

Supporting Statement  
for  
Information Collection Request  
Fuel Economy Labeling of Motor Vehicles (Proposed Rule)  
EPA ICR 2392.01

Compliance and Innovative Strategies Division  
and  
Assessment and Standards Division  
Office of Transportation and Air Quality  
Office of Air and Radiation  
U.S. Environmental Protection Agency

## Part A SUBMISSION

### Section 1: Identification Of The Information Collection

#### 1(a) Title And Number Of The Information Collection

Fuel Economy Labeling of Motor Vehicles (Proposed Rule), EPA ICR number 2392.01, OMB control number 2060-NEW. The burden for this ICR will be transferred to the ICR 0783 series (OMB 2060-0104) after other pending adjustments have received clearance.

#### 1(b) Short Characterization/Abstract

EPA and the National Highway Traffic Safety Administration are conducting a joint rulemaking to redesign the current fuel economy label that is posted on the window sticker of all new cars and trucks sold in the U.S. The redesigned label will provide new information to American consumers about the fuel economy and consumption, fuel costs, and environmental impacts associated with purchasing new vehicles beginning with model year 2012 cars and trucks. This action will also develop new labels for advanced technology vehicles which are poised to enter the U.S. market, in particular plug-in hybrid electric vehicles (PHEVs) and electric vehicles (EVs).

These new requirements will apply to model year 2012 and later vehicles. The normal time horizon of ICRs is three years from the date of clearance. Consequently, this ICR should cover the startup period and approximately the first two years of operation of the new requirements.

The information costs associated with this rulemaking arise in part from the new testing requirements that generate the data on fuel economy that EVs and PHEVs must submit to EPA in applications for certification of conformity with the Clean Air Act. These costs in turn are broken down into startup costs for information technology and testing-related equipment, testing operations costs, and a component to reflect increased capital facility costs. The rulemaking also entails costs for redesigning and printing the new label under the required new format. The label itself is not reported to EPA; it is deemed to be an information collection for disclosure to the public falling within the definition in 40 CFR 1320.3(c). The numbers that go on the label, however, are reported to EPA, and the costs and hours for manufacturers to obtain these numbers are included in this analysis. Because the data is reported to EPA, the burden associated with the new label, which is mandated by statute upon NHTSA, is here treated as an EPA burden for simplicity.

The preamble to the proposed rule notes that “over the next several model years, however, the agencies expect to see increasing numbers of EVs and PHEVs entering the marketplace.” A count of current such vehicles and EPA’s information about those likely to appear in the next three years indicates that the number of manufacturers and test groups is likely to be more limited in the near term. This ICR is written to accommodate all those families in existence or contemplated plus a margin of error; beyond that any increases in burden are speculative and will have to await the next collection authority renewal.

This ICR estimates that 35 manufacturers will incur \$2,286,829 yearly in new startup, facility, and operations and maintenance costs and 8,548 in annual labor hours as a result of the rule.

## Section 2: Need For And Use of the Collection

### 2(a) Need/Authority For The Collection

Under Title II of the Clean Air Act (42 U.S.C. 7521 et seq.), EPA is charged with issuing certificates of conformity for motor vehicle designs that comply with applicable emission standards. A manufacturer must have a certificate before vehicles may be legally introduced into commerce. Provisions in the Energy Policy Conservation Act (EPCA; codified as Title III of the Motor Vehicle Information and Cost Savings Act, 15 U.S.C. 2001 et seq.) require fuel economy ratings to be determined and vehicles to be labeled. To insure compliance with these statutes, EPA reviews product information and manufacturer test results; EPA also tests some vehicles to confirm manufacturer results. Information is also shared with other agencies: the Internal Revenue Service for “gas guzzler” taxes and NHTSA for CAFE requirements.

In the Energy Independence and Security Act of 2007 (EISA; P.L. 110-140), Congress required that NHTSA, in consultation with EPA and the Department of Energy, establish regulations to implement several new labeling requirements for new automobiles (see 49 U.S.C. 32908(g)). Based on criteria provided by EPA, NHTSA must develop a program to require manufacturers to label new automobiles with information reflecting an automobile’s performance with respect to “fuel economy and greenhouse gas and other emissions” over the automobile’s useful life. NHTSA must also develop a rating system that would make it easy for consumers to compare the fuel economy and greenhouse gas and other emissions of automobiles at the point of purchase, including designations of automobiles with the lowest GHG emissions over the useful life of the vehicles, and the highest fuel economy. The present joint EPA-NHTSA rulemaking is intended to respond to these requirements by developing a single label that will also accommodate emerging technologies.

The regulations dealing with LDV emission control can be found in 40 CFR Parts 85 and 86. EPA’s LDV fuel economy provisions are found in 40 CFR Part 600. The regulations are not attached to this statement due to their length and technical nature.

### 2(b) Practical Utility/Users of the Data

Emissions data submitted to EPA as a part of the existing certification and compliance program is used, in conjunction with additional tests and projected sales, to establish fuel economy ratings. Based on test results, EPA calculates a fuel economy number for each vehicle model. EPA then computes an average fuel economy for each manufacturer that is weighted by the number of units of each of its vehicle models in that year. This “harmonic mean” calculation is statutory (49 U.S.C. 32904). In the previous,

“five-cycle” label rulemaking (71 FR 77872, December 27, 2006) EPA extended the required fuel economy labels to certain heavier vehicles up to 10,000 pounds gross vehicle weight, such as larger SUVs and vans, beginning with the 2011 model year. In a recent joint rulemaking (75 FR 25324, May 7, 2010) EPA and NHTSA established harmonized federal greenhouse gas (GHG) emissions and corporate average fuel economy (CAFE) standards for new cars, sport utility vehicles, minivans, and pickup trucks.

In a separate program, the fuel economy ratings, used to comply with the labeling requirements for new vehicles (40 CFR Part 600, Subpart D), are listed by model type. These ratings are computed as the sales weighted harmonic mean of the “base levels” within each model type, which in turn are calculated as the sales weighted harmonic mean of the configurations/subconfigurations within each base level. This procedure is intended to insure that the most representative fuel economy values are posted on new vehicles, which are sold by the manufacturer’s model designation rather than categories that correspond to the test groups that are used for generating fuel economy data as a part of the certification process. The current fuel economy label required on all new cars and other personal vehicles contains the following information: city and highway fuel economy values in miles per gallon, how the vehicle’s combined city/highway fuel economy compares to a range of comparable vehicles, the estimated fuel cost to operate the vehicle for one year, a statement that a booklet is available from the dealer to assist in making a comparison of fuel economy of other automobiles manufactured by all manufacturers in that model year, and the amount of the automobile fuel efficiency tax (“gas guzzler tax”) imposed on the sale of the automobile under section 4064 of the Internal Revenue Code.

This joint proposal is designed to update the current label in two main respects. First, it would also bring EVs and PHEVs into the labeling scheme in a manner which accounts for the fact that the normal ways of measuring fuel economy based on exhaust emissions need to be modified. Second, the proposed rule suggests possible modifications of the label format that are intended to comply with the Congressional mandate to provide consumers information on performance with respect to “fuel economy and greenhouse gas and other emissions” over the automobile’s useful life and display a rating system that would make it easy for consumers to compare the fuel economy and greenhouse gas and other emissions of automobiles at the point of purchase, including designations of automobiles with the lowest GHG emissions over the useful life of the vehicles, and the highest fuel economy.

### Section 3: Nonduplication, Consultations, and Other Collection Criteria

#### 3(a) Nonduplication

Efforts have been made to eliminate duplication in this information collection. The mandating statutes give both EPA and NHTSA authority over labeling requirements related to fuel economy and environmental information under EPCA and EISA, respectively. In order to implement that authority in the most coordinated and efficient way, the agencies are jointly proposing the revised labels that give rise to this collection request.

The proposal also raises two duplication issues with respect to the existing FTC

labeling requirement for “alternative fuel vehicles” including EVs and flexible fuel vehicles (FFVs) (69 FR 26926, April 9, 2004; 16 CFR part 309, subpart C). First, the FTC label requires that the cruising range of EVs be determined using the procedures in SAE J1634 (16 CFR 309.22(a)(2)). Consequently, EV manufacturers selling vehicles in the United States have already been subject for several years to the SAE J1634 testing requirements proposed in the rulemaking. It is expected that tests conducted to satisfy FTC labeling requirements in previous years will be carried over to EPA certification applications under the new rule, so that this overlap is primarily an information cost accounting issue, discussed below. In addition, however, the FTC regulations specify the 1993 version of the SAE J8634, which is more elaborate and expensive than the 1999 version suggested by EPA in its existing testing guidance and contemplated by the EV testing provisions in the proposed rule. Second, The FTC label displays the cruising range of the vehicle on each fuel, and the proposed rule would similarly require fuel economy information to be displayed not just for the diesel or gasoline fuel but the alternative fuel as well. In both these latter respects EPA believes this might present information on the EPA fuel economy label that may be somewhat duplicative of the information on the FTC label, and could potentially lead to a review by the FTC and a determination that the FTC label is no longer needed in cases where information regarding both fuels is displayed on the EPA label. EPA is required by statute to consult with the FTC regarding changes to the fuel economy label, and EPA expects this to be a point of discussion.

### 3(b) Public Notice Prior to ICR Submission to OMB

EPA solicited public comment by means of a Federal Register Notice of Proposed Rulemaking; a copy can be found at <http://www.epa.gov/fueleconomy/regulations.htm>.

### 3(c) Consultations

The proposed regulations were developed with extensive consultation with the affected industry, expert opinion, and the public. This included consultations with ten or more major manufacturers, the National Automobile Dealers Association, the convening and report by a nine-member expert panel, consultations with environmental groups, and a three-stage focus group effort that was the subject of ICRs 2343.01, 2343.02 and 2343.03 (OMB 2060-0632). After the close of the comment period EPA intends to engage in additional contacts specifically with respect to the cost estimate in the proposal and this ICR.

### 3(d) Effects of Less Frequent Collection

As required by the Clean Air Act (42 USC 7525(a)), emission and fuel economy information is submitted on a yearly basis coinciding with the manufacturer’s “model year.” EPA allows applicants to define their own “model year”, thus granting some flexibility in this regard. In connection with certification application, the manufacturer submits along with emissions data the projected sales and the definition of carlines corresponding to the models that will be for sale; this information is used to calculate the values and gas guzzler information that appears on the fuel economy label. (After the end

of the model year, manufacturers send actual sales data that is used to calculate CAFE fleet-wide averages, but this is a separate program not involved in this collection.) Consequently, the label information collection, printing, and application to vehicles is inextricably linked to the annual model year timeframe. For this reason, a collection frequency longer than a model year is not possible. However, testing results are frequently “carried over” when there are no substantial emissions-related changes from one model year to the next.

### 3(e) General Guidelines

Manufacturers are required to keep some EPA fuel economy related records for periods longer than three years (for example, 40 CFR 600.005(a)(3)). This requirement stems from the statutory requirement that manufacturers warrant some items for periods longer than 3 years.

This information collection activity complies with the remaining guidelines in 5 CFR 1320.5. The proposal makes no changes in the reporting and recordkeeping provisions that impact any of the guidelines for information collections as approved in the existing approved collection.

### 3(f) Confidentiality

Information submitted by manufacturers is held as confidential until the specific vehicle to which it pertains is available for purchase. After vehicles are available, most information associated with the manufacturer/importer’s application is available to the public. Under section 208 of the Clean Air Act (42 USC 7542(c)) all information, other than trade secret processes or methods, must be publicly available. Proprietary information is granted confidentiality in accordance with the Freedom of Information Act, EPA regulations at 40 CFR Part 2, and class determinations issued by EPA’s Office of General Counsel.

### 3(g) Sensitive Questions

No sensitive questions are asked in this information collection. This collection complies with the Privacy Act and OMB Circular A-108.

## Section 4: Respondents and Information Requested

### 4(a) Respondents/NAICS Codes

The respondents are involved in the industries shown in the following table:

Category	NAICS Codes <sup>A</sup>	Examples of Potentially Regulated Entities
Industry	336111 336112	Motor vehicle manufacturers.
Industry	811112 811198 541514	Commercial Importers of Vehicles and Vehicle Components.

<sup>A</sup> North American Industry Classification System (NAICS)

4(b) Information Requested

(i) Data items

The information and reporting burden associated with this rule occurs within the context of EPA’s motor vehicle certification program. Current regulations require manufacturers to submit fuel economy and greenhouse gasses information to EPA in conjunction with this program. Manufacturers must submit an application for certification prior to production. The application describes the major aspects of the proposed product line, technical details of the emission control systems, and the results of tests to indicate compliance with the emissions limitations. The application and supporting test results are reviewed and, if appropriate, a certificate of conformity is issued.

Some of the product information used to verify emission compliance is also used, in conjunction with additional tests and projected sales, to establish fuel economy ratings for purposes of the fuel economy label.

The fuel economy ratings used to comply with the new labeling requirements for new vehicles are listed by model type. These ratings are computed as the sales weighted harmonic mean of the “base levels” within each model type, which in turn are calculated as the sales weighted harmonic mean of the configurations/sub-configurations within each base level. The criteria for determining a configuration, sub-configuration, and base level are set forth in the regulations. This procedure is intended to insure that the most representative fuel economy values are posted on new vehicles. New vehicles are sold and therefore labeled and rated by the manufacturer’s model designation rather than the categories that correspond to the test groups and fuel economy vehicles that are used for generating fuel economy data.

The proposal contemplates no changes in the methodology for the sales-weighted calculations based on configurations of vehicles and projected sales summarized in the preceding paragraph.

## (ii) Respondent Activities

Respondents are car and truck manufacturers and ICIs who submit certification applications to EPA via its Verify certification and information management system. The applications contain the results of testing conducted according to EPA regulations that, in addition to providing emissions information, yield fuel economy values for the tested vehicles. These data along with projected sales and carline details allows EPA to calculate the values that apply to the manufacturer's vehicle label. With this fuel economy and other label-related information approved by EPA, the manufacturer prints the labels consistent with the format required by EPA and NHTSA and attaches them to the vehicles before they are sent from the manufacturing plant (or ICI facility) for sale. Manufacturers must retain records related to this information submitted to EPA and appearing on the label. These tasks are repeated for each model year, although typically previous data and information can be "carried over" when no significant changes have occurred. If, during the course of a model year a product change is made (a "running change"), EPA must be notified. Under some circumstances additional test data may be required. After the end of the model year, final sales numbers are submitted to EPA and NHTSA for use in CAFE calculations, but this does not affect the fuel economy labeling program that is the subject of this collection request.

## Section 5: The Information Collected—Agency Activities, Collection Methodology, and Information Management

### 5(a) Agency Activities

The test data used by EPA to determine the fuel economy estimates posted on the fuel economy labels and to calculate a manufacturer's CAFE are derived from vehicle testing done by vehicle manufacturers who report their own test data to EPA, and at EPA's National Vehicle and Fuel Emissions Laboratory in Ann Arbor, Michigan. Each year, EPA provides fuel economy data to the Department of Energy (DOE), NHTSA, and the Internal Revenue Service (IRS) so that they can administer their fuel economy-related programs. DOE publishes the annual fuel economy label values in the annual Fuel Economy Guide and on the fuel economy web site at <http://www.fueleconomy.gov>. NHTSA receives the manufacturers' fleet average fuel economy from EPA, and determines if manufacturers are complying with the CAFE standards. EPA provides IRS with the fuel economy data for vehicles that may be subject to the Gas Guzzler tax penalty. IRS is responsible for collecting those taxes from manufacturers.

### 5(b) Collection Methodology and Management

As of model year 2010, EPA collects all fuel economy related information exclusively through its Verify information collection and management system (MY 2009 information was collected through VERIFY in CFEIS format and ICIs were not yet in the Verify system). The rule makes no changes in this reporting system, only changing the format and content of some of the information reported within it.



All information received by EPA is subject to review. Except for projected sales and a very limited amount of proprietary product information (typically catalyst formulations), all information is available to the public as soon as the vehicle is offered for sale. Emission and fuel economy data are posted on the internet; other information is available upon request under the Freedom of Information Act.

#### 5(c) Small Entity Flexibility

The analysis of the proposed rule prepared in response to the Regulatory Flexibility Act, as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 concluded that the proposed regulations will not have a significant economic impact on a substantial number of small entities. One of the 24 manufacturers and all of the 11 ICIs identified by EPA as subject to the rule can be considered small entities under the definition in 13 CFR 121.201. It is anticipated that the one manufacturer, with one EV test group, will be able to carry over its previous test results in compliance with the new label EV testing requirements. For ICIs, a significant flexibility added by the proposed regulation is to eliminate the requirement for 5-cycle testing of vehicles that would otherwise apply starting in 2011. Under the proposal, ICIs would be allowed to continue predicting their 5-cycle fuel economy estimates from data collected over the FTP and HFET driving cycles. ICIs and any new small entity entrants into the market will need to design and post labels in conformance with the regulations and perform the necessary tests to generate the information on the labels.

#### 5(d) Collection Schedule

Information must be submitted for each “model year” that a manufacturer intends to build (or import) vehicles. For fuel economy purposes, a “model year” is statutorily defined in EPCA as the annual production period of a manufacturer, as decided by the Administrator, which includes January 1 of that calendar year; or that calendar year if the manufacturer does not have an annual production period. At the time of application, the manufacturer submits the information that goes on the label that is the subject of this ICR. If a product is unchanged between model years, much of the information can be “carried over.”

### Section 6: Estimating the Burden and Cost of the Collection

The following estimates of increased burden are derived from the economic impact analysis contained in the proposed regulation. The analysis uses the cost assumptions in previous ICRs in this series, modified and updated as detailed below. As an aid to the analysis and to help articulate the range of uncertainty we estimated both low and high cost estimates for each of these cost and labor hour elements. These ranges also help indicate the extent to which the dollar and hour estimates should not be deemed to have the same number of significant digits as the unrounded numbers reported.

#### 6(a) Estimating Respondent Burden

Labor hours are associated, first, with startup costs for installing (updating) information technology systems to incorporate the new information to be reported, and for label redesign. As these labor costs are all associated with capital/startup costs, they are included under that heading, following EPA guidance (EPA ICR Handbook, Rev. 11/05, p. A-31). Label redesign is estimated to take 16 to 24 hours by an information technologist for each manufacturer. Updating information systems is deemed to apply to manufacturers of EVs and PHEVs and to entail four weeks for four IT staff for analysis and coding, and four weeks for two IT staff for testing, or 960 hours per affected manufacturer.

Second, there are labor hours associated with increased testing times for EVs and PHEVs. These test protocols would increase the testing time depending on the operating range of the vehicles (see 6(b)(ii) below). The high and low O&M labor hours are developed by multiplying the baseline hours by this increment in time. The baseline assumption is that an FTP/HFET test pair takes 30 hours of labor, divided 70% to FTP (21 hours) and 30% to HFET (9 hours) for purposes of analysis. For EVs, the range that must be tested could be from 50 to 250 miles, depending on the vehicle, so the FTP hour burden per test group is increased by 50 to 250 divided by 7.45 (the normal length of an FTP), and the HFET by 50 to 250 divided by 10.3. This calculation adds 107 to 704.75 labor hours per FTP and 43.6 to 218.5 per HFET, with each EV family needing both for certification. EV fuel economy testing under this rule is also treated as an entirely new testing cost (see below) which therefore entails 30 hours per test group in preparation costs. Preparation includes several coast downs, a UDDS (two of the four phases of a full FTP), and a soak period.

The proposed EPA test procedure for PHEVs is an extension of the existing test procedure for hybrid vehicles (see below). Hybrid vehicles already do FTP and HFET tests for fuel economy determination. The new FTP procedure would essentially run repeated FTPs until the charge is depleted. This is the “charge depleting” operation when the vehicle is mainly running on its battery. The battery would then be recharged and a single additional four-phase FTP would be conducted in what is denominated as the “charge sustain” operation. Following this the vehicle will be recharged if necessary by running any appropriate test cycle followed by HFET cycles in “charge depleting” operation, followed by a cycle in “charge sustain” operation.

For purposes of this cost analysis the charge sustain FTP and HFET cycles along with potential other cycles mandated by emissions and fuel economy testing requirements are considered to be continuations of existing requirements. The cost increment due to this proposal consequently derives entirely from the increased testing time in depleting mode. The duration of the depleting modes estimated as 7.45 to 50 miles over the repeated 7.45 or 10.3 mile FTP and HFET test cycles. These together add 27.6 to 115.375 labor hours per test group to existing hybrid testing costs.

## 6(b) Estimating Respondent Costs

### (i) Estimating labor costs

Information technology specialists for analysis and coding and label redesign are priced at \$100 per hour, although the results are budgeted as startup capital costs. Labor costs for revised FTP and HFET testing cycles for EVs and PHEVs and for EV preparation is based on the

cost assumptions of ICR 0783.47, 0783.51, 0783.54 and 0783.57. This labor cost estimate in these renewals and revisions the certification ICR series are based on laboratory labor costs at EPA's motor vehicle and engine testing facility in mid-2005, which averaged \$55 an hour for all of management, technical and secretarial plus overhead. The current estimate is based on this figure with an adjustment from the BLS Employment Cost Index for total compensation, by occupational group and industry, <http://www.bls.gov/news.release/eci.t01.htm>, of 111.8 percent for all civilian workers, taking December, 2005, as baseline adjusting to March, 2010. This raises the cost per hour to \$61.49. Future renewal requests in the OMB 2660-0103, ICR 0783 series will be similarly incremented.

## (ii) Estimating Capital and Operations and Maintenance Costs

New O&M costs come from new label-related fuel economy testing requirements for EVs and PHEVs and from printing costs for the new labels.

For EVs, EPA currently has no federal test procedure for measuring fuel economy. To date, EPA has performed some fuel economy testing connected with certification applications for electric vehicles using the procedures developed by the Society of Automotive Engineers (SAE), specifically SAE J1634. This proposal spells out EV testing requirements that are similar to SAE J1634 and allows continued use of that procedure (as cancelled in 2002).

In estimating the costs of this action, there is no clear existing default cost that manufacturers of EVs would have incurred in satisfying federal requirements, because existing fuel economy measurements are entirely specified in terms of exhaust and greenhouse gasses emissions. For purposes of the analysis, we therefore assume these EV costs are entirely new costs rather than increments to pre-existing costs. Here and in the facility costs section, this also means we (conservatively) assume no carry-over applications for EVs.

EPA is cognizant of the fact that in 2004 the Federal Trade Commission promulgated a rule requiring "alternative fueled vehicles" to include a consumer label indicating their estimated cruising ranges (69 FR 26926, April 9, 2004; 16 CFR part 309, subpart C). The covered vehicles include electric vehicles but not hybrids. Estimated cruising range for an EV is the range determined according to SAE J1634 (16 CFR 309.22(a)(2)). Consequently, EV manufacturers selling vehicles in the United States have already been subject for several years to SAE J1634 testing requirements similar to those allowed and proposed in the rulemaking. However, for purposes of the analysis in this ICR we treat the costs of compliance for manufacturers subject to the proposed rule as new costs in order to insure that they are fully considered in this rulemaking. It is not clear from the cost analysis in the FTC final rule preamble (at 26954-26955) or in the final rule ICR ((OMB 3084-0094) that the FTC considered the cost of testing in its analysis. The entire cost for the industry was estimated as 30 minutes each for 58 members of the alt fuel vehicle industry. Including the full cost of EV testing for each estimated test group subject to the rule is therefore conservative in that it ignores the likelihood that any EV test group previously satisfying the FTC labeling requirements will have its testing data carried over to the model year certification applications subject to this rule, but has the advantage of insuring that information collection-driven testing costs are included in OMB's information budget.

The salient feature of SEA J1634 for cost purposes is that it requires, similar to a conventional vehicle, the Federal Test Procedure (FTP or City Test), preceded by vehicle preparation. This is followed by the Highway Test (HFET); the off-cycle tests (US06, SCO3, cold FTP) are optional under EPA's proposal. Furthermore, cruising range determination requires that the FTP be repeated until the battery system is no longer able to maintain the FTP speed tolerances; the FTP in question is the full four-phase FTP, repeated as cold and hot start "UDDS" (or "LA-4") cycles until that point is reached. Non-labor preparation costs are estimated to be \$3,163 per vehicle, per ICR 0783.54 (OMB 2060-0104), the certification ICR for conventional vehicles. The low and high EV test distances for FTP and HFET tests is estimated as 50 to 250 miles. (The cost of the FTP is not incremented to reflect the extra phase 2 compared to the normal three phase cycle because that would be double counting in view of the 50 or 250 divided by 7.45 conversion factor.) For purposes of this estimate, the non-labor cost of an FTP/HFET pair is \$1,860, allocated 70% to the FTP and 30% to the HFET and incremented by 50 or 250 divided by 7.45 (the distance of a normal FTP) or 50 or 250 divided by 10.3 (the distance of the normal HFET). These costs total \$15,060 to \$60,848 per test group/engine family complying with the proposed label requirements.

For PHEVs, the proposed EPA test procedure is an extension of the existing test procedure for hybrid vehicles. Off-cycle tests are already required for test groups that do not meet the "litmus test"; others would use the derived 5-cycle adjustment. Hybrid vehicles already do FTP and HFET tests for fuel economy determination. The new FTP procedure would essentially run repeated FTPs until the charge is depleted. This is the "charge depleting" operation when the vehicle is mainly running on its battery. The battery would then be recharged and a single additional four-phase FTP would be conducted in what is denominated as the "charge sustain" operation. Following this the vehicle will be recharged if necessary by running any appropriate test cycle followed by HFET cycles in "charge depleting" operation, followed by a cycle in "charge sustain" operation.

For purposes of this cost analysis the charge sustain FTP and HFET cycles along with potential other cycles mandated by emissions and fuel economy testing requirements are considered to be continuations of existing requirements. The cost increment due to this proposal consequently derives entirely from the increased testing time in depleting mode. The duration of the depleting modes estimated as 7.45 to 50 miles over the repeated 7.45 or 10.3 mile FTP and HFET test cycles. These together add an estimated \$1,706 to \$10,070 in non-labor O&M costs to each test group/engine family conservatively assuming no carryovers.

The cost for the new label design is the increment in printing cost from the existing black-and-white design to color. To estimate this cost difference, we noted two sources. First, in 2007 the California Air Resources Board examined the effects of requiring a 4-by-6-inch environmental label that included color printing. It estimated the combined capital and operating costs of color labels to be as low as \$0.02 per vehicle for large

manufacturers;<sup>1</sup> CARB expected small-scale manufacturers to switch to pre-printed color labels at an incremental cost of \$0.05 per label. Secondly, in 2006 Hewlett-Packard estimated the per-letter-page cost of color printing on its HP Color LaserJet 4700n printer as \$0.09 per letter-sized page, and black-and-white printing on a dedicated black-and-white printer as \$0.015, for a cost difference of \$0.075 per page.<sup>2</sup> The existing fuel economy label measures 4.5 by 7 inches, about a third the size of a letter page. For the cost estimates developed here, we chose a low estimate of \$0.03 and a high estimate of \$0.08 per label in additional printing costs.

Note that the new label will include information already required for EVs by the FTC label rule. If these overlapping requirements can be harmonized, the cost of complying with the FTC 's and EPA/NHTSA's requirements as they apply to alternative fueled vehicles could be lowered.

### (iii) Facility Capital Costs

In addition to new equipment (treated as a startup cost, below) the new testing requirements for EVs and PHEVs will in theory require expanded testing facilities for those manufacturers choosing to produce and sell them in the U.S. Because the cost of new facility capacity is highly dependent on manufacturer-specific factors (the costs of capital, the availability of land, the structure of work shifts, the existing excess capacity, contractual arrangements with third-party testing contractors, etc.), we use the approximation of unitizing increased test costs by assuming that a facility capable of performing 750 FTP/HFET pairs would cost \$4 million. Here, the new tests are deemed to require these facilities in proportion to the increases in test time, and the costs are then annualized over ten years and amortized at 7% interest compounded monthly. This is likely a conservative assumption since it does not attempt to account for the excess capacity that exists in manufacturers' current test facilities. We assume that there is no excess capacity in our analysis. Note that other features of the EV and PHEV test cycles, such as recharging times, have been harmonized with existing test protocols. Furthermore, consistent with other information burden analyses for the emissions and fuel economy programs, we consider these as ongoing rather than startup costs (i.e., as the facilities depreciate they are continually being replaced), another conservative assumption. Applied to a low and high estimate of 5 to 8 EV families and 5 to 8 PHEV families per year, this yields an annualized cost of \$25,278 to \$175,649 per year in facility costs.

### (iii) Start-up Costs

"Startup" costs are one-time costs to implement the new requirements in the proposal beginning with model year 2012. Startup costs are accounted as one-time costs that are annualized and amortized or discounted at an interest rate of 7% over ten years. The startup cost elements identified in this analysis are for updating information systems and testing equipment

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<sup>1</sup> State of California, Air Resources Board. "Staff Report: Initial Statement of Reasons for Rulemaking: Proposed Amendments to the Smog Index Vehicle Emissions Label," May 4, 2007, [http://www.climatechange.ca.gov/publications/arb/2007-06-21\\_isor.pdf](http://www.climatechange.ca.gov/publications/arb/2007-06-21_isor.pdf) , accessed May 3, 2010.

<sup>2</sup> Hewlett-Packard, "Head to head comparison: color versus black-and-white printing," <http://www.officeproductnews.net/files/hpc2447wpcolorvsbwgov.pdf> , accessed May 4, 2010.

and label redesign.

The estimate includes the cost of upgrading information systems for the manufacturers who will need to comply with the new EV and PHEV testing requirements, such as recording multiple tests, recording battery charge data, and communicating the resulting data to the information system that gets it to EPA and the label. Both low and high estimates use 4 weeks for four IT staff for analysis and code, and 4 weeks for two IT staff for testing, at \$100 per hour, for each manufacturer. Similarly, each of these manufacturers is assumed to need new testing equipment costing \$25,000 for an ammeter and \$50,000 for voltage stabilizers.

The proposed label designs would not affect either the existence or size of the label. Auto companies currently have significant flexibility in whether fuel economy label should be a stand-alone label or included in the “Monroney label” (which provides information on the price and options included for a specific vehicle), or where it is placed on the Monroney label. The agencies are not proposing any changes to this flexibility. The agencies estimate 16 to 24 hours at \$100 per hour for this work, assuming at this time that no specific location or size within the Monroney label is required. This cost is applied to the universe of separate manufacturer entities subject to the rule.

#### 6(c) Estimating Agency Burden

The emission and fuel economy compliance programs are administered by EPA’s Compliance and Innovative Strategies Division and Laboratory Operations Division. Approximately 26 full time employee equivalents are directly involved in the combined emission and fuel economy programs; their cost is approximately \$2.9 million, including benefits but not overhead. EPA also participates in a program whereby the agency contracts with an organization that provides qualified persons to perform duties for the agency that are not performed by EPA employees. The cost associated with these persons who work directly on the combined emission and fuel economy program for the two divisions is approximately \$0.5 million, including overhead. Overhead percentage for the entire division is approximately 60 (i.e., the baseline labor costs are multiplied by 1.6), yielding an estimated total agency cost of \$5.44 million.

Implementation of the new fuel economy rule will be carried out by existing staff and by information technology contracts for the Verify information system. One-time startup costs including overhead for implementing the new rule include 300 hours and \$12,318 for public outreach, and \$500,000 in contracts without hour allocation for added computer database system development, for a total of 300 hours and \$512,318; annualized over ten years with 7% depreciation this cost burden comes to \$72,943. Ongoing agency burden added by the rule is estimated as 183 hours and \$100,000 annually in database management labor. Combined labor and annual startup plus continuing costs therefore total 483 hours (startup hours not annualized) and \$172,943. Other ongoing database management, oversight, and certification activities are part of the fuel economy and emissions program Agency baseline. All EPA labor estimates, are based on Office of Personnel Management annual pay rates effective January, 2006, with a 1.6 multiplier for overhead based on EPA’s latest fees cost allocation study (1.37 indirect program cost

overhead times 1.16 overall EPA overhead). These estimates will be updated for the final ICR. This estimate does not include Agency burdens incurred prior to the effective date of the rule, such as costs of developing the rule and preliminary consultations with manufacturers on database issues.

#### 6(d) Estimating the Respondent Universe and Total Burden and Costs

The relevant respondents or actions to which the above costs and labor hours apply are the following: 1) the number of manufacturers who will have to redesign their labels, print them, and apply them to vehicles; 2) the number of such vehicles; 3) the number of manufacturers producing EVs or PHEVs for sale in the United States, who will need to redesign information systems, purchase testing equipment, and undergo increased testing O&M costs and facility capacity costs; and 4) the number of EV and PHEV test groups likely to be tested under the modified testing requirements.

1) For the number of manufacturers, many specific automotive brands are parts of marketing groups or are owned and managed by other, parent companies. These parent groups were considered the most relevant respondent unit for label redesign. Allowing for these relationships, the best guess is that the rule would apply to 24 manufacturers and 11 independent commercial importers (ICIs) importing nonconforming vehicles into the U.S. for sale. The manufacturer list is based on determinations that are underway for the 2010 Fuel Economy Trends Report (for Trends Reports see <http://www.epa.gov/otaq/fetrends.htm> ) and may be revised later if warranted. The count of ICIs is from a search for light-duty ICIs listed in the Verify database.

2) For the number of labels, we estimate the subject fleet from the April 20, 2010, U.S. Department of Transportation's Summary of Fuel Economy Performance ( [http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/CAFE\\_Performance\\_Report\\_April\\_2010.pdf](http://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/CAFE_Performance_Report_April_2010.pdf) ), accessed June 17, 2010 ), taking MY2009's 9.82 million as the low and MY2005's 15.9 million as the high estimate.

3) EPA estimates 5 to 8 EV manufacturers and 5 to 8 PHEV manufacturers in the next three years and a combined 8 to 10 manufacturers needing to update testing equipment and/or information systems. This is an estimate based on information of existing, pending, and contemplated near-term actions as opposed to speculation about possible future directions for these industries. This is considered a conservative estimate with a margin of error both at the low and high cost estimates.

4) The number of test groups/engine families subject to new EV and PHEV testing requirements is similarly estimated as 5 to 8 for EVs and 5 to 8 for PHEVs over the next year, leading to testing and facility cost estimates that conservatively add these together to contemplate 10 to 16 test groups a year.

#### 6(e) Bottom Line Burden Hours and Cost

The results of adding these unit and respondent costs to the total units and respondents is

summarized in the following tallies for the high estimate and in the tables presented at the end of the text.

(i) Respondent Tally

RESPONDENTS	35
BURDEN HOURS	8,548
LABOR COST	\$525,635
OPERATING COST	\$184,981
FACILITY CAPITAL	\$210,779
STARTUP CAPITAL	\$324,069
TOTAL CAP & O&M	\$2,286,829
TOTAL COST WITH LABOR	\$2,812.465

(ii) Agency Tally

EMPLOYEES	26
STARTUP	\$72,943
OPERATING	\$100,000
LABOR HOURS	483

(f) Reasons for change in burden

The burden change is from burden/costs associated with implementing the new label requirements and related testing requirements detailed in the draft based on the analysis above.

6(g) Burden Statement

The annual public reporting and recordkeeping burden for this collection of information is estimated to average 279 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

To comment on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques, EPA has established a public docket for this ICR under Docket ID Number EPA-HQ-OAR-2009-0865, which is available for online viewing at



[www.regulations.gov](http://www.regulations.gov), or in person viewing at the [EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744. An electronic version of the public docket is available at [www.regulations.gov](http://www.regulations.gov). This site can be used to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the public docket that are available electronically. When in the system, select “search,” then key in the Docket ID Number identified above. Also, you can send comments to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW, Washington, D.C. 20503, Attention: Desk Officer for EPA. Please include the EPA Docket ID Number EPA-HQ-OAR-2009-0865 and OMB Control Number 2060-NEW in any correspondence.

**TOTAL ANNUAL COST AND HOURS INCREASE**

**COST BURDEN**

	Min	Max
<b>O&amp;M: testing and label</b>	\$378,518	\$1,841,981
<b>Facility Capital</b>	\$25,278	\$210,779
<b>Startup: one-time IT, label redesign, and reg familiarization, 10 yrs 7%</b>	\$170,711	\$234,069
<b>Total</b>	<b>\$574,507</b>	<b>\$2,286,829</b>

**HOURS BURDEN**

	Min	Max
<b>O&amp;M: testing and label</b>	1,211	8,548
<b>Facility Capital</b>	0	0
<b>Startup: one-time IT, equipment, label redesign, and reg familiarization, 10 yrs 7%</b>	0	0
<b>Total</b>	<b>1,211</b>	<b>8,548</b>

<b>Labor Cost</b>	<b>\$74,446</b>	<b>\$525,635</b>
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<b>Total Cost</b>	<b>\$648,952</b>	<b>\$2,812,465</b>
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**TESTING COSTS (LABOR AND O&M COSTS FOR RUNNING THE TESTS)**

Vehicle Type/Test Cycle	Increase In Number of Tests				Increase in Hours	
	Min Tests	Min Cost Increase	Max Tests	Max Cost Increase	Min	Max
EV						

<b>Prep</b>	5.0	\$18,065	8.0	\$28,904	150	240
<b>FTP</b>	5.0	\$43,691	8.0	\$349,530	705	5,638
<b>HW</b>	5.0	\$13,544	8.0	\$108,350	218	1,748
<b>PHEV</b>	5.0					
<b>FTP</b>	5.0	\$6,510	8.0	\$50,563	105	705
<b>HW</b>	5.0	\$2,018	8.0	\$30,001	33	218
<b>Total</b>		\$83,828		\$567,348	1,211	8,548
<b>PRINTING COSTS</b>						
	<b>Number</b>	<b>Min@\$0.03</b>		<b>Max@\$0.08</b>		
<b>Color Labels</b>	9,832,000	\$294,690	15,932,920	\$1,274,634		
<b>TOTAL O&amp;M</b>		<b>\$378,518</b>		<b>\$1,841,981</b>		

#### INCREASE IN TEST FACILITIES

Undepreciated capital costs	<b>Minimum</b>	<b>Maximum</b>
EV test distance increase	\$154,210	\$1,233,683
PHEV test distance increase	\$22,977	\$246,737
<b>Total</b>	\$177,188	\$1,480,420
Amortized, 10yrs @ 7 %	\$25,278	\$210,779

#### STARTUP COSTS

Item	Cost	
	Minimum	Maximum
Updating Information systems	\$768,000	\$960,000
Ammeter/stabilizer	\$375,000	\$600,000
Label redesign	\$56,000	\$84,000
<b>TOTAL</b>	<b>\$1,199,000</b>	<b>\$1,644,000</b>
Depreciate 10 years at 7%	\$170,711	\$234,069