



2016 Zero Emission Vehicle Credits

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To provide greater transparency to interested stakeholders, Air Resources Board (ARB or Board) requested that production data beginning in model year 2009 and credit balances in 2010 be made publicly available. This request was incorporated into the Zero Emission Vehicle (ZEV) Regulation and is in section 1962.1(l).

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 2016 vehicle manufacturers subject to the ZEV requirements.

2016 Manufacturer Volume Status	
Large Volume	Intermediate Volume
Fiat Chrysler	BMW
Ford	Hyundai
GM	Kia
Honda	Jaguar Land Rover
Nissan	Mazda
Toyota	Mercedes
	Subaru Corporation
	Volkswagen

Manufacturer Requirement

A vehicle manufacturer's ZEV requirement is based on a percentage of all passenger cars and light-duty trucks from 0 to 8,500 pounds (lbs.), delivered for sale in California. The table below is the 2016 California vehicle production of large volume and intermediate volume manufacturers.

Large and Intermediate Volume Manufacturer 2016 Vehicle Production Delivered for Sale in CA*	
Manufacturer	Passenger and LDT
BMW	86,356
Fiat Chrysler	166,995
Ford	205,649
GM	208,319
Honda	313,136

Hyundai	94,515
Jaguar Land Rover	21,738
KIA	89,703
Mazda	85,624
Mercedes	75,393
Nissan	142,811
Subaru Corporation	56,942
Toyota	385,694
Volkswagen	98,471
TOTAL	2,031,346

LDT = light duty truck 0-8500 lbs

* Production Delivered 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 August 31, 2017 generated since the start of the ZEV Regulation in 1990. The credits are in units of ZEV credits.

California Zero Emission Vehicle Credit Balances						
Manufacturer	ZEV	1.5x/ltx	NEV+	TZEV	AT PZEV	PZEV
BMW	8,768.00	19,753.56	0.00	0.00	0.00	0.00
BYD Motors Inc.	0.00	0.00	0.00	0.00	0.00	0.00
Fiat Chrysler	90,722.80	0.00	0.00	0.00	14,560.85	1,539.66
Ford	61,352.45	0.00	13,351.26	58,789.857	7,503.40	8,546.20
GM	29,240.20	0.00	8,558.35	75,735.42	5,218.32	8,167.62
Honda	24,422.82	0.00	11,301.84	3,314.38	7,780.20	61,349.24
Hyundai	2,075.00	0.00	0.00	2,095.06	6,868.71	8,477.09
Jaguar Land Rover	3,921.49	0.00	0.00	0.00	0.00	2,070.32
KIA	6,835.09	0.00	0.00	0.00	6,804.45	10,721.92
Mazda	0.00	0.00	0.00	0.00	6,840.00	7,782.46
Mercedes	26,776.79	0.00	1,232.63	1,684.00	99.38	4,620.78
Miles	0.00	0.00	5.14	0.00	0.00	0.00
Mitsubishi	148.50	0.00	0.00	0.00	0.00	1,468.43
Nissan	50,835.82	0.00	0.00	0.00	0.00	0.00
Polaris	0.00	0.00	0.00	0.00	0.00	0.00
Subaru Corporation	34,376.00	0.00	1,177.11	0.00	977.30	20,745.96
Tesla	29,556.00	0.00	0.00	0.00	0.00	0.00
Toyota	75,544.54	0.00	0.00	1,674.83	204,389.53	0.00

Vantage	0.00	0.00	0.00	0.00	0.00	0.00
Volkswagen	23,724.86	0.00	0.00	3,695.39	855.54	4,018.81
Volvo	0.00	0.00	0.00	1,073.38	0.00	4,588.26
Zenith	62.50	0.00	0.00	0.00	0.00	0.00
Zipcar	0.00	0.00	0.00	0.00	612.51	488.09
TOTAL	468,362.86	19,753.56	35,626.33	148,062.32	262,510.19	144,584.84

ZEV = Zero Emission Vehicle

NEV = Neighborhood Electric Vehicle

TZEV = Transitional Zero Emission Vehicle

AT PZEV = Advanced Technology Partial Zero Emission Vehicle

PZEV = Partial Zero Emission Vehicle

Manufacturer Transfers

Manufacturers may transfer credits between manufacturers and third parties. Below are the ZEV credit transfers recorded between September 1, 2016 and August 31, 2017.

California ZEV Credit Transfers Recorded Between September 1, 2016 and August 31, 2017		
Transferor	Type of Vehicle	Number of Credits
GM	TZEV	6,000.00
Honda	BEV	2,500.00
Honda	PZEV	12,700.00
Tesla	BEV	51,776.00
	TOTAL	72,976.00

Transferee	Type of Vehicle	Number of Credits
Fiat Chrysler	BEV	13,200.00
GM	BEV	2,500.00
GM	PZEV	12,700.00
Honda	TZEV	6,000.00
Subaru Corporation	BEV	3,376.00
Toyota	BEV	35,200.00
	TOTAL	72,976.00

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 2016, representing a total of over 5 million vehicles including over 1,300 fuel cell vehicles, 140,000 battery electric and IIXs, 29,700 NEVs, 100,000 clean plug-in hybrids, 750,000 clean hybrids, and over 4 million clean gasoline vehicles.

What do these credit balances mean?

All vehicle manufacturers subject to the ZEV Regulation are in compliance through model year 2016. 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 the credit balances in ZEV credits instead of grams per mile Non-Methane Organic Gases (g/mi NMOG)?

For 2015 reporting year and onward credits are expressed in ZEV credits. The purpose of this change is to simplify credit calculations. 2014 balances were divided by .035 to convert g/mile NMOG credits to ZEV credits.

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](#)

Contact Us

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