believe this will pay dividends in the long-term. However, work in these states is just starting. Even if incentives and infrastructure are adopted in the next legislative session in these states, such measures would not become effective before January 2016. Infrastructure requires years to plan and install; likewise, incentives require years to actually begin bending the sales curve.

We recommend the board direct staff to investigate the impact of the different starting points for California and the other states, and whether adjustments in the 2018-2022 timeframe to the ECS requirements would be appropriate while the ZEV Action Plan is developed and implemented in the MOU States.

In addition to different starting points, the ECS have several external factors beyond their control. The following table shows some of the differences that most impact ZEV sales:

	California	ECS
Avg Snowfall	0 Inches	52.7 inches
Avg Winter Temperature	46.2°F (SoCal Avg winter temps = 58°F)	26.8°F
HOV Lane Miles	~ 1,400 miles	< 250 miles
Electric Vehicle Chargers	1,890	1,274

Table 2

These differences have a very real and significant impact on vehicle purchases. Lower temperatures reduce BEV range, while areas with heavier snowfalls tend to favor SUVs and trucks. The lack of HOV lanes eliminates the possibility of a very significant incentive. As seen by the vehicle sales data in Figure 1, despite being a 50 percent larger market than California, the ECS BEV and PHEV sales are less than one third those in California.

[4] The MOU States include California, Connecticut, Massachusetts, Maryland, New York, Oregon, Rhode Island, and Vermont.

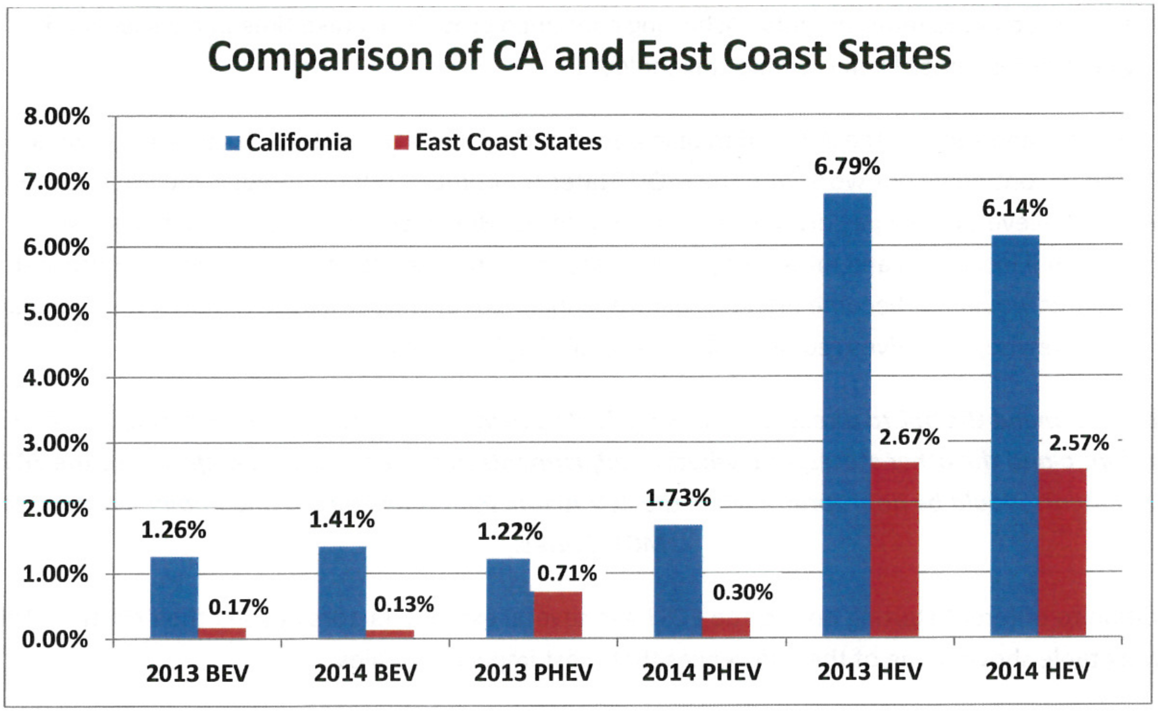

Figure 1

Figure 1 shows that the divide between California and the ECS has not narrowed, but rather grown over the last year. The Northeast PHEV market share is less than half of what it was last year – far below what is *currently* required under the ZEV program. Battery electric vehicle (BEV) sales in the ECS are even worse, where the BEV market in the ECS is only 1/10th that of California's. Finally, the market for conventional hybrid electric vehicles (HEVs) in the ECS is less than half that of California, despite HEV requirements under the ZEV program for years. This lag in sales in the ECS is creating a gap between today's required volumes and actual sales, resulting in unfair compliance burdens, where automakers are required to make up the difference.

This should come as little surprise. As noted above, there are inherent differences (climate, geography, and population distribution) between California and the ECS. Nowhere is this more apparent than in the HEV sales data. From a consumer operation perspective, HEVs are identical to conventional gasoline vehicles (i.e., infrastructure is not an issue because they are never plugged in), but achieve better mileage than most comparable ICE models. However, as seen in Figure 2, sales of HEVs in California have consistently been about twice the national average for the last 15 years. In the ECS, the HEV market share is consistently less than half of California's. For example, in 2013, new vehicle sales for HEVs were at 6.8% in California, 3.1% nationally, and 2.5% on average in the ECS.

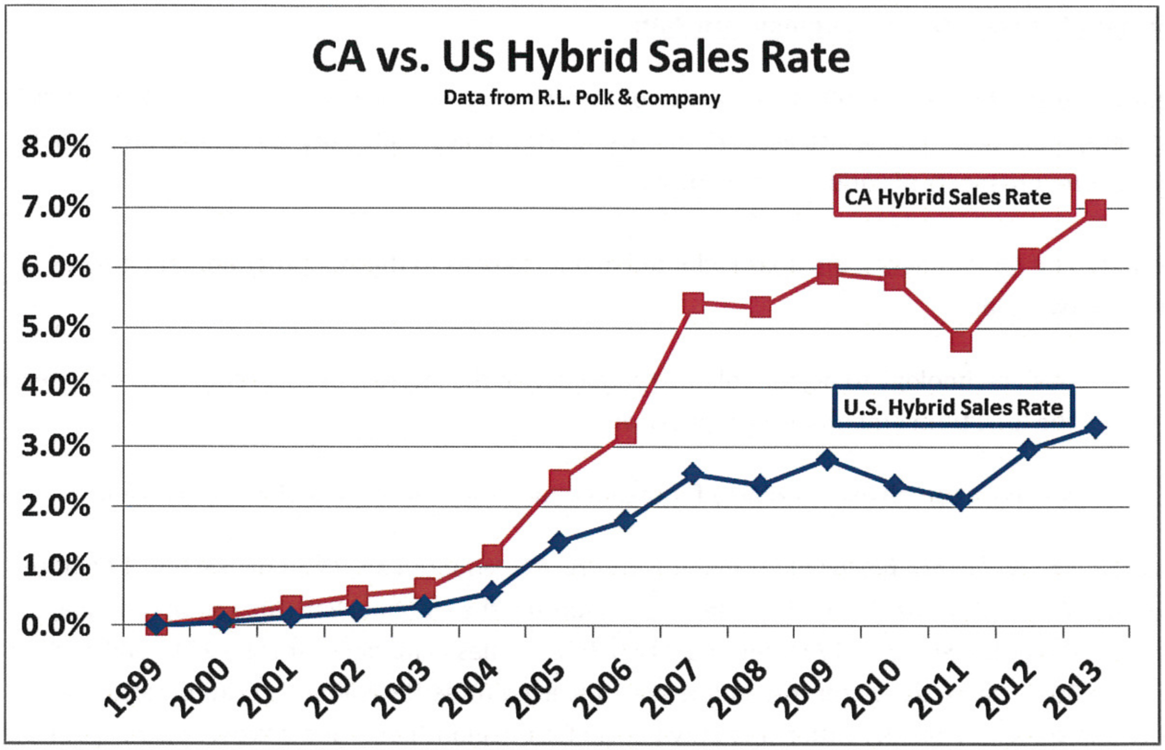

Figure 1

As noted above, we appreciate and support the ZEV Action Plan and we believe that successful implementation of the ZEV Action Plan will have a positive impact on ZEV sales in the ECS. However, even with the successful implementation of every ZEV Action Plan item, there are inherent differences between California and the ECS markets that are not accounted for in the current ZEV regulations, which contain identical requirements for all ZEV states starting 2018.

An honest assessment of the market differences in the states would undoubtedly lead to differing requirements that would recognize and incorporate the differences between California and the ECS.

We recommend the board direct staff to investigate the differences between California and the ECS, and whether adjustments to the ZEV regulations would be appropriate to account for these differences.

Finally, we understand and appreciate that ARB plans to include the ZEV program in the midterm review. However, the midterm review will focus on model years 2022-2025, but the problems we are facing in the ECS are occurring today.

We urge the board to direct staff to investigate whether additional time is needed for the MOU States to fully implement the ZEV Action plan, and to determine whether inherent market differences between California and the ECS warrant an adjustment to the ZEV regulations.

2. Section 177 State Optional Compliance Path

Since it was first adopted in 1990, the objective of the ZEV program has been to push the boundaries of ZEV development while taking into account the cost, performance, suitability for volume production, and long-term prospects of various technologies.

In the 2012 ZEV Amendments, the Board adopted major changes to the ZEV program, primarily to accomplish two goals:

- push technology to higher-volume production in the interest of cost reductions and meeting the long term greenhouse gas goals; and,
- maintain compliance flexibility for manufacturers in meeting the ZEV requirements.

In maintaining compliance flexibility for manufacturers, ARB adopted an "Optional Section 177 State Compliance Path" (Optional Path). Manufacturers choosing the Optional Path are required to place additional ZEVs in the Section 177 states equal to 0.75% of sales in model year (MY) 2016 and 1.5% of sales in MY 2017. In exchange for this, automakers received three flexibilities: (1) automakers can transfer and trade ZEV credits within and between an East Region "pool" and a West Region "pool"; (2) the transitional zero emission vehicle (TZEV) ("silver plus credits") allowance is lower in MY 2015-2018; and (3) the minimum ZEV ("gold credits") requirement is lower in MY 2018-2020.

To allow ample time for the MY 2015 vehicles, automakers were required to submit written notification for choosing the Optional Path no later than September 1, 2014.

We commend ARB and Section 177 states for working with automakers to create this additional compliance flexibility. Many of our member companies signed up for this option before the September 1, 2014, deadline; however, others were unable to do so. The deadline appeared particularly problematic for manufacturers transitioning from an Intermediate Volume Manufacturer (IVM) to a Large Volume Manufacturer status and just introducing or soon to introduce new ZEV models to the market.

For this reason, the Associations ask ARB to consider allowing another signup period for the Optional Path between September 2, 2014 and September 1, 2015. Automakers opting in during the later period would forgo the reduced MY 2015 TZEV requirement available to those that signed up by September 1, 2014.

This proposal provides the benefit of early introduction of additional dedicated ZEVs to the Section 177 states in MY 2016 and 2017 by additional manufacturers who could sign up later for the Optional Path. This could be accomplished with the following regulatory change noted below.

1962.1(d)(5)(E)3

3. *Optional Section 177 State Compliance Path.* Large volume manufacturers and intermediate volume manufacturers that choose to elect the optional Section 177 state compliance path must notify the Executive Officer and each Section 177 state in writing no later than September 1, 2014. Large volume manufacturers and intermediate volume manufacturers may forgo the 2015 model year reduced TZEV percentages in Subsection 1962.1(d)(5)(E)3.b by electing the optional Section 177 state compliance path and notifying the Executive Officer and each Section 177 state in writing between September 2, 2014 and September 1, 2015.

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b. ***Reduced TZEV Percentages.*** Large volume manufacturers and intermediate volume manufacturers that elect the optional Section 177 state compliance path and that fully comply with the additional 2016 and 2017 model year ZEV requirements in subdivision 1962.1(d)(5)(E)3.a. are allowed to meet TZEV percentages reduced from the allowed TZEV percentages in subdivision 1962.1(b)(2)(D)2. and 3. in 2015 through 2017 model year (or 2016 and 2017 model year if the manufacturer elected the Optional Section 177 State Compliance Path between September 2, 2014 and September 1, 2015) in each Section 177 state as enumerated below:

We have discussed this proposal with certain ECS, the Northeast States for Coordinated Air Use Management (NESCAUM) and Oregon. NESCAUM reports that the Section 177 States do not support this proposed change, but instead note the following[5]:

1. "Per 1962.1(d)(5)(E)3.f and 1962.2(d)(5)(E)1.d, there is no retroactive penalty for failure to meet [Optional Path] requirements; rather, a manufacturer that had notified states of its intent to follow the [Optional Path] but fails to meet its early ZEV placement requirements would simply revert to the main compliance path for all future model years."

2. "NESCAUM's understanding is that notification of intent to follow the [Optional Path] will be accepted by the §177 ZEV states until December 1, 2014."

We agree with Statement 1 based on the language in 13 CCR 1962.1(d)(5)(E)3. and 13 CCR 1962.2(d)(5)(E). However, automakers will not have sufficient time to verify these statements formally before the Board Hearing.

Consequently, we recommend the board approve the proposed change.

3. **Correction to Section 177 State Optional Compliance Path Language**

The proposed regulation order (Appendix A to the Initial Statement of Reasons for Rulemaking; Proposed 2014 Amendments to the Zero Emission Vehicle Regulation) makes use of text that is inconsistent with the 2013 ZEV amendments that were adopted by the Board, approved by OAL, and filed with the Secretary of State on July 10, 2014. The errata notice posted to ARB's website on October 14, 2014 corrected most of the inconsistent text. However, the phrase "same model year" is still shown

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[5] See attached email from Matt Solomon, dated 10-Oct-2014.

in three places in the errata and this phrase is not in the ARB regulations filed with the Secretary of State on July 10, 2014 and should be deleted as shown below:

> **i. Trading and Transferring ZEV and TZEV Credits within West Region Pool and East Region Pool.** Manufacturers that have fully complied with the optional section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. may trade or transfer 2012 and subsequent model year ZEV and TZEV credits within the West Region pool to meet the ~~same model year~~ requirements in subdivision 1962.2(d)(5)(E)2.c., and will incur no premium on their credit values. For example, for a manufacturer to make up a 2019 model year shortfall of 100 credits in State X, the manufacturer may transfer 100 (2012 through 2019 model year) ZEV credits from State Y, within the West Region pool. Manufacturers that have fully complied with the optional section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. may trade or transfer 2012 and subsequent model year ZEV and TZEV credits within the East Region pool to meet the ~~same model year~~ requirements in subdivision 1962.2(d)(5)(E)2.c., and will incur no premium on their credit values. For example, for a manufacturer to make up a 2019 model year shortfall of 100 credits in State W, the manufacturer may transfer 100 (2012 through 2019 model year) ZEV credits from State Z, within the East Region pool.

> **ii. Trading and Transferring ZEV and TZEV Credits between the West Region Pool and East Region Pool**. Manufacturers that have fully complied with the optional section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. may trade or transfer 2012 and subsequent model year ZEV and TZEV credits to meet the ~~same model year~~ requirements in subdivision 1962.2(d)(5)(E)2.c. between the West Region pool and the East Region pool; however, any credits traded will incur a premium of 30% of their value. For example, in order for a manufacturer to make up a 2019 model year shortfall of 100 credits in the West Region Pool, the manufacturer may transfer 130 (2012 through 2019 model year) credits from the East Region Pool. No credits may be traded or transferred to the East Region pool or West Region pool from a manufacturer's California ZEV bank, or from the East Region pool or West Region pool to a manufacturer's California ZEV bank.

4. Support for Extending Credit Carry Back to Three Years for all Manufacturers

Staff proposes to allow an automaker up to three years to make up a ZEV credit deficit, provided that the Executive Officer approves the automaker's plan illustrating how the automaker will achieve compliance. Furthermore, staff proposes to allow an IVM to make up such a deficit with TZEV credits. The Alliance and Global Automakers note that although the ISOR is written from the perspective of only providing the three year ZEV credit deficit recovery period for IVMs, it is our understanding based on the proposed regulatory text and conversations with staff that this flexibility would apply to all manufacturers.

We support the three year period to make up a ZEV credit deficit for all manufacturers.

5. ZEV Credit Deficit Make Up with TZEV Credit

Regarding staff's proposal to allow an IVM to make up a ZEV credit deficit with TZEV credits, we recommend that this flexibility also be provided to LVMs to the extent that an LVM can meet its ZEV credit requirements with TZEV credits for the particular model year that it is making up a credit deficit for. Staff argues that the proposed IVM flexibility is consistent with existing regulatory provisions that allow IVMs to meet their entire ZEV Credit obligation with TZEVs. Similarly, LVMs are permitted to meet their ZEV Credit obligation with a mixture of ZEVs and TZEVs. Allowing a manufacturer to use TZEV credits to satisfy a shortfall of credits in a previous model year that could have been met with TZEVs is consistent with the flexibilities provided to LVMs and with the flexibility proposed for IVMs.

We recommend that all manufacturers be allowed to make up a TZEV credit deficit with TZEV credits to the extent that would have been allowed during the compliance model year.

6. Definition of "Transitional Zero Emission Vehicle" at 13 CCR 1962.2(i)(16)

Per 13 CCR 1962.2(i)(16), a "Transitional zero emission vehicle or TZEV means a vehicle that meet the all [sic] criteria of subdivision 1962.2(c)(2) and qualifies for an allowance in subdivision 1962.2(c)(3)(D) or (E)." Aside from the minor grammatical error (at the [sic]), the reference to paragraph 3, subparagraphs (D) and (E) is confusing. Specifically, the referenced subparagraph (D) is simply "[Reserved]" and subparagraph (E) provides a credit value for hydrogen internal combustion engine (HICE) vehicles. If this is intended to be a requirement for the TZEV classification, the reference to HICE vehicles effectively excludes the plug-in hybrid and extended range electric vehicles which typically earn TZEV credit today. If the references are intended to simply indicate that a TZEV qualifies for some type of allowance, it is not clear what the allowance is for or what it is (aside from possible HICE vehicles).

We recommend that staff review the intent of these references and correct them as necessary, as well as correcting the minor grammatical error.

We appreciate your consideration and look forward to working with you and the ARB staff.

Sincerely,

Steven P. Douglas

Steven Douglas
Senior Director, Environmental Affairs

Julia Rege
Director, Environment & Energy

Copy: Richard Corey
Alberto Ayala
Annette Hebert
Michael McCarthy
Analisa Bevan
Elise Keddie
NESCAUM
Section 177 States

Attachment

Steve Douglas

From: Matt Solomon <msolomon@nescaum.org>
Sent: Friday, October 10, 2014 2:30 PM
To: Steve Douglas
Cc: Julia Rege; Julie Becker; Art Marin; Elaine O'Grady
Subject: RE: ZEV Meeting

Steve,

After conferring with the §177 ZEV states, NESCAUM does not support amending CCR 1962.1(d)(5)(E)3 to extend the Optional Compliance Path (OCP) notification deadline as proposed by the Alliance of Automobile Manufacturers in an email to NESCAUM on September 23, 2014. We note that manufacturers have been aware of the notification deadline since OCP was added to the regulation in January 2012, and seven manufacturers have already notified states of their intent to follow OCP. In addition, we strongly support ARB's proposed revision to 1962.2(d)(5)(E) providing increased flexibility for Intermediate Volume Manufacturers electing to follow the OCP. Finally, we note that, per 1962.1(d)(5)(E)3.f and 1962.2(d)(5)(E)1.d, there is no retroactive penalty for failure to meet OCP requirements; rather, a manufacturer that had notified states of its intent to follow the OCP but fails to meet its early ZEV placement requirements would simply revert to the main compliance path for all future model years. With that said, NESCAUM's understanding is that notification of intent to follow the OCP will be accepted by the §177 ZEV states until December 1, 2014.

Best,
Matt

Matt Solomon
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617-259-2029

From: Steve Douglas [mailto:SDOUGLAS@autoalliance.org]
Sent: Tuesday, September 23, 2014 11:07 PM
To: Matt Solomon; Arthur Marin; Elaine O'Grady
Cc: Julia Rege; Julie Becker
Subject: ZEV Meeting

I wanted to thank you again for all the work setting up today's meeting. I think it was an excellent first (or maybe second) step, and that an open, regular dialogue between the states and the automakers is critical to meeting our goals. I'm looking forward to seeing you in Diamond Bar for the ARB hearing next month and then in November at the LA Auto Show.

I've attached the presentations that Julia and I made today. If you have any questions, or if any of your members have any questions, please don't hesitate to contact either one of us. If you could send us the other presentations today (your presentation, ARB, and DOE), we'll get them out to our members.

Attachment 1

Section 177 State Optional Compliance path: I'd appreciate it if we could get some feedback from the states in the next couple of weeks. I drafted the attached regulatory language that I believe suffices. Since the only change is to eliminate the 2015 reduced TZEV requirement, only Section 1962.1 (2009-2017 ZEV regulations) would need to be changed. If the states agree, we could ask ARB to submit this as a Staff Proposed 15-Day change at the hearing. They will have several of these anyway, and this is a very simple change.

Letters to Governors: Elaine suggested the associations send letters to the MOU state governors, expressing our appreciation for the ZEV action plan and the importance of incentives. I don't think we would have a problem doing that but I talked to a couple of states and it wasn't clear whether it would be helpful. If you talk some more internally, we can talk about it further. It's unfortunate timing given the election year with a lot of turnover in some administrations as well as in the legislative leadership.

Again, we look forward to working with you and your members.

Best regards,
Steve

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