



12900 Brookprinter Place, Suite 100, Poway California 92064 • 858-486-9972

January 21, 2009

Electronic submission to: <http://www.arb.ca.gov/lispub/comm/bclist.php>

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

Re: Comments on Rulemaking for Plug-in Hybrid-Electric Vehicles, Amendments to Test Procedures and Aftermarket Parts Certification Requirements, January 22,23 2009

Dear California Air Resources Board:

Plug-In Conversions and our Associate Company Gold Peak Industries submit the following comments in reference to the proposed PHEV test procedures amendments.

Plug-In Conversions Corporation (PICC), headquartered in Poway, CA, has been designing and installing conversion systems which convert Prius HEV vehicles into Plug-In Hybrid Vehicles (PHEV) since early 2007. Gold Peak (GP) Industries North America, headquartered in San Diego, a division of GP Batteries International, is a leading manufacturer of batteries and battery systems for many applications including electric and hybrid vehicles.

The PICC conversion system, which replaces the OEM nickel metal hydride (NiMH) battery with Gold Peak NiMH batteries, allows the Prius to be driven 25 miles on batteries alone or with an average fuel economy of 100 miles per gallon (battery and engine combined driving), increasing efficiency while reducing emissions. It is important to note that the conversion system implements the same NiMH chemistry as provided by the OEM and therefore allows the factory battery management system to be retained and operate as designed by the manufacturer. This integration first and foremost gives the vehicle the best level of safety. It also delivers the ability to maximize performance and the opportunity to monitor, regulate and protect the vehicle's factory and battery components.

The amendments currently proposed by ARB would severely limit PICC and companies with similar conversion systems ability to sell and install aftermarket PHEV conversions in California and the many states which follow California's lead.

Warranty Requirements

We respectfully request your help in revising or postponing Appendix G of proposed legislation by the ARB, which requires conversion companies such as PICC to provide a 10 year/150,000 mile warranty for the newly installed conversion battery system; equal to that of the 10 year warranty required by ARB for the automobile manufacturers (Toyota). The PICC conversion system is designed to utilize a greater range of the "state of charge" (SOC) within the newly installed battery which allows the system to provide the 25 mile EV only range and 100+ average mpg benefits. However, by utilizing a wider range of the battery SOC, battery cycle life is reduced. In contrast, the original Toyota battery system utilizes a much lower SOC range, which reduces vehicle EV only range, but increases battery cycle life. Therefore, we submit that the conversion battery system should not be subject to the same warranty requirements as the Toyota battery. At a minimum, we recommend that the newly installed conversion system battery be subject only to the balance of the original warranty. In addition, we recommend that the ARB reevaluate the proposal for a 15-year warranty on emissions control system components to allow sufficient time to assess the impact of PHEV aftermarket systems.

Emissions Reductions

PICC will begin tests in February 2009 at Argonne National Laboratory to verify the extent of emissions reductions of our aftermarket PHEV systems. PICC's goal is to reduce overall emissions, including CO₂, and we believe our technology is in alignment with the goals of the California Global Warming Solutions Act of 2006 (AB 32). We ask ARB for regulations that provide for a practical evaluation of systems technology which ultimately allow all of us to continue on a common pathway toward emissions reductions.

Respectfully Submitted,

Kim Adelman, CEO
Plug-In Conversions Corporation
Poway, California