AUTO ALLIANCE
DRIVING INNOVATION®

TO: Office of Energy & Planning
Department of Environmental Services

FROM: Laura Dooley
Director, State Affairs
Alliance of Automobile Manufacturers

DATE: July 25, 2014

RE: Comments on the Draft New Hampshire State Energy Strategy

The Alliance of Automobile Manufacturers (Alliance) – a trade association of 12 passenger car and light truck manufacturers – submits the following comments with respect to the transportation related policy evaluation and strategy recommendations included in the draft New Hampshire State Energy Strategy. Specifically, the Alliance opposes the recommendation that New Hampshire adopt the California Low Emission Vehicle program, or CA LEV.

As prepared by Navigant Consulting, Inc., the premise presented in the draft strategy is that "…the cost to adopt CA LEV is particularly low, with many benefits...(page 77)." The Alliance fundamentally disagrees with this premise and counters that the cost to support the adoption of this public policy is significant to automobile manufacturers, dealers, consumers and the state, and there is no incremental environmental benefit associated with its implementation.

Understanding CA LEV and the ZEV Mandate
CA LEV is a series of standards which regulate criteria and evaporative emissions, greenhouse gas emissions (i.e. fuel efficiency), and the type of motor vehicles sold in participating states. Specifically, CA LEV is comprised of three sections – LEV III, the ZEV Mandate, and greenhouse gas emissions standards (commonly referred to as AB 1493 or the Pavley standards).

- **Greenhouse Gas Emissions Standards (AB 1493 or Pavley Standards)** – AB 1493 regulates carbon dioxide and other greenhouse gas emissions.

- **Low Emission Vehicle Standard (LEV III)** – LEV III regulates smog and ozone forming, or criteria emissions such as exhaust PM, NOx, exhaust and evaporative volatile organic compounds (VOCs), carbon monoxide, and air toxics.

- **The Zero Emission Vehicle Mandate (ZEV Mandate) -** The ZEV Mandate is a battery-electric (BEV), plug-in hybrid electric (PHEV), and hydrogen fuel cell (FCV) vehicle mandate intended to force the commercialization of these technologies and to reduce criteria and greenhouse gas emissions.

Section 177 of the Federal Clean Air Act allows states to follow either the federal or the California program regulating motor vehicle emissions. The California program is designed by California legislators and regulators. States electing to participate in CA LEV effectively cede authority to California's Air Resources Board (CARB) and tie themselves to all future changes that CARB makes to these regulations as states must maintain identical standards to California within the those sections adopted. Today, 13 states including California are CA LEV states [CA, CT, DE, MA, ME, MD, NJ, NY, OR, PA, RI, VT and WA].

The U.S. EPA has deemed the ZEV Mandate severable from the other two provisions of CA LEV. The decision to adopt CA LEV without the ZEV Mandate has precedence. Delaware, Washington, and Pennsylvania have all done so.

Significant changes to both CA LEV and its corresponding federal programs have occurred over the last several years and are outlined below. The Alliance believes that these developments support the Alliance's position that the adoption of CA LEV by states is duplicative and unnecessary as CA LEV does not provide any additional environmental benefits.

Harmonization of California and Federal Emissions Standards

On May 19, 2009 President Obama announced a National Program on greenhouse gas emissions and fuel economy that bridged the California and federal requirements, beginning in model year 2012 (January 2, 2011). This nationwide program calls for a 54.5 mile per gallon fleet average by 2025. To meet these standards, automotive manufacturers will need to sell highly efficient vehicles in every state. Although not mandated, the sale of electric vehicles in every state is a critical component of the industry's efforts to meet these requirements.

The creation of the National Program was the first major development in the harmonization of the California and federal standards. California amended its greenhouse gas regulations to specify that manufacturers that comply with the National Program are compliant with California's greenhouse gas emissions standards for model years 2012 – 2025. Harmonization of these formerly competing standards makes a state's participation in CA LEV's greenhouse gas provisions duplicative and unnecessary.

Smog and ozone forming, or criteria emissions from new vehicles have dropped by about 99% since these emissions were first regulated. In 2012, CARB adopted updated "LEV III" Low Emission Vehicle Standards requiring that the various pollutants which contribute to smog be reduced by another 70% or more by model year 2025. This year U.S. EPA adopted the Tier 3 Rule, which starts in 2017, to match the emission standards required under LEV III. EPA noted that Tier 3 rules are intended "to harmonize with California's Low Emission Vehicle [LEV] program, thus creating a federal vehicle emissions program that would allow automakers to sell the **same vehicles in all 50 states**." Thus, both the criteria pollutant program and the greenhouse gas program are now, for all practical purposes, a single national program providing the same environmental benefit across all 50 states.

Although the adoption of CA LEV is often painted as an effort to "clean the air," that view misrepresents the benefits CA LEV provides. The air quality benefits under the Tier 2 and LEV II programs were already nearly identical; there was no measureable environmental benefit attributable to LEV II over Tier 2. The harmonization of Tier 3 and LEV III will ensure the benefits associated with these programs are identical.

With the harmonization of the criteria and greenhouse gas emissions provisions, several states have moved away from CA LEV. Once the National Program on greenhouse gas and fuel economy was in place, Arizona repealed the entire CA LEV program from its regulations.

New Mexico recently repealed its CA LEV regulations as well. Initially, with the development of the National Program on greenhouse gas and fuel economy, New Mexico suspended its implementation of the CA LEV regulations. However, with the additional harmonization of Tier 3/LEV III, New Mexico took the final step to repeal CA LEV.

Finally, while Washington, D.C. adopted the CA LEV program through legislation, implementation of the program was suspended indefinitely with the development of the National Program.

The actions taken by New Mexico, Arizona, and Washington, D.C. resulted in no environmental harm to these states. The harmonization of the California and federal programs on criteria emissions, as well as on greenhouse gas emissions and fuel economy, ensure that the entire nation benefits equally from these advanced programs.

ZEV Mandate – All Cost, No Benefit

With the National Program on fuel economy and greenhouse gas emissions in place and the near-term harmonization of LEV III and Tier 3 emissions regulations, the ZEV Mandate remains the outstanding provision of CA LEV.

What distinguishes the ZEV Mandate from LEV III and Tier 3 is that the ZEV Mandate is a market-based program, i.e., its success depends not on what automakers are able to produce, but on what consumers in the state are willing to purchase. The ZEV Mandate requires that specific percentages of new vehicles sold within a state consist of BEV, FCV, and PHEVs. It calls for approximately three percent of each participating state's new vehicle sales be BEV, FCV, or PHEVs in 2018. By 2025, the mandate is approximately 15%, of which approximately five percent can be PHEVs and the remaining 10% must be BEVs or FCVs.

New Hampshire's 2013 sales data shows that the new vehicle market consisted of approximately 0.12% BEVs and 0.23% PHEVs. In order to meet the ZEV Mandate requirements for 2018, New Hampshire consumers would need to purchase BEVs and PHEVs at about ***10 times the rate*** they are currently purchasing them today. To meet the 2025 ZEV Mandate requirements, New Hampshire consumers would need to purchase these vehicles at approximately ***50 times the rate*** of today.

As a point of comparison, hybrid vehicles – a technology that has been on the market for over a decade, and unlike ZEV technologies, requires absolutely no change in consumer behavior – still only penetrates the market at approximately 3.0% nation-wide.

Regardless of the percentages established in the ZEV Mandate, the provision actually provides no additional environmental gains to the criteria and greenhouse gas emissions programs. This is because the greenhouse gas and criteria emissions programs are controlled by very stringent fleet averages which take into account every vehicle delivered for sale, including ZEVs. A state's additional requirement that zero emission vehicles be sold in certain percentages (i.e. the ZEV Mandate) will ultimately be balanced by the remainder of vehicles to meet the fleet averages required under the greenhouse gas and criteria emissions standards. These fleet averages are the same regardless of whether a state has the ZEV Mandate or not.

While there is ***no measureable environmental benefit*** associated with the ZEV Mandate, it remains the ***most expensive regulation*** in the history of CARB. The latest CARB figures estimate that this regulation may cost over $14 billion in incremental costs alone. As a point of comparison for what New Hampshire's costs may be, California suggests the incremental costs in Maine will reach approximately $93 million annually by 2025.

California estimates that in 2016, a BEV75 (battery electric vehicle with a 75 mile range) will cost $17,562 more than a comparable gasoline vehicle. This cost will ultimately be shared by manufacturers, dealers, consumers, and the state. California currently offers consumers significant financial incentives, parking incentives, free electricity, free home chargers and installation, and HOV lane access to make purchasing a BEV more attractive. Currently, to the best of the Alliance's knowledge, New Hampshire offers no incentives for ZEVs.

Not only are the market quotas established by the ZEV Mandate unreasonable, but the infrastructure necessary to support three to 15% of the new vehicle fleet as ZEVs is not in place in New Hampshire, or arguably any other state. California has invested more than $120 million in electric charging stations alone. With respect to hydrogen infrastructure, California has already invested nearly $40 million, with an additional $100 million already appropriated. However, even with these significant investments by California, the feasibility of the ZEV Mandate is still in question.

Extended Warranty Provisions

The draft strategy plan suggests that one of the reasons to adopt CA LEV is to provide consumers with an extended emission system warranty on vehicles. The reference is to a provision in the ZEV Mandate regulations that will be modified in model year 2018.[1] This extended warranty provides a 15-year/150,000 warranty on qualifying vehicles. Beginning in model year 2018, this extended warranty is only applicable to vehicles classified as "transitional or TZEVs," which are essentially plug-in hybrids. As outlined above, in New Hampshire's current market this would only apply to approximately 0.23% of vehicles sold. Under the 2018 – 2025 mandated numbers, the extended warranty would apply to 5% of the vehicles sold in New Hampshire.

This benefit comes at the substantial costs associated with the ZEV Mandate, and its limited application does not justify its adoption.

The warranty provision has been met with significant opposition from independent repair shops in other states. Independent repair shops in Arizona, Oregon, Pennsylvania, New Mexico, and Washington opposed the adoption of the ZEV Mandate, specifically the extended warranty. Of those states, neither Pennsylvania nor Washington adopted the ZEV mandate, while Arizona and Oregon specifically removed the warranty requirements from their ZEV regulations. Of these states where the extended warranty was actively opposed, only New Mexico adopted the ZEV program with the extended warranty intact, but, as noted earlier, subsequently repealed its CA LEV program altogether.

[1] Due to the federal Clean Air Act requirement that states allow two full model years in lead time before implementing CA LEV, the earliest that New Hampshire could implement the program would be model year 2018, assuming the program was formally adopted before January 1, 2015.

Conclusion
The Alliance and its member companies strongly support the development, production, and sale of zero emission vehicles and are eager to work with New Hampshire on building consumer acceptance of these advanced technologies outside of a technology mandate.

The industry believes the path to consumer acceptance is not mandating sales, but creating appropriate market signals to customers that include incentivizing technology and building a supporting infrastructure. 2013 sales data supports this assertion. In a ranking of states by the percentage of ZEVs sold in 2013, only five of the top 10 states are ZEV Mandate states. More specifically, in a ranking of states by the percentage of BEVs sold in 2013, only three of the top 10 states are ZEV Mandate states.

Top 10 ZEV Sales States	Top 10 BEV Sales States
California*	Washington
Washington	California*
Hawaii	Hawaii
Oregon*	Georgia
Georgia	Oregon*
Vermont*	Colorado
Connecticut*	Utah
Colorado	Illinois
Washington, D.C.	Connecticut*
Massachusetts*	Tennessee

The Alliance strongly recommends the Office of Energy and Planning remove any references to CA LEV or the ZEV Mandate before finalizing the New Hampshire State Energy Strategy. Thank you for your consideration of our comments.

Laura Dooley
Director, State Affairs
Alliance of Automobile Manufacturers
Office: 202-326-5543
Email: ldooley@autoalliance.org