WHEREAS, sections 39600 and 39601 of the Health and Safety Code authorize the
Air Resources Board (ARB or Board) to adopt standards, rules, and regulations and to
do such acts as may be necessary for the proper execution of the powers and duties
granted to and imposed upon the Board by law;

WHEREAS, in section 43000 of the Health and Safety Code, the Legislature has found
and declared that the emission of air pollutants from motor vehicles is the primary cause
of air pollution in many parts of the State, and in sections 39002 and 39003 of the
Health and Safety Code, has charged the Board with the responsibility of systematically
addressing the serious air pollution problem caused by motor vehicles;

WHEREAS, sections 39667, 43013, 43101, and 43104 of the Health and Safety Code
authorize the Board to adopt and implement motor vehicle emission standards, in-use
performance standards, and test procedures, which it finds to be necessary,
cost-effective, and technologically feasible;

WHEREAS, sections 43013 and 43018 of the Health and Safety Code direct the Board
to endeavor to achieve the maximum degree of emission reduction possible from
vehicular and other mobile sources in order to accomplish the attainment of the state
ambient air quality standards at the earliest practicable date;

WHEREAS, section 43018(c) of the Health and Safety Code provides that in carrying
out section 43018, the Board shall adopt standards and regulations that will result in the
most cost-effective combination of control measures on all classes of motor vehicles
and motor vehicle fuel, including, but not limited to, reductions in motor vehicle exhaust
and evaporative emissions, and reductions in in-use vehicular emissions through
durability and performance improvements;

WHEREAS, sections 27156, 38391, and 38395 of the California Vehicle Code prohibit
the installation, sale, offer for sale or advertisement of any device, apparatus,
mechanism intended for use with, or as part of any required motor vehicle pollution
control device or system which alters or modifies the original design or performance of
any such motor vehicle pollution control device or system unless the Board finds that
the device, apparatus, or mechanism either does not reduce the effectiveness of any
required motor vehicle pollution control device or does not result in emissions from a
modified vehicle which exceed the applicable emission standards for the vehicle;

WHEREAS, ARB staff has developed proposals to address Off-Vehicle Charge Capable
Hybrid Electric Vehicles in two areas: (1) to address emissions and testing by vehicle
manufacturers and (2) to address certification procedures for conversions to off-vehicle charge capable hybrid electric vehicles (conversion procedures);

WHEREAS, at a public hearing on January 23, 2009, the Board adopted Resolution 09-6, which approved staff's amendments to the exhaust, evaporative, refueling emission standards and test procedures to direct vehicle manufacturers to address Off-Vehicle Charge Capable Hybrid Electric Vehicles;

WHEREAS, at the public hearing on January 23, 2009, the Board directed the staff to return to the Board in several months time after consulting with conversion system manufacturers and others related to the conversion procedures to allow the Board to continue its consideration of the proposed adoption of section 2032, title 13, California Code of Regulations and its incorporated procedure, the California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles;

WHEREAS, as directed by the Board, staff has consulted with conversion system manufacturers and others, and has proposed the adoption of section 2032 and its incorporated procedure, the “California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles,” as set forth in appendix A, part 2 and appendix G of the Staff Report: Initial Statement of Reasons and attached, hereto, in Attachment A, with the modifications set forth in Attachment B, hereto;

WHEREAS, the Board has considered the effects of the proposed regulatory action on the economy of the State;

WHEREAS, the California Environmental Quality Act and Board regulations require that no project that may have significant adverse environmental impacts be adopted as originally proposed if feasible alternatives or mitigation measures are available to reduce or eliminate such impacts;

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of chapter 3.5 (commencing with section 11340), part 1, division 3, title 2 of the Government Code;

WHEREAS, the Board finds that:

The regulations proposed for adoption herein will allow conversion system manufacturers to certify off-vehicle charge capable hybrid electric vehicle conversion systems, while ensuring that the converted vehicle's emissions do not increase; and

The economic and fiscal impacts of the regulatory proposal on conversion system manufacturers and others associated with the installation of conversion systems have been analyzed as required by California law, and the conclusions and supporting documentation for this analysis are set forth in the Initial Statement of Reasons, as supplemented by staff's Supplemental Staff Report,
(Attachment C, hereto) and by staff’s presentation to the Board for the regulatory proposal.

WHEREAS, the Board further finds that:

The adoption of the proposed regulatory action herein will not result in any significant adverse environmental impacts;

The adoption of the proposed regulatory action may create some jobs and a few new businesses related to conversion system manufacturing and installation within the State of California, but will not otherwise affect the creation or elimination of jobs or new businesses or the elimination of existing businesses within California, the expansion of businesses currently doing business within California, or the ability California businesses to compete with businesses in other states; and

No alternative that addresses conversion procedures considered by the Board would be more effective in carrying out the purpose for which the regulations are proposed or would be as effective and less burdensome to affected private persons.

NOW, THEREFORE, BE IT RESOLVED that the Board hereby approves the adoption of California Code of Regulations, title 13, section 2032, and its incorporated procedure, the California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles, with the modifications set forth in Attachment B, hereto.

BE IT FURTHER RESOLVED that the Board directs the Executive Officer to adopt California Code of Regulations, title 13, section 2032, and its incorporated procedure, the California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles, as approved herein, after making the modified regulatory language in Attachment B and the Supplemental Staff Report as set forth in Attachment C, with such other conforming modifications and any additional supporting documents and information as may be appropriate, available for public comment for a period of 15 days, provided that the Executive Officer shall consider such written comments regarding the modifications and additional supporting documents and information as may be submitted during this period, shall make modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if he determines that this is warranted.

I hereby certify that the above is a true and correct copy of Resolution 09-39, as adopted by the Air Resources Board.

Monica Vejar, Clerk of the Board
Resolution 09-39

May 28, 2009

Identification of Attachments to the Resolution

**Attachment A:** Proposed Regulation Order, as set forth in Appendix A, Part 2 and Appendix G of the Staff Report: Initial Statement of Reasons, released to the public on December 5, 2008.

**Attachment B:** Modifications to Proposed Regulation Order: section 2032, title 13, California Code of Regulations incorporated procedure – the California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles.

**Attachment C:** Supplemental Staff Report: Proposed Rulemaking for Plug-In Hybrid-Electric Vehicles, released to the public on May 12, 2009.
ATTACHMENT B

PROPOSED REGULATION ORDER

Note: The regulation text is shown in underline to indicate additions to and strikethrough to indicate deletions from the current regulations. For ease of review, the text of section 2032, which is proposed for adoption as a new regulation, is shown without underline as permitted by section 8, title 2, California Code of Regulations.
Amend the title of article 5, chapter 1, division 3, title 13, California Code of Regulations and adopt section 2032, title 13, California Code of Regulations to read (no modifications to December 5, 2009 version):

Article 5. Approval of Systems Designed to Convert Motor Vehicles to Use Fuels Other Than the Original Certification Fuel or to Convert Motor Vehicles for Emission Reduction Credit or to Convert Hybrid Electric Vehicles to Off-Vehicle Charge Capable Hybrid Electric Vehicles

§ 2032. Off-Vehicle Charge Capable Hybrid Electric Vehicle Conversion Systems

(a) Applicable Standards.

Hybrid electric vehicles for the 2000 and later model years in the passenger car, light-duty truck, and medium-duty vehicle classes, converted to incorporate off-vehicle charging capability shall meet the California emission standards for the model year of original manufacture and certification.

(b) Applicable Test Procedures.

The certification and installation procedures that shall apply for approval of systems that convert 2000 and later model-year hybrid electric vehicles in the passenger car, light-duty truck, and medium-duty vehicle classes to use off-vehicle charging are contained in the “California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles,” adopted by the state board on [INSERT DATE OF ADOPTION], which are incorporated herein by reference.

(c) Definitions.

The definitions that apply to section 2032, title 13, CCR, are contained in sections 1900, 1962, and 1962.1, title 13, CCR, and the test procedures incorporated by reference in paragraph (b), section 2032, title 13, CCR.


Date of Release of the Initial Statement of Reasons: December 5, 2008
Date of Initial Board Hearing: January 22-23, 2009
Date of Release of Supplemental Staff Report: May 12, 2009
Date of Second Board Hearing: May 26-29, 2009
State of California
AIR RESOURCES BOARD

CALIFORNIA CERTIFICATION AND INSTALLATION PROCEDURES
FOR OFF-VEHICLE CHARGE CAPABLE CONVERSION SYSTEMS FOR 2000 AND
SUBSEQUENT MODEL YEAR HYBRID ELECTRIC VEHICLES

[Note: All text is proposed for adoption. As permitted by section 8, title 2, California
Code of Regulations, the proposed text from December 5, 2008 is not underlined for
ease of review. Proposed text modifications marked with underline are additions
to the December 5, 2008 text, and text marked for deletion is indicated with
strikeout.]

Adopted: [INSERT DATE OF ADOPTION]

Note: These procedures are incorporated by reference into section 2032, title 13,
California Code of Regulations (CCR).
California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles.

1. APPLICABILITY

(a) "California Certification and Installation Procedures for Off-Vehicle Charge Capable Conversion Systems for 2000 and Subsequent Model Year Hybrid Electric Vehicles" (these Procedures) apply to off-vehicle charge capable conversion systems designed for installation on 2000 and subsequent model year hybrid electric vehicles in the passenger car, light-duty truck, and medium-duty vehicle classes.

(b) Hybrid electric vehicles converted to incorporate off-vehicle charging are not eligible for zero emission vehicle credits under sections 1962 and 1962.1, title 13, CCR.

(c) Certification of off-vehicle charge capable conversion systems issued pursuant to these Procedures shall have the effect of an exemption issued pursuant to Vehicle Code Sections 27156 and 38391.

2. DEFINITIONS

"Advanced technology partial zero emission vehicle" means any partial zero emission vehicle with an allowance greater than 0.2 before application of the partial zero emission vehicle early introduction phase-in multiplier under section 1962 or 1962.1, CCR.

"Driveability" of a vehicle means the smooth delivery of power, as demanded by the driver. Typical causes of driveability degradation are rough idling, misfiring, surging, hesitation, or insufficient power.

"Hybrid electric vehicle" means any vehicle that can draw propulsion energy from both of the following on-vehicle sources of stored energy: 1) a consumable fuel and 2) an energy storage device such as a battery, capacitor, or flywheel.

"Installer" means a person authorized by the manufacturer to install the manufacturer's off-vehicle charge capable conversion system on a motor vehicle.

"Off-vehicle charge capable" or "OVCC" means having the capability to charge a battery from an off-vehicle electric energy source that cannot be connected or coupled to the vehicle in any manner while the vehicle is being driven.

"Off-vehicle charge capable conversion system" or "conversion system" means a package of zero emission vehicle energy storage device and charger, control...
modules, and any other vehicle/engine components that are modified, removed, or added during the process of modifying a hybrid electric vehicle to an off-vehicle charge capable hybrid electric vehicle.

"Off-vehicle charge capable conversion system manufacturer" or "manufacturer" means a person who manufactures, assembles, imports, packages, or repackages an off-vehicle charge capable conversion system for sale in California and requests or is granted the Executive Order certifying the off-vehicle charge capable conversion system.

"Partial zero emission vehicle" or "PZEV" means any vehicle that is delivered for sale in California and that qualifies for a partial zero emission vehicle allowance of at least 0.2 under sections 1962 or 1962.1, title 13, CCR.

"Small volume off-vehicle charge capable conversion system manufacturer" or "small volume manufacturer" means any manufacturer whose projected and realized California sales of conversion systems in its entire product line are 100 or fewer units. A small volume manufacturer's California realized sales shall consist of all conversion systems produced by the small volume manufacturer and delivered for sale in California. All provisions allowed under these Procedures for small volume manufacturers will terminate upon Air Resources Board's determination that a total of 5,000 conversion systems have been sold and installed in California.

Tier 1 small volume manufacturer means any small volume manufacturer whose projected and realized California sales of conversion systems in its entire product line are 50 or fewer units.

Tier 2 small volume manufacturer means any small volume manufacturer whose projected and realized California sales of conversion systems in its entire product line are 51 to 100 units.

"Useful life" for purposes of these Procedures, means the duration, expressed in miles, of the longest durability period for the new vehicle emission standards to which the hybrid electric vehicle was certified.

"Zero emission vehicle" means any vehicle certified to zero emission standards under sections 1962 or 1962.1, title 13, CCR.

"Zero emission vehicle energy storage device" means batteries and other electric energy storage devices.
3. GENERAL REQUIREMENTS

In addition to all other standards or requirements imposed, the following general requirements shall apply to all conversion systems to be certified for installation on hybrid electric vehicles:

(a) **On-Board Diagnostic (OBD) System Compatibility:**
If the vehicle to be converted was certified with an OBD system pursuant to section 1968.1, or 1968.2, title 13, CCR, the converted vehicle shall also be required to comply with and be certified to the same applicable OBD regulation. This includes, but is not limited to, ensuring the converted vehicle robustly detects malfunctions at the required emission thresholds, meets the required minimum monitoring frequency, implements required monitors for applicable added electronic hardware or emission controls, complies with standardization requirements, and conducts required demonstration and production vehicle testing. This requirement may necessitate modification of the original vehicle OBD system and/or addition of more diagnostics to supplement the original vehicle OBD system. All modifications affecting OBD compliance including added, modified, or original vehicle hardware (e.g., components, wiring) or software (e.g., programming, calibration) must be fully documented as part of the conversion system application for certification.

(b) **Driveability:**
The driveability of a vehicle equipped with a conversion system shall not be degraded in such a way as to encourage consumer tampering. To verify that the driveability of a converted vehicle is acceptable, the Executive Officer may require that an independent laboratory evaluate driveability. The Executive Officer’s determination that driveability must be evaluated shall be based on an engineering evaluation of the conversion system described in the application for certification or on reports or observations that conversion systems similar in design to the system for which certification is sought have caused driveability degradation. The cost of this evaluation shall be borne by the manufacturer.

(c) **Emission Control Label:**
California motor vehicle emission control label specifications, incorporated by reference in section 1965, title 13, CCR, shall apply to installations of conversion systems, with the following additions:

(i) The manufacturer shall provide a supplemental emission control information label, which shall be affixed in a permanent manner to each converted vehicle, in a location adjacent to the original Vehicle Emission Control Information label. If the supplemental label cannot be placed...
adjacent to the original label, it shall be placed in a location where it can be seen by a person viewing the original label.

(ii) The supplemental label shall show the vehicle model year; the Executive Order number certifying the conversion system; and the conversion system manufacturer's name, address, and telephone number. The label shall also list any original parts that were removed during installation of the conversion system, as well as any changes in tune-up specifications required by the conversion system. In addition, the label shall show the installer's name, address, and telephone number; the date on which the conversion system was installed; and the mileage (vehicle odometer reading) at time of conversion; and date on which the conversion system's warranty expires. The label shall clearly state that the vehicle has been equipped with an off-vehicle charge capable conversion system and that the converted vehicle complies with California emission requirements. If the conversion system was certified under provisions allowed for small volume manufacturers, the label shall display the notation "Tier 1" or "Tier 2," as appropriate. It is not necessary for supplemental emission control information labels installed with conversion systems to be machine readable.

(d) **Owner's Manual:**
Each conversion system installed shall include an owner's manual containing at least the following information:

(i) Description of the conversion system, including wiring diagrams and descriptions of major components and their theory of operation;

(ii) Charging procedure;

(iii) Listing of necessary service and service intervals, as well as tune-up data, which differ from the service requirements specified by the vehicle's original manufacturer;

(iv) Name, address, and phone number of the installer, as well as a list of the names, addresses, and phone numbers of the major dealers in California who supply parts for or service the conversion system; and

(v) Warranty information.

(e) **Manufacturer Recordkeeping Requirement:**
The manufacturer of a conversion system shall maintain a record of the vehicle identification numbers and California license plate numbers of those vehicles on which the conversion system has been installed. As part of this record, the
manufacturer shall identify the installation date and the certification Executive Order number of the conversion system installed on each vehicle and shall identify the vehicles' owners at the time of installation, including the owners' current addresses and phone numbers. The manufacturer shall supply a copy of all installation information to the Executive Officer upon request. Small volume manufacturers shall submit this installation information on a quarterly basis to the Zero-Emission Vehicle Implementation Section of the Air Resources Board.

(f) Installer Recordkeeping Requirement:
The installer of a conversion system shall maintain a record as specified in paragraph 3(e) of these Procedures and shall provide this information to manufacturers upon request.

4. REQUEST FOR CERTIFICATION

(a) Request for certification of a conversion system shall be submitted in writing by the manufacturer, or its authorized representative, intending to offer the conversion system for sale in California.

(b) The request shall include all the information required pursuant to these Procedures, including:

(i) Identification and description of the test groups for which the conversion system to be certified is designed;

(ii) Complete description of the conversion system, including detailed wiring diagrams and parts list; explanation on how the conversion system interacts with or integrates into the original vehicle; all the necessary modifications to the vehicle and its OBD system; sample of the supplemental emission control information label; owner's manual; warranted parts list; and samples of warranty statements;

(iii) Procedures for installing and maintaining the conversion system, including tune-up specifications and discussion of any special tools or techniques required for proper installation, maintenance, or operation;

(iv) Agreement to supply the Air Resources Board, within 45 calendar days of the Executive Officer's request, with any one or more of the vehicles used for certification testing or to provide Air Resources Board personnel with the equipment to inspect and test such vehicles at the manufacturer's facility, if requested by the Executive Officer;

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Date of Release of the Initial Statement of Reasons: December 5, 2008
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(v) Names and addresses of the fabrication, assembly line, and test facilities where the conversion system and its major components are manufactured and tested; and

(vi) Test data.

5. TEST PROCEDURES

(a) *Test Procedures for OVCC Converted Vehicles:*

(b) *Applicable Standards:*
The conversion system shall meet the emission standards for the model year of original manufacture and certification. The conversion system must also be durable for the useful life of the vehicle. The manufacturer shall demonstrate compliance with these requirements through durability and emission testing.

(c) *Demonstration of Durability:*
The manufacturer shall propose a durability program for advance approval by the Executive Officer. The durability program shall consist of:

(i) Whole vehicle full mileage accumulation or whole vehicle accelerated mileage accumulation over the useful life or equivalent useful life of the vehicle; bench aging of individual components or systems over the useful life of the vehicle; or alternative methods that would effectively predict the deterioration of the converted vehicle over its useful life.

(ii) A maximum of one durability data vehicle per test group for which certification is sought shall be required.

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(iii) The vehicle is assumed to have zero miles at the time of conversion. Vehicle mileage accumulation shall be conducted using vehicle drive patterns found in actual use.

(iv) Bench aging shall simulate component or system aging under vehicle drive patterns and operational conditions found in actual use. The list of components or systems to be aged and their aging techniques must be approved in advance by the Executive Officer. Approval of bench aging and alternative methods shall be contingent upon a demonstration by the manufacturer that they result in deterioration at least as great as the deterioration from vehicle mileage accumulation.

(d) Demonstration of Emission Compliance:
The manufacturer shall propose the procedures for determining compliance with the emission standards for advance approval by the Executive Officer. Emission compliance shall be determined by:

(i) Testing a vehicle aged with the conversion system; installing aged components or systems on an emission data vehicle prior to testing; or using alternative methods that would effectively predict the useful life emissions of the converted vehicle.

(ii) A maximum of one emission data vehicle per test group for which certification is sought shall be required.

(iii) Alternative methods must be approved in advance by the Executive Officer.

(e) Small Volume Manufacturers:
Special certification procedures are available for small volume manufacturers.

(i) For Tier 1 small volume manufacturers, the following are required in lieu of requirements in sections 5(a), 5(c), and 5(d):

1. Engineering analysis demonstrating no adverse impact on emissions.
2. Conversion system component durability data and any available in-use data.
3. Durability test plan designed to demonstrate conversion system durability for useful life of the vehicle.

(ii) For Tier 2 small volume manufacturers, the following are required in lieu of requirements in sections 5(c) and 5(d):
(1) Conversion system component durability data and any available in-use data.
(2) Durability test plan designed to demonstrate conversion system durability for useful life of the vehicle.
(3) Report on the progress of durability testing.
(4) Demonstrate that the OBD system readiness indicators are set and no diagnostic trouble codes or malfunction indicators are set during emission tests.
(5) Emission test data following a minimum of 4,000 miles of vehicle operation with the conversion system installed.

(fe) Prior to the commencement of testing, the choice of durability data vehicle and emission data vehicle must be approved by the Executive Officer as being representative of the range of test groups for which certification is sought.

6. APPROVAL

(a) Issuance of Executive Orders:
If, after reviewing the test data and other information submitted by the manufacturer, the Executive Officer determines that the conversion system meets the applicable emission standards demonstrated under an approved test plan, an Executive Order shall be issued certifying the conversion system for sale and installation on the vehicles with the test groups specified in the certification request.

(b) Carry-Over and Carry-Across:
(i) Carry-over and carry-across of durability and emission test data from the previous model year to the following model year and from one test group to similar test groups will be allowed if the Executive Officer determines that the carry-over/carry-across data will adequately represent the durability and emission performance of the conversion system to be certified.

(ii) Requests for carry-over and carry-across must be accompanied by an engineering analysis demonstrating that the durability and emission performance of the conversion system and the test group for which certification is sought will be adequately represented by a certified conversion system/test group.

7. WARRANTY REQUIREMENTS

(a) Requirements of Manufacturers:
Each manufacturer of a conversion system shall warrant to the person having the vehicle converted and to each subsequent purchaser of the vehicle that the
conversion system is designed and manufactured to conform with the applicable requirements of these Procedures without causing damage to any part on the converted vehicle, and is free from defects in materials and workmanship which cause the conversion system to fail to conform with the applicable requirements of these Procedures or cause damage to any part on the converted vehicle. This warranty shall cover customer service and the full repair or replacement costs including the costs of diagnosis, labor, and parts, including any part on the converted vehicle that is damaged due to a defect in the conversion system. This warranty requirement will be effective for longer of the following from the date of installation:

(i) 5 years or 75,000 miles, whichever first occurs.

(ii) Remaining original equipment manufacturer warranty period.

the applicable warranty period specified in section 2037(b), title 13, CCR, from the date of installation if the conversion system is installed on the vehicle within four years of the date the vehicle is first acquired by an ultimate purchaser. If the conversion system is installed on the vehicle after four years of the date the vehicle is first acquired by an ultimate purchaser, the warranty period will be three years or half the applicable warranty period mileage specified in section 2037(b), title 13, CCR, whichever occurs first from the date of installation. For PZEVs, this warranty requirement will be effective for the applicable warranty period specified in section 1962(c) or section 1962.1(c), title 13, CCR, from the date of installation if the conversion system is installed on the vehicle within six years of the date the vehicle is first acquired by an ultimate purchaser. If the conversion system is installed on the PZEV after six years of the date the vehicle is first acquired by an ultimate purchaser, the warranty period will be five years or half the applicable warranty period mileage specified in section 1962(c) or section 1962.1(c), title 13, CCR, whichever occurs first from the date of installation. This warranty shall cover customer service and the full repair or replacement costs including the costs of diagnosis, labor, and parts, including any part on the converted vehicle that is damaged due to a defect in the conversion system.

(b) Requirements of Manufacturers Providing Supplemental Battery Conversion Systems:

For purposes of this Requirement, a Supplemental Battery Conversion System means a conversion system consisting of an OVCC battery system that supplements the original equipment manufacturer traction battery and that is designed to be capable of being readily turned off and/or removed and to return the original vehicle to its pre-conversions emissions control state.
The warranty requirement for such Supplemental Battery Conversion System shall be the same as that outlined in Paragraph 7(a) above with the following modification:

(i) 5 years or 75,000 miles, whichever first occurs on the Supplemental Battery. The remaining parts of the conversion system shall be subject to the requirements outlined in Paragraph 7(a).

(ii) Remaining original equipment warranty period (maximum 10 years from date of original purchase) on any damage to the zero emission energy storage device caused by the Supplemental Battery Conversion System resulting in warranty claims against the original equipment manufacturer.

(iii) Remaining original equipment warranty period (maximum 15 years from date of original purchase on any damage to the original equipment emission control system caused by the Supplemental Battery Conversion System resulting in warranty claims against the original vehicle manufacturer.

(iv) In addition to the coverage requirements outlined in Paragraph 7(a) above, in the event that a Supplemental Battery Conversion System purchaser asserts a claim under subparagraphs 7(b) (ii) and/or (iii) above because the original equipment manufacturer has alleged that the defect in question was caused by the Supplemental Battery Conversion System and therefore refuses to make any repairs under warranty, the Supplemental Battery Conversion System manufacturer shall cause such repairs to be made and in consideration assume the rights to any claims that the Supplemental Conversion System purchaser may have against the original equipment manufacturer.

(v) The Supplemental Battery Conversion System manufacturer shall provide a warranty to the Supplemental Battery Conversion System purchaser reflecting the requirements of this paragraph 7.

(c) Requirements of Small Volume Manufacturers:
For small volume manufacturers, requirements in section 7(a) apply with the exception of the warranty periods.

(i) For Tier 1 small volume manufacturers, the warranty requirements will be effective for 3 years or 50,000 miles, whichever first occurs, from the date of installation.
(ii) For Tier 2 small volume manufacturers, the warranty requirements will be effective for 5 years or 75,000 miles, whichever first occurs, from the date of installation.

(d) Requirements of Installers:
Each installer of a conversion system shall warrant to the person having the vehicle converted and to each subsequent purchaser of the vehicle that the conversion system will not fail to conform with the applicable requirements of these Procedures due to incorrect installation and that no part on the converted vehicle will be damaged due to incorrect installation. Installers of conversion systems shall install only those systems of a certified configuration and shall agree to indemnify the person having the vehicle converted and to each subsequent purchaser of the vehicle for the cost of repair of any vehicle upon which a noncertified configuration was installed. In addition, the installer shall agree to indemnify the person having the vehicle converted and to each subsequent purchaser of the vehicle for any tampering fines that may be imposed as a result of improper installation of the conversion system. The warranties and agreements to indemnify shall be effective for 3 years or 50,000 miles, whichever first occurs. The applicable warranty period specified in section 2037(b)(2), title 13, CCR. This warranty shall cover customer service and the full repair or replacement costs including the cost of diagnosis, labor, and parts, including any part on the converted vehicle that is damaged due to incorrect installation of the conversion system. Before an installer installs a conversion system, the installer shall submit to ARB a sample of the warranty statement to be provided by the installer as specified above.

8. CONFIRMATORY TESTING REQUIREMENTS

The Air Resources Board may conduct confirmatory tests to verify the emission test results submitted by the manufacturer. Confirmatory tests, if required, shall be performed by the Air Resources Board within 45 days of receipt from the manufacturer all data, materials, and vehicles necessary to conduct the test. Confirmatory testing conducted by the Air Resources Board shall utilize the same test vehicle and procedures as those used by the manufacturer. In the event of discrepancies between the Air Resources Board's confirmatory test results and the manufacturer's test results, the Air Resources Board's evaluation for certification may be based solely on the Air Resources Board's test results. Tier 1 small volume manufacturers are not subject to confirmatory testing requirements.

98. IN-USE TESTING REQUIREMENTS

The Air Resources Board may select up to five conversion systems per manufacturer per year for in-use testing. The manufacturer must provide the in-use OVCC converted vehicle(s) selected by the Air Resources Board to be sent to the
Air Resources Board facility or a designated independent laboratory for testing in accordance with the test procedures in paragraph (5)(a) of these Procedures. Testing costs will be borne by the Air Resources Board, except for those conversion systems that do not comply with the applicable emission standards. If one or more of the conversion system fails to meet the applicable emission standards in an applicable test vehicle, the Air Resources Board may rescind a previously granted Executive Order, request further analysis and data from the manufacturer, or require, at the manufacturer’s expense, additional vehicles to be tested. Additional vehicles to be tested shall be limited to no more than five for each failed conversion system. Small volume manufacturers are not subject to in-use testing requirements.
State of California
Environmental Protection Agency
AIR RESOURCES BOARD

Notice of Decision and
Response to Significant Environmental Issues

Item: Plug-In Hybrid Electric Vehicle Regulation

Adopted by:
Resolution 09-39
Resolution 09-6

Adopted by:
Executive Order R-09-016

Agenda Item: 09-5-4
Continued Item: 09-1-8

Public Hearing Date: January 23, 2009
Continued to: May 28, 2009

Issuing Authority: Air Resources Board

Comment: No comments were received identifying any significant environmental issues pertaining to this item. The Staff Report identified no adverse environmental effects.

Response: N/A

Certified: Amy Whitling, Regulations Coordinator

Date: November 18, 2009