

# California Air Resources Board

## 2018 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

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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), and clean plug-in hybrids. The table below lists the 2018 vehicle manufacturers subject to the ZEV requirements.

Large Volume Status		
BMW	Fiat Chrysler	Ford
GM	Honda	Hyundai
KIA	Mercedes	Nissan
Toyota	Volkswagen	

Intermediate Volume Status
Jaguar Land Rover
Mazda
Subaru Corporation
Volvo

### Manufacturer Sales in California

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The table below displays the 2018 California vehicle production of large volume and intermediate volume manufacturers. A vehicle manufacturer's 2018 ZEV requirement is based on 4.5% of their total average production volume of all passenger cars and light-duty trucks (LDT) from 0 to 8,500 pounds (lbs.), delivered for sale in California from 2014-2016.

Manufacturer	Passenger and LDT
BMW	83,575
Fiat Chrysler	166,927
Ford	182,175
GM	223,065
Honda	287,584
Hyundai	79,410
Jaguar Land Rover	21,445
KIA	62,654
Mazda	52,273
Mercedes	88,131
Nissan	120,216
Subaru Corporation	72,507
Toyota	365,615
Volkswagen	131,298
Volvo	12,977
<b>Total</b>	<b>1,959,311</b>

\*Production does 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, 2019 generated since the start of the ZEV Regulation in 1990. The credits are in units of ZEV credits.

Manufacturer	ZEV	BEVx	NEV+	TZEV	DISCOUNT AT PZEV and PZEV
BMW	15,170.17	32,622.34	0.00	513.74	0.00
Fiat Chrysler	82,762.38	0.00	0.00	122.64	1,512.72
Ford	65,554.99	0.00	8,014.94	74,960.67	3,451.97
GM	119,885.61	0.00	5,303.37	130,630.21	0.00
Honda	54,515.93	0.00	8,274.35	9,925.66	5,906.12
Hyundai	2,633.91	0.00	0.00	3,519.25	2,962.89
Jaguar Land Rover	3,921.49	0.00	0.00	0.00	368.28
KIA	7,914.22	0.00	0.00	3,219.43	4,174.25
Mazda	2,165.00	0.00	0.00	0.00	2,079.13
Mercedes	24,411.11	0.00	0.00	5,915.11	0.00
Miles	0.00	0.00	5.14	0.00	0.00
Mitsubishi	151.00	0.00	0.00	713.40	367.11
Nissan	62,682.14	0.00	0.00	0.00	0.00
Subaru Corporation	53,567.00	0.00	1,177.11	0.00	5,059.91
Tesla	210,851.13	0.00	0.00	0.00	0.00
Toyota	219,963.15	0.00	0.00	32,141.17	46,380.92
Volkswagen	35,725.52	0.00	0.00	7,942.62	0.00
Volvo	0.00	0.00	0.00	2,753.76	1,184.92
Zenith	62.50	0.00	0.00	0.00	0.00
Zipcar	0.00	0.00	0.00	0.00	275.15
<b>Total</b>	<b>961,937.24</b>	<b>32,622.34</b>	<b>22,774.91</b>	<b>272,357.66</b>	<b>73,723.37</b>

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

### Description of Credit Balances:

ZEV = Zero Emission Vehicle (fuel cell and battery electric)

NEV = Neighborhood Electric Vehicle

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

Discount AT PZEV and PZEV = Conversion of Advanced Technology Partial Zero Emission Vehicle (clean hybrids) and Partial Zero Emission Vehicle (clean gasoline) per 1962.1(g)(2)(f)

## Manufacturer Transfers

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Manufacturers may transfer credits with other manufacturers. Below are the ZEV credit transfers recorded between September 1, 2018 and August 31, 2019.

Transferor	Vehicle Type	Total Credits
Fiat Chrysler	BEV	23,906.00
	<b>Total</b>	<b>23,906.00</b>
Transferee	Vehicle Type	Total Credits
Honda	BEV	23,906.00
	<b>Total</b>	<b>23,906.00</b>

## Frequently Asked Questions

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### **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 2018, representing a total of over 485,000 vehicles including 6,400 fuel cell vehicles, 275,000 battery electric and range extended vehicles, and over 200,000 clean plug-in hybrids. Current ZEV sales estimates are available at [www.veloz.org](http://www.veloz.org).

**Besides earning credits or transferring credits, what else can contribute to a manufacturers' credit balance?** In the ZEV regulation fuel cell vehicles and battery electric vehicles earned in one state are allowed to be counted as earned in all ZEV states, this is called the "travel" provision. When credits earned in the other ZEV states are traveled to California, they are traveled on a one to one basis. Travel of BEVs was completed prior to the close of the model year 2017 per the ZEV regulation. The frequency of manufacturers completing travel has varied over the years with some manufacturers traveling BEV credits on an annual basis, and some manufacturers traveling BEV credits accumulated over several years in a single year.

**What do these credit balances mean?** All vehicle manufacturers subject to the ZEV Regulation are in compliance through model year 2018. 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?**

Discount credits will expire after model year 2025 compliance. 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 0.035 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

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