

California Air Resources Board

2012 Zero Emission Vehicle Credits

The data below provide greater transparency of compliance with the Zero Emission Vehicle (ZEV) regulation per California Code of Regulations title 17 section 1962.2(l) Public Disclosure.

Manufacturer Volume Status

The ZEV Regulation requires large volume and intermediate volume vehicle manufacturers to bring to and operate in California a certain percent of ZEVs (such as battery electric and fuel cell vehicles), clean plug-in hybrids, clean hybrids and clean gasoline vehicles with near-zero tail pipe emissions. The table below lists the 2012 vehicle manufacturers subject to the ZEV requirements.

Large Volume Status		
Chrysler Group	Ford	GM
Honda	Nissan	Toyota

Intermediate Volume Status	
BMW	Hyundai
KIA	Land Rover
Mazda	Mercedes Benz
Subaru	Volkswagen

Manufacturer Sales in California

The table below displays the 2012 California vehicle production of large volume and intermediate volume manufacturers. A vehicle manufacturer's 2012 ZEV requirement is based on a percentage of all passenger cars and light-duty trucks (LDT) from 0 to 8,500 pounds (lbs.), delivered for sale in California.

Manufacturer	Passenger and LDT
BMW	57,983
Chrysler Group	118,150
Ford	143,625
FUJI Heavy Industries / Subaru	21,184
GM	159,999
Honda	229,337
Hyundai	66,272
KIA	47,695
Land Rover	7,246
Mazda	34,111
Mercedes Benz	57,904
Nissan	135,021
Toyota	296,880
Volkswagen	85,017
Total	1,460,424

*Production does not include ZEVs.

Manufacturer Credit Balances

In complying with the ZEV Regulation, manufacturers operate vehicles in California which generate varying credits based on vehicle type. There are also other parties generating credits that do not have ZEV requirements. The table below lists the credit balances as of September 30, 2013 generated since the start of the ZEV Regulation in 1990. The credits are in units of grams per mile Non-Methane Organic Gases (g/mi NMOG).

Manufacturer	ZEV (excludes NEVs)	NEV	TZEV	AT PZEV	PZEV
Azure Dynamics	0.000	0.000	0.000	0.000	0.000
BMW	176.665	0.000	0.000	0.000	9.775
Chrysler Group	415.424	278.044	0.000	0.000	0.000
CODA	0.280	0.000	0.000	0.000	0.000
Ford	167.595	943.943	0.000	504.587	756.653
FUJI Heavy Industries / Subaru	0.000	41.199	0.000	0.000	124.805
GM	654.826	570.132	205.127	788.908	0.000
Honda	571.232	715.970	65.242	567.104	341.312
Hyundai	31.360	0.000	0.000	64.411	121.655
Jaguar Land Rover	74.795	0.000	0.000	0.000	0.000
KIA	11.381	0.000	0.000	47.317	40.300
Mazda	0.000	0.000	0.000	0.000	246.269
Mercedes Benz	82.245	43.142	0.000	0.000	0.000
Mitsubishi	1.855	0.000	0.000	0.000	51.395
Nissan	740.388	0.000	0.000	0.000	1,325.313
Polaris	0.000	0.000	0.000	0.000	0.000
Tesla	276.080	0.000	0.000	0.000	0.000
Think	0.000	0.000	0.000	0.000	0.000
Toyota	876.084	0.000	122.336	7,479.925	205.756
Volkswagen	40.000	0.000	0.000	0.000	79.333
Volvo	0.000	0.000	0.000	0.000	117.791
Wheego	0.219	0.000	0.000	0.000	0.000
Zipcar	0.000	0.000	0.000	21.438	17.083
Total	4,120.209	2,592.430	392.705	9,473.689	3,437.411

*The manufacturer credit balances table excludes all inactive manufacturers with zero credit balances.

Description of Credit Balances:

ZEV = Zero Emission Vehicle

NEV = Neighborhood Electric Vehicle

TZEV = Transitional Zero Emission Vehicle (plug-in hybrids)

AT PZEV = Advanced Technology Partial Zero Emission Vehicle (clean hybrids)

PZEV = Partial Zero Emission Vehicle (clean gasoline)

Manufacturer Transfers

Manufacturers may transfer credits with other manufacturers. Below are the ZEV credit transfers recorded between October 1, 2012 and September 30, 2013.

Transferor	Vehicle Type	Total Credits
CODA	ZEV	3.535
Ford	PZEV	15.143
Mitsubishi	ZEV	16.695
Nissan	PZEV	25.000
Polaris	ZEV	1.197
Suzuki	ZEV	41.199
Tesla	ZEV	1,311.520
Think	ZEV	0.770
Toyota	AT PZEV	507.500
	Total	1,922.559
Transferee	Vehicle Type	Total Credits
Chrysler	ZEV	526.197
Chrysler	PZEV	25.000
GM	ZEV	368.865
GM	AT PZEV	507.500
Honda	ZEV	323.860
Jaguar Land Rover	ZEV	74.795
Land Rover	PZEV	15.143
Subaru	ZEV	41.199
Volkswagen	ZEV	40.000
	Total	1,922.559

Frequently Asked Questions

How many vehicles have been brought to and operated in California as a result of the ZEV Regulation?

These credit balances reflect ZEV regulation compliance through model year 2012, representing a total nearly 3 million vehicles including approximately 500 fuel cell vehicles, 17,000 battery electrics, 29,100 NEVs, 9,200 plug-in hybrids, half a million clean hybrids, and 2.7 million clean gasoline vehicles.

What do these credit balances mean? All vehicle manufacturers subject to the ZEV Regulation are in compliance through model year 2012. Positive credit balances represent a successful over compliance with the ZEV Regulation. Manufacturers can use these balances to provide flexibility in the timing and production of bringing new clean cars to the market to meet the ZEV requirements in coming years.

How far into the future do these credit balances cover the manufacturers' ZEV requirement? Each manufacturer is unique in its strategy of compliance with the ZEV Regulation. It is not possible to predict how and when these credit balances will be spent over the coming years due to the complexity and flexibility of the regulation. There are also various mechanisms in the ZEV Regulation which limit how credits are spent. These balances will be taken into account in future amendments to the regulation.

Why are credit balances in units of grams/mile Non-Methane Organic Gases (g/mile NMOG)?

When credits are earned they are multiplied by the g/mile NMOG fleet average requirement for the appropriate model year. Please note that in the ZEV Regulation g/mi NMOG is used only as an index (which decreases over time)

— it is the “currency” that credits are stored in and does not represent actual values of g/mi NMOG. The intent of this multiplier was to reward early production of vehicles.

How do you calculate a manufacturer’s requirement?

For understanding the calculations involved in the ZEV Regulation, please see the ZEV Tutorial link below.

More Information

- [ZEV Regulation](#)
- [ZEV Tutorial](#)
- [ZEV Credit Archive](#)
- [MAC 2011-02](#): Zero Emission Vehicle (ZEV) Credit Reporting and Tracking System
- NMOG table from California Code of Regulations, Title 13, Section 1961(b)(1)(A)

Fleet Average Non-Methane Organic Gas Exhaust Mass Emission Requirements for Light-duty Vehicle Weight Classes (50,000 Mile Durability Vehicle Basis)

Model Year	All PCs; LDTs 0 3,750 lbs. LVW	LDTs 3,751 lbs. LVW to 8,500 lbs. GVW
2001	0.070	0.098
2002	0.068	0.095
2003	0.062	0.093
2004	0.053	0.085
2005	0.049	0.076
2006	0.046	0.062
2007	0.043	0.055
2008	0.040	0.050
2009	0.038	0.047
2010+	0.035	0.043

Fleet Average NMOG in units of grams per mile;

PC = Passenger Car, LDT = Light Duty Truck, LVW = Loaded Vehicle Weight, GVW = Gross Vehicle Weight

Contact Us

For more information please contact the Office of Communications at (916) 322-2990 or (800) 242-4450.