



HAWAII STATE
Energy Office

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FACTSHEET:
**Review of Hawaii Status to Adopt a
Zero Emission Vehicle Standard**



STATE OF HAWAII • DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

Can Hawaii adopt CARB Clean Vehicle Emission Standards to become a “Section 177 ZEV State”?

Hawaii’s Status: Due to its low levels of criteria pollutants, Hawaii receives “in-attainment” status from the EPA, making Hawaii ineligible to adopt California’s stricter vehicle emissions standards. Hawaii, along with North Dakota, South Dakota, Oklahoma, and Mississippi, are the only 5 states that have “in-attainment” status. No state with “in-attainment” status has ever adopted California’s stricter standards. In addition, the Hawaii state legislature cannot adopt standards like California’s as individual states are not allowed to create or enforce their own vehicle emission rules.

CARB Clean Vehicle Emissions Standards: Under Section 177 of the federal EPA (Environmental Protection Agency) Clean Air Act, states can adopt the CARB (California Air Resources Board) emission standards in lieu of federal EPA emission standards. Adopting these stricter standards mandates automobile manufacturers to sell an increasing percentage of electric vehicles in that state. States that adopt California’s standards are frequently referred to as “Section 177 ZEV States”.

Requirements/Eligibility: If states choose to adopt California’s standards, Section 177 requires that such standards be identical to the California standards. States are not required to seek EPA approval under the terms of Section 177. States with non-attainment areas are eligible to adopt California’s stricter motor vehicle emission standards. Areas designated as “non-attainment” by the EPA are areas where pollution levels have not met the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants.

CARB (California Air Resources Board) CLEAN VEHICLE EMISSIONS STANDARDS

The EPA is authorized to create nationwide emissions standards by the Clean Air Act (CAA). Special provisions in the EPA CAA allows states to follow federal emission standards or adopt California’s stricter emission standards.

- CAA Section 209(a) prohibits any state from establishing motor vehicle emission standards.
- However, CAA Section 209(b)(1) exempts California from this preemption, allowing it to adopt vehicle emission standards that are more stringent than federal standards.
- CAA Section 177 allows other states to have stricter standards as long as they are identical to California standards¹

States designated with EPA [non-attainment](#) areas can adopt California’s motor vehicle emission standards under section 177 in lieu of federal EPA requirements². States with non-attainment status currently do not meet the National Ambient Air Quality Standards (NAAQS) or were out of compliance in previous years.

- NAAQS exist for six “criteria” pollutants: carbon monoxide, nitrogen dioxide, ozone, lead, sulfur dioxide and particulate matter.
- Almost every state (including the District of Columbia) has non-attainment areas except for Hawaii, Mississippi, North Dakota, Oklahoma and South Dakota.

¹ [United States Code Title 42, Chapter 85, subchapter 1, Part D, subpart 1, Section 7507](#): New motor vehicle emission standards in nonattainment areas

² <https://www.epa.gov/state-and-local-transportation/vehicle-emissions-california-waivers-and-authorizations#state>

In addition to California the states below known as “Section 177 States” have adopted CARB standards.³⁴⁵:

1. Connecticut
2. Delaware
3. Georgia
4. Maine
5. Maryland
6. Massachusetts
7. New Jersey
8. New York
9. North Carolina
10. Oregon
11. Pennsylvania
12. Rhode Island
13. Texas
14. Vermont
15. Washington

Zero Emission Vehicle (ZEV) Regulations⁶

- EPA issued a waiver of preemption for California’s ZEV program regulations on January 13, 1993 which has undergone periodic amendments
- Goals:
 - Roughly 15% of new vehicle sales be ZEVs by 2025⁷
 - 1.5 million ZEVs on California’s roadways by 2025⁸
- Manufacturer Compliance Status⁹
 - 22 auto manufacturers are subject to the ZEV regulation
 - 6 are large volume manufacturers (LVMs);
 - General Motors
 - Toyota
 - Chrysler LLC
 - Ford
 - Honda
 - Nissan
 - To be in compliance with the regulation, manufacturers are either producing zero emission vehicles (ZEV), Advanced Technology Partial Zero Emission Vehicles (AT PZEV), Partial Zero Emission Vehicles (PZEV), or using banked credits from previously produced ZEVs.
 - Vehicles technologies include battery electric, hydrogen fuel cell, and plug-in hybrid vehicles
 - The ZEV regulation does not require the industry to reach specific vehicle sales share targets of ZEVs, but rather requires a certain number of “ZEV credits” to be delivered annually¹⁰.
 - The regulation awards ZEV credits to manufacturers based primarily on various performance characteristics of the vehicles produced to comply.
 - This means that vehicles with longer electric (or zero tailpipe emission) range earn more credit, and in turn fewer such vehicles are needed to meet a manufacturer's credit obligation.
 - Currently the possible number of ZEV credits that can be earned by model year (MY) 2018¹¹ through 2025 vehicles goes from as little as:

³ CAA Sec. 177 States: States that have adopted California emission regulations in accordance with Clean Air Act, Section 177 https://iaspub.epa.gov/otaqpub/display_file.jsp?docid=16888&flag=1

⁴ Most of the above states also adopted California GHG regulations for light-duty vehicles, as well as California emission regulations for Heavy-Duty Vehicles, HDV (which differed from federal regulations in certain 2005 NTE and 2008 SET, NTE and idle requirements). California HDV requirements were also adopted by some states—including Georgia and North Carolina—that did not adopt California light-duty vehicle standards. <https://www.dieselnet.com/standards/us/ld.php>

⁵ There are a number of lists for section 177 states that are not consistent. This could be due to timing as well as the types of emissions standard for classes of vehicles that the states adopted.

⁶ <https://www.gpo.gov/fdsys/pkg/FR-2011-10-03/pdf/2011-25399.pdf>

⁷ https://www.gov.ca.gov/wp-content/uploads/2017/09/2016_ZEV_Action_Plan.pdf

⁸ To reinforce ZEV program, Governor Brown issued Executive Order B-16-2012

⁹ <https://www.arb.ca.gov/regact/2008/zev2008/zevisor.pdf>

¹⁰ https://www.eia.gov/analysis/studies/transportation/zeroemissions/pdf/zero_emissions.pdf

¹¹ <https://www.sae.org/news/2017/11/california-zev-law-gets-simpler-more-challenging>

- 0.6 credits per vehicle (for a plug-in hybrid that gets 10 miles real-world electric range and does not qualify for an additional “US06” credit)
- to as high as 4 credits (for a fuel cell vehicle placed in California),
- with credits able to be used to help meet the compliance obligations in all other ZEV program states, more than doubling their effective value. However, states have pushed back on OEM’s being able to apply ZEV credits earned through sales of vehicles in another state for compliance in their state. The “travel provision” is set to expire in 2018

Can Hawaii become a ZEV MOU State?

Hawaii’s Status: Due to its “in-attainment” EPA designation, Hawaii is not a Section 177 State. The Hawaii State Energy Office corresponded with NESCAUM (Northeast States for Coordinated Air Use Management), requesting for the Multi-State ZEV (zero emission vehicle) MOU (memorandum of understanding) to consider including additional partners, such as Hawaii. The ZEV MOU states’ preference for now is to work with the existing group and focus on next steps for the Northeast market.

ZEV MOU State: States which have committed to coordinated efforts and implementation of ZEV programs. Such states have signed onto the Multi-State ZEV MOU and are working on actions that lead to a robust market for, and increased adoption of ZEVs within each state. Automotive manufacturers are required to sell ZEVs in ZEV MOU states since they are subject to Section 177 regulations. The ZEV MOU is important because it sends a signal to the manufacturers that the state is willing to work with them to help meet their mandated sales targets.

Requirements/Eligibility: The signatory ZEV MOU States agree to create and participate in a multi-state ZEV Program Implementation Task Force to serve as a forum for coordination and collaboration on the full range of program support and implementation issues to promote effective and efficient implementation of ZEV regulations. NESCAUM facilitates the ZEV MOU and, to date, only Section 177 ZEV States (i.e. states who have adopted California’s emission standards) are ZEV MOU member states.

NOTE: There is a distinction between CARB standards’ Section 177 ZEV states and ZEV MOU states. While often related, states that have adopted CARB’s stricter vehicle emission standards (i.e. Section 177 ZEV states) are separate from the ZEV MOU states.

MULTI-STATE ZEV TASK FORCE MOU

On October 24, 2013, the governors of eight states signed a MOU committing to coordinated action to ensure the successful implementation of their state ZEV programs. ZEVs include pure battery-electric vehicles, plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles. Collectively, these states are committed to having at least 3.3 million ZEVs operating on their roadways by 2025. The MOU identifies joint cooperative actions the signatory states will undertake, and additional actions that individual jurisdictions are considering, to build a robust market for ZEVs. The task force has released a [ZEV Action Plan](#) identifying priority multi-state actions to grow the ZEV market, including:

1. Promote the availability and effective marketing of all plug-in EV models in our states
2. Provide consumer incentives to enhance the ZEV ownership experience
3. Lead by example through increasing ZEVs in state, municipal, and other public fleets
4. Encourage private fleets to purchase, lease, or rent ZEVs
5. Promote workplace charging

6. Promote ZEV infrastructure planning and investment by public and private entities
7. Provide clear and accurate signage to direct ZEV users to charging and fueling stations and parking
8. Remove barriers to ZEV charging and fueling station installations
9. Promote access, compatibility, and interoperability of the plug-in electric vehicle charging network
10. Remove barriers to the retail sale of electricity and hydrogen as transportation fuels and promote competitive plug-in electric vehicle charging rates
11. Track and report progress toward meeting the goal of 3.3 million ZEVs on our roadways by 2025

ZEV MOU states include:

- | | |
|------------------|-----------------------------------|
| 1. California | 6. Oregon |
| 2. Connecticut | 7. Rhode Island |
| 3. Maryland | 8. Vermont |
| 4. Massachusetts | 9. New Jersey |
| 5. New York | 10. Maine (not part of taskforce) |

Can Hawaii adopt its own fuel economy standards?

Hawaii's Status: Due to the nationally set Corporate Average Fuel Economy (CAFE) standards, Hawaii, nor any other state, is permitted to adopt its own fuel economy standards. Therefore, the Hawaii state legislature cannot adopt standards like California's as individual states are not allowed to create or enforce their own vehicle emission rules.

CAFE Standards: CAFE standards under the National Highway Safety Transportation Administration (NHSTA) were first issued in 1975 by NHTSA "to provide for improved energy efficiency of motor vehicles". NHTSA is authorized to create these standards by the Energy Policy and Conservation Act (EPCA).

Requirements/Eligibility: The EPCA preempts states from setting its own fuel economy standards and does not include a waiver provision like the EPA Clean Air Act does for California.

CAFE (Corporate Average Fuel Economy) Standards

The EPCA authorizes the NHSTA to create the CAFE standards.¹²

- The EPCA does not include a waiver provision similar to CAA Section 209 and instead preempts states from setting fuel efficiency standards.
- Section 509(a) of EPCA states: "When an average fuel economy standard prescribed under this chapter is in effect, a State or a political subdivision of a State may not adopt or enforce a law or regulation related to fuel economy standards or average fuel economy standards for automobiles covered by an average fuel economy standard under this chapter."¹³

¹² https://www.nhtsa.gov/staticfiles/rulemaking/pdf/cafe/Laws/EPCA_%20Pub-L-94-163.pdf

¹³ <http://environment.law.harvard.edu/2018/06/california-cafe-standards-energy-policy-conservation-act>