

California Air Resources Board

2017 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 2017 vehicle manufacturers subject to the ZEV requirements.

| Large Volume Status | | |
|---------------------|--------|--------|
| Fiat Chrysler | Ford | GM |
| Honda | Nissan | Toyota |

| Intermediate Volume Status | |
|----------------------------|-------------------|
| BMW | Mercedes |
| Hyundai | Jaguar Land Rover |
| KIA | Mazda |
| Subaru Corporation | Volkswagen |

Manufacturer Sales in California

The table below displays the 2017 California vehicle production of large volume and intermediate volume manufacturers. A vehicle manufacturer's 2017 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 | 77,035 |
| Fiat Chrysler | 156,110 |
| Ford | 210,920 |
| GM | 230,182 |
| Honda | 305,031 |
| Hyundai | 115,104 |
| Jaguar Land Rover | 25,457 |
| KIA | 72,052 |
| Mazda | 44,340 |
| Mercedes | 76,003 |
| Nissan | 163,851 |
| Subaru Corporation | 74,999 |
| Toyota | 428,700 |
| Volkswagen | 112,809 |
| Total | 2,092,593 |

*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 August 31, 2018 generated since the start of the ZEV Regulation in 1990. The credits are in units of ZEV credits.

Per section 1962.1(g)(2)(F) "Converting PZEV and AT PZEV Credits after Model Year 2017. After model year 2017 compliance, a manufacturer's PZEV and AT PZEV credit accounts will be converted to be used for compliance with requirements specified in subdivision 1962.2(b). For LVMs, PZEV accounts will be discounted 93.25%, and AT PZEV accounts will be discounted 75%. For IVMs, PZEV accounts and AT PZEV accounts will be discounted 75%. This will be a one-time calculation after model year 2017 compliance is complete." This conversion of PZEV and AT PZEV credits is shown in the "DISCOUNT AT PZEV and PZEV" column below.

| Manufacturer | ZEV | BEVx | NEV+ | TZEV | AT PZEV | PZEV | DISCOUNT AT PZEV and PZEV |
|--------------------|-------------------|------------------|------------------|-------------------|-------------------|-------------------|---------------------------|
| BMW | 13,369.00 | 29,444.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Fiat Chrysler | 108,400.35 | 0.00 | 0.00 | 0.00 | 10,307.59 | 0.00 | 2,576.90 |
| Ford | 68,894.09 | 0.00 | 9,248.97 | 76,779.49 | 13,261.84 | 2,022.32 | 3,451.97 |
| GM | 99,509.97 | 0.00 | 6,112.36 | 120,119.10 | 1,957.01 | 305.48 | 509.87 |
| Honda | 31,444.92 | 0.00 | 8,274.35 | 286.89 | 7,852.60 | 83,487.28 | 7,598.54 |
| Hyundai | 4,156.00 | 0.00 | 0.00 | 4,252.18 | 6,868.71 | 4,982.85 | 2,962.89 |
| Jaguar Land Rover | 3,921.49 | 0.00 | 0.00 | 0.00 | 0.00 | 4,210.88 | 1,052.72 |
| KIA | 10,698.99 | 0.00 | 0.00 | 1,859.76 | 6,804.45 | 9,892.56 | 4,174.25 |
| Mazda | 2,165.00 | 0.00 | 0.00 | 0.00 | 6,840.00 | 11,981.54 | 4,705.39 |
| Mercedes | 28,860.24 | 0.00 | 0.00 | 3,761.57 | 0.00 | 0.00 | 0.00 |
| Miles | 0.00 | 0.00 | 5.14 | 0.00 | 0.00 | 0.00 | 0.00 |
| Mitsubishi | 151.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1,468.43 | 367.11 |
| Nissan | 56,687.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Subaru Corporation | 53,567.00 | 0.00 | 1,177.11 | 0.00 | 977.30 | 29,089.48 | 7,516.70 |
| Tesla | 74,712.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Toyota | 222,553.12 | 0.00 | 0.00 | 32,559.29 | 195,551.11 | 0.00 | 48,887.78 |
| Volkswagen | 36,617.60 | 0.00 | 0.00 | 8,695.07 | 855.54 | 378.17 | 308.43 |
| Volvo | 0.00 | 0.00 | 0.00 | 2,397.34 | 0.00 | 4,739.66 | 1,184.92 |
| Zenith | 62.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Zipcar | 0.00 | 0.00 | 0.00 | 0.00 | 612.51 | 488.09 | 275.15 |
| Total | 815,770.97 | 29,444.64 | 24,817.93 | 250,710.69 | 251,888.66 | 153,046.74 | 85,572.60 |

*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)
- BEVx = Type 1.5x/IIx (range extended)
- 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 September 1, 2017 and August 31, 2018.

| Transferor | Vehicle Type | Total Credits |
|---------------|--------------|------------------|
| Fiat Chrysler | BEV | 469.00 |
| Tesla | BEV | 88,214.00 |
| | Total | 88,683.00 |
| | | |
| Transferee | Vehicle Type | Total Credits |
| Honda | BEV | 469.00 |
| Toyota | BEV | 88,214.00 |
| | Total | 88,683.00 |

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 2017, representing a total of 5.7 million vehicles including 5,000 fuel cell vehicles, 200,000 battery electric and range extended vehicles, 29,700 neighborhood electric vehicles, 150,000 clean plug-in hybrids, 800,000 clean hybrids, and 4.5 million clean gasoline vehicles.

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 2017. 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.