

## Jim Lyons

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**From:** Jim Lyons  
**Sent:** Saturday, January 03, 2015 6:41 AM  
**To:** 'Mitchell, Alexander (Lex)@ARB'; Kitowski, Jack@ARB; Sideco, Katrina@ARB; Aguila, Jim@ARB  
**Cc:** Whiting, Amy@ARB  
**Subject:** RE: AB 1085 Materials for the Proposed LCFS and ADF regulations  
**Attachments:** TB 1085.pdf; ab1085compliance OHRV.PDF; offroad\_1085.pdf; Advanced Clean Cars.pdf  
**Importance:** High

Lex

I assume you're replying with respect to both rulemakings and will make arrangements with Amy on Monday to inspect both rulemaking files.

I still have a question however regarding AB 1085. In other recent rulemakings pursuant to AB 1085, CARB has posted materials related to subjects like emission benefits and economic analyses on-line. Attached are a few examples. I would appreciate knowing if materials like these will be similarly posted, if they are in the LCFS and ADF rulemaking files, or if there has been a change in how AB 1085 is being interpreted. As you know the LCFS and ADF ISORs rely on a lot of data, information and staff analyses that are not contained in the ISORs or the appendices. Given that those data and analyses are critical to understanding the staff proposals, I'm just trying to determine the fastest approach for obtaining these materials. If there is someone else I should be contacting please let me know ASAP.

Thanks for your response and in advance for your continued help with this.

Jim Lyons

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**From:** Mitchell, Alexander (Lex)@ARB [mailto:amitchel@arb.ca.gov]  
**Sent:** Friday, January 02, 2015 4:22 PM  
**To:** Jim Lyons; Kitowski, Jack@ARB; Sideco, Katrina@ARB; Aguila, Jim@ARB  
**Cc:** Whiting, Amy@ARB  
**Subject:** RE: AB 1085 Materials for the Proposed LCFS and ADF regulations

Jim,  
The notices posted for the ADF and LCFS rulemakings on Dec. 30 stated that the rulemaking records were available by contacting Amy Whiting at 322-6533. The materials were available prior to the start of the public comment period and remain available. All materials relied upon are identified in the ISORs for each of the proposed regulations.

-Lex  
(916) 327-1513

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**From:** Jim Lyons [mailto:jlyons@sierraresearch.com]  
**Sent:** Friday, January 02, 2015 12:44 PM  
**To:** Mitchell, Alexander (Lex)@ARB; Kitowski, Jack@ARB; Sideco, Katrina@ARB; Aguila, Jim@ARB  
**Cc:** Whiting, Amy@ARB  
**Subject:** AB 1085 Materials for the Proposed LCFS and ADF regulations  
**Importance:** High

All:

As the agency contacts identified in the Notices of Public Hearing for the LCFS and ADF regulations, I was hoping that you could provide me with the schedule for the posting of the AB 1085 materials associated with both proposed regulations.

Thank you very much.

Jim Lyons

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# Off-Highway Recreational Vehicles (OHRV) Regulation

## Background Materials on Air Emissions, Emission Impacts, and Economic Impacts

*This page last reviewed January 14, 2014*

The information on this page is provided to support the July 2013 Staff Report: Initial Statement of Reasons for Proposed Rulemaking - Proposed Off-Highway Recreational Vehicles Regulation.

**AB 1085 Background:** On October 11, 2009, AB 1085 was signed into law and became effective on January 1, 2010. The legislation was subsequently amended by SB 855, which was signed into law and became effective on October 19, 2010. The complete amended text reads:

**SECTION 1.** It is the intent of the Legislature in enacting this act to ensure that the public is provided all of the information relied on by State Air Resources Board staff in proposing the adoption, amendment, or repeal of a regulation, including all information related to, but not limited to, air emissions, public health impacts, and economic impacts. Nothing in this act is intended to supersede the provisions of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) or the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code).

**SECTION 2.** Section 39601.5 is added to the Health and Safety Code, to read: 39601.5. (a) The state board shall make available to the public all information described in paragraph (2) of subdivision (b) of Section 11346.2 of the Government Code, related to, but not limited to, air emissions, public health impacts, and economic impacts, before the comment period for any regulation proposed for adoption by the state board. (b) In meeting the requirement of subdivision (a), the state board shall not release proprietary, confidential, or otherwise legally protected business information. The state board shall release information in aggregated form, where necessary, to protect proprietary, confidential, or otherwise legally protected business information.

### Emissions Calculations and Analysis

For basic information on population, vehicle miles traveled, emission rates and emissions.

Emissions Model (1.3 GB)

- [OHRV Emissions Model](#)

### Emission Support Documents

Supporting material for the emission inventory for the July 2013 proposed regulation and new information and analyses used for development of new emission inventory

1. CSU Sacramento Report on RV activity survey

### Economic Data and Calculations

For information on cost calculations, cost methods, and cost survey data.

- [OHRV Cost Calculations](#)

- [OHRV Emissions Model January 14, 2014 release](#)

Population spreadsheet calculations for each vehicle type

- [All Terrain Vehicles](#)
- [Golf Specialty](#)
- [Minibike](#)
- [Off-Road Motorcycle](#)
- [Snowmobile](#)

Emission Analysis

- [Activity analysis](#)
- [Evap EF analysis](#)
- [Fuel Weathering Effect analysis](#)
- [Fuel Weathering Appendix](#)

Correction Factors Correction factors for Temp/RVP, humidity, ambient temperatures

- [Temperature/RVP](#)
- [Humidity](#)

- [Final Analysis](#)
- [CSUS Survey Raw Data](#)
- [CSUS Survey codebook](#)

## 2. [ERG Report](#)

- [ERG report on Correction Factors](#)

## 3. [Allocation](#)

- [Operation allocation](#)
- [Storage allocation](#)

## 4. [Seasonality](#)

- [Seasonality Analysis](#)

[Off-Road Mobile Sources](#)



# Advanced Clean Cars - AB1085 Background Materials for Emissions Data, Economic Data and Public Health Impacts

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*This page last reviewed August 12, 2014*

Below, ARB staff have posted background materials, calculations, and models to allow stakeholders to verify the estimates presented in the following staff reports released on December 7, 2011:

- INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING, PUBLIC HEARING TO CONSIDER THE "LEV III" AMENDMENTS TO THE CALIFORNIA GREENHOUSE GAS AND CRITERIA POLLUTANT EXHAUST AND EVAPORATIVE EMISSION STANDARDS AND TEST PROCEDURES AND TO THE ON-BOARD DIAGNOSTIC SYSTEM REQUIREMENTS FOR PASSENGER CARS, LIGHT-DUTY TRUCKS, AND MEDIUM-DUTY VEHICLES, AND TO THE EVAPORATIVE EMISSION REQUIREMENTS FOR HEAVY-DUTY VEHICLES (**LEV III**) - To access this document, go to the "[Formal Regulatory Documents](#)" Page
- INITIAL STATEMENT OF REASONS ADVANCED CLEAN CARS 2012 PROPOSED AMENDMENTS TO THE CALIFORNIA ZERO EMISSION VEHICLE PROGRAM REGULATIONS (**ZEV**) - To access this document, go to the "[Formal Regulatory Documents](#)" Page
- INITIAL STATEMENT OF REASONS ADVANCED CLEAN CARS 2012 PROPOSED AMENDMENTS TO THE CLEAN FUELS OUTLET REGULATION (**CFO**) - To access this document, go to the "[Formal Regulatory Documents](#)" Page

**AB 1085 Background:** On October 11, 2009, AB 1085 was signed into law and became effective on January 1, 2010. The legislation was subsequently amended by SB 855, which was signed into law and became effective on October 19, 2010, the complete amended text reads:

**SECTION 1.** It is the intent of the Legislature in enacting this act to ensure that the public is provided all of the information relied on by State Air Resources Board staff in proposing the adoption, amendment, or repeal of a regulation, including all information related to, but not limited to, air emissions, public health impacts, and economic impacts. Nothing in this act is intended to supersede the provisions of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) or the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code).

**SECTION 2.** Section 39601.5 is added to the Health and Safety Code, to read: 39601.5. (a) The state board shall make available to the public all information described in paragraph (2) of subdivision (b) of Section 11346.2 of the Government Code, related to, but not limited to, air emissions, public health impacts, and economic impacts, before the comment period for any regulation proposed for adoption

by the state board. (b) In meeting the requirement of subdivision (a), the state board shall not release proprietary, confidential, or otherwise legally protected business information. The state board shall release information in aggregated form, where necessary, to protect proprietary, confidential, or otherwise legally protected business information.

The information provided below is separated into Emissions, Economy and Public Health Impacts for LEV III and ZEV, LEV III only, ZEV only and the CFO Regulation.

## Emissions Data

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### LEV III and ZEV

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- **Evaporative Emissions Calculation development for EtOH fuel, ARB Staff, February 2012** - ARB staff's modification of current Evaporative Emissions Calculations for use with ethanol containing test fuel **NEW!**- **part of 15-day changes**
- **Evaporative Emissions EtOH factor development, ARB Staff, February 2012** - ARB staff's development of Evaporative Emissions optional mass adjustment factor for use with ethanol containing test fuel **NEW!**- **part of 15-day changes**
- **CRC E-77-2b October 2010 data used to develop evap EtOH factor** - Excerpts from CRC E-77-2b report used by ARB staff to develop Evaporative Emissions optional mass adjustment factor for use with ethanol containing test fuel **NEW!**- **part of 15-day changes**
- **CRC E-77-2 March 2010 data used to develop evap EtOH factor** - Excerpt from CRC E-77-2 report used by ARB staff to develop Evaporative Emissions optional mass adjustment factor for use with ethanol containing test fuel **NEW!**- **part of 15-day changes**
- **Technology package cost** - Incremental technology package costs
- **Compliance cost sheet** - Incremental technology price increase for LEV III and LEV III+ZEV compliance
- **Compliance cost sheet (3%/year GHG)** - Incremental technology price increase for compliance with 3%/year GHG case
- **Compliance cost sheet (6%/year GHG)** - Incremental technology price increase for compliance with 6%/year GHG case

- **Compliance cost sheet for lower ZEV (A) - Incremental technology price increase for compliance with lower ZEV volumes**
- **Compliance cost sheet for higher ZEV (B) - Incremental technology price increase for compliance with higher ZEV volumes**
- **Compliance cost sheet for highest ZEV (C) - Incremental technology price increase for compliance with highest ZEV volumes**
- **Project Report - Computer Simulation of Light-Duty Vehicle Technologies for Greenhouse Gas Emission Reduction in the 2020-2025 Timeframe** - Ricardo Report
- **Selection of Ricardo simulation results** - This file shows a selection of Ricardo 2011 vehicle simulation modeling results
- **Upstream fuel cycle emission calculations - Evaluation of upstream criteria and GHG emissions from LEVIII and ZEV compliance**
- **PZEV evap cert data 2007-2011** - PZEV evap diurnal certification data and statistics MY 2007-2011
- **PM mass standard support information (Appendix P) - Description of data used in Appendix P**
- **Factory Installed Equipment on 2010 MY U.S. Domestic Cars and Light Trucks** - Copyrighted sales volume for 2010 MY light-duty vehicles (domestic production)
- **Factory Installed Equipment on 2010 MY U.S. Import Cars and Light Trucks** - Copyrighted sales volume for 2010 MY light-duty vehicles (imported)
- **Mobile Air Conditioner Leakage Rates Model Year 2010** - Minnesota vehicle air conditioning leak rate database for 2010 MY

#### **EMISSIONS INVENTORY - CARBITS REBOUND**

- **Rebound Scenarios** - Calculates Change in VMT due to Rebound Effect
- **CARBITS Populations** - Populations from CARBITS for Emission Scenarios

**EMISSIONS INVENTORY - GREENHOUSE GASES**

- [Low Carbon Fuel Standard \(LCFS\)](#) - Percent reduction from LCFS
- [Proposed LEV III](#) - Percent reduction from federal standard and proposed LEV III standard
- [Global Warming Potential](#) - Global Warming Potential for 100-yr period

**EMISSIONS INVENTORY -MODELS**

- ["LEV3 Tool"](#) - Generates statewide baseline and LEV3 emission rates and inventories
- ["Scaling Tool"](#) - Takes a regional EMFAC run as input and scales the data to the LEV3 tool adjusted baseline
- [Annual Inventory](#) - Apply LEV3 Reductions to Regional EMFAC Inventory, Annual or Summer Average
- [Summer Inventory](#) - Apply LEV3 Reductions to Regional EMFAC Inventory, Annual or Summer Average
- ["CARBITS Tool"](#) - Generates emissions from CARBITS population inputs and LEV3 Tool emission rates
- [Regional Inventory](#) - Generates regional inventory based on summer or annual inventories referenced above
- [Model Structure and Inputs](#) - A brief description of the input tables in the models
- [Model Directions](#) - Directions on how to run the emissions models

**EMISSIONS INVENTORY -TECH GROUP PHASE-IN**

- [Emission level Splits](#) - The phase-ins for the populations of the scenarios
- [Emission rate recipes](#) - Emission level instructions and recipes
- [Emission level Splits/Emission rates](#) - Worksheets for phase-ins and exhaust emission rates
- [Emission level Splits/Emission rates](#) - Worksheets for phase-ins and evaporative emission rates
- [PM Exhaust Emission rates](#) - Worksheets and correction factors for Gaso Exhaust PM



- [ZEV Implementation Input](#) - Contains EMFAC 2011 Sales projections and ZEV Implementation facts
- [LEV 3 Implementation Input](#) - LEV 3 Proposed Compliance Scenario MSCD
- [LEV 3 Accelerated Scenario](#) - Accelerated Compliance Scenario from MSCD
- [LD Exhaust Emission Factors from EMFAC 2011](#) - Summer Exhaust Emission factors from EMFAC 2011
- [Evaporative Emission Factors from EMFAC 2011](#) - Summer Evaporative Emission factors from EMFAC 2011
- [Gasoline PM exhaust emission factors](#) - Gasoline PM exhaust Emission factors from EMFAC 2011
- [Methane for NMOG calculation](#)
- [TOG for NMOG calculation](#)
- [MDV diesel populations](#) - Correct EMFAC 2011 Output MDV diesel populations
- [LHD1&2 diesel populations](#) - Correct EMFAC 2011 Output LHD1&2 diesel populations
- [Tech Group fraction assignments](#) - EMFAC 2011 Tech fraction assignments
- [Programmed Emission Level Splits EMFAC 2007](#) - Revised EMFAC 2007 LEV 2 baseline
- [LEV 3 Implementation Original](#) - LEV 2 Actual PZEV sales from Manufacturer Submission
- [PM Brake wear emission rates](#) - Brakewear PM emissions from EMFAC 2010 LDV source code
- [PM Tire wear emission rates](#) - Tire wear PM emissions from EMFAC 2010 LDV source code
- [Survival rates from EMFAC LDV 2010](#) - Survival rates from EMFAC LDV 2010 source code

### LEV III

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- [SFTP HEV Test Data](#) - Results from HEV SFTP Testing

- [SFTP Exhaust Emissions Data](#) - Exhaust Emissions Data from Program 2R0601
- [Detailed SFTP Exhaust Emissions Data](#) - Exhaust Emissions Data from Program 2R0601
- [\(DRAFT\) E85 Demonstration Program Report](#) - Demonstration of E85 Fuel Usage
- [Sprinter SFTP Test Results](#) - Data results from Sprinter SFTP Testing
- [Compliance cost sheet for LEVIII criteria pollutant standard](#) - Incremental technology price increase for LEVIII-criteria standard compliance

## ZEV

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- [GHG-ZEV Overcompliance Calculator](#) - Calculator which shows the effect of staff's proposed GHG-ZEV Overcompliance provision
- [ZEV Calculator](#) - Calculator for determining overall number of vehicle expected from staff's proposal, and the effect of various provisions from staff's proposal
- [ARB 2050 Scenario Model](#) - Model for ARB's 2009 analysis of light-duty vehicles of meet 2050 GHG goals
- [TZEZ Credit Calculator](#) - Calculator for determining TZEZ Credits
- [ZEV Credit Calculator](#) - Calculator for determining ZEV Credits

## Clean Fuels Outlet

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- [GHG Analysis](#) - Workbook of CFO GHG emissions calculations including emissions calculator and output data, criteria pollutant calculations and graphs, and data used to perform the calculations. **NEW!- part of 15-day changes**
- [CA GREET version 1.8b](#) - Lifecycle analysis tool used for CFO GHG and criteria pollutant analyses.

- [CFO GREET Output File](#) - Output data from CA GREET v1.8b used for CFO GHG and criteria pollutant analyses.

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## Economic Data

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### LEV III and ZEV

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- [ACC Compliance Scenarios Summary](#) - Summary of sales, incremental prices, vehicle emissions for proposal and alternatives
- [Payback Calculator](#) - Calculates consumer payback period and fuel savings
- [ACC Cost Effectiveness](#) - Calculates cost-effectiveness of ROG+NOx and GHG reductions
- [Alternative Sales Analysis](#) - Estimates sales impacts based on price elasticity approach
- [Federal Reserve Car Loan Rates](#) - Historic data on new and used car loans
- [Inflation Adjustment Calculation](#) - Calculates CPI Adjustment Factor
- [CEC Fuel Price Forecasts 2011](#) - CEC's forecasts of retail gasoline prices for 2011 IEPR
- [Insurance Costs Estimates](#) - Insurance Information Institute estimate of insurance premiums for new vehicles (by state)
- [CA New Car Dealers' Association Economic Impact Report](#) - California dealership statistics
- [Government Fleet Size](#) - CEC's count of vehicles owned by state or local government in 2009
- [NHTS Vehicle Ownership Data](#) - Average age of vehicles owned by households of different income levels
- [Used Vehicle Value Resale Rates](#) - Average percentage of original vehicle price remaining by vehicle age for CY1994-2004

- [Mass-reduction cost evaluation sheet](#) - This file shows data related to mass-reduction cost evaluation of Appendix Q

## **CARBITS**

- [CARBITS Input Generators and Files](#)
  - !Vehtech\_file\_generator7\_XXX.xls adjusts vehicle attributes based on different methods:
    - \_oa: adjusts by overall fleet average values
    - \_fa\_ct: adjusts by fleet average values for cars and trucks separately
    - \_fa\_om: adjusts by OMEGA vehicle class
    - \_ice\_ct: adjusts by only non-ZEV vehicles for cars and trucks separately (produces vehtech\_XXX\_rescale.csv)
  - user\_fuel\_ieprsept11r\_XXX.xls: various fuel price input files
  - vehtech\_XXX.xls: various technology attribute files produced by file generator for baseline and policy scenarios
- [CARBITS Model](#) - MATLAB program that produce fleet composition projections  
See CARBITS Readme.pdf (part of zip file) for instructions on running model
- [CARBITS Output for TSD Scenarios](#) - Raw output files and summary fleet metrics for baseline and policy scenarios and sensitivity analyses
- [CARBITS Reviews](#) - External Reviews of the CARBITS Model and Results
- [CARBITS Tables for ISOR](#) - Summary statistics of vehicle attributes of alternatives in CARBITS
- [Summary of CARBITS Results](#) - Underlying data for graphs of CARBITS results in Appendix S
- [Emission Reductions with CARBITS populations](#) - Emissions results assuming consumer response

## **EDRAM**

- [EDRAM BAU Case Adjustment](#) - Calculates future fuel consumption ratio for adjusting EDRAM's Business-as-Usual Case (same file as found below in LEV III section)
- [EDRAM ACC Case Input Calculator](#) - Calculates total vehicle and fuel expenditure changes resulting from LEV III Only
- [EDRAM Allocation of Price Shocks](#) - Generates GAMS code that apportions vehicle and fuel expenditures changes to relevant sectors (same file as found below in LEV III section)
- [Summary of Policy Case Changes](#) - Summarizes total vehicle and fuel expenditure changes for 2020, 2025, 2030 (same file as found below in LEV III section)
- [2020 ACC EDRAM Model Files](#) - GAMS code specific to ACC Policy Case for 2020
- [2020 ACC EDRAM Results](#) - EDRAM Results for ACC Policy Case for 2020
- [2025 ACC EDRAM Model Files](#) - GAMS code specific to ACC Policy Case for 2025
- [2025 ACC EDRAM Results](#) - EDRAM Results for ACC Policy Case for 2025
- [2030 ACC EDRAM Model Files](#) - GAMS code specific to ACC Policy Case for 2030
- [2030 ACC EDRAM Results](#) - EDRAM Results for ACC Policy Case for 2030
- [CFO Station Cost Calculator](#) - Estimates Hydrogen Station Costs for different ramp-up scenarios

#### **DATA FROM EMFAC**

- [EMFAC LDV Output for CY2025](#) - Vehicle totals, miles, and trips for light-duty vehicles in CY2025
- [EMFAC LDV Output for CY2001-2013](#) - Vehicle totals, miles, and trips for light-duty vehicles in CY2001-2013
- [EMFAC Vehicle Counts](#) - Vehicle totals and new registrations of light-duty vehicles by MY for CY2012-2050
- [EMFAC Vehicle Counts \(raw\)](#) - Raw output of vehicle totals of light-duty vehicles by MY for CY2012-2050
- [EMFAC New Vehicle Registrations](#) - New vehicle totals CY2010-2035

- [EMFAC VMT](#) - Survival Probabilities, Accrual Rate, and Lifetime Odometer Readings

## **REBOUND**

- [Rebound Projections](#) - Calculates future rebound effect for California
- [Operating Cost Calculations](#) - Calculates operating cost reductions from regulations to estimate VMT change due to Rebound
- [Rebound Scenarios](#) - Calculates Change in VMT due to Rebound Effect (same file provided under Emissions Data for LEV III and ZEV)
- [California Population Growth Data](#) - Source data (embedded in Rebound Projections)
- [CEC Almanac - California Gasoline Prices Adjusted for Inflation](#) - Historic fuel price data (embedded in Rebound Projections)

## **LOW-INCOME CITIES AFFILIATED BUSINESSES**

- [Poverty Rates](#) - Identifies low-income cities (American Community Survey)
- [Population living below Poverty](#) - Estimates total population living in low-income cities living below poverty level
- [Low-income Cities](#) - List of Low-income Cities
- [Impacts to Affiliated Businesses in Low-income Cities](#) - Calculates changes to number of businesses, employment, sales and profit

## **SOCIAL COST OF CARBON**

- [ACC Social Cost of Carbon](#) - Calculates social cost of carbon for avoided damages annually and cumulatively
- [Federal Interagency Values for SCC](#) - Technical Support Document for Social Cost of Carbon for Regulatory Impact Analysis Under EO12866

## **LEV III**

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- [HFC-134a Car and Light-duty Truck AC Average Charge](#) - USEPA Vintaging Model assumptions for vehicle AC HFC-134a average charge
- [AC Cost and Credit Projection](#) - Projection of Cost and credit in response to vehicle air conditioning provisions
- [Cost Calculations for LEV III Criteria Emission Requirements](#) - **Incremental technology price increase for compliance with LEV III criteria emission requirements**

## **EDRAM**

- [EDRAM BAU Case Adjustment](#) - Calculates future fuel consumption ratio for adjusting EDRAM's Business-as-Usual Case
- [EDRAM LEV Only Case Input Calculator](#) - Calculates total vehicle and fuel expenditure changes resulting from LEV III Only
- [EDRAM Allocation of Price Shocks](#) - Generates GAMS code that apportions vehicle and fuel expenditures changes to relevant sectors
- [Summary of Policy Case Changes](#) - Summarizes total vehicle and fuel expenditure changes for 2020, 2025, 2030
- [2020 LEV EDRAM Model Files](#) - GAMS code specific to LEV III Policy Case for 2020
- [2020 LEV EDRAM Results](#) - EDRAM Results for LEV III Policy Case for 2020
- [2025 LEV EDRAM Model Files](#) - GAMS code specific to LEV III Policy Case for 2025
- [2025 LEV EDRAM Results](#) - EDRAM Results for LEV III Policy Case for 2025
- [2030 LEV EDRAM Model Files](#) - GAMS code specific to LEV III Policy Case for 2030
- [2030 LEV EDRAM Results](#) - EDRAM Results for LEV III Policy Case for 2030

## **Clean Fuels Outlet**

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- [H2 Station Cost Calculator](#) - This spreadsheet model calculates the macroeconomic impact of the CFO regulation
  - [Worst Case Scenario Cost Calculator](#) - This spreadsheet model calculates the worst case scenario costs in the event that FCVs do not arrive.
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## Public Health Impacts

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### LEV III and ZEV

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- [Compiled Health Tables ACC](#) - Contains data used in computing health benefits associated with reductions in PM2.5 and NOX emissions from light-duty vehicles from the LEV III Regulation.
- [Census 2000](#)





# In-Use Off-Road Diesel Vehicle Regulation - AB1085 Background Materials on Air Emissions, Health Impacts, and Economic Impacts

*This page last reviewed October 28, 2010*

Below, ARB staff have posted background materials, calculations, and models to allow stakeholders to verify the estimates presented in the October 2010 STAFF REPORT: INITIAL STATEMENT OF REASONS FOR PROPOSED RULEMAKING, PROPOSED AMENDMENTS TO THE REGULATION FOR IN-USE OFF-ROAD DIESEL-FUELED FLEETS AND THE OFF-ROAD LARGE SPARK-IGNITION FLEET REQUIREMENTS.

**AB 1085 Background:** On October 11, 2009, AB 1085 was signed into law and became effective on January 1, 2010. The legislation was subsequently amended by SB 855, which was signed into law and became effective on October 19, 2010, the complete amended text reads:

**SECTION 1.** It is the intent of the Legislature in enacting this act to ensure that the public is provided all of the information relied on by State Air Resources Board staff in proposing the adoption, amendment, or repeal of a regulation, including all information related to, but not limited to, air emissions, public health impacts, and economic impacts. Nothing in this act is intended to supersede the provisions of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) or the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code).

**SECTION 2.** Section 39601.5 is added to the Health and Safety Code, to read: 39601.5. (a) The state board shall make available to the public all information described in paragraph (2) of subdivision (b) of Section 11346.2 of the Government Code, related to, but not limited to, air emissions, public health impacts, and economic impacts, before the comment period for any regulation proposed for adoption by the state board. (b) In meeting the requirement of subdivision (a), the state board shall not release proprietary, confidential, or otherwise legally protected business information. The state board shall release information in aggregated form, where necessary, to protect proprietary, confidential, or otherwise legally protected business information.

## Emissions Data

- [Emission and Cost Spreadsheets for Alternatives and Proposal \(Excel\)](#)
- Emissions Inventory Model for Baseline and Final Proposal

## Economic Data

- [Emission and Cost Spreadsheets for Alternatives and Proposal \(Excel\)](#)
- [LSI cost data](#)

## Public Health Impact Data

- [health benefits associated with reductions in diesel pm emissions from the 2010 amendments \(zip file\)](#)

[Instructions](#); [Access database \(1.1 GB\)](#)

- Population - DOORS  
Populations in the Off-Road Diesel Emissions Inventory  
[Info](#); [Access database](#)
- [AB 8 2x data used to derive activity values in model](#)
- Economic Recovery
  - Data used to calculate age distribution fractions and average ages from 2009-2030 [Info](#); [Access database](#)
  - UCC-1 Transactions Data from Equipment Data Associates: [Info](#); [Access database](#)
  - [Construction Sales Model used to derive model year adjustment factors for use in the Age Distributions Database \(Excel\)](#)
  - [GSE Sales Model used to derive model year adjustment factors for use in the Age Distributions Database\(Excel\)](#)
  - [Final Economic Recovery Factors to be used in OSM \(Excel\)](#)
- [Raw data and calculations to derive growth factors and forecasted recovery scenarios for all categories of equipment. \(Excel\)](#)
- [Allocation \(Excel files\)](#)

- Factors used to allocate In-Use Off-Road emissions to the various air basins in the state.
- Raw data and calculations to estimate the allocation factors for industrial equipment.
- Raw data and calculations to estimate the allocation factors for construction and mining equipment.
- Emissions Inventory Models
  - Emissions inventory model for baseline and adopted rule (Access database)
  - Emissions inventory model for baseline and adopted rule without recession (Access database)
- The emissions inventory for statewide mobile sources (Excel)
- LSI emission data
- OSM Executable Model (public version): confidentiality information; Download zip files

Diesel Activities



# The Truck and Bus Regulation Amendments Background Materials on Air Emissions, Health Impacts, and Economic Impacts

*This page created March 5, 2014*

The information on this page is provided to support the April 2014 Staff Report: Initial Statement of Reasons for Proposed Rulemaking - Proposed Amendments to the Truck and Bus Regulation.

**AB 1085 Background:** On October 11, 2009, AB 1085 was signed into law and became effective on January 1, 2010. The legislation was subsequently amended by SB 855, which was signed into law and became effective on October 19, 2010. The complete amended text reads:

**SECTION 1.** It is the intent of the Legislature in enacting this act to ensure that the public is provided all of the information relied on by State Air Resources Board staff in proposing the adoption, amendment, or repeal of a regulation, including all information related to, but not limited to, air emissions, public health impacts, and economic impacts. Nothing in this act is intended to supersede the provisions of the California Public Records Act (Chapter 3.5 (commencing with Section 6250) of Division 7 of Title 1 of the Government Code) or the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code).

**SECTION 2.** Section 39601.5 is added to the Health and Safety Code, to read: 39601.5. (a) The state board shall make available to the public all information described in paragraph (2) of subdivision (b) of Section 11346.2 of the Government Code, related to, but not limited to, air emissions, public health impacts, and economic impacts, before the comment period for any regulation proposed for adoption by the state board. (b) In meeting the requirement of subdivision (a), the state board shall not release proprietary, confidential, or otherwise legally protected business information. The state board shall release information in aggregated form, where necessary, to protect proprietary, confidential, or otherwise legally protected business information.

**Emissions Data**

**Emission Support  
Documents**

**Economic Data**

For basic information on population , vehicle miles traveled, emission rates and emissions.

- [Emission Documentation Package](#)
- [Emission Inventory for the Current Adopted Regulation](#)
- [Emission Inventory for the Proposed Amendments](#)

### Truck Counts

- [Truck Counts Explained](#)
- [Combined Summary Truck Counts](#)
- [In State Truck Counts](#)
  - [One Truck Fleets](#)
  - [Two Truck Fleets](#)
  - [Three Truck Fleets](#)
  - [Large >3 Truck Fleets](#)
- [Inter State Counts](#)
  - [Truck Fleet Results](#)
  - [SQL Queries](#)
- [Comparison of Truck Counts](#)

Supporting material for the emission inventory for April 2014 amendments

- [Emission Inventory Summary](#)
- [Vehicle Miles Traveled Growth Trends](#)
- [Estimated Percentage of Activities Eligible for NOx Exempt Provision](#)
- [Sales Growth Trend Estimates](#)
- [Fleet Turnover and Retrofit Assumptions](#)
- [Core Source Code for Improved Model Year Matching](#)
- [Engine and Truck Model Years in Drayage Truck Registry](#)
- [2010 and 2014 Statewide Mobile Source Emissions](#)

- [Cost Expenditure Estimates](#)
- [Cost Effectiveness](#)
- [Costs Attributed to the Amendments](#)
- [Reporting and Annual Costs](#)

### Other Data:

[Diesel Activities](#)